

SIEMENS



N 545D31

Solar protection actuator 4 x DC 230 V, 6 A

Application program description

Supplementary information

Purpose of the application program description

The application program description contains detailed information on the parameters and communication objects of the ETS application program as well as a description of the functions that can be set via the different parameters.

Target audience of the application program description

The application program description is intended for people who have attended an ETS course and want to commission or reconfigure the Solar protection actuator N 545D31, 4 x 6 A DC product.

Product documentation and support

Product documentation

Documents related the product, such as operating and installation instructions, application program description, product database, additional software and CE declarations can be downloaded from the following website:

<http://www.siemens.com/gamma-td>



Frequently asked questions

For frequently asked questions about the product and their solutions, see:

<https://support.industry.siemens.com/cs/products?dtp=Faq&mf=ps&lc=de-WW>



Support

Contact details for additional questions relating to the product:

Tel.: +49 89 9221-8000

<http://www.siemens.com/supportrequest>



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1 Information on the solar protection actuator and on the application program

Product family: Solar protection

Product type: Switch

Manufacturer: Siemens

Type	Order number	Application program
Solar protection actuator N 545D31	5WG1545-1DB31	07 B0 A4 Solar protection actuator 4-fold 9A1A04

2 Function description

2.1 Functions of the solar protection actuator

The “07 B0 A4 Solar protection actuator 4-fold 9A1A04” application program can be used for the corresponding KNX device in the “Information on solar protection actuators and on application programs” [→ 5] section. This is briefly described below.

Solar protection actuator N 545D31 is a KNX device with four relay output channels.

The solar protection actuator is a rail-mounted device for installation in distributions. The bus is connected via a bus terminal block; the power supply for the device electronics uses the bus voltage.

This device has the characteristics described below:

- The device is used to control blinds, shutters, awnings or ventilation flaps.
- Depending on the selected operating mode, a series of functions is available for each channel in addition to the objects for the functions manual operation, automatic operation, direct operation value and status requests.

Operating modes:

Each channel of the solar protection actuator may be set to one of the following operating modes:

- Blinds
- Shutter, awning
- Ventilation flap

Overrides:

Up to seven different override function blocks can be configured to override the automation functions. For each override function block, one of the following functions can be selected:

- Wind Alarm
- Rain Alarm
- Frost Alarm
- Lock
- Forced position
- Forced Control
- Range limitation
- User defined

This enables flexible configuration of an individual, priority-dependent override for each channel. For the override functions a control value input can be selected instead of a switching control input.

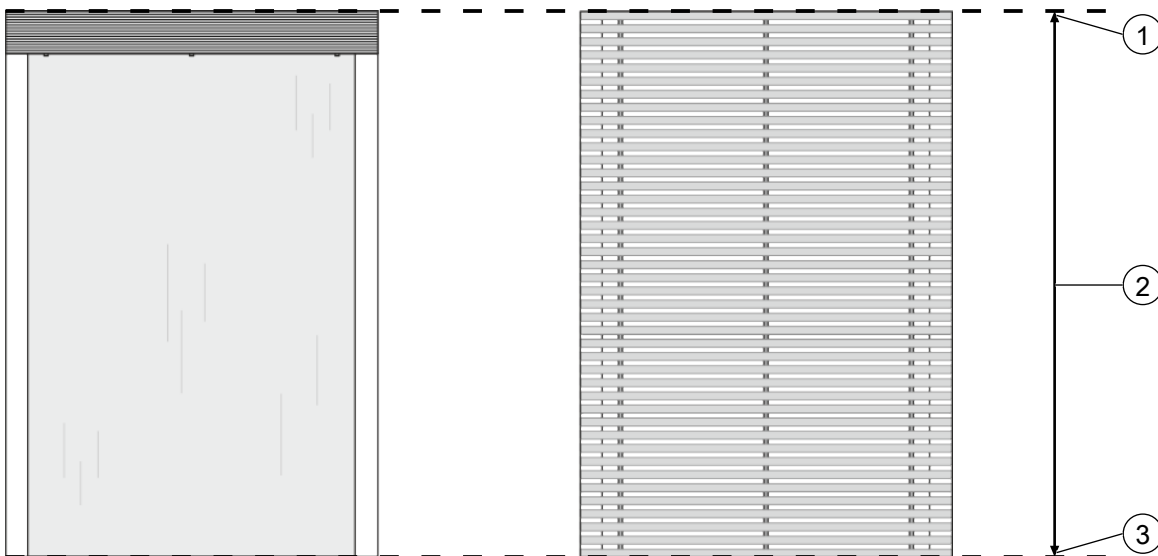
The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

End position detection, automatic determination of the move time:

The move time of the elements between the end positions is analyzed to move them to defined end positions.

In the context of the respective Up/Down move command, current detection is used to detect if the upper or lower end position is reached. The solar protection actuator features integrated electronics that signalizes that an electromagnetic or electronic limit switch has triggered.

If current detection falls below a certain threshold value, this is detected as reaching the respective end position. The travel time of the element is determined from the end positions detected. Calibration moves of the following type thus take place (Automatic moving time calculation, calibration [→ 308]):



- | | | | |
|---|--------------------|---|-------------------|
| 1 | Upper end position | 2 | Total travel time |
| 3 | Lower end position | | |

The solar protection is first moved down for the configured end position dead time and then stopped.

At the end of the reverse pause time, the solar protection can then be moved up until the upper end position is detected. The actuator detects a defined starting position. The solar protection is now moved down until the lower end position is reached. This procedure is used to measure and store the required travel time from the upper to the lower end position. This is followed by a move up until the upper end position is reached. The required travel time from the upper to the lower end position is measured and stored. Calibration is thus complete.

Automatic calibration takes place after downloading the relevant ETS parameters and the first move command. During operation, automatic calibration (no calibration trip) takes place time and again during the respective move commands from the lower to the upper end position and from the upper to the lower end position. The move times are determined and adjusted if necessary. This guarantees exact positioning of the sun protection elements even if there is a creep in move times due to weather conditions or wear and tear.

In general, move times can also be configured manually using ETS.

Automatic operation, manual operation and direct operation:

The solar protection actuator distinguishes between automatic, manual and direct operation.

Manual operation

Manual operation is enabled by default. It is designed to enable users to directly, locally operate the solar protection.

By default, 1-bit commands for Up/Down, Stop/Slat are evaluated. This can be supplemented with additional objects via the "Functions, objects" parameter card.

Moving to defined element or slat positions and evaluating central moving commands is also possible if the corresponding ETS parameters are configured. To this end, there are additional parameter settings for the following sub-functions:

- Solar protection via dimming
- Control via %-objects
- Central solar protection via Up/Down objects

More information:

Distinguishing between automatic and manual operation

- Manual operation in “blind” operating mode [→ 75]
- Manual operation in “shutter, awning” operating mode [→ 192]

In the distinction between automatic and manual operation, there is one object available for switching the channel to manual or automatic operation and two objects for controlling the blind and slats in manual operation.

For automatic control, the two objects “A Automatic operation position solar protection” and “A Automatic operation position slats” are used by default.

Switching from manual operation to automatic operation takes place when values are received on the following objects:

- A Automatic operation solar protection central
- A Automatic operation

Switching from automatic operation to manual operation takes place by switching the following parameters:

- Manual operation
- Solar protection via dimming possible
- Control via %-objects
- Position 1/2
- Position 3/4
- 8-bit scene control
- Central Up/Down object

Any move commands from manual operation, including the execution of 8-bit scenes and position settings, deactivate automatic operation. Manually moving a blind or its slats thus automatically switches from automatic to manual operation. In manual operation, all automatic commands for the output set to manual operation are no longer executed but buffered. This ensures that room users can permanently move their sun/glare protection into their desired position, which can only be changed again via higher-level automatisms once the channel is switched to automatic operation or can be overridden by a central command, if this is enabled for the channel.

The “A Automatic operation solar protection central” object first switches the output to automatic operation via the corresponding central command and then moves it to the specified end position. This central command ensures that solar protection can be moved up centrally at night and moved down centrally in the morning, irrespective of whether or not solar protection is in manual operation. In automatic operation, the blinds and their slats can also be moved into an intermediate position using commands specifying a position between 0 and 100%.

For those channels for which automatic operation is switched on, the “A Sunshine” object can block or enable changes to the element height (for shadow line tracking) or slats (for sun tracking control), once the blind has been moved into the upper or lower end position, if applicable. To use this feature, you need a weather station or a blind control module able to send this object.

More information:

- Automatic operation in “blind” operating mode [→ 80]
- Automatic operation in “shutter/awning” operating mode [→ 196]

Direct operation

For direct operation of the elements, a foil keyboard is available on the front of the device. Two status LEDs for each channel signalize the move commands and overrides.

Direct operation enables the installer to test the installation and drives prior to configuration with the ETS.

For each channel, you can use an UP or DOWN button to move the solar protection to the respective end position, stop the move command or set the slats.

The respective status LEDs for UP and DOWN signalize the current travel direction of the elements. If both LEDs light up at the same time, this indicates that an override is currently active.

Direct operation can be locked or enabled in the “Functions, Objects” parameter window. It is possible to reset direct operation after a set time or via a “direct operation lock” communication object by configuring the corresponding parameters.

More information:

- Direct operation in “blind” operating mode [→ 87]
- Direct operation in “shutter, awning” operating mode [→ 201]
- Direct operation in “ventilation flap” operating mode [→ 273]

See also

- 📄 Automatic moving time calculation, calibration [→ 308]

2.2 Operating and display elements and connections

Operating and display elements Solar protection actuator N 545D31, 4 x 6 A DC

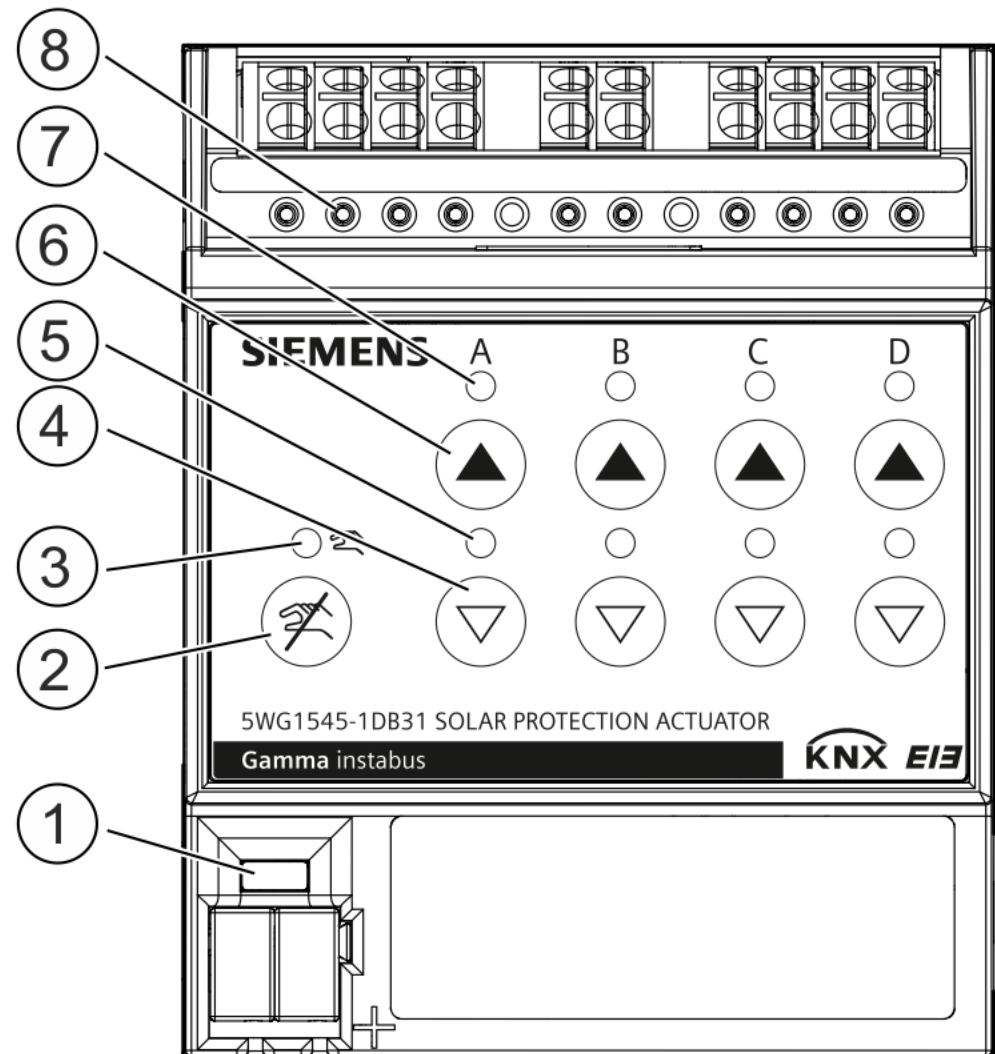


Fig. 1: Operating and display elements Solar protection actuator N 545D31, 4 x 6 A DC

Pos.	Operating or display element	Function
1	Programming LED (red), Programming button	<p>Short push of button (< 2 s):</p> <ul style="list-style-type: none"> Activate programming mode, display status (LED on = active). <p>Very long push of button (> 20 s):</p> <ul style="list-style-type: none"> Reset to factory settings (after 20 s, the LED starts flashing for about 8 s).
2	Button: Deactivate direct operation	<p>Short push of button:</p> <ul style="list-style-type: none"> Deactivate direct operation for all channels. <p>Pushing the button and pushing the Stop/Slat Up/Down key (4, 6) of a channel:</p> <ul style="list-style-type: none"> Deactivate the direct operation of the respective channel.
3	Status LED of direct operation (yellow)	LED flashes if direct operation is active for at least one channel.

Pos.	Operating or display element	Function
4	Button: Stop/slat: "Up" move command of the channel	<p>Short push of button (< 1 s):</p> <ul style="list-style-type: none"> • Move command "Stop" or "Lower" • Activate direct operation for the channel. <p>Long push of button (> 1 s):</p> <ul style="list-style-type: none"> • Move command "Down" active • Activate direct operation for the channel.
5	Status LED of the channel, below (red)	<p>Indicates the status of the respective channel.</p> <ul style="list-style-type: none"> • LED switched off: Direct operation is switched off. • LED lit: Move command "Down" active. • LED flashing in sync with status LED: Direct operation is switched on.
6	Button: Stop/slat: "Up" move command of the channel	<p>Short push of button (< 1 s):</p> <ul style="list-style-type: none"> • Move command "Stop" or "Raise" • Activate direct operation for the channel. <p>Long push of button (> 1 s):</p> <ul style="list-style-type: none"> • Move command "Up" active • Activate direct operation for the channel.
7	Status LED of the channel, below (red)	<p>Indicates the status of the respective channel.</p> <ul style="list-style-type: none"> • LED switched off: Direct operation is switched off. • LED lit: Move command "Up" active. • LED flashing in sync with status LED: Direct operation is switched on.
5, 7	Status LEDs of the channel, above and below (red):	Both LEDs lit: Override active.
8	Test contacts	Metering point for voltage testing

Connections Solar protection actuator N 545D31, 4 x 6 A DC

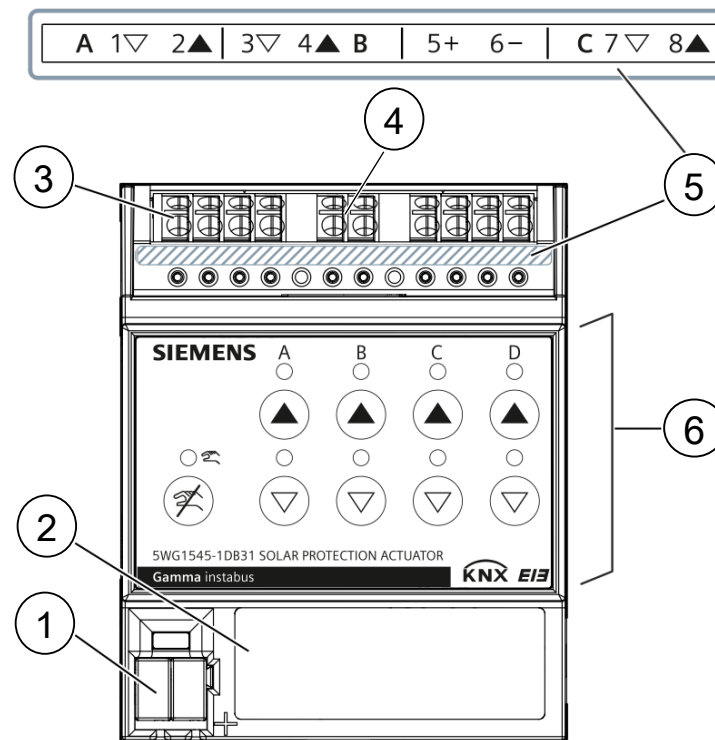


Fig. 2: Position and function of the connections and labeling Solar protection actuator N 545D31, 4 x 6 A DC

Pos.	Element	Function
1	Connection pins for KNX bus terminal block, screwless	Connect the KNX bus.
2	Label field	Enter the physical address.
3	Connection terminals of the channels	Connect motors.
4	Feed in 24 V DC for all channels (motors)	
5	Labeling of relay contacts for the drive channels	
6	Membrane keypad	Execute direct operation. Display movement direction and override.

2.3 Factory settings

In the factory settings, the functions “manual operation solar protection” up/down and “manual operation stop, slats” open/close are assigned to the building site function for all channels (outputs).

2.4 Building site function

In the factory settings, the building site function enables moving up and down as well as stopping and changing the slat position of an element via a corresponding bus button, even if these devices are yet to be commissioned via the Engineering Tool Software (ETS).

2.5 Programming mode

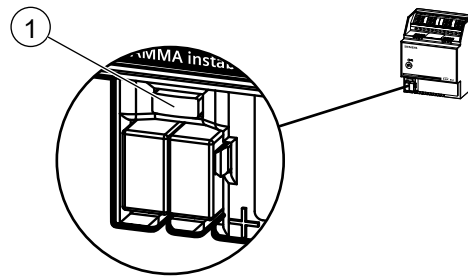


Fig. 3: Programming button and programming LED (exemplary illustration)



After bus voltage recovery, wait several seconds before pushing the programming (1) button (not before booting is complete).

Activate programming mode

- ◆ Briefly press the programming button (1) (< 2 seconds).
- ⇒ Programming mode is activated.
- ⇒ The programming LED (1) illuminates continuously.

Deactivating programming mode

- ▷ Programming mode is activated. The programming LED (1) illuminates continuously.
- ◆ Briefly press the programming button (1) (< 2 seconds).
- ⇒ Programming mode is deactivated.
- ⇒ The programming LED (1) is not illuminated.

2.6 Behavior on unloading the application program

After unloading the application program with the ETS, the unloaded device has no functions.

2.7 Behavior on voltage failure/recovery

The electronics of the device are bus powered. Therefore, a grid voltage failure only leads to a functional failure of the device if the bus voltage also fails as a result of the grid voltage failure.

In case of bus voltage failure, the current status and other values for each channel are saved permanently so that they can be restored when the bus voltage is recovered.

When bus voltage is recovered, the configured actions for each channel are executed and, depending on the parameters set, new statuses are reported.

Each channel can be independently configured with parameters to define what status it is to assume in case of bus voltage failure (up, down, no change or stop). In addition, a starting behavior when bus voltage is recovered can be configured for each active override (e.g. alarms, moving blocks).

When bus voltage is recovered, one of the following functions can be selected as the starting value: Up, down, no change, as per parameter and stop. A delay can be configured for the starting value.

2.8 Resetting the device to factory settings

NOTICE



Loss of data due to resetting device!

When you reset the device, all parameters and settings entered are deleted.

- Ensure that the device is really supposed to be reset.

Resetting the device to factory settings

- ◆ Press the programming push-button (1, see figure Programming button and programming LED (exemplary illustration) [→ 13]) (at least 20 seconds) until the programming LED (1) starts flashing quickly.
- ⇒ The programming (1) LED flashes for 8 seconds.
- ⇒ The device has been reset to factory settings. All parameter settings have been deleted.
- ⇒ The building site function is active again.

3 Communication objects

The application program is loaded in the device ex works.

The device is configured and commissioned with Engineering Tool Software (ETS) version ETS 5 or higher.

With the help of the ETS the specific parameters and addresses can be assigned.

The objects and corresponding parameter settings are described with the functions.

The following lists show all communication objects of the device for one channel.

The communication objects are identical for every channel with the only difference being the number.



The number and designation of the communication objects displayed in the ETS menu can vary as they depend on the parameter settings. Numbers missing in this table are not assigned.

Maximum number of group addresses:	2000
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Maximum number of group assignments:	2000
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3.1 Cross-channel communication objects

No.	Object name	Function	Datapoint type	Flags
1	Status device function	Ok/Defect	1.005 alarm	CRT
2	Send status values	request	1.017 trigger	CW

3.2 Communication objects of the individual channels

The following table shows all communication objects of the device for one channel.

No./Channel	Object name	Function	Datapoint type	Flags
A*				
3	A Manual operation solar protection	Up/Down	1.008 up/down	CW
	A Ventilation flap	On/Off	1.001 switch	CW
4	A Manual operation stop, slats	Stop, Open/Close	1.007 step	CW
	A Manual operation stop	Stop	1.007 step	CW
5	A Manual operation solar protection via dimming	Up/Down via brighter/darker	3.007 dimming control	CW
6	A Manual operation solar protection via dimming	Stop, Open/Close via On/Off	1.001 switch	CW
	A Manual operation solar protection via dimming	Stop via On/Off	1.001 switch	CW
7	A Manual operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW
8	A Manual operation position slats	8-bit value	5.001 percentage (0..100%)	CW
9	A Manual operation solar protection central	Up/Down	1.008 up/down	CW
10	A Automatic operation	On/Off	1.001 switch	CW
11	A Automatic operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW
12	A Automatic operation position slats	8-bit value	5.001 percentage (0..100%)	CW
13	A Sunshine	On/Off	1.001 switch	CW
14	A Automatic operation solar protection central	Up/Down	1.008 up/down	CW
15	A Status automatic operation	On/Off	1.002 boolean	CRT
16	A Status solar protection position	8-bit value	5.001 percentage (0..100%)	CRT
17	A Status slat position	8-bit value	5.001 percentage (0..100%)	CRT
18	A Status moving direction	Up/Down	1.008 up/down	CRT
	A Status ventilation flap	On/Off	1.001 switch	CRT
19	A Status drive moving	Yes/No	1.002 boolean	CRT

No./ Chan- nel	Object name	Function	Datapoint type	Flags
A*				
20	A Start calibration of moving time	activate	1.003 enable	CW
21	A External value solar protection position	8-bit value	5.001 percentage (0..100%)	CW
22	A Status upper end position	On/Off	1.002 boolean	CRT
23	A Status lower end position	On/Off	1.002 boolean	CRT
24	A 8-bit scene	recall/store	18.001 scene control	CW
25	A Position 1/2	recall	18.001 scene control	CW
26	A Position 1/2	store	1.022 scene	CW
27	A Position 3/4	recall	1.022 scene	CW
28	A Position 3/4	store	1.022 scene	CW
29 33 37 41 45 49 53	Override 1, [type of override]	On/Off	1.003 enable	CW
30 34 38 42 46 50 54	Override 1, [type of override], control value	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W)	CW
31 35 39 43 47 51 55	A Override 1, Forced Control	Up/Down	2.001 switch control	CW
32 36 40 44 48 52 56	Override 1, [type of override], status	On/Off	1.002 boolean	CRT
57	A Overrides status	1 = Active	1.002 boolean	CRT

No./Channel	Object name	Function	Datapoint type	Flags
A*				
58	A Status calibration moving time	Ok/Not ok	1.002 boolean	CRT
59	A Direct operation lock	On/Off	1.003 enable	CW
60	A Status direct operation	On/Off	1.002 boolean	CRT
69	A Load Check-Contact Failure	On/Off	1.002 boolean	CRT

* For each additional channel, add the value "67". Example: Channel A, no. 3 = channel b, no. 70 = channel c, no. 137.

3.2.1 Communication objects for solar protection by blind (manual operation)

The following table shows all communication objects of the device for one channel in the "shutter" operating mode, if the parameters in the "Manual operation" area are set to "enable" on the "functions, objects" parameter card.

No./Channel	Object name	Function	Datapoint type	Flags
A*				
3	A Manual operation solar protection	Up/Down	1.008 up/down	CW
4	A Manual operation stop, slats	Stop, Open/Close	1.007 step	CW
5	A Manual operation solar protection via dimming	Up/Down via brighter/darker	3.007 dimming control	CW
6	A Manual operation solar protection via dimming	Stop, Open/Close via On/Off	1.001 switch	CW
7	A Manual operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW
8	A Manual operation position slats	8-bit value	5.001 percentage (0..100%)	CW
9	A Manual operation solar protection central	Up/Down	1.008 up/down	CW

3.2.2 Communication objects for solar protection by blind (automatic/manual operation)

The following table shows all communication objects of the device for one channel in the "shutter" operating mode, if the parameters in the "Manual operation" area are set to "Automatic operation" on the "functions, objects" parameter card.

No./Channel	Object name	Function	Datapoint type	Flags
A*				
3	A Manual operation solar protection	Up/Down	1.008 up/down	CW
4	A Manual operation stop, slats	Stop, Open/Close	1.007 step	CW

No./Channel	Object name	Function	Datapoint type	Flags
A*				
5	A Manual operation solar protection via dimming	Up/Down via brighter/darker	3.007 dimming control	CW
6	A Manual operation solar protection via dimming	Stop, Open/Close via On/Off	1.001 switch	CW
7	A Manual operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW
8	A Manual operation position slats	8-bit value	5.001 percentage (0..100%)	CW
9	A Manual operation solar protection central	Up/Down	1.008 up/down	CW
10	A Automatic operation	On/Off	1.001 switch	CW
11	A Automatic operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW
12	A Automatic operation position slats	8-bit value	5.001 percentage (0..100%)	CW
13	A Sunshine	On/Off	1.001 switch	CW
14	A Automatic operation solar protection central	Up/Down	1.008 up/down	CW

3.2.3 Communication objects for sun protection by shutter, awning (manual operation)

The following table shows all communication objects of the device for one channel in the “shutter, awning” operating mode, if the parameters in the “Manual operation” area are set to “enable” on the “functions, objects” parameter card.

No./Channel	Object name	Function	Datapoint type	Flags
A*				
3	A Manual operation solar protection	Up/Down	1.008 up/down	CW
4	A Manual operation stop	Stop	1.007 step	CW
5	A Manual operation solar protection via dimming	Up/Down via brighter/darker	3.007 dimming control	CW
6	A Manual operation solar protection via dimming	Stop via On/Off	1.001 switch	CW
7	A Manual operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW
9	A Manual operation solar protection central	Up/Down	1.008 up/down	CW

3.2.4 Communication objects for solar protection by shutter, awning (automatic/manual operation)

The following table shows all communication objects of the device for one channel in the “shutter, awning” operating mode, if the parameters in the “Manual operation” and “Automatic operation” areas are set to “enable” on the “functions, objects” parameter card.

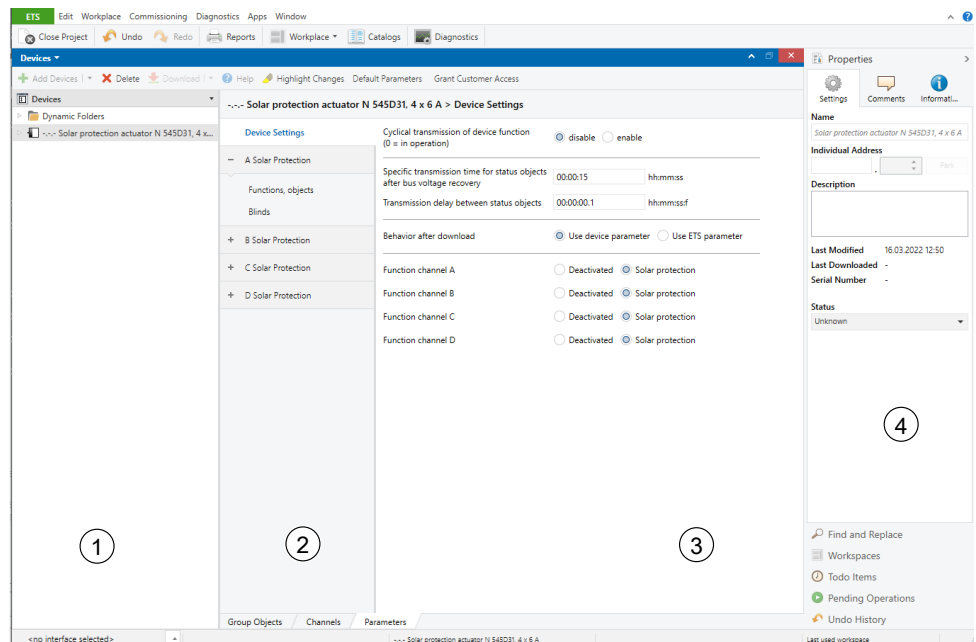
No./Channel	Object name	Function	Datapoint type	Flags
A*				
3	A Manual operation solar protection	Up/Down	1.008 up/down	CW
4	A Manual operation stop	Stop	1.007 step	CW
5	A Manual operation solar protection via dimming	Up/Down via brighter/darker	3.007 dimming control	CW
6	A Manual operation solar protection via dimming	Stop via On/Off	1.001 switch	CW
7	A Manual operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW
9	A Manual operation solar protection central	Up/Down	1.008 up/down	CW
10	A Automatic operation	On/Off	1.001 switch	CW
11	A Automatic operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW
13	A Sunshine	On/Off	1.001 switch	CW
14	A Automatic operation solar protection central	Up/Down	1.008 up/down	CW

3.2.5 Communication objects for controlling ventilation flaps

The following table shows all communication objects of the device for one channel in the “ventilation flaps” operating mode, if the parameters are set to “enable” on the “functions, objects” parameter card.

No./Channel	Object name	Function	Datapoint type	Flags
A*				
3	A Ventilation flap	On/Off	1.001 switch	CW

4 Overview of the user interface



- 1 Tree view of devices and channels
- 2 Listing of parameter cards. Depending on which parameters have been enabled or configured in the parameter area (3), additional parameter cards are displayed here.
- 3 Parameter area. In this area, parameters are set, enabled or disabled. With some parameters, after enable additional rows or additional parameter cards are displayed.
- 4 Properties area. This area displays the properties of the device.



You can use the 'Highlight changes' button in the ETS to highlight in yellow any parameters that do not have the default settings.

A list of the currently active communication objects is separately displayed on the "Communication objects" tab.

5 Resetting the device to factory settings

NOTICE



Loss of data due to resetting device!

When you reset the device, all parameters and settings entered are deleted.

- Ensure that the device is really supposed to be reset.

Resetting the device to factory settings

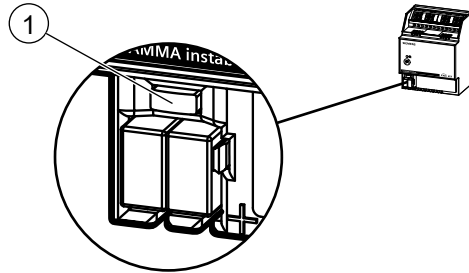


Fig. 4: Programming button and programming LED (exemplary illustration)

- ◆ Press the programming push-button (1) (at least 20 seconds) until the programming LED (1) starts flashing quickly.
- ⇒ The programming (1) LED flashes for 8 seconds.
- ⇒ The device has been reset to factory settings. All parameter settings have been deleted.
- ⇒ The building site function is active again.

6 Device settings

In this parameter window, the cross-function and cross-channel definitions are made.

You can also specify which channels are to be activated or deactivated for dimming.

6.1 “Device settings” parameter

Cyclical transmission of device function (0 = in operation)

Parameters	Settings
Cyclical transmission of device function (0 = in operation)	disable enable

Function:

With this parameter, the cyclic sending of the device function can be disabled or enabled.

If the device is functioning properly, the value “0” is transmitted cyclically.

If the device no longer transmits cyclically, this indicates a device failure. A higher-level system can monitor the cyclic sending and trigger a warning or alarm message if the status message is not transmitted.

Note:

Transmission first takes place after the time configured in the “Cyclical transmission period” parameter.

Other parameters:

If “enable” has been selected, the parameters “Send status of device function inverted” and “Cyclical transmission period” also appear.

More information:

- “Status device function” communication object [→ 26]
- “Send inverted status for device function” parameter [→ 23]
- “Cyclical transmission period” parameter [→ 23]

Send status of device function inverted (1 = in operation)

Parameter	Settings
Send status of device function inverted (1 = in operation)	No Yes

Function:

This parameter can be used to transmit the status of the device function in inverted form. In this case the value “1” is transmitted cyclically when the device is functioning properly.

Availability:

The “Send status of device function inverted (1 = in operation)” parameter is displayed if the following parameters have been configured:

- Parameter “Cyclical transmission of device function (0 = in operation)” on the “device settings” parameter card
 - Setting: “enable”

More information:

“Cyclical sending of device function (0 = in operation)” parameter [→ 23]

Cyclical transmission period

Parameters	Settings
Cyclical transmission period (hh:mm:ss)	00:00:01 ... 18:12:15

Function:

This parameter can be used to select the time interval for cyclic sending of the device function status.

Note:

The device status is also transmitted for the first time after bus voltage failure and bus voltage recovery after the time set here.

Availability:

The "Cyclical transmission period" parameter is displayed if the following configuration has been made:

- Parameter "Cyclical transmission of device function (0 = in operation)" on the "device settings" parameter card
 - Setting: "enable"

More information:

"Cyclical transmission of device function (0 = in operation)" parameter [→ 23]

Specific transmission time for status objects after bus voltage recovery

Parameter	Settings
Specific transmission time for status objects after bus voltage recovery hh:mm:ss	00:00:00 ... 18:12:15

Function:

This parameter is used to ensure that no unnecessary bus load is generated by status telegrams immediately after bus voltage recovery and after a re-start of the device.

The time of transmission after bus voltage recovery must be set high enough that other KNX devices that have to receive and process the status have also already completed their initialization.

The time of transmission applies for the stored status values after bus voltage recovery. If the state changes during bus voltage failure or after bus voltage recovery (e.g. due to switching), the respective status is transmitted immediately and once again after the elapse of the time set here.

Note:

The transmission time does not apply if a status request of all status objects is initiated via the "send status values" communication object.

If a status request is initiated directly after bus voltage recovery and before this transmission time (e.g. via the "send status values" communication object), this request is discarded. A separate transmission of the status objects is possible only after the regular transmission of the status.

Transmission delay between status objects

Parameters	Settings
Transmission delay between status objects (hh:mm:ss.f)	00:00:00.1 ... 00:01:00.0

Function:

This parameter is used to set with which minimal wait time two successive status telegrams are to be sent to ensure that no excessive bus load is generated by status telegrams sent in quick succession during operation.

Note:

This transmission delay only applies after bus voltage recovery and with the "Send status values" function.

More information:

"Send status values" communication object [→ 26]

Behavior after download

Parameters	Settings
Behavior after download	Use device parameter Use ETS parameter

Function:

This parameter is used to set whether the parameters of the solar protection actuator or the parameters of the ETS software are to be used after downloading the ETS to the solar protection actuator.

The following settings are possible:

- Use device parameter:
With this setting, parameters that the device has received from other sources via the communication objects are retained and are not overwritten by the parameters set in the ETS.
The settings of the channels are not re-initialized and the current blind status is retained.
- Use ETS parameter:
With this setting, the parameters stored in the device are overwritten and the parameters set in the ETS are used. The behavior for bus voltage recovery configured in the ETS is also executed. Any calibration that has already taken place is deleted.

Recommendation:

If the device does not behave as expected, set this parameter to “Use ETS parameter.”

Function channel A

Parameters	Settings
Function channel A	Deactivated Solar protection

Function:

You can use this parameter to activate or deactivate individual channels.

6.2 Communication objects

Status device function

No.	Object name	Function	Datapoint type	Flags
1	Status device function	Ok/Defect	1.005 alarm	CRT

Function:

This object is used to regularly transmit the value “0” when the device is operating. If the device no longer transmits cyclically, this indicates a device failure.

A higher-level system can monitor the cyclic sending and trigger a warning or alarm message if the status message is not transmitted.

The “Send status of device function inverted” parameter can be used to set that this value is inverted. In this case, the value “1” is transmitted cyclically when the device is functioning properly.

Note:

Sending first takes place after the time configured in the “Cyclical transmission period” parameter.

Availability:

The communication object “Status device function” is displayed if the following configuration has been made:

- Parameter “Cyclical transmission of device function (0 = in operation)” on the “device settings” parameter card
 - Setting: “enable”

More information:

- “Cyclical sending of device function (0 = in operation)” parameter [→ 23]

Send status values

No.	Object name	Function	Datapoint type	Flags
2	Send status values	request	1.017 trigger	CW

Function:

This object is used to trigger the sending of the current status values for all status objects for which the sending is set to “send on request” in the configuration when a telegram with any value (“1” or “0”) is received.

7 Setting functions

7.1 “Shutter” operating mode

The communication objects and parameters are configured in the same way for all channels and are therefore just described once for channel A.

7.1.1 Process diagram for “blind”

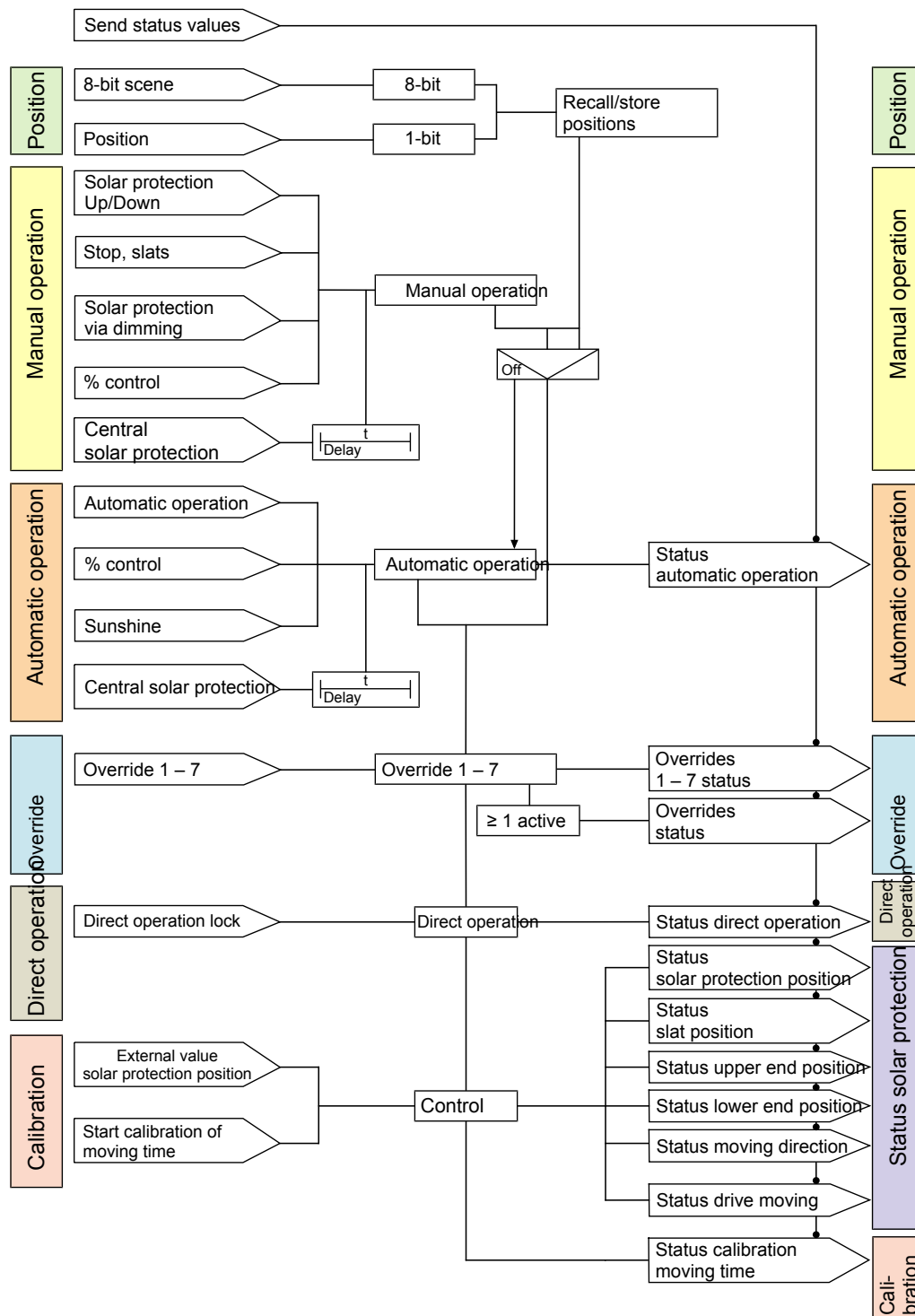


Fig. 5: “Shutter” process diagram

7.1.2 "Functions, objects" and "shutter" parameter cards

7.1.2.1 Parameters of the "Functions, objects" parameter card

Operation Mode

Parameters	Settings
Operation Mode	Blinds Shutter, awning Ventilation flap

Function:

This parameter is used to set the desired operating mode. Detailed settings for the selected operating mode can be made on the parameter card of the same name.

The following operating modes are possible:

- Blinds
- Shutter, awning
- Ventilation flap

Other parameters/parameter card:

The parameter card for the selected operating mode is displayed.

End position detection

Parameter	Settings
End position detection	disable enable

Function:

This parameter is used to activate or deactivate the automatic end position detection.

If the "End position detection" parameter is set to "disable," fixed move times have to be set.

If the "End position detection" parameter is set to "enable," the solar protection actuator automatically detects the end positions and can thus determine the move times automatically.

Other parameters/parameter cards:

If the "End position detection" parameter is set to "disable," the following parameters are visible on the "Blind" parameter card:

- "Solar protection move time from lower to upper end position"
- "Solar protection move time from upper to lower end position"
- "Additional move time"
- "No additional move time if moving is done from upper to lower end pos"

If the "End position detection" parameter is set to "enable," the following parameters are visible:

- "Status calibration moving time"
- "End position dead time" ("Blind" parameter card)
- "Calibration of moving time" ("Blind" parameter card)
- "Calibration via Direct operation" ("Blind" parameter card)

Communication object:

If the "End position detection" parameter is enabled, the "Calibration of moving time" parameter is set to "Via object" or "Automatically and via object," the "A Start calibration of moving time" communication object is displayed.

More information:

- Parameter "Status calibration moving time" [→ 137]
- Communication object "A Start calibration of moving time" [→ 56]
- Parameter "End position dead time" [→ 43]

- Parameter "Calibration for direct operation"
- Parameter "Calibration of moving time"

8-bit scene control

Parameter	Settings
8-bit scene control	disable enable

Function:

This parameter is used to activate or deactivate 8-bit scene control.

Other parameters/parameter card:

If the "8-bit scene control" parameter is set to "enable," the "scene assignment" parameter card is displayed.

Communication object:

If the "8-bit scene control" parameter is set to "enable," the communication object "A 8-bit scene" is displayed.

More information:

- 8-bit scene control [→ 65]
- Communication object "A 8-bit scene" [→ 57]

Position 1/2

Parameters	Settings
Position 1/2	disable enable

Function:

This parameter is used to activate or deactivate 1-bit scene control "Position 1/2."

Other parameters/parameter cards:

If the "Position 1/2" parameter is set to "enable," the following parameters are visible on the "position 1/2" parameter card:

- Parameter "Position 1"
- Parameter "Position 2"

Communication object:

If the "Position 1/2" parameter is set to "enable," one or two communication objects "A Position 1/2" are displayed.

More information:

- Parameter "Position 1" [→ 71]
- Communication object "Position 1/2" (recall) [→ 58]
- Communication object "Position 1/2" (save) [→ 59]

Position 3/4

Parameters	Settings
Position 3/4	disable enable

Function:

This parameter is used to activate or deactivate 1-bit scene control "Position 3/4."

Other parameters/parameter cards:

If the "Position 3/4" parameter is set to "enable," the following parameters are visible on the "position 3/4" parameter card:

- Parameter "Position 3"
- Parameter "Position 4"

Communication object:

If the "Position 3/4" parameter is set to "enable," one or two communication objects "A Position 3/4" are displayed.

More information:

- Parameter "Position 3" [→ 71]
- Communication object "Position 3/4" (recall) [→ 59]
- Communication object "Position 3/4" (save) [→ 59]

Manual operation

Parameter	Settings
Manual operation	disable enable

Function:

This parameter is used to activate or deactivate manual operation.

Other parameters:

If the "Manual operation" parameter is set to "enable," the following parameters are displayed:

- Parameter "Solar protection via dimming possible"
- Parameter "Control via %-objects"
- Parameter "Central Up/Down object"

If the "Solar protection via dimming possible" parameter is set to "enable," you can set whether the solar protection is not stopped and continues when the button is released:

- Parameter "Stop after button release"

If the "Control via %-objects" parameter is set to "enable," you can also specify the minimal value change of the slat position in %:

- Parameter "Minimal slats change in %"

Communication objects:

If the "Manual operation" parameter is set to "enable," the following communication objects are displayed:

- "A Manual operation solar protection"
- "A Manual operation stop, slats"

Depending on which additional parameter cards are set to "enable," the following additional communication objects are displayed:

- "A Manual operation solar protection via dimming" (Up, Down)
- "A Manual operation solar protection via dimming" (Open, Closed)
- "A Manual operation position solar protection"
- "A Manual operation position slats"
- "A Manual operation solar protection central"

More information:

- Manual operation [→ 75]
- Parameter "Solar protection via dimming possible" [→ 76]

- Communication object "Manual operation solar protection via dimming" [→ 51]
- Communication object "Manual operation solar protection via dimming" (via brighter/darker) [→ 50]
- Parameter "Stop when pushbutton is released" [→ 76]
- Parameter "Control via %-objects" [→ 76]
- Parameter "Minimal slats change in %" [→ 77]
- Parameter "Central up/down object" [→ 77]

Automatic operation

Parameter	Settings
Automatic operation	disable enable

Function:

This parameter is used to activate or deactivate automatic operation.

Note:

If manual operation is blocked, automatic operation is automatically activated after an ETS download.

Other parameters:

If the "Automatic operation" parameter is set to "enable," the following additional parameters are displayed:

- "Minimal slats change in %"
- "Object sunshine"
- "Central Up/Down object"
- "Status automatic mode"
- "Delay time for automatic operation"
- "Automatic activation of automatic operation (0 = disabled)"

If the "Object sunshine" parameter is set to "Yes," the following parameters are displayed:

- "Behavior on sunshine = On"
- "Behavior on sunshine = Off"

Communication objects:

If the "Automatic operation" parameter is set to "enable," the following communication objects are displayed:

- "A Automatic operation"
- "A Automatic operation position solar protection"
- "A Automatic operation position slats"

More information:

- Automatic operation [→ 80]
- Communication object "A automatic operation" [→ 52]
- Communication object "A Automatic operation solar protection position" [→ 53]
- Communication object "Automatic operation slat position" [→ 53]
- Parameter "Minimal slats change in %" [→ 81]
- Parameter "Object sunshine" [→ 81]
- Parameter "Behavior on sunshine = On" [→ 82]
- Parameter "Behavior on sunshine = Off" [→ 82]
- Parameter "Central up/down object" [→ 82]
- Parameter "Status automatic operation" [→ 83]
- Parameter "Delay time for automatic operation" [→ 83]
- Parameter "Automatic activation of automatic operation (0 = blocked)" [→ 83]

Override 1 – 7

Parameter	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card “override [number], [type of override]” is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

More information:

Overrides [→ 91]

Overrides status

Parameter	Settings
Overrides status	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of the overrides. This communication object is used to report whether at least one override is active.

Availability:

The “Overrides status” parameter is displayed as soon as an override is activated.

Other parameters:

If the “Overrides status” parameter is set to “enable,” additional parameters for configuring the status are displayed.

Parameters that are visible if the “Status...” parameter is set to “enable” [→ 136]

Communication object:

If the “Overrides status” parameter is set to “enable,” the communication object “A Overrides status” is displayed.

More information:

Communication object “A overrides status” [→ 63]

Direct operation

Parameter	Settings
Direct operation	disable enable

Function:

This parameter is used to disable or enable the operation of the solar protection actuator directly on the device.

Other parameters:

If the "Direct operation" parameter is set to "enable," additional parameters are displayed, which can be used to set when direct operation can be automatically reset and if direct operation is to be restricted. It can also be defined whether the status of direct operation should be disabled or enabled and whether the status on change of status should be sent cyclically or on request:

- Parameter "Direct operation auto reset"
- Parameter "Direct operation lockable"
- Parameter "Status direct operation"

If the "Status direct operation" parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

Communication objects:

If the "Direct operation lockable" parameter is set to "enable," the following communication object is displayed:

- "A Direct operation lock"

If the "Status direct operation" parameter is set to "enable," the following communication object is displayed:

- "A Status direct operation"

More information:

- Direct operation [→ 87]
- Parameter "Direct operation auto reset" [→ 89]
- Parameter "Direct operation lockable" [→ 90]
- Communication object "A Direct operation lock" [→ 63]
- Parameter "Status direct operation" [→ 90]
- Communication object "A Status direct operation" [→ 64]

Status solar protection position in %

Parameter	Settings
Status solar protection position in %	disable enable

Function:

This parameter is used to set whether a "A Status solar protection position" communication object is to be made available for the channel. The communication object displays the current solar protection position in percent.

Other parameters:

If the parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

If the "Send status on change of status" parameter is set to "enable," the following parameter is displayed:

- Parameter "Send status while sunblind is moving"

If the "Send status while sunblind is moving" parameter is set to "enable," the following parameters are displayed:

- Parameter "Value change since last sent (%)"
- Parameter "Block time for sending of status"

Communication object:

If the "Status solar protection position in %" parameter is set to "enable," the following communication object is displayed:

- "A Status solar protection position"

More information:

- Communication object "A Status solar protection position" [→ 55]
- Parameter "Send status while element is moving" [→ 35]
- Parameter "Value change since last sent (%)" [→ 35]
- Parameter "Block time for sending of status" [→ 36]

**Send status while
sunblind is moving**

Parameter	Settings
Send status while sunblind is moving	disable enable

Function:

This parameter can be used to activate or deactivate cyclic sending of the solar protection position during the move.

Other parameters:

If the "Send status while sunblind is moving" parameter is set to "enable," the following parameters are displayed:

- Parameter "Value change since last sent (%)"
- Parameter "Block time for sending of status"

Availability:

The "Send status while sunblind is moving" parameter is displayed if the following configuration has been made:

- Parameter "Status solar protection position in %"
 - Setting: "enable"
- Parameter "Send status on change of status"
 - Setting: "enable"

More information:

- Parameter "Value change since last sent (%)" [→ 35]
- Parameter "Block time for sending of status" [→ 36]
- Parameter "Send status on change of status" [→ 136]
- Parameter "Status solar protection position in %" [→ 34]

**Value change since last
sent (%)**

Parameter	Settings
Value change since last sent (%)	0...100

Function:

If the parameter "Send status while sunblind is moving" is set to "enable," this parameter is used to set the change in value since the last transmission of the value of the communication object "A Status solar protection position" that triggers a new transmission of the value. Sending takes place if the minimum block time for sending of status has been exceeded.

Availability:

The "Value change since last sent (%)" parameter is only displayed if the following configuration has been made:

- Parameter "Status solar protection position in %"
 - Setting: "enable"
- Parameter "Send status on change of status"
 - Setting: "enable"
- Parameter "Send status while sunblind is moving"
 - Setting: "enable"

More information:

- Parameter "Status solar protection position in %" [→ 34]
- Parameter "Send status on change of status" [→ 136]
- Parameter "Send status while element is moving" [→ 35]

Block time for sending of status

Parameter	Settings
Block time for sending of status (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter is used to set which time since the last sending of the status has to be exceeded in order for it to be sent again. Hence, no additional bus load is generated by status telegrams generated in quick succession during bus mode.

Availability:

The "Block time for sending of status" parameter is displayed if the following configuration has been made:

- Parameter "Status solar protection position in %"
 - Setting: "enable"
- Parameter "Send status on change of status"
 - Setting: "enable"
- Parameter "Send status while sunblind is moving"
 - Setting: "enable"

Note:

The block time does not apply to cyclic sending. If the block time is greater than the cycle time, the value is nonetheless sent at the end of the cycle time.

More information:

- Parameter "Status solar protection position in %" [→ 34]
- Parameter "Send status on change of status" [→ 136]
- Parameter "Send status while element is moving" [→ 35]

Status slat position in %

Parameter	Settings
Status slat position in %	disable enable

Function:

This parameter is used to set whether a "A Status slat position" communication object is to be made available for the channel. The communication object displays the current slat position in percent.

Other parameters:

If the parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

Communication object:

If the "Status slat position in %" parameter is set to "enable," the following communication object is displayed:

- "A Status slat position"

More information:

Communication object "A Status slat position" [→ 55]

Status moving direction

Parameter	Settings
Status moving direction	disable enable

Function:

This parameter is used to set whether a "A Status moving direction" communication object is to be made available for the channel. This status object reports whether the solar protection is moving up or down. The status is used to implement the "1 button solar protection" function from different operating terminals.

Other parameters:

If the parameter is to "enable," additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

Communication object:

If the "Status moving direction" parameter is set to "enable," the following communication object is displayed:

- "A Status moving direction"

More information:

Communication object "A Status moving direction" [→ 56]

Change on automatic tilt up

Parameter	Settings
Change on automatic tilt up	disable enable

Function:

This parameter is used to set whether a value change in the communication object "A Status moving direction" is to take place in case of automatic tilting up.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Status moving direction"
 - Setting: "enable"

More information:

- Communication object "A Status moving direction" [→ 56]
- Parameter "Status moving direction" [→ 37]

Status drive moving

Parameter	Settings
Status drive moving	disable enable

Function:

This parameter is used to set whether a "A Status drive moving" communication object is to be made available for the channel. The status object is used to report if the solar protection is current moving or whether it has reached its end position.

Other parameters:

If the parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

Communication object:

If the "Status drive moving" parameter is set to "enable," the communication object "A Status drive moving" is displayed.

More information:

Communication object "A Status drive moving" [→ 56]

Invert value for drive moving

Parameter	Settings
Invert value for drive moving	No Yes

Function:

This parameter can also be used to transmit the "Status drive moving" in inverted form.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Status drive moving"
 - Setting: "enable"

More information:

Parameter "Status drive moving" [→ 37]

Status end position

Parameter	Settings
Status end position	No Yes Only upper end position status Only lower end position status

Function:

This parameter is used to set whether no, both or only 1 communication object "status upper end position" or "status lower end position" is to be available. The communication object "status upper end position" (or "status lower end position") is only equal to logical "1," if the blind is in the upper (or lower) end position.

Other parameters:

If the "Status end position" parameter is set to "Yes," "Only upper end position status" or "Only lower end position status," additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

If the parameter is set to "Yes" or "Only lower end position status," the "Lower end position reached after tilting up" parameter is displayed.

If the parameter is set to "Yes," "Only lower end position status" or "Only lower end position status," the "Send only end position On" parameter is displayed.

Communication objects:

- If the parameter is set to "Yes," the communication objects "A Status upper end position" and "A Status lower end position" are displayed.
- If the parameter is set to "Only upper end position status," only the communication object "A Status upper end position" is displayed.
- If the parameter is set to "Only lower end position status," only the communication object "A Status lower end position" is displayed.

More information:

- Parameter "Lower end position reached after tilting up" [→ 39]
- Parameter "Send only end position On" [→ 39]
- Communication object "A - Status upper end position" [→ 57]
- Communication object "A - Status lower end position" [→ 57]

Lower end position reached after tilting up

Parameters	Settings
Lower end position reached after tilting up	disable enable

Function:

This parameter is used to set whether the reaching of the lower end position with completion of a configured tilting up of the slats (parameter: “Slat position after solar protection down in %”) is to be sent or not.

If the parameter is set to “enable,” the reaching of the lower end position is reported after tilting up the slats (value “1”).

If the parameter is set to “disable,” the fact that the lower end position is not reached is reported after tilting down the slats (value “0”).

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter “Status end position”
 - Setting: “Yes” or “Only lower end position status”

More information:

Parameter “Status end position” [→ 141]

Send only end position On

Parameters	Settings
Send only end position On	disable enable

Function:

This parameter is used to set that the solar protection actuator sends a value when the end position is reached but not when the end position is left.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter “Status end position”
 - Setting: “Yes,” “Only upper end position status” or “Only lower end position status”

More information:

Parameter “Status end position” [→ 141]

Behavior at bus voltage failure

Parameters	Settings
Behavior at bus voltage failure	Up Down No change Stop

Function:

This parameter can be used to set how the shutter is to behave on bus voltage failure.

The following settings are possible:

- Up:
At bus voltage failure, the blind moves up. If the blind is currently moving in the opposite direction, the motor stops.
- Down:
At bus voltage failure, the blind moves down. If the blind is currently moving in the opposite direction, the motor stops.
- No change:
In case of bus voltage failure, the moving status does not change. The motor continues running.
- Stop:
The motor switches off at bus voltage failure. The blind stops at the point where it is currently positioned.

Also do on active override**Note:**

The shutter is only stopped if a move in the opposite direction is currently underway at bus voltage failure (for settings "Up" and "Down").

Parameters	Settings
Also do on active override	disable enable

Function:

This parameter can be used to set whether the behavior at bus voltage failure is to be executed or not if an override is active.

Example: The "Lock" override is active for maintenance work. In case of a bus voltage failure, no action is executed, if the parameter is set to "disable."

Availability:

The "Also do on active override" parameter is displayed as soon as an override is activated.

Initial value after bus voltage recovery

Parameters	Settings
Initial value after bus voltage recovery	Up Down No change According to parameter Stop

Function:

This parameter can be used to set how the blind is to behave when bus voltage is recovered.

The following settings are possible:

- Up:
After bus voltage recovery, the blind moves up.
- Down:
After bus voltage recovery, the blind moves down.
- No change:
The blind remains in the same position as before bus voltage failure or continues moving if it was not turned off prior to bus voltage failure.
- According to parameter:
After bus voltage recovery, the shutter moves to the height entered in parameter "Solar protection position in %" with the slat position entered in "Slats position in %."
- Stop:
The blind stops after bus voltage recovery. The motor switches off.

Other parameters:

If the "Initial value after bus voltage recovery" parameter is set to "According to parameter," the following parameters are displayed:

- "Solar protection position in %"
- "Slats position in %"

More information:

- Parameter "Solar protection position in %" [→ 40]
- Parameter "Slats position in %" [→ 41]

Solar protection position in %

Parameters	Settings
Solar protection position in %	0...100

Function:

This parameter can be used to enter percentage values for the position to which the solar protection is to be moved after bus voltage is recovered.

Slats position in %

Parameters	Settings
Slats position in %	0...100

Function:

This parameter can be used to enter in percentage values the position to which the slats are to be moved after bus voltage is recovered.

Power return delay

Parameters	Settings
Power return delay (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time for the initial value after bus voltage recovery. This can be used to prevent all channels from being addressed at the same time after bus voltage recovery.

Diagnostic functions

Parameter	Settings
Diagnostic functions	disable enable

Function:

This parameter is used to activate or deactivate the diagnostic functions.

Other parameters/parameter card:

If the “Diagnostic functions” parameter is set to “enable,” the following parameters are displayed on the “diagnostics” parameter card:

- “Contact Failure”

More information:

Parameter “Contact failure” [→ 150]

See also

- 8-bit scene control [→ 65]
- Move to position 1/2, 3/4 (1-bit scene control) [→ 69]
- Manual operation [→ 75]
- “Wind alarm” override [→ 91]
- Direct operation [→ 87]
- Diagnostic functions [→ 148]
- Parameters that are visible if the “status ...” parameter is set to “enable” [→ 136]

7.1.2.2 Parameters of the "Blind" parameter card

Delay time for central Up/Down (manual and automatic operation)

Parameter	Settings
Delay time for central Up/Down (manual and automatic operation) (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time so that not all channels start at the same time when there are central commands (manual operation central up/down and automatic operation central up/down). This is designed to prevent load peaks and excessive noise.

Availability:

The parameter is available when the following configuration has been made:

- Parameter "Central Up/Down object"
 - Setting: "enable"

More information:

- Parameter "Central up/down object" (manual operation) [→ 77]
- Parameter "central up/down object" (automatic operation) [→ 82]

Solar protection move time from lower to upper end position

Parameter	Settings
Solar protection move time from lower to upper end position (hh:mm:ss)	00:00:03 ... 00:05:00

Function:

This parameter is used to set the move time of the solar protection from the lower to the upper end position.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "End position detection"
 - Setting: "disable"

More information:

Parameter "End position detection" [→ 29]

Solar protection move time from upper to lower end position

Parameter	Settings
Solar protection move time from upper to lower end position (hh:mm:ss)	00:00:03 ... 00:05:00

Function:

This parameter is used to set the move time of the solar protection from the upper to the lower end position.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "End position detection"
 - Setting: "disable"

More information:

Parameter "End position detection" [→ 29]

Additional move time

Parameter	Settings
Additional move time (hh:mm:ss)	00:00:00 ... 00:00:30

Function:

This parameter is used to set if the configured move time for moving the solar protection to the end position is to be extended by an additional time to ensure that the solar protection reaches the final position and the drive is switched off via the limit switch.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "End position detection"
 - Setting: "disable"

More information:

Parameter "End position detection" [→ 29]

No additional move time if moving is done from upper to lower end pos

Parameter	Settings
No additional move time if moving is done from upper to lower end pos	disable enable

Function:

If the "No additional move time if moving is done from upper to lower end pos" parameter is set to "enable," the "Additional move time" only affects the move up and not the move down.

As a result, any further command that may be required is executed immediately after the calculated end position is reached, but no safe move to the end position is performed for downward moves.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "End position detection"
 - Setting: "disable"

More information:

Parameter "End position detection" [→ 29]

End position dead time

Parameter	Settings
End position dead time (ss.fff)	01.000 ... 59.999

Function:

This parameter is used to set how long after the start of an element movement the end position is not evaluated. This prevents false detection of the end position due to fluctuating power consumption of the drive during start-up.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "End position detection"
 - Setting: "enable"

More information:

Parameter "End position detection" [→ 29]

Calibration of moving time

Parameter	Settings
Calibration of moving time	Automatically Via object Automatically and via object

Function:

This parameter is used to define how the calibration of the moving time is started.

Communication object:

If the "Calibration of moving time" parameter has been set to "Via object" or "Automatically and via object," the communication object "A Start calibration of moving time" is displayed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "End position detection"
 - Setting: "enable"

More information:

- Communication object "A Start calibration of moving time" [→ 56]
- Parameter "End position detection" [→ 29]

Calibration via Direct operation

Parameter	Settings
Calibration via Direct operation	disable enable

Function:

This parameter is used to set whether or not solar protection can be calibrated via direct operation.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "End position detection" ("Functions, objects" parameter card)
 - Setting: "enable"
- Parameter "Calibration of moving time" ("Blind" parameter card)
 - Setting: "Automatically" or "Automatically and via object"

More information:

- Parameter "End position detection" [→ 29]
- Parameter "Calibration of moving time" [→ 44]

Slat move time from completely closed to completely opened

Parameters	Settings
Slat move time from completely closed to completely opened (ss.fff)	00.100 ... 59.999

Function:

This parameter can be used to set the move time of the shutter slats from completely closed (= 100 %) to completely open (= 0 %). It should be determined as precisely as possible.

Note:

The minimum control time must not be less than 20 ms; otherwise no controlling takes place.

Compatibility mode for slats

Parameters	Settings
Compatibility mode for slats	disable enable

Function:

If the “Compatibility mode for slats” parameter is set to “enable,” the slats are controlled in percentages from vertical to horizontal.

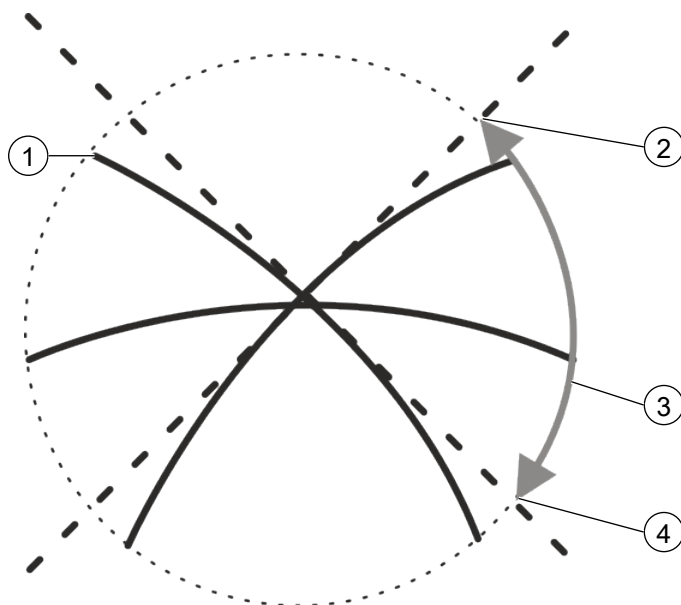


Fig. 6: Slat position as per KNX (parameter setting “disable”)

- | | | | |
|---|---------------------------|---|----------------------------------|
| 1 | Slat cross section | 2 | 0% setting in the KNX standard |
| 3 | Tilting range of the slat | 4 | 100% setting in the KNX standard |

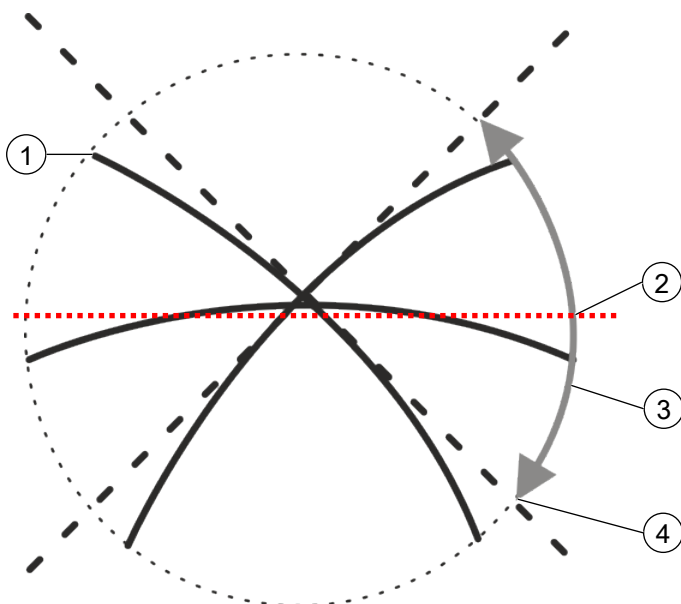


Fig. 7: Slat position in compatibility mode (parameter setting “enable”)

- | | | | |
|---|---------------------------|---|------------------------------------|
| 1 | Slat cross section | 2 | 0% setting in compatibility mode |
| 3 | Tilting range of the slat | 4 | 100% setting in compatibility mode |

Other parameters:

Slat move time from completely closed to horizontal

If the "Compatibility mode for slats" parameter is set to "enable," the "Slat move time from completely closed to horizontal" parameter is displayed.

Parameters	Settings
Slat move time from completely closed to horizontal (ss.fff)	00.100 ... 59.999

Function:

This parameter can be used to set the move time of the shutter slats from vertical to horizontal. It should be determined as precisely as possible.

Availability:

This parameter is available if the following configuration has been made:

- Parameter "Compatibility mode for slats"
 - Setting: "enable"

More information:

Parameter - "Slats compatibility mode" [→ 45]

Additional slat move time for first step for opening slats from completely closed

Parameters	Settings
Additional slat move time for first step for opening slats from completely closed (ss.fff)	00.000 ... 59.999

Function:

This parameter can be used to set the move time for the first slat step when the solar protection is closed completely. This is used to tighten the ropes to prevent the first step from potentially failing to achieve a visible change in the slat position.

Number of slat steps from slats completely closed to slats completely opened

Parameters	Settings
Number of slat steps from slats completely closed to slats completely opened	1...100

Function:

This parameter is used to set the number of steps required to change the slats from completely closed to completely opened.

Slat position after solar protection down in %

Parameters	Settings
Slat position after solar protection down in %	0...100

Function:

After an uninterrupted move of the blind from lower to upper end positive via a corresponding object, the slats are moved from their closed position to the position specified using this parameter. The parameter also takes effect in automatic mode with the commands "sunshine on" and "automatic central down."

- 0 % = slats completely open
- 100 % = slat completely closed (= no tilting up)

Note:

For blinds, the prerequisite is that they move down with the slats closed. If an extension of the move time is configured, the system waits for this amount of time after reaching the lower end position before the slats open.

Advanced configuration

Parameter	Settings
Advanced configuration	disable enable

Function:

This parameter can be used to make additional element settings to optimize the move time.

Other parameters:

If the "Advanced configuration" parameter is set to "enable," the following parameters are displayed:

- "Swap Up and Down"
- "Reverse pause time"
- "Slip compensation time"
- "Motor start up delay after relay closed"
- "Motor run out delay after relay opened"
- "External value solar protection position"

More information:

- Shutter settings for move time optimization [→ 311]
- Parameter "Swap Up and Down" [→ 47]
- Parameter "Reverse pause time" [→ 47]
- Parameter "Slip compensation time" [→ 47]
- Parameter "Motor start up delay after relay closed" [→ 48]
- Parameter "Motor run out delay after relay opened" [→ 48]
- Parameter "External value solar protection position" [→ 48]

Swap Up and Down

Parameter	Settings
Swap Up and Down	disable enable

Function:

The parameter "Swap Up and Down" is used to determine if the relay for up and down is to be switched with an inversion. This is particularly helpful if connections are swapped.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Advanced configuration"
 - Setting: "enable"

More information:

Parameter "Advanced configuration" [→ 46]

Reverse pause time

Parameter	Settings
Reverse pause time (ss.fff)	00.200 ... 59.999

Function:

This parameter is used to specify the time that the solar protection actuator waits until it moves in the opposite direction. This setting protects against premature shortening of the engine runtime.

NOTICE! Observe the manufacturer's instructions!

Availability:

The parameter is available when the following configuration has been made:

- Parameter "Advanced configuration"
 - Setting: "enable"

More information:

Parameter "Advanced configuration" [→ 46]

Slip compensation time

Parameter	Settings
Slip compensation time (ss.fff)	00.000 ... 59.999

**Motor start up delay
after relay closed****Function:**

This parameter is used to set the time that the motor is additionally controlled when there is a change of direction. This can be used to correct a slip in case of a change in direction.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Advanced configuration"
 - Setting: "enable"

More information:

Parameter "Advanced configuration" [→ 46]

Parameter	Settings
Motor start up delay after relay closed (ss.fff)	00.000 ... 59.999

Function:

This parameter is used to set the time that the motor is additionally controlled when the relay is closed. This can be used to correct a delay of the drive when starting.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Advanced configuration"
 - Setting: "enable"

More information:

Parameter "Advanced configuration" [→ 46]

**Motor run out delay after
relay opened**

Parameter	Settings
Motor run out delay after relay opened (ss.fff)	Motor run out delay after relay opened

Function:

This parameter is used to set the time that the motor runs out after opening the relay. This time is added to the calculation to ensure the previously set position is reached exactly.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Advanced configuration"
 - Setting: "enable"

More information:

Parameter "Advanced configuration" [→ 46]

**External value solar
protection position**

Parameter	Settings
External value solar protection position	disable enable

Function:

This parameter is used to enable an object with which the internal height position can be specified or overridden. This immediately sets the solar protection actuator to the synchronized state without its own movements and overwrites the current status of the element with the specified value.

NOTICE! This function must only be set at standstill and not while moving.

Communication object:

If the "External value solar protection position" parameter is enabled, a communication object of the same name is displayed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Advanced configuration"

- Setting: “enable”

More information:

- External requirements for shutter position [→ 311]
- Parameter “Advanced configuration” [→ 46]

7.1.2.3 Communication objects in “blind” operating mode

A Manual operation solar protection

No.	Object name	Function	Datapoint type	Flags
3	A Manual operation solar protection	Up/Down	1.008 up/down	CW

Function:

This communication object is used to initiate the moving direction of the corresponding channel. When a logical “0” is received, the sunblind moves up, when a logical “1” is received, it moves down.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Note:

Without automatic end position detection, the motor is controlled for move time + move time extension for each move command.

With automatic end position detection, the motor is controlled for a maximum move time of 330 s for each move command, until an end position is detected.

Hence, the sunblind can always be moved into an end position with one move command (Up/Down).

Availability:

The “A Manual operation solar protection” communication object is only displayed if the following configuration has been made:

- Parameter “Manual operation” on the “functions, objects” parameter card
 - Setting: “enable”

A Manual operation stop, slats

No.	Object name	Function	Datapoint type	Flags
4	A Manual operation stop, slats	Stop, Open/Close	1.007 step	CW

Function:

Irrespective of whether the telegram contains a logical “0” or logical “1,” this communication object is used to stop an ongoing shutter move for the respective channel or, if the shutter is stationary and a logical “0” is received, the slats are opened by one step; if a logical “1” is received, they are closed by one step.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object “A Manual operation stop, slats” is displayed if the following configuration has been made:

- Parameter “Manual operation” on the “functions, objects” parameter card
 - Setting: “enable”

A Manual operation solar protection via dimming

No.	Object name	Function	Datapoint type	Flags
5	A Manual operation solar protection via dimming	Up/Down via brighter/darker	3.007 dimming control	CW

Function:

A dimming sensor can use this communication object to control a solar protection, whereby dimming brighter results in the solar protection moving up and dimming darker results in the solar protection moving down. All dimming telegrams are interpreted as a 100 % change because the actuator does not know the current position. That is why only the “dimming with stop telegram” configuration makes sense for the dimming sensor.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object “A Manual operation solar protection via dimming” is displayed if the following configuration has been made:

- Parameter “Solar protection via dimming possible” on the “functions, objects” parameter card:
 - Setting “enable”

A Manual operation solar protection via dimming

No.	Object name	Function	Datapoint type	Flags
6	A Manual operation solar protection via dimming	Stop, Open/Close via On/Off	1.001 switch	CW

Function:

A dimming sensor can use this object to control a sunblind. Irrespective of whether the telegram contains a logical “0” or logical “1,” an ongoing shutter move for the respective channel is stopped or, if the shutter is stationary and a logical “1” is received, the slats are opened by one step; if a logical “0” is received, they are closed by one step.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object “A Manual operation solar protection via dimming” is displayed if the following configuration has been made:

- Parameter “Solar protection via dimming possible” on the “functions, objects” parameter card
 - Setting: “enable”

A Manual operation position solar protection

No.	Object name	Function	Datapoint type	Flags
7	A Manual operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW

Function:

This communication object can be used to move the solar protection of the corresponding channel to any position in manual operation.

- 0 % = shutter moves up to the top
- 100 % = blind moves down to the bottom

As soon as the solar protection position specified by the communication object is reached, the slat position that was last set via the “A Manual operation position slats” communication object for the respective channel is restored automatically.

As soon as the slat position adjustment is completed or an end position is reached, the object value of all status objects (shutter and slat position as well as upper and lower end position) is updated and, if configured accordingly, transferred to the bus.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Note:

If a 0% command is received, the sunblind is moved to the upper end position. The slat position is not changed. If a 100% command is received, the sunblind is moved to the lower end position. The slat position is restored. A move command (Up/Down) can always be used to move the sunblind into the end positions.

Availability:

The "A Manual operation position solar protection" communication object is only displayed if the following configuration has been made:

- Parameter "Control via %-objects" on the "functions, objects" parameter card
 - Setting: "enable"

A Manual operation position slats

No.	Object name	Function	Datapoint type	Flags
8	A Manual operation position slats	8-bit value	5.001 percentage (0..100%)	CW

Function:

This communication object can be used to move the slats of the corresponding channel to any position in manual operation. Changing the slat positions can result in minor variations of the blind height.

- 0 % = slats are opened completely
- 100 % = slats are closed completely

As soon as the slat position adjustment is completed or an end position is reached, the object value of all status objects (blind and slat position as well as upper and lower end position) is updated and, if configured accordingly, transferred to the bus.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object "A Manual operation position slats" is displayed if the following configuration has been made:

- Parameter "Control via %-objects" on the "functions, objects" parameter card:
 - Setting: "enable"

A Manual operation solar protection central

No.	Object name	Function	Datapoint type	Flags
9	A Manual operation solar protection central	Up/Down	1.008 up/down	CW

Function:

If a logical "0" is received, the sunblind is moved to the upper end position; if a logical "1" is received it is moved to the lower end position. For each channel, a delay time for central commands can be set. Hence, central control with a delayed start can be implemented for each solar protection channel.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object "A Manual operation solar protection central" is displayed if the following configuration has been made:

- Parameter "Central Up/Down object" on the "functions, objects" parameter card
 - Setting: "enable"

More information:

Manual operation [→ 75]

A Automatic operation

No.	Object name	Function	Datapoint type	Flags
10	A Automatic operation	On/Off	1.001 switch	CW

Function:

This object is used to activate and deactivate automatic operation.

If a logical "0" is received, automatic operation is deactivated, if a logical "1" is received, it is activated.

Availability:

The communication object "A Automatic operation" is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card:
 - Setting: "enable"

A Automatic operation position solar protection

No.	Object name	Function	Datapoint type	Flags
11	A Automatic operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW

Function:

This communication object can be used to move the solar protection of the corresponding channel to any position in automatic operation. If the channel is in manual operation, a move command is not executed but saved and then executed after switching to automatic operation.

- 0 % = shutter moves up to the top
- 100 % = blind moves down to the bottom

As soon as the solar protection position specified by the communication object is reached, the slat position that was last set via the "A Automatic operation position slats" communication object for the respective channel is restored automatically. If the sunblind adjustment is completed or an end position reached, the object value of all status objects (sunblind and slat position as well as upper and lower end position) is updated and, if configured accordingly, transferred to the bus.

Note:

If a 0% command is received, the sunblind is moved to the upper end position. The slat position is not changed. If a 100% command is received, the sunblind is moved to the lower end position. The slat position is restored.

Availability:

The communication object "A Automatic operation position solar protection" is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card
 - Setting: "enable"

A Automatic operation position slats

No.	Object name	Function	Datapoint type	Flags
12	A Automatic operation position slats	8-bit value	5.001 percentage (0..100%)	CW

Function:

This object can be used to move the slats of the corresponding channel to a selectable position in automatic operation. If the channel is in manual operation, an adjustment command is not executed but saved and then executed after the switch to automatic operation. Changing the slat positions can result in minor variations of the blind height.

- 0 % = slats are opened completely
- 100 % = slats are closed completely

As soon as the slat position adjustment is completed or an end position is reached, the object value of all status objects (shutter and slat position as well as upper and lower end position) is updated and, if configured accordingly, transferred to the bus.

Availability:

The communication object "A Automatic operation position slats" is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card:
 - Setting: "enable"

A Sunshine

No.	Object name	Function	Datapoint type	Flags
13	A Sunshine	On/Off	1.001 switch	CW

Function:

When using the exterior brightness sensor, this communication object is used to enable or lock the blind and slat positions as well as move to the upper and lower end position, if applicable. If a telegram is received for this object, the sunblind is moved with automatic operation activated and the positioning of the blind or slats is then released or locked via percentage commands.

If a logical "0" is received, the sunblind is moved to the upper end position (open), if applicable, and the positioning of the blind and slats is blocked via percentage commands. If a logical "1" is received, the sunblind is moved to the lower end position (closed), if applicable, and the positioning of the blind and slats is enabled via percentage commands. If a blind is moved to the lower end position, the slats are then turned to the position specified by the parameter "slat position after solar protection down in %."

Availability:

The communication object "A Sunshine" is displayed if the following configuration has been made:

- Parameter "Object sunshine" on the "functions, objects" parameter card
 - Setting: "Yes"

A Automatic operation solar protection central

No.	Object name	Function	Datapoint type	Flags
14	A Automatic operation solar protection central	Up/Down	1.008 up/down	CW

Function:

If a telegram is received for this communication object, the output is first switched to "automatic operation" (if the parameter is enabled) and then the solar protection is moved. If a logical "0" is received, the solar protection is moved to the upper end position (opened). If a logical "1" is received, it is moved to the lower end position (closed) and the slats are then turned to the position specified via the "Slat position after solar protection down in %" parameter. A delay time for central commands can be set for each channel, thus enabling central control with a delayed start to move for each sunblind channel.

Availability:

The communication object "A Automatic operation solar protection central" is displayed if the following configuration has been made:

- Parameter "Central Up/Down object" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status automatic operation

No.	Object name	Function	Datapoint type	Flags
15	A Status automatic operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether automatic operation is active. If a logical "0" is sent, automatic operation is deactivated, if a logical "1" is sent, automatic operation is activated.

Availability:

The communication object "A Status automatic operation" is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Status automatic mode" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status solar protection position

No.	Object name	Function	Datapoint type	Flags
16	A Status solar protection position	8-bit value	5.001 percentage (0..100%)	CRT

Function:

This object can be used to query the current position of the blind (solar protection position) and, if appropriate, the position can also be sent automatically when the value is changed. The upper end position corresponds to 0 % and the lower end position to 100 %.

Availability:

The communication object "A Status solar protection position" is displayed if the following configuration has been made:

- Parameter "Status solar protection position in %" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status slat position

No.	Object name	Function	Datapoint type	Flags
17	A Status slat position	8-bit value	5.001 percentage (0..100%)	CRT

Function:

Depending on the selected parameter setting, this status object can be used to request the slat position and, if applicable, send it automatically if value has been changed.

Availability:

The communication object "A Status slat position" is displayed if the following configuration has been made:

- Parameter "Status slat position in %" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

Automatic operation [→ 80]

A Status moving direction

No.	Object name	Function	Datapoint type	Flags
18	A Status moving direction	Up/Down	1.001 switch	CRT

Function:

This status object reports whether the sunblind is moving up or down. When a logical "0" is received, the solar protection moves up, when a logical "1" is received, it moves down.

The status object is used to implement the "1 button solar protection" function from different operating terminals.

Availability:

The communication object "A Status moving direction" is displayed if the following configuration has been made:

- Parameter "Status moving direction" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status drive moving

No.	Object name	Function	Datapoint type	Flags
19	A Status drive moving	Yes/No	1.002 boolean	CRT

Function:

This status object is used to report if the solar protection is current moving or whether it has reached its end position.

If a logical "1" is received, the solar protection is currently moving. If a logical "0" is received, the solar protection has reached its end position.

The "Invert value for drive moving" parameter can be used to set that this value is inverted.

Availability:

The communication object "A Status drive moving" is displayed if the following configuration has been made:

- Parameter "Status drive moving" on the "functions, objects" parameter card:
 - Setting: "enable"

A Start calibration of moving time

No.	Object name	Function	Datapoint type	Flags
20	A Start calibration of moving time	activate	1.003 enable	CW

Function:

This communication object can be used to start the calibration of the moving times for automatic end position detection at any time.

The calibration move is started when a logical "1" is received. A running calibration move can be stopped when a logical "0" is received on this object.

Availability:

The communication object "A Start calibration of moving time" is displayed if the following configuration has been made:

- Parameter "End position detection" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameters "Calibration of moving time" on the "shutter" parameter card:
 - Setting: "Via object" or "Automatically and via object"

A External value solar protection position

No.	Object name	Function	Datapoint type	Flags
21	A External value solar protection position	8-bit value	5.001 percentage (0..100%)	CW

Function:

This communication object is used to specify or override the internal height position.

NOTICE! This function must only be set when the sunblind is stationary and not while it is moving.

Communication object:

If the "External value solar protection position" parameter is set to "enable," a communication object of the same name is displayed.

Availability:

The communication object "A External value solar protection position" is displayed if the following configuration has been made:

- Parameter "Advanced configuration" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "External value solar protection position" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

External requirements for shutter position [→ 311]

A Status upper end position

No.	Object name	Function	Datapoint type	Flags
22	A Status upper end position	On/Off	1.002 boolean	CRT

Function:

This status object reports whether the sunblind has reached its upper end position. If a logical "0" is sent, the solar protection has not reached the upper end position, if a logical "1" is sent, the solar protection has successfully reached the upper end position.

Availability:

The communication object "A Status upper end position" is displayed if the following configuration has been made:

- Parameter "Status end position" on the "functions, objects" parameter card
 - Setting: "Yes" or "Only upper end position status"

A Status lower end position

No.	Object name	Function	Datapoint type	Flags
23	A Status lower end position	On/Off	1.002 boolean	CRT

Function:

This status object reports whether the sunblind has reached its lower end position. If a logical "0" is sent, the solar protection has not reached the lower end position, if a logical "1" is sent, the solar protection has successfully reached the lower end position.

Availability:

The communication object "A Status lower end position" is displayed if the following configuration has been made:

- Parameter "Status end position" on the "functions, objects" parameter card
 - Setting: "Yes" or "Only lower end position status"

A 8-bit scene

No.	Object name	Function	Datapoint type	Flags
24	A 8-bit scene	recall/store	18.001 scene control	CW

Function:

With this communication object, the 8-bit scene with the number x is recalled (re-stored) or saved. Bits 0...5 contain the scene number here. If bit 7 = logical 1, then the scene is saved; if bit 7 = logical "0", it is recalled. Bit 6 currently has no meaning and must be set to logical "0." If automatic operation is active (Automatic operation = on), the recalling (restoring) of a scene automatically leads to a switch to manual operation (Automatic operation = off).

Successful storing of a position is only possible if the sunblind has been synchronized by a move to the end position or if the sunblind has been calibrated.

Availability:

The communication object "A 8-bit scene" is displayed if the following configuration has been made:

- Parameter "8-bit scene control" on the "functions, objects" parameter card
 - Setting: "enable"

More information:

8-bit scene control [→ 65]

A Position 1/2

No.	Object name	Function	Datapoint type	Flags
25	A Position 1/2	recall	1.022 scene	CW

Function:

This and the following communication object enable a room user who has assigned the "save/recall 1-bit scene" function to a pair of buttons on a bus switch to assign this pair of buttons to any position of the shutter and slats by pushing the buttons for a long time or to automatically restore the position of the shutter and its slats to the stored position by briefly pushing the buttons.

This communication object can be used to automatically recall any two intermediate positions of the solar protection that is connected to the respective channel. To make this possible, these positions first have to be stored using the following communication object.

Reception of a "0" telegram results in a move to the shutter and slat position stored in position 1, while a "1" telegram results in the position stored under position 2.

Availability:

The communication object "A Position 1/2" is displayed if the following configuration has been made:

- Parameter "Position 1/2" on the "functions, objects" parameter card
 - Setting: "enable"

A Position 1/2

No.	Object name	Function	Datapoint type	Flags
26	A Position 1/2	store	1.022 scene	CW

Function:

This communication object can be used to store any two intermediate positions of the solar protection connected to this channel. The stored positions can then be recalled (restored) via the previous communication object at any time.

Successful storing of a position is only possible if the sunblind has been synchronized by a move to the end position or if the sunblind has been calibrated.

If a “0” telegram is received, the current status of the “A Status solar protection position” communication object is read and stored in position 1. Position 2 is accordingly stored when a “1” telegram is received.

Availability:

The communication object “A Position 1/2” is displayed if the following configuration has been made:

- Parameter “Position 1/2” on the “functions, objects” parameter card
 - Setting: “enable”

A Position 3/4

No.	Object name	Function	Datapoint type	Flags
27	A Position 3/4	recall	1.022 scene	CW

Function:

This and the following communication object enable a room user who has assigned the “save/recall 1-bit scene” function to a pair of buttons on a bus switch to assign this pair of buttons to any position of the shutter and slats by pushing the buttons for a long time or to automatically restore the position of the shutter and its slats to the stored position by briefly pushing the buttons.

This communication object can be used to automatically recall any two intermediate positions of the solar protection that is connected to the respective channel. To make this possible, these positions first have to be stored using the following communication object.

Reception of a “0” telegram results in a move to the shutter and slat position stored in position 3, while a “1” telegram results in the position stored under position 4.

Availability:

The communication object “A Position 3/4” is displayed if the following configuration has been made:

- Parameter “Position 3/4” on the “functions, objects” parameter card
 - Setting: “enable”

A Position 3/4

No.	Object name	Function	Datapoint type	Flags
28	A Position 3/4	store	1.022 scene	CW

Function:

This communication object can be used to store any two intermediate positions of the solar protection connected to this channel. The stored positions can then be recalled (restored) via the previous communication object at any time.

Successful storing of a position is only possible if the sunblind has been synchronized by a move to the end position or if the sunblind has been calibrated.

If a “0” telegram is received, the current status of the “A Status solar protection position” communication object is read and stored in position 3. Position 4 is accordingly stored when a “1” telegram is received.

Availability:

The communication object “A Position 3/4” is displayed if the following configuration has been made:

- Parameter “Position 3/4” on the “functions, objects” parameter card:
 - Setting: “enable”

More information:

Move to position 1/2, 3/4 (1-bit scene control) [→ 69]

A Override 1, Wind Alarm

No.	Object name	Function	Datapoint type	Flags
29	A Override 1, Wind Alarm	On/Off	1.003 enable	CW

Function:

The "wind alarm" is active when the value of the communication object is "on."
If an inversion is configured, "wind alarm" is active when the object value is "Off."

Note:

This object can then be linked to e.g. an alarm message of a wind guard.

Availability/alternative:

The communication object "A Override 1, Wind Alarm" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card
 - Setting: "Wind Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on parameter card "override 1, wind alarm" is enabled, this communication object is hidden and communication object "A Override 1, Wind Alarm, Control" is shown instead.

A Override 2, Rain Alarm

No.	Object name	Function	Datapoint type	Flags
33	A Override 2, Rain Alarm	On/Off	1.003 enable	CW

Function:

The "rain alarm" is active when the value of the communication object is "on."
If an inversion is configured, the "rain alarm" is active when the object value is "off."

Note:

This communication object can then be linked to e.g. an alarm message of a rain guard.

Availability/alternative:

The communication object "A Override 2, Rain Alarm" is displayed if the following configuration has been made:

- Parameter "Override 2" on the "functions, objects" parameter card:
 - Setting: "Rain Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 2, rain alarm" is set to "enable," this communication object is hidden and communication object "A Override 2, Rain Alarm, Control" is shown instead.

A Override 3, Frost Alarm

No.	Object name	Function	Datapoint type	Flags
37	A Override 3, Frost Alarm	On/Off	1.003 enable	CW

Function:

"Frost alarm" is active when the value of the communication object is "on."
If an inversion is configured, the "frost alarm" is active when the value of the communication object is "Off."

Note:

This object can then be linked to e.g. an alarm message of a frost guard.

Communication object:

This communication can then be linked to e.g. an alarm message of a frost guard.

Availability/alternative:

The communication object "A Override 3, Frost Alarm" is displayed if the following configuration has been made:

- Parameter "Override 3" on the "functions, objects" parameter card:
 - Setting: "Frost Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, frost alarm" is set to "enable," this communication object is hidden and communication object "A Override 3, Frost Alarm, Control" is shown instead.

A Override 4, Lock

No.	Object name	Function	Datapoint type	Flags
41	A Override 4, Lock	On/Off	1.003 enable	CW

Function:

This communication object can be used to lock the sunblind against changes for as long as the lock is active irrespective of the upstream sub-functions.

The lock is active when the value of the communication object is "on."

If an inversion is configured, the lock is active when the object value is "off."

Availability/alternative:

The communication object "A Override 4, Lock" is displayed if the following configuration has been made:

- Parameter "Override 4" on the "functions, objects" parameter card:
 - Setting: "Lock"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, lock" is set to "enable," this communication object is hidden and communication object "A Override 4, Lock, Control" is shown instead.

A Override 5, Forced position

No.	Object name	Function	Datapoint type	Flags
45	A Override 5, Forced position	On/Off	1.003 enable	CW

Function:

This communication object can be used to move the sunblind into a forced position irrespective of the upstream sub-functions. "Forced position" is active, if the value of the communication object is "On."

If an inversion is configured, the "forced position" is active when the value of the communication object is "Off."

Availability/alternative:

The communication object "A Override 5, Forced position" is displayed if the following configuration has been made:

- Parameter "Override 5" on the "functions, objects" parameter card:
 - Setting: "Forced position"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, user-defined control" is set to "enable," this communication object is hidden and communication object "A Override 5, Forced position, Control" is shown instead.

A Override 6, Forced Control

No.	Object name	Function	Datapoint type	Flags
51	A Override 6, Forced Control	Up/Down	2.001 switch control	CW

Function:

This 2-bit communication object enables forced moves to the upper or lower end position irrespective of the upstream sub-functions.

The following settings are possible:

Bit 1	Bit 0	Function
0	0	Forced control not active

0	1	Forced control not active
1	0	Forced control, move up
1	1	Forced control, move down

Availability:

The communication object "A Override 6, Forced Control" is displayed if the following configuration has been made:

- Parameter "Override 6" on the "functions, objects" parameter card:
 - Setting: "Forced Control"

A Override 7, Range limitation

No.	Object name	Function	Datapoint type	Flags
53	A Override 7, Range limitation	On/Off	1.003 enable	CW

Function:

"Range limitation" is active, if the value of the communication object is "On." In that case, the solar protection can only be moved within a certain range.

If an inversion is configured, "range limitation" is active when the communication object value is "Off."

Availability/alternative:

The communication object "A Override 7, Range limitation" is displayed if the following configuration has been made:

- Parameter "Override 7" on the "functions, objects" parameter card:
 - Setting: "Range limitation"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, range limitation" is set to "enable," this communication object is hidden and communication object "A Override 7, Range limitation, Control" is shown instead.

A Override 7, User-defined Control

No.	Object name	Function	Datapoint type	Flags
56	A Override 7, User-defined Control	On/Off	On/Off	CRT

Function:

This communication object can be used to move the solar protection into an end position or a certain position or stop it irrespective of the upstream sub-functions. The state can be retained permanently or for a limited time.

User-defined control is active when the value of the communication object is "on."

If an inversion is configured, user-defined control is active when the value of the communication object is "Off."

The behavior upon activation or deactivation of user-defined control can be configured using a parameter.

The user-defined control object ensures that all upstream function blocks are internally saved, but not evaluated and sent.

Availability/alternative:

The communication object "A Override 7, User-defined Control" is displayed if the following configuration has been made:

- Parameter "Override 7" on the "functions, objects" parameter card:
 - Setting: "User defined"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, user-defined control" is set to "enable," this communication object is hidden and communication object "A Override 7, User-defined Control, Control Value" is shown instead.

A Overrides status

No.	Object name	Function	Datapoint type	Flags
57	A Overrides status	1 = Active	1.002 boolean	CRT

Function:

This status object is used to report that an override is active. If a logical "0" is received, no override is active; if a logical "1" is received, at least one override is active.

Availability:

The communication object "A Overrides status" is displayed if the following configuration has been made:

- Parameter "Overrides status" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

Overrides [→ 91]

A Status calibration moving time

No.	Object name	Function	Datapoint type	Flags
58	A Status calibration moving time	Ok/Not ok	1.002 boolean	CRT

Function:

This status object is used to report that calibration of the moving time has been executed successfully.

If a logical "0" is received, the calibration of the move time was not successful, if a logical "1" is received, it was successful.

Availability:

The communication object "A Status calibration moving time" is displayed if the following configuration has been made:

- Parameter "End position detection" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Status calibration moving time" on the "functions, objects" parameter card:
 - Setting: "enable"

A Direct operation lock

No.	Object name	Function	Datapoint type	Flags
59	A Direct operation lock	On/Off	1.003 enable	CW

Function:

This communication object can be used to lock or enable direct operation (operation directly on the device).

If a logical "0" is received, direct operation is locked, if a logical "1" is received, direct operation is enabled.

Availability:

The communication object "A Direct operation lock" is displayed if the following configuration has been made:

- Parameter "Direct operation" on the "functions, objects" parameter card
 - Setting: "enable"
- Parameter "Direct operation lockable" on the "functions, objects" parameter card
 - Setting: "enable"

Example:

Enabling of direct operation through a key switch.

Note:

When bus voltage is recovered the setting is reset.

A Status direct operation

No.	Object name	Function	Datapoint type	Flags
60	A Status direct operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether direct operation is active or not.

Availability:

The communication object "A Status direct operation" is displayed if the following configuration has been made:

- Parameter "Direct operation" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Status direct operation" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

Direct operation [→ 87]

7.1.3 8-bit scene control

Users can use the function “8-bit scene recall/store,” without changing the project planning with the ETS, to independently reprogram scene modules for 8-bit scene control or actuators with integrated 8-bit scene control, and thus assign current solar protection positions to the respective scene.

A single communication object is used to transmit the command to store a scene as well as the command to recall a stored scene and the number of the desired scene.

Before storing a scene, the affected actuators must be set to the desired solar protection position using the designated buttons/sensors. With the reception of a telegram for storing, the addressed scene modules or actuators with integrated scene control are prompted to request the currently configured solar protection positions from the actuators and store them in the respective scene.

NOTICE! Before a scene can be recalled or stored, solar protection must be synchronized or calibrated.

7.1.3.1 Parameters on the “Functions, objects” parameter card

8-bit scene control

Parameter	Settings
8-bit scene control	disable enable

Function:

This parameter is used to activate or deactivate 8-bit scene control.

Other parameters/parameter card:

If the “8-bit scene control” parameter is set to “enable,” the “scene assignment” parameter card is displayed.

Communication object:

If the “8-bit scene control” parameter is set to “enable,” the communication object “A 8-bit scene” is displayed.

More information:

- 8-bit scene control [→ 65]
- Communication object “A 8-bit scene” [→ 68]

7.1.3.2 Parameters of the “scene assignment” parameter card

Link 1 – 8 to scene [0...64] (0 = disabled)

Parameters	Settings
Link 1 with scene [1...64] (0 = disable)	0...64
Link 2 with scene [1...64] (0 = disable)	0...64
Link 3 with scene [1...64] (0 = disable)	0...64
Link 4 with scene [1...64] (0 = disable)	0...64
Link 5 with scene [1...64] (0 = disable)	0...64
Link 6 with scene [1...64] (0 = disable)	0...64
Link 7 with scene [1...64] (0 = disable)	0...64
Link 8 with scene [1...64] (0 = disable)	0...64

Function:

This parameter can be used to incorporate the output of each solar protection actuator in one 8-bit scene with a number in the range from 1 to 64. “0” means that this assignment option is not being used.

Other parameters:

If the parameter "link x with scene [0...64]" is not set to "0," the following additional parameters are displayed:

- "8-bit scenes configurable by user"
- "Predefined solar protection position in %"
- "Predefined slats position in %"

More information:

- Parameter "8-bit scenes configurable by user" [→ 66]
- Parameter "Predefined status solar protection position in %" [→ 67]
- Parameter "Predefined slat position in %" [→ 68]

**8-bit scenes
configurable by user**

Parameters	Settings
8-bit scenes configurable by user	disable enable

Function:

If set to "disable," the scenes are not programmable (via a scene telegram). The values for recalling the scenes set via the parameters "Predefined solar protection position in %" and "Slats position in %" cannot be changed during operation.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Link x with scene [0...64]"
 - Setting: unequal "0"

Other parameters:

If the parameter "8-bit scenes configurable by user" is set to "enable," the parameter "Delete learned scene" is displayed as well. The parameters "Predefined solar protection position in %" and "Predefined slats position in %" are hidden.

More information:

- Parameter "Link x with scene [0...64]" [→ 65]
- Parameter "Delete learned scene" [→ 66]
- Parameter "Predefined slat position in %" [→ 68]
- Parameter "Predefined status solar protection position in %" [→ 67]

Delete learned scene

Parameters	Settings
Delete learned scene	disable enable

Function:

If the option "disable" is selected, learned scene values are not deleted when the ETS software is downloaded into the device.

If the option "enable" is selected, learned scene values are deleted when the ETS software is downloaded into the device.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Link x with scene [0...64]"
 - Setting: unequal "0"
- Parameter "8-bit scenes configurable by user"
 - Setting: "enable"

Other parameters:

If the parameter "Delete learned scene" is set to "enable," the parameter "Predefine scene" is displayed as well.

More information:

- Parameter "Link x with scene [0...64]" [→ 65]
- Parameter "8-bit scenes configurable by user" [→ 66]
- Parameter "Predefine scene" [→ 67]

Predefine scene

Parameters	Settings
Predefine scene	disable enable

Function:

If the “disable” option is selected, the parameters “Predefined solar protection position in %” and “Predefined slats position in %” are hidden. A scene must be programmed by the user. Already learned values are deleted during the download of the configuration from the ETS into the device. If nothing is learned, the scene is not activated.

If the “enable” option is selected, the parameters “Predefined solar protection position in %” and “Predefined slats position in %,” which are stored as the scene value in the device when the configuration is downloaded from the ETS software, are displayed.

Availability:

The “Predefine scene” parameter is only displayed if the following configuration has been made:

- Parameter “Link x with scene [0...64]”
 - Setting: unequal “0”
- Parameter “8-bit scenes configurable by user”
 - Setting: “enable”
- Parameter “Delete learned scene”
 - Setting: “enable”

Other parameters:

If the “Predefine scene” parameter is set to “enable,” the parameters “Predefined solar protection position in %” and “Predefined slats position in %” are displayed.

More information:

- Parameter “Link x with scene [0...64]” [→ 65]
- Parameter “8-bit scenes configurable by user” [→ 66]
- Parameter “Delete learned scene” [→ 66]
- Parameter “Predefined status solar protection position in %” [→ 67]
- Parameter “Predefined slat position in %” [→ 68]

Predefined solar protection position in %

Parameters	Settings
Predefined solar protection position in %	0...100

Function:

This parameter can be used to predefine the solar protection position for the selected scene number during the configuration and be loaded into the device with the ETS software.

Availability:

The “Predefined solar protection position in %” parameter is only displayed if the following configuration has been made:

Variant 1:

- Parameter “Link 1 with scene [1...64] (0 = disable)”
 - Setting: unequal “0”
- Parameter “8-bit scenes configurable by user”
 - Setting: “disable”

Variant 2:

- Parameter “8-bit scenes configurable by user”
 - Setting: “enable”
- “Delete learned scene”

- Setting: "enable"
- Predefine scene"
 - Setting: "enable"

More information:

- Parameter "Link x with scene [0...64]" [→ 65]
- Parameter "8-bit scenes configurable by user" [→ 66]
- Parameter "Delete learned scene" [→ 66]
- Parameter "Predefine scene" [→ 67]

Predefined slats position in %

Parameters	Settings
Predefined slats position in %	0...100

Function:

This parameter can be used to predefine the slat position of the blind for the selected scene number during the configuration and be loaded into the device with the ETS software.

Availability:

The "Predefined slats position in %" parameter is only displayed if the following configuration has been made:

Variant 1:

- Parameter "Link 1 with scene [1...64] (0 = disable)"
 - Setting: unequal "0"
- Parameter "8-bit scenes configurable by user"
 - Setting: "disable"

Variant 2:

- Parameter "8-bit scenes configurable by user"
 - Setting: "enable"
- Parameter "Delete learned scene"
 - Setting: "enable"
- Parameter "Predefine scene"
 - Setting: "enable"

More information:

- Parameter "Link x with scene [0...64]" [→ 65]
- Parameter "8-bit scenes configurable by user" [→ 66]
- Parameter "Delete learned scene" [→ 66]
- Parameter "Predefine scene" [→ 67]

7.1.3.3 Communication objects

A 8-bit scene

No.	Object name	Function	Datapoint type	Flags
24	A 8-bit scene	recall/store	18.001 scene control	CW

Function:

With this communication object, the 8-bit scene with the number x is recalled (re-stored) or saved. Bits 0...5 contain the scene number here. If bit 7 = logical 1, then the scene is saved; if bit 7 = logical "0", it is recalled. Bit 6 currently has no meaning and must be set to logical "0." If automatic operation is active (Automatic operation = on), the recalling (restoring) of a scene automatically leads to a switch to manual operation (Automatic operation = off).

Successful storing of a position is only possible if the sunblind has been synchronized by a move to the end position or if the sunblind has been calibrated.

Availability:

The communication object "A 8-bit scene" is displayed if the following configuration has been made:

- Parameter "8-bit scene control" on the "functions, objects" parameter card
 - Setting: "enable"

7.1.4 Move to position 1/2, 3/4 (1-bit scene control)

The function "move to position 1/2, 3/4" is suitable, in particular, to repeatedly move to preferred shutter and slat positions using 1-bit scene control.

The function can be used to specify up to 4 different sunblind and slat positions for each channel. 2 of these preset positions (1/2 or 3/4) are addressed via one group address with the values "0" and "1."

The stored default settings of the positions can also be changed without programming the device via KNX. To do this, the blinds must be moved to the desired height and into the desired slat position. This new position with the value "0" and "1" is copied to the memory of the device via the communication objects "position 1/2" (store) and "position 3/4" (store).

A preferred blind position can be called and stored at the push of a button. To do this, a key is pressed briefly to call up a position and a long key press is used to store it as a desired position.

7.1.4.1 Parameters of the "functions, objects" parameter card

Position 1/2

Parameters	Settings
Position 1/2	disable enable

Function:

This parameter is used to activate or deactivate 1-bit scene control "Position 1/2."

Other parameters/parameter cards:

If the "Position 1/2" parameter is set to "enable," the following parameters are visible on the "position 1/2" parameter card:

- Parameter "Position 1"
- Parameter "Position 2"

Communication object:

If the "Position 1/2" parameter is set to "enable," one or two communication objects "A Position 1/2" are displayed.

More information:

- Parameter "Position 1" [→ 71]
- Communication object "Position 1/2" (recall) [→ 73]
- Communication object "Position 1/2" (save) [→ 74]

Position 3/4

Parameters	Settings
Position 3/4	disable enable

Function:

This parameter is used to activate or deactivate 1-bit scene control "Position 3/4."

Other parameters/parameter cards:

If the "Position 3/4" parameter is set to "enable," the following parameters are visible on the "position 3/4" parameter card:

- Parameter "Position 3"
- Parameter "Position 4"

Communication object:

If the "Position 3/4" parameter is set to "enable," one or two communication objects "A Position 3/4" are displayed.

More information:

- Parameter "Position 3" [→ 71]
- Communication object "Position 3/4" (recall) [→ 74]
- Communication object "Position 3/4" (save) [→ 74]

7.1.4.2 Parameters on the parameter card “position 1/2” and “position 3/4”

NOTICE! The parameters “position 1” and “position 2” on the parameter card “position 1/2” and the parameters “position 3” and “position 4” on the parameter card “position 3/4” are configured in the same way and therefore only described once, for “position 1.”

Position 1

Parameters	Settings
Position 1	disable enable

Function:

This parameter is used to enable or disable position 1.

Note:

The parameter description applies analogously to the parameters “Position 2,” “Position 3” and “Position 4.”

Other parameters:

If the “Position 1” parameter is set to “enable,” the following parameters are displayed:

- “Position 1 user configurable”
- “Predefined solar protection position in %”
- “Predefined slats position in %”

More information:

- Parameter “Position 1 user configurable” [→ 71]
- Parameter “Predefined status solar protection position in %” [→ 72]
- Parameter “Predefined slat position in %” [→ 73]

Position 1 user configurable

Parameters	Settings
Position 1 user configurable	disable enable

Function:

If “disable” is selected, the position cannot be programmed. The values for recalling the position set via the parameters “Predefined solar protection position in %” and “Slats position in %” cannot be changed during operation.

Other parameters:

If the “Position 1 user configurable” parameter is set to “enable,” the “Delete taught in value for Position 1” parameter is displayed as well. The parameters “Predefined solar protection position in %” and “Slats position in %” are hidden.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter “Position 1”
 - Setting: “enable”

More information:

- Parameter “Predefined status solar protection position in %” [→ 72]
- Parameter “Predefined slat position in %” [→ 73]
- Parameter “Delete learned position value” [→ 71]

Delete taught in value for Position 1

Parameters	Settings
Delete taught in value for Position 1	disable enable

Function:

If the option “disable” is selected, learned position values are not deleted when the configuration is downloaded from the ETS software into the device.

If the option "enable" is selected, learned position values are deleted when the configuration is downloaded from the ETS software into the device.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Position 1"
 - Setting: "enable"
- Parameter "Position 1 user configurable"
 - Setting: "enable"

Other parameters:

If the "Delete taught in value for Position 1" parameter is set to "enable," the following parameter is also displayed.

- "predefine position 1"

More information:

Parameter "Predefine position 1" [→ 72]

predefine position 1

Parameters	Settings
predefine position 1	disable enable

Function:

If "disable" is selected, the parameters "Predefined solar protection position in %" and "Predefined slats position in %" remain hidden. A position must be programmed by the user. Already learned values are deleted during the download of the configuration from the ETS into the device. If nothing is learned, the position is not activated.

With "enable", the parameters "Predefined solar protection position in %" and "Predefined slats position in %," which are stored as the position value in the device when the configuration is downloaded from the ETS software, are displayed.

Other parameters:

If the "predefine position 1" parameter is set to "enable," the following parameters are displayed.

- "Predefined solar protection position in %"
- "Predefined slats position in %"

More information:

- Parameter "Predefined status solar protection position in %" [→ 72]
- Parameter "Predefined slat position in %" [→ 73]

Predefined solar protection position in %

Parameters	Settings
Predefined solar protection position in %	0...100

Function:

This parameter is used to specify the predefined setting for the solar protection position.

Availability:

The "Predefined solar protection position in %" parameter is only displayed if the following configuration has been made:

- Parameter "Position 1"
 - Setting: "enable"
- Parameter "Position 1 user configurable"
 - Setting: "disable"

Variant 2:

- Parameter "Position 1 user configurable"
 - Setting: "enable"
- Parameter "Delete taught in value for Position 1"
 - Setting: "enable"
- Parameter "predefine position 1"
 - Setting: "enable"

More information:

- Parameter "Position 1" [→ 71]
- Parameter "Delete learned scene" [→ 66]

Predefined slats position in %

Parameters	Settings
Predefined slats position in %	0...100

Function:

This parameter is used to specify the predefined setting for the slat position.

Availability:

The "Predefined slats position in %" parameter is displayed if the following configurations have been made:

Variant 1:

- Parameter "Position 1"
 - Setting: "enable"
- Parameter "Position 1 user configurable"
 - Setting: "disable"

Variant 2:

- Parameter "Position 1 user configurable"
 - Setting: "enable"
- Parameter "Delete taught in value for Position 1"
 - Setting: "enable"
- Parameter "predefine position 1"
 - Setting: "enable"

More information:

- Parameter "Position 1" [→ 71]
- Parameter "Delete learned scene" [→ 66]

7.1.4.3 Communication objects

A Position 1/2

No.	Object name	Function	Datapoint type	Flags
25	A Position 1/2	recall	1.022 scene	CW

Function:

This and the following communication object enable a room user who has assigned the "save/recall 1-bit scene" function to a pair of buttons on a bus switch to assign this pair of buttons to any position of the shutter and slats by pushing the buttons for a long time or to automatically restore the position of the shutter and its slats to the stored position by briefly pushing the buttons.

This communication object can be used to automatically recall any two intermediate positions of the solar protection that is connected to the respective channel. To make this possible, these positions first have to be stored using the following communication object.

Reception of a "0" telegram results in a move to the shutter and slat position stored in position 1, while a "1" telegram results in the position stored under position 2.

Availability:

The communication object "A Position 1/2" is displayed if the following configuration has been made:

- Parameter "Position 1/2" on the "functions, objects" parameter card
 - Setting: "enable"

A Position 1/2

No.	Object name	Function	Datapoint type	Flags
26	A Position 1/2	store	1.022 scene	CW

Function:

This communication object can be used to store any two intermediate positions of the solar protection connected to this channel. The stored positions can then be recalled (restored) via the previous communication object at any time.

Successful storing of a position is only possible if the sunblind has been synchronized by a move to the end position or if the sunblind has been calibrated.

If a "0" telegram is received, the current status of the "A Status solar protection position" communication object is read and stored in position 1. Position 2 is accordingly stored when a "1" telegram is received.

Availability:

The communication object "A Position 1/2" is displayed if the following configuration has been made:

- Parameter "Position 1/2" on the "functions, objects" parameter card
 - Setting: "enable"

A Position 3/4

No.	Object name	Function	Datapoint type	Flags
27	A Position 3/4	recall	1.022 scene	CW

Function:

This and the following communication object enable a room user who has assigned the "save/recall 1-bit scene" function to a pair of buttons on a bus switch to assign this pair of buttons to any position of the shutter and slats by pushing the buttons for a long time or to automatically restore the position of the shutter and its slats to the stored position by briefly pushing the buttons.

This communication object can be used to automatically recall any two intermediate positions of the solar protection that is connected to the respective channel. To make this possible, these positions first have to be stored using the following communication object.

Reception of a "0" telegram results in a move to the shutter and slat position stored in position 3, while a "1" telegram results in the position stored under position 4.

Availability:

The communication object "A Position 3/4" is displayed if the following configuration has been made:

- Parameter "Position 3/4" on the "functions, objects" parameter card
 - Setting: "enable"

A Position 3/4

No.	Object name	Function	Datapoint type	Flags
28	A Position 3/4	store	1.022 scene	CW

Function:

This communication object can be used to store any two intermediate positions of the solar protection connected to this channel. The stored positions can then be recalled (restored) via the previous communication object at any time.

Successful storing of a position is only possible if the sunblind has been synchronized by a move to the end position or if the sunblind has been calibrated.

If a "0" telegram is received, the current status of the "A Status solar protection position" communication object is read and stored in position 3. Position 4 is accordingly stored when a "1" telegram is received.

Availability:

The communication object “A Position 3/4” is displayed if the following configuration has been made:

- Parameter “Position 3/4” on the “functions, objects” parameter card:
 - Setting: “enable”

7.1.5 Manual operation

Manual operation is used for manual operation using keys or displays in the room where the drives are installed. Several drives can also be controlled manually from a central point.

7.1.5.1 Parameters on the “Functions, objects” parameter card

Manual operation

Parameter	Settings
Manual operation	disable enable

Function:

This parameter is used to activate or deactivate manual operation.

Other parameters:

If the “Manual operation” parameter is set to “enable,” the following parameters are displayed:

- Parameter “Solar protection via dimming possible”
- Parameter “Control via %-objects”
- Parameter “Central Up/Down object”

If the “Solar protection via dimming possible” parameter is set to “enable,” you can set whether the solar protection is not stopped and continues when the button is released:

- Parameter “Stop after button release”

If the “Control via %-objects” parameter is set to “enable,” you can also specify the minimal value change of the slat position in %:

- Parameter “Minimal slats change in %”

Communication objects:

If the “Manual operation” parameter is set to “enable,” the following communication objects are displayed:

- “A Manual operation solar protection”
- “A Manual operation stop, slats”

Depending on which additional parameter cards are set to “enable,” the following additional communication objects are displayed:

- “A Manual operation solar protection via dimming” (Up, Down)
- “A Manual operation solar protection via dimming” (Open, Closed)
- “A Manual operation position solar protection”
- “A Manual operation position slats”
- “A Manual operation solar protection central”

More information:

- Manual operation [→ 75]
- Parameter “Solar protection via dimming possible” [→ 76]
- Communication object “Manual operation solar protection via dimming” [→ 78]
- Communication object “Manual operation solar protection via dimming” (via brighter/darker) [→ 78]
- Parameter “Stop when pushbutton is released” [→ 76]
- Parameter “Control via %-objects” [→ 76]

Solar protection via dimming possible

- Parameter "Minimal slats change in %" [→ 77]
- Parameter "Central up/down object" [→ 77]

Parameters	Settings
Solar protection via dimming possible	disable enable

Function:

This parameter is used to set whether the actuator is supposed to have two additional objects for control via a dimming sensor. Another parameter can be used to set the behavior.

If so, a 4-bit object and a 1-bit object are displayed. The 4-bit object must be connected to a dimming button "brighter/darker" and the 1-bit object to a dimming button "on/off." The 4-bit object can be used to move the solar protection up/down and the 1-bit object can be used to stop solar protection and open/close the slats. The 1-bit object generally works like the object for changing slat positions but with inverted values. The "On" telegram with object value 1 corresponds to the "Up" telegram with object value 0.

Communication object:

If the "Solar protection via dimming possible" parameter is set to "enable," the following communication objects are displayed:

- "A Manual operation solar protection via dimming" (Up/Down via brighter/darker)
- "A Manual operation solar protection via dimming" (Stop via On/Off)

More information:

- "Communication object "manual operation solar protection via dimming" (Up/down via brighter/darker) [→ 78]
- Communication object "manual operation solar protection via dimming" (Stop, Open / Close via On / Off) [→ 78]

Stop after button release

Parameters	Settings
Stop after button release	disable enable

Function:

If the parameter is set to "disable," the solar protection is not stopped when the button is released and keeps going.

If the parameter is set to "enable," the solar protection not stopped when the button is released.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Solar protection via dimming possible"
 - Setting: "enable"

More information:

Parameter "Solar protection via dimming possible" [→ 76]

Control via %-objects

Parameters	Settings
Control via %-objects	disable enable

Function:

The parameter "Control via %-objects" can be used to move to positions via percentages in manual operation.

Other parameters:

If the "Control via %-objects" parameter is set to enable, the "Minimal slats change in %" parameter is displayed.

Communication object:

If the "Control via %-objects" parameter is enabled, the following communication objects are displayed.

- Communication object "A Manual operation position solar protection"
- Communication object "A Manual operation position slats"

More information:

- Communication object "A Manual operation solar protection position" [→ 79]
- Communication object "A Manual operation slat position" [→ 79]
- Parameter "Minimal slats change in %" [→ 77]

Minimal slats change in %

Parameters	Settings
Minimal slats change in %	0...100

Function:

This parameter is used to specify the value that has to be exceeded to trigger a change in slat position.

Example: The current slat position is 50 %. The position of the slat is changed only once the control via the %-object is "A Manual operation position slats" > ± 3 %.

More information:

Communication object "A Manual operation slat position" [→ 79]

Central Up/Down object

Parameter	Settings
Central Up/Down object	disable enable

Function:

This parameter can be used to move the solar protection up and down with or without a delay via a central control.

Communication object:

If the "Central Up/Down object" parameter is set to "enable," the communication object "A Manual operation solar protection central" is displayed.

More information:

Parameter "Manual operation" [→ 75]

7.1.5.2 Communication objects

NOTICE! All manual operation actions as well as the 8-bit scene and position 1 - 4 deactivate automatic operation.

A Manual operation solar protection

No.	Object name	Function	Datapoint type	Flags
3	A Manual operation solar protection	Up/Down	1.008 up/down	CW

Function:

This communication object is used initiate the moving direction of the corresponding channel. When a logical "0" is received, the sunblind moves up, when a logical "1" is received, it moves down.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Note:

Without automatic end position detection, the motor is controlled for move time + move time extension for each move command.

With automatic end position detection, the motor is controlled for a maximum move time of 330 s for each move command, until an end position is detected.

Hence, the sunblind can always be moved into an end position with one move command (Up/Down).

Availability:

The “A Manual operation solar protection” communication object is only displayed if the following configuration has been made:

- Parameter “Manual operation” on the “functions, objects” parameter card
 - Setting: “enable”

A Manual operation stop, slats

No.	Object name	Function	Datapoint type	Flags
4	A Manual operation stop, slats	Stop, Open/Close	1.007 step	CW

Function:

Irrespective of whether the telegram contains a logical “0” or logical “1,” this communication object is used to stop an ongoing shutter move for the respective channel or, if the shutter is stationary and a logical “0” is received, the slats are opened by one step; if a logical “1” is received, they are closed by one step.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object “A Manual operation stop, slats” is displayed if the following configuration has been made:

- Parameter “Manual operation” on the “functions, objects” parameter card
 - Setting: “enable”

A Manual operation solar protection via dimming

No.	Object name	Function	Datapoint type	Flags
5	A Manual operation solar protection via dimming	Up/Down via brighter/darker	3.007 dimming control	CW

Function:

A dimming sensor can use this communication object to control a solar protection, whereby dimming brighter results in the solar protection moving up and dimming darker results in the solar protection moving down. All dimming telegrams are interpreted as a 100 % change because the actuator does not know the current position. That is why only the “dimming with stop telegram” configuration makes sense for the dimming sensor.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object “A Manual operation solar protection via dimming” is displayed if the following configuration has been made:

- Parameter “Solar protection via dimming possible” on the “functions, objects” parameter card:
 - Setting “enable”

A Manual operation solar protection via dimming

No.	Object name	Function	Datapoint type	Flags
6	A Manual operation solar protection via dimming	Stop, Open/Close via On/Off	1.001 switch	CW

Function:

A dimming sensor can use this object to control a sunblind. Irrespective of whether the telegram contains a logical “0” or logical “1,” an ongoing shutter move for the respective channel is stopped or, if the shutter is stationary and a logical “1” is received, the slats are opened by one step; if a logical “0” is received, they are closed by one step.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object “A Manual operation solar protection via dimming” is displayed if the following configuration has been made:

- Parameter “Solar protection via dimming possible” on the “functions, objects” parameter card
 - Setting: “enable”

A Manual operation position solar protection

No.	Object name	Function	Datapoint type	Flags
7	A Manual operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW

Function:

This communication object can be used to move the solar protection of the corresponding channel to any position in manual operation.

- 0 % = shutter moves up to the top
- 100 % = blind moves down to the bottom

As soon as the solar protection position specified by the communication object is reached, the slat position that was last set via the “A Manual operation position slats” communication object for the respective channel is restored automatically.

As soon as the slat position adjustment is completed or an end position is reached, the object value of all status objects (shutter and slat position as well as upper and lower end position) is updated and, if configured accordingly, transferred to the bus.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Note:

If a 0% command is received, the sunblind is moved to the upper end position. The slat position is not changed. If a 100% command is received, the sunblind is moved to the lower end position. The slat position is restored. A move command (Up/Down) can always be used to move the sunblind into the end positions.

Availability:

The “A Manual operation position solar protection” communication object is only displayed if the following configuration has been made:

- Parameter “Control via %-objects” on the “functions, objects” parameter card
 - Setting: “enable”

A Manual operation position slats

No.	Object name	Function	Datapoint type	Flags
8	A Manual operation position slats	8-bit value	5.001 percentage (0..100%)	CW

Function:

This communication object can be used to move the slats of the corresponding channel to any position in manual operation. Changing the slat positions can result in minor variations of the blind height.

- 0 % = slats are opened completely
- 100 % = slats are closed completely

As soon as the slat position adjustment is completed or an end position is reached, the object value of all status objects (blind and slat position as well as upper and lower end position) is updated and, if configured accordingly, transferred to the bus.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object "A Manual operation position slats" is displayed if the following configuration has been made:

- Parameter "Control via %-objects" on the "functions, objects" parameter card:
 - Setting: "enable"

A Manual operation solar protection central

No.	Object name	Function	Datapoint type	Flags
9	A Manual operation solar protection central	Up/Down	1.008 up/down	CW

Function:

If a logical "0" is received, the sunblind is moved to the upper end position; if a logical "1" is received it is moved to the lower end position. For each channel, a delay time for central commands can be set. Hence, central control with a delayed start can be implemented for each solar protection channel.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object "A Manual operation solar protection central" is displayed if the following configuration has been made:

- Parameter "Central Up/Down object" on the "functions, objects" parameter card
 - Setting: "enable"

7.1.6 Automatic operation

In automatic operation, the solar protection actuator can be connected to higher level signals (e.g. a weather station or timer).

7.1.6.1 Parameters on the "Functions, objects" parameter card

Automatic operation

Parameter	Settings
Automatic operation	disable enable

Function:

This parameter is used to activate or deactivate automatic operation.

Note:

If manual operation is blocked, automatic operation is automatically activated after an ETS download.

Other parameters:

If the "Automatic operation" parameter is set to "enable," the following additional parameters are displayed:

- "Minimal slats change in %"
- "Object sunshine"
- "Central Up/Down object"
- "Status automatic mode"
- "Delay time for automatic operation"
- "Automatic activation of automatic operation (0 = disabled)"

If the "Object sunshine" parameter is set to "Yes," the following parameters are displayed:

- "Behavior on sunshine = On"
- "Behavior on sunshine = Off"

Communication objects:

If the “Automatic operation” parameter is set to “enable,” the following communication objects are displayed:

- “A Automatic operation”
- “A Automatic operation position solar protection”
- “A Automatic operation position slats”

More information:

- Communication object “A automatic operation” [→ 84]
- Communication object “A Automatic operation solar protection position” [→ 84]
- Communication object “Automatic operation slat position” [→ 84]
- Parameter “Minimal slats change in %” [→ 81]
- Parameter “Object sunshine” [→ 81]
- Parameter “Behavior on sunshine = On” [→ 82]
- Parameter “Behavior on sunshine = Off” [→ 82]
- Parameter “Central up/down object” [→ 82]
- Parameter “Status automatic operation” [→ 138]
- Parameter “Delay time for automatic operation” [→ 83]
- Parameter “Automatic activation of automatic operation (0 = blocked)” [→ 83]

Minimal slats change in %

Parameters	Settings
Minimal slats change in %	0...100

Function:

This parameter is used to specify the value that has to be exceeded to trigger a change in slat position.

Example: The current slat position is 50 %. The position of the slat is changed only once the control via the %-object is “A Automatic operation position slats” > ± 3 %.

More information:

Communication object “A automatic operation slat position” [→ 84]

Object sunshine

Parameter	Settings
Object sunshine	No Yes

Function:

This parameter is used to set whether the “A Sunshine” object is enabled for this channel and can thus influence it when it is in automatic operation.

Other parameters:

If the “Object sunshine” parameter is set to “Yes,” the following parameters are displayed:

- “Behavior on sunshine = On”
- “Behavior on sunshine = Off”

Communication object:

If the “Automatic operation” parameter is set to “enable,” and the “Object sunshine” is set to “Yes,” the communication object “A Sunshine” is displayed.

More information:

- Communication object “A Sunshine” [→ 85]
- Parameter “Behavior on sunshine = On” [→ 82]
- Parameter “Behavior on sunshine = Off” [→ 82]
- Parameter “Automatic operation” [→ 80]

Behavior on sunshine = On

Parameters	Settings
Behavior on sunshine = On	Solar protection down + do automatic commands Do automatic commands + go to stored position

Function:

This parameter is used to set how a solar protection channel responds when receiving a telegram with object value "1" for the "A Sunshine" object if it is in automatic operation.

If the parameter is set to "Solar protection down + do automatic commands," the shutter is moved to the lower end position, the slats are moved to the value set in the parameter "slat position after solar protection down in %," the execution of automatic commands is enabled and the system waits for subsequent automatic commands.

If a telegram with a shutter or slat position in percent is received while moving to the lower end position, this telegram is executed immediately. If the parameter is set to "Do automatic commands + go to stored position," the shutter is moved to the stored position. Only the execution of automatic commands is enabled and the system waits for subsequent automatic commands.

More information:

Communication object "A Sunshine" [→ 85]

Behavior on sunshine = Off

Parameters	Settings
Behavior on sunshine = Off	Solar protection up + ignore automatic commands Ignore automatic commands

Function:

This parameter is used to set how a solar protection channel responds when receiving a telegram with object value "0" for the "A Sunshine" object if it is in automatic operation.

If the parameter is set to "Solar protection up + ignore automatic commands," the shutter is moved to the upper end position and the execution of automatic commands is blocked. Accordingly, automatic commands are ignored and not executed for the respective channel as long as "sunshine = off" applies.

If the parameter is set to "Ignore automatic commands," the shutter position remains unchanged. Only the execution of automatic commands is disabled. Accordingly, automatic commands are ignored and not executed for the respective channel as long as "sunshine = off" applies.

More information:

Communication object "A Sunshine" [→ 85]

Central Up/Down object

Parameters	Settings
Central Up/Down object	disable enable

Function:

This parameter can be used to move the solar protection up and down with or without a delay via a central control.

Communication object:

If the "Central Up/Down object" parameter is set to "enable," the communication object "A Automatic operation solar protection central" is displayed.

More information:

Communication object "A Automatic operation solar protection" [→ 85]

Status automatic mode

Parameter	Settings
Status automatic mode	disable enable

Function:

This parameter is used to set whether the communication object “A Status automatic operation” is supposed to be available.

Availability:

The “Status automatic mode” parameter is only displayed if the following configuration has been made:

- Parameter “Automatic operation”
 - Setting: “enable”

Other parameters:

If the “Status automatic mode” parameter is enabled, additional parameters for configuring the status are displayed.

Parameters that are visible if the “Status...” parameter is set to “enable” [→ 136]

Communication object:

If the “Status automatic mode” parameter is set to “enable,” the communication object “A Status automatic operation” is displayed.

More information:

- Parameter “Automatic operation” [→ 80]
- Communication object “A Status automatic operation” [→ 85]

Delay time for automatic operation

Parameter	Settings
Delay time for automatic operation hh:mm:ss.f	(00:00:00.0 ... 01:49:13.5)

Function:

This parameter can be used to set a delay time to ensure all channels do not start at the same time when controlled in automatic operation. This is designed to prevent excessive noise.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter “Automatic operation”
 - Setting: “enable”

More information:

Parameter “Automatic operation” [→ 80]

Automatic activation of automatic operation (0 = disabled)

Parameter	Settings
Automatic activation of automatic operation (0 = disabled)	00:00:00 ... 18:12:15

Function:

This parameter is used to set if automatic operation is to be activated automatically, if the blind was not moved manually during the set time.

Availability:

The “Automatic activation of automatic operation (0 = disabled)” parameter is displayed if the following configuration has been made:

- Parameter “Automatic operation”
 - Setting: “enable”

More information:

- Parameter “Automatic operation” [→ 80]

7.1.6.2 Communication objects

A Automatic operation

No.	Object name	Function	Datapoint type	Flags
10	A Automatic operation	On/Off	1.001 switch	CW

Function:

This object is used to activate and deactivate automatic operation.

If a logical "0" is received, automatic operation is deactivated, if a logical "1" is received, it is activated.

Availability:

The communication object "A Automatic operation" is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card:
 - Setting: "enable"

A Automatic operation position solar protection

No.	Object name	Function	Datapoint type	Flags
11	A Automatic operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW

Function:

This communication object can be used to move the solar protection of the corresponding channel to any position in automatic operation. If the channel is in manual operation, a move command is not executed but saved and then executed after switching to automatic operation.

- 0 % = shutter moves up to the top
- 100 % = blind moves down to the bottom

As soon as the solar protection position specified by the communication object is reached, the slat position that was last set via the "A Automatic operation position slats" communication object for the respective channel is restored automatically. If the sunblind adjustment is completed or an end position reached, the object value of all status objects (sunblind and slat position as well as upper and lower end position) is updated and, if configured accordingly, transferred to the bus.

Note:

If a 0% command is received, the sunblind is moved to the upper end position. The slat position is not changed. If a 100% command is received, the sunblind is moved to the lower end position. The slat position is restored.

Availability:

The communication object "A Automatic operation position solar protection" is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card
 - Setting: "enable"

A Automatic operation position slats

No.	Object name	Function	Datapoint type	Flags
12	A Automatic operation position slats	8-bit value	5.001 percentage (0..100%)	CW

Function:

This object can be used to move the slats of the corresponding channel to a selectable position in automatic operation. If the channel is in manual operation, an adjustment command is not executed but saved and then executed after the switch to automatic operation. Changing the slat positions can result in minor variations of the blind height.

- 0 % = slats are opened completely
- 100 % = slats are closed completely

As soon as the slat position adjustment is completed or an end position is reached, the object value of all status objects (shutter and slat position as well as upper and lower end position) is updated and, if configured accordingly, transferred to the bus.

Availability:

The communication object “A Automatic operation position slats” is displayed if the following configuration has been made:

- Parameter “Automatic operation” on the “functions, objects” parameter card:
 - Setting: “enable”

A Sunshine

No.	Object name	Function	Datapoint type	Flags
13	A Sunshine	On/Off	1.001 switch	CW

Function:

When using the exterior brightness sensor, this communication object is used to enable or lock the blind and slat positions as well as move to the upper and lower end position, if applicable. If a telegram is received for this object, the sunblind is moved with automatic operation activated and the positioning of the blind or slats is then released or locked via percentage commands.

If a logical “0” is received, the sunblind is moved to the upper end position (open), if applicable, and the positioning of the blind and slats is blocked via percentage commands. If a logical “1” is received, the sunblind is moved to the lower end position (closed), if applicable, and the positioning of the blind and slats is enabled via percentage commands. If a blind is moved to the lower end position, the slats are then turned to the position specified by the parameter “slat position after solar protection down in %.”

Availability:

The communication object “A Sunshine” is displayed if the following configuration has been made:

- Parameter “Object sunshine” on the “functions, objects” parameter card
 - Setting: “Yes”

A Automatic operation solar protection central

No.	Object name	Function	Datapoint type	Flags
14	A Automatic operation solar protection central	Up/Down	1.008 up/down	CW

Function:

If a telegram is received for this communication object, the output is first switched to “automatic operation” (if the parameter is enabled) and then the solar protection is moved. If a logical “0” is received, the solar protection is moved to the upper end position (opened). If a logical “1” is received, it is moved to the lower end position (closed) and the slats are then turned to the position specified via the “Slat position after solar protection down in %” parameter. A delay time for central commands can be set for each channel, thus enabling central control with a delayed start to move for each sunblind channel.

Availability:

The communication object “A Automatic operation solar protection central” is displayed if the following configuration has been made:

- Parameter “Central Up/Down object” on the “functions, objects” parameter card:
 - Setting: “enable”

A Status automatic operation

No.	Object name	Function	Datapoint type	Flags
15	A Status automatic operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether automatic operation is active. If a logical “0” is sent, automatic operation is deactivated, if a logical “1” is sent, automatic operation is activated.

Availability:

The communication object “A Status automatic operation” is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Status automatic mode" on the "functions, objects" parameter card:
 - Setting: "enable"

7.1.7 Direct operation

In direct operation, the solar protection actuator can be controlled using the buttons on the solar protection actuator. This enables the installer, for example, to check whether the solar protection actuator has been connected correctly.

NOTICE! After bus voltage recovery, direct operation is deactivated.

7.1.7.1 Operation in direct operation

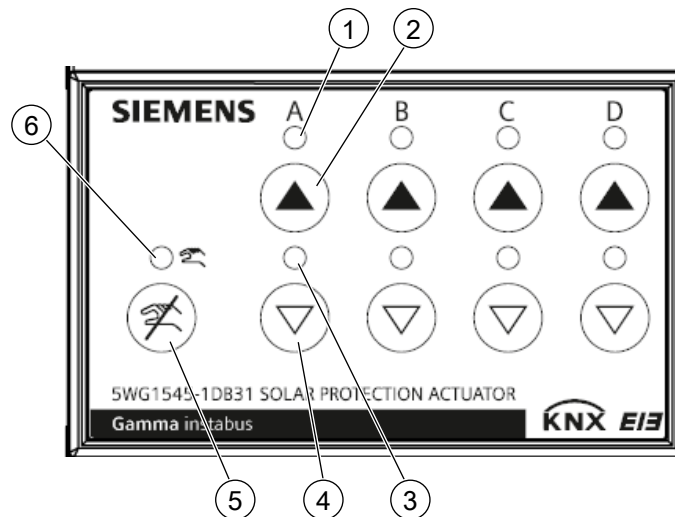


Fig. 8: Front side of the solar protection actuator Solar protection actuator N 545D31, 4 x 6 A DC

- | | | |
|---|--|--|
| 1 | Status LED of the channel, below (red) | <p>Indicates the status of the respective channel.</p> <ul style="list-style-type: none"> • LED switched off: Direct operation is switched off. • LED lit: Move command "Up" active. • LED flashing in sync with status LED: Direct operation is switched on. |
| 2 | Stop/slat button: "Up" move command of the channel | <p>Short push of button (< 1 s):</p> <ul style="list-style-type: none"> • Move command "Stop" or "Raise" • Activate direct operation for the channel. <p>Long push of button (> 1 s):</p> <ul style="list-style-type: none"> • Move command "Up" active • Activate direct operation for the channel. |
| 3 | Status LED of the channel, below (red) | <p>Indicates the status of the respective channel.</p> <ul style="list-style-type: none"> • LED switched off: Direct operation is switched off. • LED lit: Move command "Down" active. • LED flashing in sync with status LED: Direct operation is switched on. |
| 4 | Stop/slat button: Move command "Down" | <p>Short push of button (< 1 s):</p> <ul style="list-style-type: none"> • Move command "Stop" or "Lower" • Activate direct operation for channel A. <p>Long push of button (> 1 s):</p> <ul style="list-style-type: none"> • Move command "Down" active |
| 5 | Button: Deactivate direct operation | <p>Short push of a button:</p> <ul style="list-style-type: none"> • Deactivate direct operation for all channels. <p>Pushing the button and pushing the Stop Up/Down button (2, 4) of a channel:</p> <ul style="list-style-type: none"> • Deactivate the direct operation of the respective channel. |

- | | | |
|---|---|---|
| 6 | Status LED of direct operation (yellow) | The LED flashes if direct operation is active for at least one channel. |
|---|---|---|

Switch on direct operation for one channel and operate channel

- ▷ Direct operation is enabled ("Direct operation" parameter).
- 1. On the front of the device, push the button "Stop/slat: move command 'Up'" (2) or the button "Stop/slat: move command 'Down'" (4).
 - ⇒ Direct operation is switched on for this channel.
 - ⇒ The status LED of the channel (1 for "Up," 3 for "Down") and the status LED of direct operation (6) flash.
- 2. To move the solar protection connected to the associated channel, press the "Stop/Slat: move command 'Up'" button (2) or the "Stop/Slat: Move command 'Down'" button (4) briefly (< 1 s) for step-by-step movement or press and hold (> 1 s) for continuous movement in the corresponding direction.

Switch off direct operation for one channel

- ▷ Direct operation is switched on.
- 1. Push and hold the "Deactivate direct operation" button (5).
- 2. Push and release the "Stop/slat move command "Up" button (2) or the "Stop/slat move command "Down" button (4) of the respective channel.
- 3. Release the "Deactivate direct operation" button (5).
 - ⇒ Direct operation is switched off for this channel.
 - ⇒ The channel returns to the state that is actually present at the device's connector (On or Off).
 - ⇒ The status LED of the channel (1, 3) again indicates the actual status of the contact of the channel (open or closed).

Switch off direct operation for all channels

- ▷ Direct operation is switched on.
- ◆ Push and release the "Deactivate direct operation" button (5).
 - ⇒ Direct operation is switched off for all channels.
 - ⇒ The status LED of direct operation (6) goes out.
 - ⇒ The channels now have the states that are actually present at the terminals of the device (on or off).
 - ⇒ The status LEDs of the channels (1, 3) again show the actual status of the contacts of the channels (open or closed).

7.1.7.2 Parameters on the “Functions, objects” parameter card

Direct operation

Parameter	Settings
Direct operation	disable enable

Function:

This parameter is used to disable or enable the operation of the solar protection actuator directly on the device.

Other parameters:

If the “Direct operation” parameter is set to “enable,” additional parameters are displayed, which can be used to set when direct operation can be automatically reset and if direct operation is to be restricted. It can also be defined whether the status of direct operation should be disabled or enabled and whether the status on change of status should be sent cyclically or on request:

- Parameter “Direct operation auto reset”
- Parameter “Direct operation lockable”
- Parameter “Status direct operation”

If the “Status direct operation” parameter is set to “enable,” additional parameters for configuration of the status are displayed.

Parameters that are visible if the “Status...” parameter is set to “enable” [→ 136]

Communication objects:

If the “Direct operation lockable” parameter is set to “enable,” the following communication object is displayed:

- “A Direct operation lock”

If the “Status direct operation” parameter is set to “enable,” the following communication object is displayed:

- “A Status direct operation”

More information:

- Direct operation [→ 87]
- Parameter “Direct operation auto reset” [→ 89]
- Parameter “Direct operation lockable” [→ 90]
- Communication object “A Direct operation lock” [→ 90]
- Parameter “Status direct operation” [→ 90]
- Communication object “A Status direct operation” [→ 91]

Direct operation auto reset

Parameters	Settings
Direct operation auto reset (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter is used to set the time after which direct operation is automatically deactivated.

The setting “00:00:00” means that direct operation is not automatically reset but can only be deactivated directly on the device or through bus voltage failure and recovery.

Note:

If direct operation has been activated on the solar protection actuator, the solar protection actuator can only be controlled directly and not remotely. This parameter can be used to prevent direct operation from being unintentionally left switched on.

Direct operation lockable

Parameters	Settings
Direct operation lockable	disable enable

Function:

This parameter can be used to control the enabling of direct operation via a communication object.

Communication objects:

If the "Direct operation lockable" parameter is set to "enable," the following communication object is displayed:

- "A Direct operation lock"

More information:

Communication object "A Direct operation lock" [→ 90]

Status direct operation

Parameter	Settings
Status direct operation	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of direct operation. This communication object is used to report whether direct operation is active.

Availability:

The "Status direct operation" parameter is only displayed if the following configuration has been made:

- Parameter "Direct operation"
 - Setting: "enable"

Other parameters:

If the "Status direct operation" parameter is set to "enable," additional parameters are displayed which can be used to set when a status is sent.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

Communication object:

If the "Status direct operation" parameter is set to "enable," the communication object "A Status direct operation" is displayed.

More information:

- Parameter "Direct operation" [→ 89]
- Communication object "A Status direct operation" [→ 91]

7.1.7.3 Communication objects

A Direct operation lock

No.	Object name	Function	Datapoint type	Flags
59	A Direct operation lock	On/Off	1.003 enable	CW

Function:

This communication object can be used to lock or enable direct operation (operation directly on the device).

If a logical "0" is received, direct operation is locked, if a logical "1" is received, direct operation is enabled.

Availability:

The communication object "A Direct operation lock" is displayed if the following configuration has been made:

- Parameter “Direct operation” on the “functions, objects” parameter card
 - Setting: “enable”
- Parameter “Direct operation lockable” on the “functions, objects” parameter card
 - Setting: “enable”

Example:

Enabling of direct operation through a key switch.

Note:

When bus voltage is recovered the setting is reset.

A Status direct operation

No.	Object name	Function	Datapoint type	Flags
60	A Status direct operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether direct operation is active or not.

Availability:

The communication object “A Status direct operation” is displayed if the following configuration has been made:

- Parameter “Direct operation” on the “functions, objects” parameter card:
 - Setting: “enable”
- Parameter “Status direct operation” on the “functions, objects” parameter card:
 - Setting: “enable”

7.1.8 “Wind alarm” override

The “wind alarm” override function can be used to protect the solar protection from wind and storm.

7.1.8.1 Parameters of the “functions, objects” parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card “override [number], [type of override]” is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.1.8.2 Parameters on the "Override 1, wind alarm" parameter card

Control Value Input

Parameters	Settings
Control Value Input	disable enable

Function:

This parameter can be set whether instead of the switching input, a control value input should be used for the activation and deactivation of the override function.

Other parameters:

If the parameter "Control Value Input" is in status "enable," parameters "Control Value Input Data Type," "Threshold for Off (<=)," and "Threshold for On (>=)" are displayed.

Communication object:

If the parameter "Control Value Input" is in status "enable," the communication object "A Override 1, Wind Alarm" is hidden and the communication object "A Override 1, Wind Alarm, Control" is displayed instead.

More information:

Communication object "A Override 1, wind alarm, control value" [→ 99]

Control Value Input Data Type

Parameters	Settings
Control Value Input Data Type	Percentage (%) DPT 5.001 Value (8-bit) DPT 5.010 2-byte unsigned value DPT 7.x 2-byte signed value DPT 8.x 2-byte floating point number DPT 9.x Temperature (°C) DPT 9.001 Illuminance (lx) DPT 9.004 Wind speed (m/s) DPT 9.005 Current (mA) DPT 9.021 Power (kW) DPT 9.024 Wind speed (km/h) DPT 9.028 4-byte unsigned value DPT 12.x 4-byte signed value DPT 13.x 4-byte floating point number DPT 14.x Power (W) DPT 14.056

Function:

This parameter defines the datapoint type of the communication object "control value."

The following datapoint types can be set:

- Percentage (%) DPT 5.001:
Corresponds to the datapoint type "5.001 percent (0...100 %)."
- Value (8-bit) DPT 5.010:
Corresponds to the datapoint type "5.010 counting impulses (0 ... 255)."
- 2-byte unsigned value DPT 7.x:
Corresponds to the datapoint type "2 bytes without prefix."
- 2-byte signed value DPT 8.x:
Corresponds to the datapoint type "2 bytes with prefix."
- 2-byte floating point number DPT 9.x:
Corresponds to the datapoint type "2 bytes floating value."
- Temperature (°C) DPT 9.001:
Corresponds to the datapoint type "9.001 temperature °C."

- Illuminance (lx) DPT 9.004:
Corresponds to the datapoint type "9.004 illuminance lx."
- Wind speed (m/s) DPT 9.005:
Corresponds to the datapoint type "9.005 speed (m/s)."
- Current (mA) DPT 9.021:
Corresponds to the datapoint type "9.021 current mA."
- Power (kW) DPT 9.024:
Corresponds to the datapoint type "9.024 output kW."
- Wind speed (km/h) DPT 9.028:
Corresponds to the datapoint type "9.028 wind speed (km/h)."
- 4-byte unsigned value DPT 12.x:
Corresponds to the datapoint type "4 bytes without prefix."
- 4-byte signed value DPT 13.x:
Corresponds to the datapoint type "4 bytes with prefix."
- 4-byte floating point number DPT 14.x:
Corresponds to the datapoint type "4 bytes floating value."
- Power (W) DPT 14.056:
Corresponds to the datapoint type "14.056 output W."

Threshold for Off (<=)

Parameters	Settings
Threshold for Off (<=)	0...100

Function:

This parameter determines the threshold for "Off."

If the value of this communication object is equal to or smaller than the configured threshold for "Off," then the determined switching value is equal to "Off" (0).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Threshold for On (>=)

Parameters	Settings
Threshold for On (>=)	0...100

Function:

This parameter determines the threshold for "On."

If the value of this communication object is equal to or greater than the configured threshold for "On," then the determined switching value is equal to "On" (1).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Invert Override Control

Parameters	Settings
Invert Override Control	No Yes

Function:

This parameter is used to set whether the input value of communication object "A Override 1, Wind Alarm" should be used directly or inverted.

More information:

Communication object "A Override 1, wind alarm" [→ 98]

Lock direct operation if override is active

Parameters	Settings
Lock direct operation if override is active	disable enable

Function:

If the parameter is enabled, operation on the device is prevented when the override is active.

Note:

Even one active override that blocks direct operation prevents operation on the device.

Delay time for override activation

Parameter	Settings
Delay time for override activation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the activation of the override.

Delay time for override deactivation

Parameters	Settings
Delay time for override deactivation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the deactivation of the override.

Delay time for activation/deactivation behavior

Parameters	Settings
Delay time for activation/deactivation behavior (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time for the behavior after activation and deactivation of the override.

Monitoring time

Parameter	Settings
Monitoring time (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter is used to set whether the cyclical input of telegrams to the communication object for central override should be monitored and how long the monitoring time is.

With a parameter value of 00:00:00, no monitoring takes place.

For all other parameter values, the cyclical input of deactivation telegrams is monitored. If the monitoring time is exceeded, the override is activated automatically.

Override Duration

Parameter	Settings
Override Duration (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set the desired on period with activated override. The override duration is then re-started with each incoming activation telegram. With a parameter value of 00:00:00, the override duration is unlimited.

Note:

If the monitoring time is simultaneously set not equal to 00:00:00, the following behavior will be observed:

- **Monitoring time < override duration:**
The override duration is triggered using a cyclically incoming activation telegram. The configured override duration is not effective.
- **Monitoring time > override duration:**
With the elapse of the override duration, the override is switched off. With the next incoming activation telegram for monitoring, it is re-activated and the override duration begins again.

Behavior on override activation

Parameters	Settings
Behavior on override activation	Up Down No change According to parameter Stop

Function:

The parameter is used to specify how the blind behaves when an override duration is activated.

The following settings are possible:

- Up:
The blind moves up.
- Down:
The blind moves down.
- No change:
All subsequent functions (manual operation, automatic operation etc.) are blocked.
- According to parameter:
The blind moves to the value in parameters "solar protection position in %" and "slats position in %."
- Stop:
The blind stops at the position just assumed.

Other parameters:

If the "Behavior on override activation" parameter is set to "According to parameter," the following parameters are displayed:

- "Solar protection position in %"
- "Slats position in %"
- "Behavior if no sync"

More information:

- Parameter "Solar protection position in %" [→ 96]
- Parameter "Slats position in %" [→ 96]
- Parameter "Behavior if no sync" [→ 97]

Behavior on override deactivation

Parameters	Settings
Behavior on override deactivation	Up Down No change According to parameter Updated value

Function:

This parameter is used to specify how the shutter behaves when an override is deactivated.

The following settings are possible:

- Up:
The blind moves up.
- Down:
The blind moves down.
- No change:
The value at the output is retained until a new value arrives at the input of the function block.
- According to parameter:
The blind moves to the value set in parameters "Solar protection position in %" and "Slats position in %."
- Updated value:
The blind moves to the value that is on the input of the function block.

Other parameters:

If the "Behavior on override deactivation" parameter is set to "According to parameter," the following parameters are displayed:

- "Solar protection position in %"
- "Slats position in %"
- "Behavior if no sync"

More information:

- Parameter "Solar protection position in %" [→ 40]
- Parameter "Slats position in %" [→ 96]
- Parameter "Behavior if no sync" [→ 97]

Solar protection position in %

Parameters	Settings
Solar protection position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the blind is to be moved when the override is activated or deactivated.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override activation"
 - Setting: "According to parameter"

or

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

- Parameter "Behavior on override activation" [→ 95]
- Parameter "Behavior on override deactivation" [→ 96]

Slats position in %

Parameters	Settings
Slats position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the slats are to be moved when the override is activated or deactivated.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override activation"
 - Setting: "According to parameter"

or

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

- Parameter "Behavior on override activation" [→ 95]
- Parameter "Behavior on override deactivation" [→ 96]

Behavior if no sync

Parameters	Settings
Behavior if no sync	Up Down No change Stop

Function:

This parameter is used to set the behavior of the shutter when an override is activated or deactivated (setting "According to parameter"), if the device is not synchronized.

This applies as long as runtime parameters have been changed by an ETS download or the "Behavior after download" parameter is set to "Use ETS parameter" and no new calibration has been performed.

The following settings are possible:

- Up:
The blind moves all the way up.
- Down:
The blind moves all the way down.
- No change:
All subsequent functions (manual operation, automatic operation etc.) are blocked (Behavior on override activation). The value at the output is retained until a new value arrives at the input of the function block (Behavior on override deactivation).
- Stop:
The blind stops at the position just assumed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override activation"
 - Setting: "According to parameter"

or

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

- Parameter "Behavior on override activation" [→ 95]
- Parameter "Behavior on override deactivation" [→ 96]

Status Override

Parameter	Settings
Status Override	disable enable

Function:

Start value/behavior of override input on bus voltage recovery

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter "Status Override" is set to "enable," additional parameters for sending the status of the override are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

Parameters	Settings
Start value/behavior of override input on bus voltage recovery	Off On Deactivated Last value

Function:

This parameter can be used to set the desired starting value or the desired start behavior of the override input on bus voltage recovery.

The following settings are possible:

- Off:
The override function block behaves as if an "off" had been received at the override block input when bus voltage is recovered.
- On:
The override function block behaves as if an "on" had been received at the override block input when bus voltage is recovered.
- Deactivated:
The override function block is deactivated on bus voltage recovery.
- Last value:
The override input of the function block is then set to the value stored on bus voltage failure.

7.1.8.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 1, Wind Alarm

No.	Object name	Function	Datapoint type	Flags
29	A Override 1, Wind Alarm	On/Off	1.003 enable	CW

Function:

The "wind alarm" is active when the value of the communication object is "on."

If an inversion is configured, "wind alarm" is active when the object value is "Off."

Note:

This object can then be linked to e.g. an alarm message of a wind guard.

Availability/alternative:

The communication object "A Override 1, Wind Alarm" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card
 - Setting: "Wind Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on parameter card "override 1, wind alarm" is enabled, this communication object is hidden and communication object "A Override 1, Wind Alarm, Control" is shown instead.

A Override 1, Wind Alarm, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Wind Alarm, Control	value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W)	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Note:

This object can then be linked to e.g. an alarm message of a wind guard.

Availability/alternative:

The communication object “A Override 1, Wind Alarm, Control” is displayed if the following configuration has been made:

- Parameter “Override 1” on the “functions, objects” parameter card:
 - Setting: “Wind Alarm”
- Parameter “Control Value Input”
 - Setting: “enable”

Alternatively, a switching input can be used instead of a control value input. If the parameter “Control Value Input” on the parameter card “override 1, wind alarm” is set to “disable,” this communication object is hidden and communication object “A Override 1, Wind Alarm” is shown instead.

A Override 1, Wind Alarm, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Wind Alarm, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active.
If a logical “0” is sent, no override is active; if a logical “1” is sent, an override is active.

Availability:

The communication object “A Override 1, Wind Alarm, Status” is displayed if the following configuration has been made:

- Parameter “Status Override” on the “override 1, wind alarm” parameter card
 - Setting: “enable”

7.1.9 “Rain alarm” override

The override function can be used to protect a textile solar protection from rain.

7.1.9.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.1.9.2 Parameters on the "Override x, rain alarm" parameter card

The parameters for the "rain alarm" override on the "Override 1, rain alarm" parameter card are identical to the parameters for the "wind alarm" override on the "Override 1, wind alarm" parameter card.

More information:

Parameters on the "Override 1, wind alarm" parameter card [→ 92]

7.1.9.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 2, Rain Alarm

No.	Object name	Function	Datapoint type	Flags
33	A Override 2, Rain Alarm	On/Off	1.003 enable	CW

Function:

The "rain alarm" is active when the value of the communication object is "on."

If an inversion is configured, the "rain alarm" is active when the object value is "off."

Note:

This communication object can then be linked to e.g. an alarm message of a rain guard.

Availability/alternative:

The communication object "A Override 2, Rain Alarm" is displayed if the following configuration has been made:

- Parameter "Override 2" on the "functions, objects" parameter card:

– Setting: "Rain Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 2, rain alarm" is set to "enable," this communication object is hidden and communication object "A Override 2, Rain Alarm, Control" is shown instead.

A Override 1, Rain Alarm, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Rain Alarm, Control	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W) 14.* 4-byte float value	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Availability/alternative:

The communication object "A Override 1, Rain Alarm, Control" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card
 - Setting: "Rain Alarm"
- Parameter "Control Value Input" on the "override 1, rain alarm" parameter card
 - Setting: "enable"

Alternatively, a switching input can be used instead of a control value input. If the "Control Value Input" parameter on the "override 1, rain alarm" parameter card is disabled, this communication object is hidden and communication object "A Override 1, Rain Alarm" is displayed.

A Override 1, Rain Alarm, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Rain Alarm, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active. If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Rain Alarm, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, rain alarm" parameter card
 - Setting: "enable"

7.1.10 "Frost alarm" override

The "frost alarm" override function can be used to protect the solar protection system from freezing.

7.1.10.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.1.10.2 Parameters on the "Override x, frost alarm" parameter card

The parameters for the "frost alarm" override on the "Override x, frost alarm" parameter card are identical to the parameters for the "wind alarm" override on the "Override x, wind alarm" parameter card.

More information:

Parameters on the "Override 1, wind alarm" parameter card [→ 92]

7.1.10.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 3, Frost Alarm

No.	Object name	Function	Datapoint type	Flags
37	A Override 3, Frost Alarm	On/Off	1.003 enable	CW

Function:

"Frost alarm" is active when the value of the communication object is "on."

If an inversion is configured, the "frost alarm" is active when the value of the communication object is "Off."

Note:

This object can then be linked to e.g. an alarm message of a frost guard.

Communication object:

This communication can then be linked to e.g. an alarm message of a frost guard.

Availability/alternative:

The communication object "A Override 3, Frost Alarm" is displayed if the following configuration has been made:

- Parameter "Override 3" on the "functions, objects" parameter card:
 - Setting: "Frost Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, frost alarm" is set to "enable," this communication object is hidden and communication object "A Override 3, Frost Alarm, Control" is shown instead.

A Override 1, Frost Alarm, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Frost Alarm, Control	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W) 14.* 4-byte float value	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Availability/alternative:

The communication object "A Override 1, Frost Alarm, Control" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card
 - Setting: "Frost Alarm"
- Parameter "Control Value Input" on the "override 1, frost alarm" parameter card
 - Setting: "enable"

Alternatively, a switching input can be used instead of a control value input. If the "Control Value Input" parameter on the "override 1, frost alarm" parameter card is disabled, this communication object is hidden and communication object "A Override 1, Frost Alarm" is displayed.

A Override 1, Frost Alarm, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Frost Alarm, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active. If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Frost Alarm, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, frost alarm" parameter card
 - Setting: "enable"

More information:

Parameters of the "override 1, wind alarm" parameter card

7.1.11 Override "lock"

The "Lock" override function, for example, can be used to protect an internal element if a window is open.

7.1.11.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.1.11.2 Parameters on the “Override x, lock” parameter card

Control Value Input

Parameters	Settings
Control Value Input	disable enable

Function:

This parameter can be set whether instead of the switching input, a control value input should be used for the activation and deactivation of the override function.

Other parameters:

If the parameter “Control Value Input” is in status “enable,” parameters “Control Value Input Data Type,” “Threshold for Off (\leq),” and “Threshold for On (\geq)” are displayed.

Communication object:

If the parameter “Control Value Input” is in status “enable,” the communication object “A Override 1, Lock” is hidden and the communication object “A Override 1, Lock, Control” is displayed instead.

More information:

Communication object “A Override 1, lock, control value” [→ 111]

Control Value Input Data Type

Parameters	Settings
Control Value Input Data Type	Percentage (%) DPT 5.001 Value (8-bit) DPT 5.010 2-byte unsigned value DPT 7.x 2-byte signed value DPT 8.x 2-byte floating point number DPT 9.x Temperature (°C) DPT 9.001 Illuminance (lx) DPT 9.004 Wind speed (m/s) DPT 9.005 Current (mA) DPT 9.021 Power (kW) DPT 9.024 Wind speed (km/h) DPT 9.028 4-byte unsigned value DPT 12.x 4-byte signed value DPT 13.x 4-byte floating point number DPT 14.x Power (W) DPT 14.056

Function:

This parameter defines the datapoint type of the communication object “control value.”

The following datapoint types can be set:

- Percentage (%) DPT 5.001:
Corresponds to the datapoint type “5.001 percent (0...100 %).”
- Value (8-bit) DPT 5.010:
Corresponds to the datapoint type “5.010 counting impulses (0 ... 255).”
- 2-byte unsigned value DPT 7.x:
Corresponds to the datapoint type “2 bytes without prefix.”
- 2-byte signed value DPT 8.x:
Corresponds to the datapoint type “2 bytes with prefix.”
- 2-byte floating point number DPT 9.x:
Corresponds to the datapoint type “2 bytes floating value.”
- Temperature (°C) DPT 9.001:
Corresponds to the datapoint type “9.001 temperature °C.”

- Illuminance (lx) DPT 9.004:
Corresponds to the datapoint type "9.004 illuminance lx."
- Wind speed (m/s) DPT 9.005:
Corresponds to the datapoint type "9.005 speed (m/s)."
- Current (mA) DPT 9.021:
Corresponds to the datapoint type "9.021 current mA."
- Power (kW) DPT 9.024:
Corresponds to the datapoint type "9.024 output kW."
- Wind speed (km/h) DPT 9.028:
Corresponds to the datapoint type "9.028 wind speed (km/h)."
- 4-byte unsigned value DPT 12.x:
Corresponds to the datapoint type "4 bytes without prefix."
- 4-byte signed value DPT 13.x:
Corresponds to the datapoint type "4 bytes with prefix."
- 4-byte floating point number DPT 14.x:
Corresponds to the datapoint type "4 bytes floating value."
- Power (W) DPT 14.056:
Corresponds to the datapoint type "14.056 output W."

Threshold for Off (<=)

Parameters	Settings
Threshold for Off (<=)	0...100

Function:

This parameter determines the threshold for "Off."

If the value of this communication object is equal to or smaller than the configured threshold for "Off," then the determined switching value is equal to "Off" (0).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Threshold for On (>=)

Parameters	Settings
Threshold for On (>=)	0...100

Function:

This parameter determines the threshold for "On."

If the value of this communication object is equal to or greater than the configured threshold for "On," then the determined switching value is equal to "On" (1).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Invert Override Control

Parameters	Settings
Invert Override Control	No Yes

Function:

This parameter is used to set whether the input value of communication object "A Override 1, Wind Alarm" should be used directly or inverted.

More information:

Communication object "A Override 1, lock" [→ 110]

Lock direct operation if override is active

Parameters	Settings
Lock direct operation if override is active	disable enable

Function:

If the parameter is enabled, operation on the device is prevented when the override is active.

Note:

Even one active override that blocks direct operation prevents operation on the device.

Delay time for override activation

Parameter	Settings
Delay time for override activation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the activation of the override.

Delay time for override deactivation

Parameters	Settings
Delay time for override deactivation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the deactivation of the override.

Behavior on override deactivation

Parameters	Settings
Behavior on override deactivation	Up Down No change According to parameter Updated value

Function:

This parameter is used to specify how the shutter behaves when an override is deactivated.

The following settings are possible:

- Up:
The blind moves up.
- Down:
The blind moves down.
- No change:
The value at the output is retained until a new value arrives at the input of the function block.

- According to parameter:
The blind moves to the value set in parameters "Solar protection position in %" and "Slats position in %."
- Updated value:
The blind moves to the value that is on the input of the function block.

Other parameters:

If the "Behavior on override deactivation" parameter is set to "According to parameter," the following parameters are displayed:

- "Solar protection position in %"
- "Slats position in %"
- "Behavior if no sync"

More information:

- Parameter "Solar protection position in %" [→ 40]
- Parameter "Slats position in %" [→ 108]
- Parameter "Behavior if no sync" [→ 109]

Solar protection position in %

Parameters	Settings
Solar protection position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the blind is to be moved when the override is activated or deactivated.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override activation"
 - Setting: "According to parameter"

or

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

- Parameter "Behavior on override activation" [→ 95]
- Parameter "Behavior on override deactivation" [→ 107]

Slats position in %

Parameters	Settings
Slats position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the slats are to be moved when the override is activated or deactivated.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override activation"
 - Setting: "According to parameter"

or

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

- Parameter "Behavior on override activation" [→ 95]
- Parameter "Behavior on override deactivation" [→ 107]

Behavior if no sync

Parameters	Settings
Behavior if no sync	Up Down No change Stop

Function:

This parameter is used to set the behavior of the shutter when an override is activated or deactivated (setting "According to parameter"), if the device is not synchronized.

This applies as long as runtime parameters have been changed by an ETS download or the "Behavior after download" parameter is set to "Use ETS parameter" and no new calibration has been performed.

The following settings are possible:

- Up:
The blind moves all the way up.
- Down:
The blind moves all the way down.
- No change:
All subsequent functions (manual operation, automatic operation etc.) are blocked (Behavior on override activation). The value at the output is retained until a new value arrives at the input of the function block (Behavior on override deactivation).
- Stop:
The blind stops at the position just assumed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override activation"
– Setting: "According to parameter"

or

- Parameter "Behavior on override deactivation"
– Setting: "According to parameter"

More information:

- Parameter "Behavior on override activation" [→ 95]
- Parameter "Behavior on override deactivation" [→ 107]

Status Override

Parameter	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter "Status Override" is set to "enable," additional parameters for sending the status of the override are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

Start value/behavior of override input on bus voltage recovery

Parameters	Settings
Start value/behavior of override input on bus voltage recovery	Off On Deactivated Last value

Function:

This parameter can be used to set the desired starting value or the desired start behavior of the override input on bus voltage recovery.

The following settings are possible:

- Off:
The override function block behaves as if an "off" had been received at the override block input when bus voltage is recovered.
- On:
The override function block behaves as if an "on" had been received at the override block input when bus voltage is recovered.
- Deactivated:
The override function block is deactivated on bus voltage recovery.
- Last value:
The override input of the function block is then set to the value stored on bus voltage failure.

7.1.11.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 4, Lock

No.	Object name	Function	Datapoint type	Flags
41	A Override 4, Lock	On/Off	1.003 enable	CW

Function:

This communication object can be used to lock the sunblind against changes for as long as the lock is active irrespective of the upstream sub-functions.

The lock is active when the value of the communication object is "on."

If an inversion is configured, the lock is active when the object value is "off."

Availability/alternative:

The communication object "A Override 4, Lock" is displayed if the following configuration has been made:

- Parameter "Override 4" on the "functions, objects" parameter card:
 - Setting: "Lock"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, lock" is set to "enable," this communication object is hidden and communication object "A Override 4, Lock, Control" is shown instead.

A Override 1, Lock, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Lock, Control	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W)	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Availability/alternative:

The communication object “A Override 1, Lock, Control” is displayed if the following configuration has been made:

- Parameter “Override 1” on the “functions, objects” parameter card:
 - Setting: “Lock”
- Parameter “Control Value Input” on the “override 1, lock” parameter card
 - Setting “enable”

Alternatively, a switching input can be used instead of a control value input. If the parameter “Control Value Input” on parameter card “override 1, lock” is set to “enable,” this communication object is hidden and communication object “A Override 1, Lock” is shown instead.

A Override 1, Lock, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Lock, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active. If a logical “0” is sent, no override is active; if a logical “1” is sent, an override is active.

Availability:

The communication object “A Override 1, Lock, Status” is displayed if the following configuration has been made:

- Parameter “Status Override” on the “override 1, lock” parameter card
 - Setting: “enable”

7.1.12 “Forced position” override

The override function “forced position” can be used, for example, to protect cleaners from getting injured by the solar protection while cleaning windows.

7.1.12.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.1.12.2 Parameters on the "Override x, forced position" parameter card

Control Value Input

Parameters	Settings
Control Value Input	disable enable

Function:

This parameter can be set whether instead of the switching input, a control value input should be used for the activation and deactivation of the override function.

Other parameters:

If the parameter "Control Value Input" is in status "enable," parameters "Control Value Input Data Type," "Threshold for Off (<=)," and "Threshold for On (>=)" are displayed.

Communication object:

If the parameter "Control Value Input" is in status "enable," the communication object "A Override 1, Forced position" is hidden and the communication object "A Override 1, Forced position, Control" is displayed instead.

More information:

Communication object "A Override 1, forced position, control value" [→ 119]

Control Value Input Data Type

Parameters	Settings
Control Value Input Data Type	Percentage (%) DPT 5.001 Value (8-bit) DPT 5.010 2-byte unsigned value DPT 7.x 2-byte signed value DPT 8.x 2-byte floating point number DPT 9.x Temperature (°C) DPT 9.001 Illuminance (lx) DPT 9.004 Wind speed (m/s) DPT 9.005 Current (mA) DPT 9.021 Power (kW) DPT 9.024 Wind speed (km/h) DPT 9.028 4-byte unsigned value DPT 12.x 4-byte signed value DPT 13.x 4-byte floating point number DPT 14.x Power (W) DPT 14.056

Function:

This parameter defines the datapoint type of the communication object "control value."

The following datapoint types can be set:

- Percentage (%) DPT 5.001:
Corresponds to the datapoint type "5.001 percent (0...100 %)."
- Value (8-bit) DPT 5.010:
Corresponds to the datapoint type "5.010 counting impulses (0 ... 255)."
- 2-byte unsigned value DPT 7.x:
Corresponds to the datapoint type "2 bytes without prefix."
- 2-byte signed value DPT 8.x:
Corresponds to the datapoint type "2 bytes with prefix."
- 2-byte floating point number DPT 9.x:
Corresponds to the datapoint type "2 bytes floating value."
- Temperature (°C) DPT 9.001:
Corresponds to the datapoint type "9.001 temperature °C."
- Illuminance (lx) DPT 9.004:
Corresponds to the datapoint type "9.004 illuminance lx."
- Wind speed (m/s) DPT 9.005:
Corresponds to the datapoint type "9.005 speed (m/s)."
- Current (mA) DPT 9.021:
Corresponds to the datapoint type "9.021 current mA."
- Power (kW) DPT 9.024:
Corresponds to the datapoint type "9.024 output kW."
- Wind speed (km/h) DPT 9.028:
Corresponds to the datapoint type "9.028 wind speed (km/h)."
- 4-byte unsigned value DPT 12.x:
Corresponds to the datapoint type "4 bytes without prefix."
- 4-byte signed value DPT 13.x:
Corresponds to the datapoint type "4 bytes with prefix."
- 4-byte floating point number DPT 14.x:
Corresponds to the datapoint type "4 bytes floating value."
- Power (W) DPT 14.056:
Corresponds to the datapoint type "14.056 output W."

Threshold for Off (<=)

Parameters	Settings
Threshold for Off (<=)	0...100

Function:

This parameter determines the threshold for "Off."

If the value of this communication object is equal to or smaller than the configured threshold for "Off," then the determined switching value is equal to "Off" (0).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Threshold for On (>=)

Parameters	Settings
Threshold for On (>=)	0...100

Function:

This parameter determines the threshold for "On."

If the value of this communication object is equal to or greater than the configured threshold for "On," then the determined switching value is equal to "On" (1).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Invert Override Control

Parameters	Settings
Invert Override Control	No Yes

Function:

This parameter is used to set whether the input value of communication object "A Override 1, Forced position" should be used directly or inverted.

More information:

Communication object "A Override 1, forced position" [→ 118]

Lock direct operation if override is active

Parameters	Settings
Lock direct operation if override is active	disable enable

Function:

If the parameter is enabled, operation on the device is prevented when the override is active.

Note:

Even one active override that blocks direct operation prevents operation on the device.

Delay time for override activation

Parameter	Settings
Delay time for override activation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the activation of the override.

Delay time for override deactivation

Parameters	Settings
Delay time for override deactivation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the deactivation of the override.

Delay time for activation/deactivation behavior

Parameters	Settings
Delay time for activation/deactivation behavior (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time for the behavior after activation and deactivation of the override.

Monitoring time

Parameter	Settings
Monitoring time (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter is used to set whether the cyclical input of telegrams to the communication object for central override should be monitored and how long the monitoring time is.

With a parameter value of 00:00:00, no monitoring takes place.

For all other parameter values, the cyclical input of deactivation telegrams is monitored. If the monitoring time is exceeded, the override is activated automatically.

Override Duration

Parameter	Settings
Override Duration (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set the desired on period with activated override.

The override duration is then re-started with each incoming activation telegram.

With a parameter value of 00:00:00, the override duration is unlimited.

Note:

If the monitoring time is simultaneously set not equal to 00:00:00, the following behavior will be observed:

- **Monitoring time < override duration:**

The override duration is triggered using a cyclically incoming activation telegram. The configured override duration is not effective.

- **Monitoring time > override duration:**

With the elapse of the override duration, the override is switched off. With the next incoming activation telegram for monitoring, it is re-activated and the override duration begins again.

Solar protection position in %

Parameters	Settings
Solar protection position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the solar protection is to be moved when the override is activated or deactivated.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

Parameter "Behavior on override deactivation" [→ 117]

Slats position in %

Parameters	Settings
Slats position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the slats are to be moved when the override is activated or deactivated.

Availability:

The parameter is displayed if the "Behavior on override deactivation" parameter is set to "According to parameter."

More information:

Parameters on the "Override x, forced position" parameter card [→ 117]

Behavior if no sync

Parameters	Settings
Behavior if no sync	Up Down No change Stop

Function:

This parameter is used to set the behavior of the shutter when an override is activated or deactivated (setting "According to parameter"), if the device is not synchronized.

This applies as long as runtime parameters have been changed by an ETS download or the "Behavior after download" parameter is set to "Use ETS parameter" and no new calibration has been performed.

The following settings are possible:

- Up:
The blind moves all the way up.
- Down:
The blind moves all the way down.
- No change:
All subsequent functions (manual operation, automatic operation etc.) are blocked (Behavior on override activation). The value at the output is retained until a new value arrives at the input of the function block (Behavior on override deactivation).
- Stop:
The blind stops at the position just assumed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override activation"
 - Setting: "According to parameter"
- or
- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

Behavior on override deactivation

- Parameter “Behavior on override activation” [→ 95]
- Parameter “Behavior on override deactivation” [→ 117]

Parameters	Settings
Behavior on override deactivation	Up Down No change According to parameter Updated value

Function:

This parameter is used to specify how the shutter behaves when an override is deactivated.

The following settings are possible:

- Up:
The blind moves up.
- Down:
The blind moves down.
- No change:
The value at the output is retained until a new value arrives at the input of the function block.
- According to parameter:
The blind moves to the value set in parameters “Solar protection position in %” and “Slats position in %.”
- Updated value:
The blind moves to the value that is on the input of the function block.

Other parameters:

If the “Behavior on override deactivation” parameter is set to “According to parameter,” the following parameters are displayed:

- “Solar protection position in %”
- “Slats position in %”
- “Behavior if no sync”

More information:

- Parameter “Solar protection position in %” [→ 40]
- Parameter “Slats position in %” [→ 108]
- Parameter “Behavior if no sync” [→ 116]

Status Override

Parameter	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter “Status Override” is set to “enable,” additional parameters for sending the status of the override are displayed.

Parameters that are visible if the “Status...” parameter is set to “enable” [→ 136]

Start value/behavior of override input on bus voltage recovery

Parameters	Settings
Start value/behavior of override input on bus voltage recovery	Off On Deactivated Last value

Function:

This parameter can be used to set the desired starting value or the desired start behavior of the override input on bus voltage recovery.

The following settings are possible:

- Off:
The override function block behaves as if an "off" had been received at the override block input when bus voltage is recovered.
- On:
The override function block behaves as if an "on" had been received at the override block input when bus voltage is recovered.
- Deactivated:
The override function block is deactivated on bus voltage recovery.
- Last value:
The override input of the function block is then set to the value stored on bus voltage failure.

7.1.12.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 1, Forced position

No.	Object name	Function	Datapoint type	Flags
29	A Override 1, Forced position	On/Off	1.003 enable	CW

Function:

This communication object can be used to move the sunblind into a forced position irrespective of the upstream sub-functions.

"Forced position" is active, if the value of the communication object is "On."

If an inversion is configured, the "forced position" is active when the value of the communication object is "Off."

Availability/alternative:

The communication object "A Override 1, Forced position" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card:
 - Setting: "Forced position"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on parameter card "override 1, lock" is set to "enable," this communication object is hidden and communication object "A Override 1, Forced position, Control" is shown instead.

A Override 1, Forced position, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Forced position, Control	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W)	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Note:

This object can then be linked to e.g. an alarm message of a wind guard.

Availability/alternative:

The communication object “A Override 1, Forced position, Control” is displayed if the following configuration has been made:

- Parameter “Override 1” on the “functions, objects” parameter card:
 - Setting: “Forced position”
- Parameter “Control Value Input”
 - Setting: “enable”

Alternatively, a switching input can be used instead of a control value input. If the “Control Value Input” parameter on the “override 1, forced position” parameter card is set to “disable,” this communication object is hidden and communication object “A Override 1, Forced position” is shown instead.

A Override 1, Forced position, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Forced position, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active.
If a logical “0” is sent, no override is active; if a logical “1” is sent, an override is active.

Availability:

The communication object “A Override 1, Forced position, Status” is displayed if the following configuration has been made:

- Parameter “Status Override” on the “override 1, forced position” parameter card
 - Setting: “enable”

7.1.13 Override “forced control”

The override function “forced control” can be used, for example, to protect cleaners from getting injured by the solar protection while cleaning windows.

7.1.13.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.1.13.2 Parameters on the "Override x, forced control" parameter card

Lock direct operation if override is active

Parameters	Settings
Lock direct operation if override is active	disable enable

Function:

If the parameter is enabled, operation on the device is prevented when the override is active.

Note:

Even one active override that blocks direct operation prevents operation on the device.

Delay time for activation/deactivation behavior

Parameters	Settings
Delay time for activation/deactivation behavior (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time for the behavior after activation and deactivation of the override.

Behavior on override deactivation

Parameters	Settings
Behavior on override deactivation	Up Down No change According to parameter Updated value

Function:

This parameter is used to specify how the shutter behaves when an override is deactivated.

The following settings are possible:

- Up:
The blind moves up.
- Down:
The blind moves down.
- No change:
The value at the output is retained until a new value arrives at the input of the function block.
- According to parameter:
The blind moves to the value set in parameters "Solar protection position in %" and "Slats position in %."
- Updated value:
The blind moves to the value that is on the input of the function block.

Other parameters:

If the "Behavior on override deactivation" parameter is set to "According to parameter," the following parameters are displayed:

- "Solar protection position in %"
- "Slats position in %"
- "Behavior if no sync"

More information:

- Parameter "Solar protection position in %" [→ 40]
- Parameter "Slats position in %" [→ 108]
- Parameter "Behavior if no sync" [→ 116]

**Solar protection position
in %**

Parameters	Settings
Solar protection position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the solar protection is to be moved when the override is activated or deactivated.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

Parameter "Behavior on override deactivation" [→ 120]

Slats position in %

Parameters	Settings
Slats position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the slats are to be moved when the override is activated or deactivated.

Availability:

The parameter is displayed if the "Behavior on override deactivation" parameter is set to "According to parameter."

More information:

Parameters on the "Override x, forced control" parameter card [→ 120]

Behavior if no sync

Parameters	Settings
Behavior if no sync	Up Down No change Stop

Function:

This parameter is used to set the behavior of the shutter on deactivation of an override (setting "According to parameter") if the device is not synchronized.

This applies as long as runtime parameters have been changed by an ETS download or the "Behavior after download" parameter is set to "Use ETS parameter" and no new calibration has been performed.

The following settings are possible:

- Up:
The blind moves all the way up.
- Down:
The blind moves all the way down.
- No change:
All subsequent functions (manual operation, automatic operation etc.) are blocked (Behavior on override activation). The value at the output is retained until a new value arrives at the input of the function block (Behavior on override deactivation).
- Stop:
The blind stops at the position just assumed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

Parameter "Behavior on override deactivation" [→ 120]

Status Override

Parameter	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter "Status Override" is set to "enable," additional parameters for sending the status of the override are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

**Start value/behavior of
override input on bus
voltage recovery**

Parameters	Settings
Start value/behavior of override input on bus voltage recovery	Inactive Forced up Forced down As before bus voltage failure

Function:

This parameter can be used to set the desired starting value or the desired start behavior of the override input on bus voltage recovery.

The following settings are possible:

- Inactive:
The override function block is deactivated on bus voltage recovery.
- Forced up:
The override function block is activated on bus voltage recovery and the sun-blind is moved up.
- Forced down:
The override function block is activated on bus voltage recovery and the solar protection is moved down.
- As before bus voltage failure:
The override input of the function block is then set to the value stored on bus voltage failure.

7.1.13.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

**A Override 6, Forced
Control**

No.	Object name	Function	Datapoint type	Flags
51	A Override 6, Forced Control	Up/Down	2.001 switch control	CW

Function:

This 2-bit communication object enables forced moves to the upper or lower end position irrespective of the upstream sub-functions.

The following settings are possible:

Bit 1	Bit 0	Function
0	0	Forced control not active
0	1	Forced control not active
1	0	Forced control, move up
1	1	Forced control, move down

Availability:

The communication object "A Override 6, Forced Control" is displayed if the following configuration has been made:

- Parameter "Override 6" on the "functions, objects" parameter card:
 - Setting: "Forced Control"

**A Override 1, Forced
Control, Status**

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Forced Control, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active. If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Forced Control, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, forced position" parameter card
 - Setting: "enable"

7.1.14 "Range limitation" override

The "range limitation" override function can be used to limit the range of the solar protection, e.g. around windows, doors and skylights.

7.1.14.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.1.14.2 Parameters on the "Override x, range limitation" parameter card

Control Value Input

Parameters	Settings
Control Value Input	disable enable

Function:

This parameter can be set whether instead of the switching input, a control value input should be used for the activation and deactivation of the override function.

Other parameters:

If the parameter "Control Value Input" is in status "enable," parameters "Control Value Input Data Type," "Threshold for Off (<=)," and "Threshold for On (>=)" are displayed.

Communication object:

If the parameter "Control Value Input" is in status "enable," the communication object "A Override 1, Range limitation" is hidden and the communication object "A Override 1, Range limitation, Control" is displayed instead.

More information:

Communication object "A Override 1, range limitation, control value" [→ 132]

Control Value Input Data Type

Parameters	Settings
Control Value Input Data Type	Percentage (%) DPT 5.001 Value (8-bit) DPT 5.010 2-byte unsigned value DPT 7.x 2-byte signed value DPT 8.x 2-byte floating point number DPT 9.x Temperature (°C) DPT 9.001 Illuminance (lx) DPT 9.004 Wind speed (m/s) DPT 9.005 Current (mA) DPT 9.021 Power (kW) DPT 9.024 Wind speed (km/h) DPT 9.028 4-byte unsigned value DPT 12.x 4-byte signed value DPT 13.x 4-byte floating point number DPT 14.x Power (W) DPT 14.056

Function:

This parameter defines the datapoint type of the communication object "control value."

The following datapoint types can be set:

- Percentage (%) DPT 5.001:
Corresponds to the datapoint type "5.001 percent (0...100 %)."
- Value (8-bit) DPT 5.010:
Corresponds to the datapoint type "5.010 counting impulses (0 ... 255)."
- 2-byte unsigned value DPT 7.x:
Corresponds to the datapoint type "2 bytes without prefix."
- 2-byte signed value DPT 8.x:
Corresponds to the datapoint type "2 bytes with prefix."
- 2-byte floating point number DPT 9.x:
Corresponds to the datapoint type "2 bytes floating value."
- Temperature (°C) DPT 9.001:
Corresponds to the datapoint type "9.001 temperature °C."

- Illuminance (lx) DPT 9.004:
Corresponds to the datapoint type "9.004 illuminance lx."
- Wind speed (m/s) DPT 9.005:
Corresponds to the datapoint type "9.005 speed (m/s)."
- Current (mA) DPT 9.021:
Corresponds to the datapoint type "9.021 current mA."
- Power (kW) DPT 9.024:
Corresponds to the datapoint type "9.024 output kW."
- Wind speed (km/h) DPT 9.028:
Corresponds to the datapoint type "9.028 wind speed (km/h)."
- 4-byte unsigned value DPT 12.x:
Corresponds to the datapoint type "4 bytes without prefix."
- 4-byte signed value DPT 13.x:
Corresponds to the datapoint type "4 bytes with prefix."
- 4-byte floating point number DPT 14.x:
Corresponds to the datapoint type "4 bytes floating value."
- Power (W) DPT 14.056:
Corresponds to the datapoint type "14.056 output W."

Threshold for Off (<=)

Parameters	Settings
Threshold for Off (<=)	0...100

Function:

This parameter determines the threshold for "Off."

If the value of this communication object is equal to or smaller than the configured threshold for "Off," then the determined switching value is equal to "Off" (0).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Threshold for On (>=)

Parameters	Settings
Threshold for On (>=)	0...100

Function:

This parameter determines the threshold for "On."

If the value of this communication object is equal to or greater than the configured threshold for "On," then the determined switching value is equal to "On" (1).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Invert Override Control

Parameters	Settings
Invert Override Control	No Yes

Function:

This parameter is used to set whether the input value of communication object "A Override 1, Lock" should be used directly or inverted.

More information:

Communication object "A Override 1, range limitation" [→ 132]

Lock direct operation if override is active

Parameters	Settings
Lock direct operation if override is active	disable enable

Function:

If the parameter is enabled, operation on the device is prevented when the override is active.

Note:

Even one active override that blocks direct operation prevents operation on the device.

Delay time for override activation

Parameter	Settings
Delay time for override activation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the activation of the override.

Delay time for override deactivation

Parameters	Settings
Delay time for override deactivation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the deactivation of the override.

Delay time for activation/deactivation behavior

Parameters	Settings
Delay time for activation/deactivation behavior (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time for the behavior after activation and deactivation of the override.

Monitoring time

Parameter	Settings
Monitoring time (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter is used to set whether the cyclical input of telegrams to the communication object for central override should be monitored and how long the monitoring time is.

With a parameter value of 00:00:00, no monitoring takes place.

For all other parameter values, the cyclical input of deactivation telegrams is monitored. If the monitoring time is exceeded, the override is activated automatically.

Override Duration

Parameter	Settings
Override Duration (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set the desired on period with activated override. The override duration is then re-started with each incoming activation telegram. With a parameter value of 00:00:00, the override duration is unlimited.

Note:

If the monitoring time is simultaneously set not equal to 00:00:00, the following behavior will be observed:

- **Monitoring time < override duration:**
The override duration is triggered using a cyclically incoming activation telegram. The configured override duration is not effective.
- **Monitoring time > override duration:**
With the elapse of the override duration, the override is switched off. With the next incoming activation telegram for monitoring, it is re-activated and the override duration begins again.

Behavior on override activation

Parameters	Settings
Behavior on override activation	No change Stop Go to nearest limit

Function:

This parameter is used to specify how the shutter responds when an override is activated.

The following settings are possible:

- No change:
The range limitation is active and waiting for the next move commands.
- Stop:
The shutter stops at the position just assumed and range limitation is active.
- Go to nearest limit:
The shutter is moved to the next limit and range limitation is active.

Behavior on override deactivation

Parameters	Settings
Behavior on override deactivation	Up Down No change According to parameter Updated value

Function:

This parameter is used to specify how the shutter behaves when an override is deactivated.

The following settings are possible:

- Up:
The blind moves up.
- Down:
The blind moves down.
- No change:
The value at the output is retained until a new value arrives at the input of the function block.

- According to parameter:
The blind moves to the value set in parameters “Solar protection position in %” and “Slats position in %.”
- Updated value:
The blind moves to the value that is on the input of the function block.

Other parameters:

If the “Behavior on override deactivation” parameter is set to “According to parameter,” the following parameters are displayed:

- “Solar protection position in %”
- “Slats position in %”
- “Behavior if no sync”

More information:

- Parameter “Solar protection position in %” [→ 40]
- Parameter “Slats position in %” [→ 108]
- Parameter “Behavior if no sync” [→ 116]

Solar protection position in %

Parameters	Settings
Solar protection position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the solar protection is to be moved when the override is activated or deactivated.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter “Behavior on override deactivation”
 - Setting: “According to parameter”

More information:

Parameter “Behavior on override deactivation” [→ 128]

Slats position in %

Parameters	Settings
Slats position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the slats are to be moved when the override is activated or deactivated.

Availability:

The parameter is displayed if the “Behavior on override deactivation” parameter is set to “According to parameter.”

More information:

Parameters on the “Override x, range limitation” parameter card [→ 128]

Behavior if no sync

Parameters	Settings
Behavior if no sync	Up Down No change Stop

Function:

This parameter is used to set the behavior of the shutter on deactivation of an override (setting "According to parameter") if the device is not synchronized.

This applies as long as runtime parameters have been changed by an ETS download or the "Behavior after download" parameter is set to "Use ETS parameter" and no new calibration has been performed.

The following settings are possible:

- Up:
The blind moves all the way up.
- Down:
The blind moves all the way down.
- No change:
All subsequent functions (manual operation, automatic operation etc.) are blocked (Behavior on override activation). The value at the output is retained until a new value arrives at the input of the function block (Behavior on override deactivation).
- Stop:
The blind stops at the position just assumed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

Parameter "Behavior on override deactivation" [→ 128]

Upper limit for position of solar protection in %

Parameters	Settings
Upper limit for position of solar protection in %	0...100

Function:

This parameter can be used to set the upper limit for solar protection using percentages. The maximum the sunblind can then move up is to this height.

Note:

If the "Upper limit for position of solar protection in %" parameter is greater than the "Lower limit for position of solar protection in %" parameter, the higher value is automatically used as the lower limit for the solar protection.

Lower limit for position of solar protection in %

Parameters	Settings
Lower limit for position of solar protection in %	0...100

Function:

This parameter can be used to set the lower limit for solar protection using percentages. The maximum the sunblind can then move down is to this height.

Note:

If the “Upper limit for position of solar protection in %” parameter is greater than the “Lower limit for position of solar protection in %” parameter, the higher value is automatically used as the lower limit for the solar protection.

Status Override

Parameter	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter “Status Override” is set to “enable,” additional parameters for sending the status of the override are displayed.

Parameters that are visible if the “Status...” parameter is set to “enable” [→ 136]

Start value/behavior of override input on bus voltage recovery

Parameters	Settings
Start value/behavior of override input on bus voltage recovery	Off On Deactivated Last value

Function:

This parameter can be used to set the desired starting value or the desired start behavior of the override input on bus voltage recovery.

The following settings are possible:

- Off:
The override function block behaves as if an “off” had been received at the override block input when bus voltage is recovered.
- On:
The override function block behaves as if an “on” had been received at the override block input when bus voltage is recovered.
- Deactivated:
The override function block is deactivated on bus voltage recovery.
- Last value:
The override input of the function block is then set to the value stored on bus voltage failure.

7.1.14.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 7, Range limitation

No.	Object name	Function	Datapoint type	Flags
53	A Override 7, Range limitation	On/Off	1.003 enable	CW

Function:

"Range limitation" is active, if the value of the communication object is "On." In that case, the solar protection can only be moved within a certain range.

If an inversion is configured, "range limitation" is active when the communication object value is "Off."

Availability/alternative:

The communication object "A Override 7, Range limitation" is displayed if the following configuration has been made:

- Parameter "Override 7" on the "functions, objects" parameter card:
 - Setting: "Range limitation"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, range limitation" is set to "enable," this communication object is hidden and communication object "A Override 7, Range limitation, Control" is shown instead.

A Override 1, Range limitation, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Range limitation, Control	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W)	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Availability/alternative:

The communication object "A Override 1, Range limitation, Control" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card:
 - Setting: "Range limitation"
- Parameter "Control Value Input"
 - Setting: "enable"

Alternatively, a switching input can be used instead of a control value input. If the parameter “Control Value Input” on the parameter card “override 1, range limitation” is set to “locked,” this communication object is hidden and communication object “A Override 1, Range limitation” is shown instead.

A Override 1, Range limitation, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Range limitation, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active. If a logical “0” is sent, no override is active; if a logical “1” is sent, an override is active.

Availability:

The communication object “A Override 1, Range limitation, Status” is displayed if the following configuration has been made:

- Parameter “Status Override” on the “override 1, range limitation” parameter card
 - Setting: “enable”

7.1.15 Override “user-defined”

For use cases in which none of the predefined override functions can be used, the “user-defined override function” is available.

This override function enables monitoring of cyclically incoming telegrams. In this case the override is activated when telegrams do not arrive within the monitoring time.

7.1.15.1 Parameters of the “functions, objects” parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card “override [number], [type of override]” is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.1.15.2 Parameters on the “Override 1, user-defined control” parameter card

The parameters for the "user-defined" override on the "Override 1, user-defined control" parameter card are identical to the parameters for the "wind alarm" override on the "Override 1, wind alarm" parameter card.

More information:

Parameters on the "Override 1, wind alarm" parameter card [→ 92]

7.1.15.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 7, User-defined Control

No.	Object name	Function	Datapoint type	Flags
56	A Override 7, User-defined Control	On/Off	On/Off	CRT

Function:

This communication object can be used to move the solar protection into an end position or a certain position or stop it irrespective of the upstream sub-functions. The state can be retained permanently or for a limited time.

User-defined control is active when the value of the communication object is "on."

If an inversion is configured, user-defined control is active when the value of the communication object is "Off."

The behavior upon activation or deactivation of user-defined control can be configured using a parameter.

The user-defined control object ensures that all upstream function blocks are internally saved, but not evaluated and sent.

Availability/alternative:

The communication object "A Override 7, User-defined Control" is displayed if the following configuration has been made:

- Parameter "Override 7" on the "functions, objects" parameter card:
 - Setting: "User defined"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, user-defined control" is set to "enable," this communication object is hidden and communication object "A Override 7, User-defined Control, Control Value" is shown instead.

A Override 1, User-defined Control, Control Value

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, User-defined Control, Control Value	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.* 4-byte float value 14.056 power (W)	CW

Function:

This communication object can be used to move the solar protection into an end position or a certain position or stop it irrespective of the upstream sub-functions. The state can be retained permanently or for a limited time.

User-defined control is active when the value of the communication object is “on.” If an inversion is configured, user-defined control is active when the object value is “off.”

The behavior upon activation or deactivation of user-defined control can be configured using a parameter.

Availability/alternative:

The communication object “A Override 1, User-defined Control, Control Value” is displayed if the following configuration has been made:

- Parameter “Override 1” on the “functions, objects” parameter card:
 - Setting: “User defined”

Alternatively, a switching input can be used instead of a control value input. If the parameter “Control Value Input” on the parameter card “override 1, user-defined control” is set to “locked,” this communication object is hidden and communication object “A Override 1, User-defined Control” is shown instead.

A Override 1, User-defined Control, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, User-defined Control, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active. If a logical “0” is sent, no override is active; if a logical “1” is sent, an override is active.

Availability:

The communication object “A Override 1, User-defined Control, Status” is displayed if the following configuration has been made:

- Parameter “Status Override” of the “override 1, user-defined control” parameter card
 - Setting: “enable”

7.1.16 Status

7.1.16.1 Parameters that are visible if the "status ..." parameter is set to "enable"

Send status on request

Parameter	Settings
Send status on request	disable enable

Function:

This parameter can be used to set whether the status of the communication object is sent upon request or whether requests for the status value will be rejected.

The request is triggered via the communication object "send status values."

Availability:

The parameter "Send status on request" is only displayed if the corresponding "Status..." parameter is set to "enable."

Send status on change of status

Parameter	Settings
Send status on change of status	disable enable

Function:

This parameter can be used to set whether the value of the status object is automatically sent after each status change.

Availability:

The parameter "Send status on change of status" is only displayed if the corresponding "Status..." parameter is set to "enable."

Send status cyclically

Parameter	Settings
Send status cyclically (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set the time interval at which the value of the status object is sent cyclically.

If this is set to "00:00:00," cyclic sending is deactivated.

Availability:

The parameter "Send status cyclically" is only displayed if the corresponding "Status..." parameter is set to "enable."

7.1.16.2 Parameters on the “Functions, objects” parameter card

Status calibration moving time

Parameter	Settings
Status calibration moving time	disable enable

Function:

This parameter is used to set whether a “A Status calibration moving time” communication object is to be made available for the channel.

This status object is used to report that calibration of the moving time has been executed successfully.

Other parameters:

If the parameter is enabled, additional parameters for configuring the status are displayed.

Parameters that are visible if the “Status...” parameter is set to “enable” [→ 136]

Communication object:

The communication object “A Status calibration moving time” is only displayed if the parameters “End position detection” and “Status calibration moving time” are set to “enable” (“Functions, objects” parameter card).

Availability:

The “Status calibration moving time” parameter is only displayed if the following configuration has been made:

- Parameter “End position detection”
 - Setting: “enable”

More information:

- Communication object “A Status calibration moving time” [→ 148]
- Parameter “End position detection” [→ 29]

Overrides status

Parameter	Settings
Overrides status	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of the overrides. This communication object is used to report whether at least one override is active.

Availability:

The “Overrides status” parameter is displayed as soon as an override is activated.

Other parameters:

If the “Overrides status” parameter is set to “enable,” additional parameters for configuring the status are displayed.

Parameters that are visible if the “Status...” parameter is set to “enable” [→ 136]

Communication object:

If the “Overrides status” parameter is set to “enable,” the communication object “A Overrides status” is displayed.

More information:

Communication object “A overrides status” [→ 147]

Status direct operation

Parameter	Settings
Status direct operation	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of direct operation. This communication object is used to report whether direct operation is active.

Availability:

The "Status direct operation" parameter is only displayed if the following configuration has been made:

- Parameter "Direct operation"
 - Setting: "enable"

Other parameters:

If the "Status direct operation" parameter is set to "enable," additional parameters are displayed which can be used to set when a status is sent.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

Communication object:

If the "Status direct operation" parameter is set to "enable," the communication object "A Status direct operation" is displayed.

More information:

- Parameter "Direct operation" [→ 89]
- Communication object "A Status direct operation" [→ 91]

Status automatic mode

Parameter	Settings
Status automatic mode	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of automatic operation. This communication object is used to report whether automatic operation is active.

Availability:

The "Status automatic mode" parameter is only displayed if the following configuration has been made:

- Parameter "Automatic operation"
 - Setting: "enable"

Other parameters:

If the "Status automatic mode" parameter is enabled, additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

Communication object:

If the "Status automatic mode" parameter is set to "enable," the communication object "A Status automatic operation" is displayed.

More information:

- Automatic operation [→ 80]
- Parameter "Automatic operation" [→ 32]
- Communication object "A Status automatic operation" [→ 143]

Status solar protection position in %

Parameter	Settings
Status solar protection position in %	disable enable

Function:

This parameter is used to set whether a "A Status solar protection position" communication object is to be made available for the channel. The communication object displays the current solar protection position in percent.

Other parameters:

If the parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

If the "Send status on change of status" parameter is set to "enable," the following parameter is displayed:

- Parameter "Send status while sunblind is moving"

If the "Send status while sunblind is moving" parameter is set to "enable," the following parameters are displayed:

- Parameter "Value change since last sent (%)"
- Parameter "Block time for sending of status"

Communication object:

If the "Status solar protection position in %" parameter is set to "enable," the following communication object is displayed:

- "A Status solar protection position"

More information:

- Communication object "A Status solar protection position" [→ 144]
- Parameter "Send status while element is moving" [→ 35]
- Parameter "Value change since last sent (%)" [→ 35]
- Parameter "Block time for sending of status" [→ 36]

Status slat position in %

Parameter	Settings
Status slat position in %	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of the slat position. This communication object is used to report the slat position of the blind. The object displays the current slat position in %.

The status is used to implement the "1 button solar protection" function from different operating terminals.

Other parameters:

If the parameter is set to "enable," additional parameters for configuration of the status are displayed:

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

Communication object:

If the "Status slat position in %" parameter is set to "enable," the communication object "A Status slat position" is displayed.

More information:

Communication object "A Status slat position" [→ 144]

Status moving direction

Parameter	Settings
Status moving direction	disable enable

Function:

This parameter is used to set whether a "A Status moving direction" communication object is to be made available for the channel. This status object reports whether the solar protection is moving up or down. The status is used to implement the "1 button solar protection" function from different operating terminals.

Other parameters:

If the parameter is to "enable," additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

Communication object:

If the "Status moving direction" parameter is set to "enable," the following communication object is displayed:

- "A Status moving direction"

More information:

Communication object "A Status moving direction" [→ 144]

Status drive moving

Parameter	Settings
Status drive moving	disable enable

Function:

This parameter is used to set whether a "A Status drive moving" communication object is to be made available for the channel. The status object is used to report if the solar protection is current moving or whether it has reached its end position.

Other parameters:

If the parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

Communication object:

If the "Status drive moving" parameter is set to "enable," the communication object "A Status drive moving" is displayed.

More information:

Communication object "A Status drive moving" [→ 145]

Status end position

Parameters	Settings
Status end position	No Yes Only upper end position status Only lower end position status

Function:

This parameter is used to set whether no, both or only 1 communication object "status upper end position" or "status lower end position" is to be available. The communication object "status upper end position" (or "status lower end position") is only equal to logical "1," if the shutter is in the upper (or lower) end position.

Other parameters:

If the "Status end position" parameter is set to "Yes," "Only upper end position status" or "Only lower end position status," additional parameters for configuring the status are displayed.

Parameters that are visible if the "status ..." parameter is set to "enable"

If the parameter is set to "Yes" or "Only lower end position status," the "Lower end position reached after tilting up" parameter is displayed.

If the parameter is set to "Yes," "Only lower end position status" or "Only lower end position status," the "Send only end position On" parameter is displayed.

Communication objects:

- If the parameter is set to "Yes," the communication objects "A Status upper end position" and "A Status lower end position" are displayed.
- If the parameter is set to "Only upper end position status," only the communication object "A Status upper end position" is displayed.
- If the parameter is set to "Only lower end position status," only the communication object "A Status lower end position" is displayed.

More information:

- Parameter "Lower end position reached after tilting up" [→ 39]
- Parameter "Send only end position On" [→ 143]
- Communication object "A - Status upper end position" [→ 145]
- Communication object "A - Status lower end position" [→ 145]

Status end position

Parameter	Settings
Status end position	No Yes Only upper end position status Only lower end position status

Function:

This parameter is used to set whether no, both or only 1 communication object "status upper end position" or "status lower end position" is to be available. The communication object "status upper end position" (or "status lower end position") is only equal to logical "1," if the blind is in the upper (or lower) end position.

Other parameters:

If the "Status end position" parameter is set to "Yes," "Only upper end position status" or "Only lower end position status," additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

If the parameter is set to "Yes" or "Only lower end position status," the "Lower end position reached after tilting up" parameter is displayed.

If the parameter is set to "Yes," "Only lower end position status" or "Only lower end position status," the "Send only end position On" parameter is displayed.

Communication objects:

- If the parameter is set to "Yes," the communication objects "A Status upper end position" and "A Status lower end position" are displayed.
- If the parameter is set to "Only upper end position status," only the communication object "A Status upper end position" is displayed.
- If the parameter is set to "Only lower end position status," only the communication object "A Status lower end position" is displayed.

More information:

- Parameter "Lower end position reached after tilting up" [→ 39]
- Parameter "Send only end position On" [→ 143]
- Communication object "A - Status upper end position" [→ 145]
- Communication object "A - Status lower end position" [→ 145]

**Send only end position
On**

Parameters	Settings
Send only end position On	disable enable

Function:

This parameter is used to set that the solar protection actuator sends a value when the end position is reached but not when the end position is left.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Status end position"
 - Setting: "Yes," "Only upper end position status" or "Only lower end position status"

More information:

Parameter "Status end position" [→ 141]

7.1.16.3 Parameters on the "Override x, [type of override]" parameter card

Status Override

Parameter	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter "Status Override" is set to "enable," additional parameters for sending the status of the override are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

7.1.16.4 Communication objects

**A Status automatic
operation**

No.	Object name	Function	Datapoint type	Flags
15	A Status automatic operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether automatic operation is active. If a logical "0" is sent, automatic operation is deactivated, if a logical "1" is sent, automatic operation is activated.

Availability:

The communication object "A Status automatic operation" is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Status automatic mode" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

Automatic operation [→ 80]

A Status solar protection position

No.	Object name	Function	Datapoint type	Flags
16	A Status solar protection position	8-bit value	5.001 percentage (0..100%)	CRT

Function:

This object can be used to query the current position of the blind (solar protection position) and, if appropriate, the position can also be sent automatically when the value is changed. The upper end position corresponds to 0 % and the lower end position to 100 %.

Availability:

The communication object "A Status solar protection position" is displayed if the following configuration has been made:

- Parameter "Status solar protection position in %" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status slat position

No.	Object name	Function	Datapoint type	Flags
17	A Status slat position	8-bit value	5.001 percentage (0..100%)	CRT

Function:

Depending on the selected parameter setting, this status object can be used to request the slat position and, if applicable, send it automatically if value has been changed.

Availability:

The communication object "A Status slat position" is displayed if the following configuration has been made:

- Parameter "Status slat position in %" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status moving direction

No.	Object name	Function	Datapoint type	Flags
18	A Status moving direction	Up/Down	1.001 switch	CRT

Function:

This status object reports whether the sunblind is moving up or down. When a logical "0" is received, the solar protection moves up, when a logical "1" is received, it moves down.

The status object is used to implement the "1 button solar protection" function from different operating terminals.

Availability:

The communication object "A Status moving direction" is displayed if the following configuration has been made:

- Parameter "Status moving direction" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status drive moving

No.	Object name	Function	Datapoint type	Flags
19	A Status drive moving	Yes/No	1.002 boolean	CRT

Function:

This status object is used to report if the solar protection is current moving or whether it has reached its end position.

If a logical “1” is received, the solar protection is currently moving. If a logical “0” is received, the solar protection has reached its end position.

The “Invert value for drive moving” parameter can be used to set that this value is inverted.

Availability:

The communication object “A Status drive moving” is displayed if the following configuration has been made:

- Parameter “Status drive moving” on the “functions, objects” parameter card:
 - Setting: “enable”

A Status upper end position

No.	Object name	Function	Datapoint type	Flags
22	A Status upper end position	On/Off	1.002 boolean	CRT

Function:

This status object reports whether the sunblind has reached its upper end position. If a logical “0” is sent, the solar protection has not reached the upper end position, if a logical “1” is sent, the solar protection has successfully reached the upper end position.

Availability:

The communication object “A Status upper end position” is displayed if the following configuration has been made:

- Parameter “Status end position” on the “functions, objects” parameter card
 - Setting: “Yes” or “Only upper end position status”

A Status lower end position

No.	Object name	Function	Datapoint type	Flags
23	A Status lower end position	On/Off	1.002 boolean	CRT

Function:

This status object reports whether the sunblind has reached its lower end position. If a logical “0” is sent, the solar protection has not reached the lower end position, if a logical “1” is sent, the solar protection has successfully reached the lower end position.

Availability:

The communication object “A Status lower end position” is displayed if the following configuration has been made:

- Parameter “Status end position” on the “functions, objects” parameter card
 - Setting: “Yes” or “Only lower end position status”

A Override 1, [type of override], status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active:

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 1, [type of override], status" is only displayed, if the following configuration has been made:

- Parameter "Status Override" on the "Override 1, [type of override]" parameter card
 - Setting: "enable"

A Override 2, [type of override], status

No.	Object name	Function	Datapoint type	Flags
36	A Override 2, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 2 is active:

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 2, [type of override], status" is only displayed, if the following configuration has been made:

- Parameter "Status Override" on the "Override 2, [type of override]" parameter card
 - Setting: "enable"

A Override 3, [type of override], status

No.	Object name	Function	Datapoint type	Flags
40	A Override 3, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 3 is active.

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 3, [type of override], status" is only displayed, if the following configuration has been made:

- Parameter "Status Override" on the "Override 3, [type of override]" parameter card
 - "enable"

A Override 4, [type of override], status

No.	Object name	Function	Datapoint type	Flags
44	A Override 4, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 4 is active.

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object “override 4, [type of override], status” is displayed, if the following configuration has been made:

- Parameter “Status Override” on the “Override 4, [type of override]” parameter card
 - Setting: “Status Override”

A Override 5, [type of override], status

No.	Object name	Function	Datapoint type	Flags
48	A Override 5, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 5 is active:

If a logical “0” is sent, the override is not active; if a logical “1” is sent, the override is active.

Availability:

The communication object “override 5, [type of override], status” is displayed, if the following configuration has been made:

- Parameter “Status Override” on the “Override 5, [type of override]” parameter card
 - Setting: “enable”

A Override 6, [type of override], status

No.	Object name	Function	Datapoint type	Flags
52	A Override 6, [type of override], status	enable	1.002 boolean	CRT

Function:

This status object is used to report whether override 6 is active:

If a logical “0” is sent, the override is not active; if a logical “1” is sent, the override is active.

Availability:

The communication object “override 6, [type of override], status” is only displayed, if the following configuration has been made:

- Parameter “CRT” on the “Override 6, [type of override]” parameter card
 - Setting: “enable”

A Override 7, [type of override], status

No.	Object name	Function	Datapoint type	Flags
56	A Override 7, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 7 is active:

If a logical “0” is sent, the override is not active; if a logical “1” is sent, the override is active.

Availability:

The communication object “override 7, [type of override], status” is displayed, if the following configuration has been made:

- Parameter “Status Override” on the “override 7, [type of override]” parameter card
 - Setting: “CRT”

A Overrides status

No.	Object name	Function	Datapoint type	Flags
57	A Overrides status	1 = Active	1.002 boolean	CRT

Function:

This status object is used to report that an override is active. If a logical “0” is received, no override is active; if a logical “1” is received, at least one override is active.

Availability:

The communication object "A Overrides status" is displayed if the following configuration has been made:

- Parameter "Overrides status" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

Overrides [→ 91]

A Status calibration moving time

No.	Object name	Function	Datapoint type	Flags
58	A Status calibration moving time	Ok/Not ok	1.002 boolean	CRT

Function:

This status object is used to report that calibration of the moving time has been executed successfully.

If a logical "0" is received, the calibration of the move time was not successful, if a logical "1" is received, it was successful.

Availability:

The communication object "A Status calibration moving time" is displayed if the following configuration has been made:

- Parameter "End position detection" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Status calibration moving time" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status direct operation

No.	Object name	Function	Datapoint type	Flags
60	A Status direct operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether direct operation is active or not.

If a logical "0" is sent, direct operation is deactivated, if a logical "1" is sent, direct operation is activated.

Availability:

The communication object "A Status direct operation" is displayed if the following configuration has been made:

- Parameter "Direct operation" ("functions, objects" parameter card)
 - Setting: "enable"
- Parameter "Status direct operation" ("functions, objects" parameter card)
 - Setting: "enable"

More information:

Direct operation [→ 87]

7.1.17 Diagnostic functions

7.1.17.1 Parameters on the "Functions, objects" parameter card

Diagnostic functions

Parameter	Settings
Diagnostic functions	disable enable

Function:

This parameter is used to activate or deactivate the diagnostic functions.

Other parameters/parameter card:

If the “Diagnostic functions” parameter is set to “enable,” the following parameters are displayed on the “diagnostics” parameter card:

- “Contact Failure”

More information:

Parameter “Contact failure” [→ 150]

7.1.17.2 Parameters on the “Diagnostics” parameter card

Contact Failure

Parameter	Settings
Contact Failure	disable enable

Function:

If the "Contact Failure" parameter is set to "enable," a communication object can be used to query whether there is a contact failure on the relay. There is a contact failure if a current is measured even though the relay contact should be open.

Note:

After opening the relay contact, the flow of current must have fallen to "0" within a second so that no contact failure is reported.

The dead time of one second is fixed and cannot be changed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Diagnostic functions"
 - Setting: "enable"

Other parameters:

If the "Contact Failure" parameter is set to "enable," additional parameters for sending the value of the contact failure are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

Communication object:

If the "Contact Failure" parameter is set to "enable," the communication object "A Load Check-Contact Failure" is also displayed.

More information:

Communication object "Load check contact failure" [→ 150]

7.1.17.3 Communication objects

A Load Check-Contact Failure

No.	Object name	Function	Datapoint type	Flags
69	A Load Check-Contact Failure	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report a contact failure, or can be used to query via the bus whether there is a contact failure. A contact failure is detected if there is an active flow of current while the channel is switched off.

If a logical "0" is received, there is no load check contact failure. If a logical "1" is received, there is a load check contact failure.

Note:

The status of this communication object is retained when the channel is subsequently switched on again and only receives a new value when it is switched off again.

Availability:

The communication object "A Load Check-Contact Failure" is displayed if the following configuration has been made:

- Parameter "Diagnostic functions" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Contact Failure" on the "diagnostics" parameter card
 - Setting: "enable"

7.2 Operating mode "Shutter, awning"

The communication objects and parameters are configured in the same way for all channels and are therefore just described once for channel A.

7.2.1 "Shutter, awning" process diagram

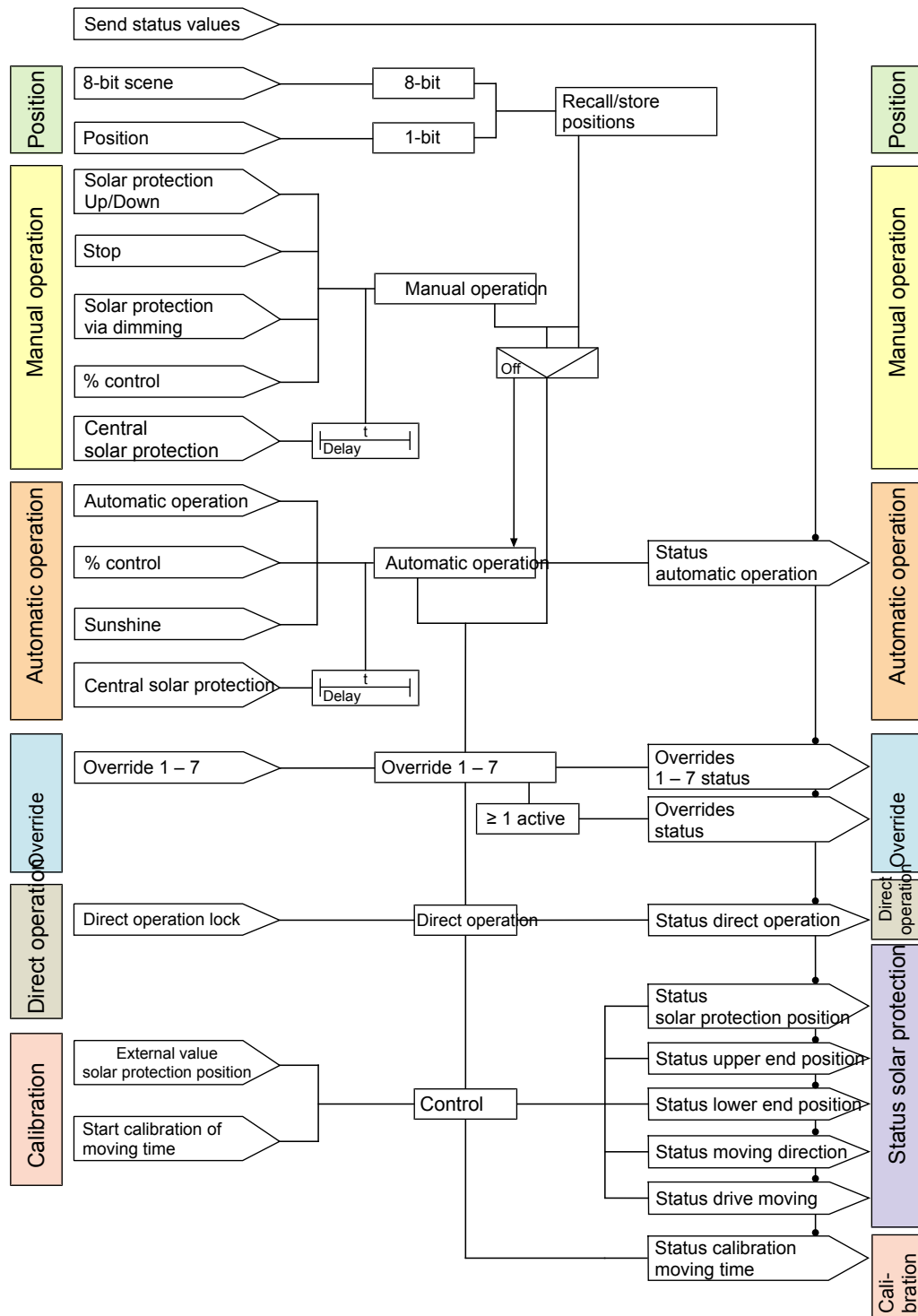


Fig. 9: Shutter, awning process diagram

7.2.2 "Functions, objects" and "shutter, awning" parameter cards

7.2.2.1 Parameters of the "Functions, objects" parameter card

Operation Mode

Parameters	Settings
Operation Mode	Blinds Shutter, awning Ventilation flap

Function:

This parameter is used to set the desired operating mode. Detailed settings for the selected operating mode can be made on the parameter card of the same name.

The following operating modes are possible:

- Blinds
- Shutter, awning
- Ventilation flap

Other parameters/parameter card:

The parameter card for the selected operating mode is displayed.

End position detection

Parameter	Settings
End position detection	disable enable

Function:

This parameter is used to activate or deactivate the automatic end position detection.

If the "End position detection" parameter is set to "disable," fixed move times have to be set.

If the "End position detection" parameter is set to "enable," the solar protection actuator automatically detects the end positions and can thus determine the move times automatically.

Other parameters/parameter cards:

If the "End position detection" parameter is set to "disable," the following parameters are visible on the "Shutter, awning" parameter card:

- "Solar protection move time from lower to upper end position"
- "Solar protection move time from upper to lower end position"
- "Additional move time"
- "No additional move time if moving is done from upper to lower end pos"

If the "End position detection" parameter is set to "enable," the following parameters are visible:

- "Status calibration moving time"
- "End position dead time" ("Shutter, awning" parameter card)
- "Calibration of moving time" ("Shutter, awning" parameter card)
- "Calibration via Direct operation" ("Shutter, awning" parameter card)

Communication object:

If the "End position detection" parameter is enabled, the "Calibration of moving time" parameter is set to "Via object" or "Automatically and via object," the "A Start calibration of moving time" communication object is displayed.

More information:

- Parameter "Status calibration moving time" [→ 251]
- Communication object "A Start calibration of moving time" [→ 175]
- Parameter "End position dead time" [→ 165]

- Parameter "Calibration for direct operation" [→ 166]
- Parameter "Calibration of moving time" [→ 166]

8-bit scene control

Parameter	Settings
8-bit scene control	disable enable

Function:

This parameter is used to activate or deactivate 8-bit scene control.

Other parameters/parameter card:

If the "8-bit scene control" parameter is set to "enable," the "scene assignment" parameter card is displayed.

Communication object:

If the "8-bit scene control" parameter is set to "enable," the communication object "A 8-bit scene" is displayed.

More information:

- 8-bit scene control [→ 153]
- Communication object "A 8-bit scene" [→ 176]

Position 1/2

Parameters	Settings
Position 1/2	disable enable

Function:

This parameter is used to activate or deactivate 1-bit scene control "Position 1/2."

Other parameters/parameter cards:

If the "Position 1/2" parameter is set to "enable," the following parameters are visible on the "position 1/2" parameter card:

- Parameter "Position 1"
- Parameter "Position 2"

Communication object:

If the "Position 1/2" parameter is set to "enable," one or two communication objects "A Position 1/2" are displayed.

More information:

- Parameter "Position 1" [→ 188]
- Communication object "Position 1/2" (recall) [→ 177]
- Communication object "Position 1/2" (save) [→ 178]

Position 3/4

Parameters	Settings
Position 3/4	disable enable

Function:

This parameter is used to activate or deactivate 1-bit scene control "Position 3/4."

Other parameters/parameter cards:

If the "Position 3/4" parameter is set to "enable," the following parameters are visible on the "position 3/4" parameter card:

- Parameter "Position 3"
- Parameter "Position 4"

Communication object:

If the "Position 3/4" parameter is set to "enable," one or two communication objects "A Position 3/4" are displayed.

More information:

- Parameter "Position 1" [→ 188]
- Communication object "Position 3/4" (recall) [→ 178]
- Communication object "Position 3/4" (save) [→ 178]

Manual operation

Parameter	Settings
Manual operation	disable enable

Function:

This parameter is used to activate or deactivate manual operation.

Other parameters:

If the "Manual operation" parameter is set to "enable," the following parameters are displayed:

- Parameter "Solar protection via dimming possible"
- Parameter "Control via %-objects"
- Parameter "Central Up/Down object"

If the "Solar protection via dimming possible" parameter is set to "enable," you can set whether the solar protection is not stopped and continues when the button is released.

Communication objects:

If the "Manual operation" parameter is set to "enable," the following communication objects are displayed:

- "A Manual operation solar protection"
- "A Manual operation stop"

Depending on which additional parameter cards are set to "enable," the following additional communication objects are displayed:

- "A Manual operation solar protection via dimming" (Up, down via brighter/darker)
- "A Manual operation solar protection via dimming" (Stop, open/close via on/off)
- "A Manual operation position solar protection"
- "A Manual operation solar protection central"

More information:

- Manual operation [→ 192]
- Parameter "Solar protection via dimming possible" [→ 193]
- Communication object "Manual operation solar protection via dimming" [→ 195]
- Communication object "Manual operation solar protection via dimming" (via brighter/darker) [→ 171]
- Parameter "Stop when pushbutton is released" [→ 76]
- Parameter "Control via %-objects" [→ 193]
- Parameter "Central up/down object" [→ 194]

Automatic operation

Parameter	Settings
Automatic operation	disable enable

Function:

This parameter is used to activate or deactivate automatic operation.

Note:

If manual operation is blocked, automatic operation is automatically activated after an ETS download.

Other parameters:

If the "Automatic operation" parameter is set to "enable," the following additional parameters are displayed:

- "Object sunshine"
- "Central Up/Down object"
- "Status automatic mode"
- "Delay time for automatic operation"
- "Automatic activation of automatic operation (0 = disabled)"

If the "Object sunshine" parameter is set to "Yes," the following parameters are displayed:

- "Behavior on sunshine = On"
- "Behavior on sunshine = Off"

Communication objects:

If the "Automatic operation" parameter is set to "enable," the following communication objects are displayed:

- "A Automatic operation"
- "A Automatic operation position solar protection"

More information:

- Automatic operation [→ 196]
- Communication object "A automatic operation" [→ 173]
- Communication object "A Automatic operation solar protection position" [→ 173]
- Parameter "Object sunshine" [→ 81]
- Parameter "Behavior on sunshine = On" [→ 198]
- Parameter "Behavior on sunshine = Off" [→ 198]
- Parameter "Central up/down object" [→ 82]
- Parameter "Status automatic operation" [→ 83]
- Parameter "Delay time for automatic operation" [→ 83]
- Parameter "Automatic activation of automatic operation (0 = blocked)" [→ 83]

Override 1 – 7

Parameter	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

More information:

Overrides [→ 206]

Overrides status

Parameter	Settings
Overrides status	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of the overrides. This communication object is used to report whether at least one override is active.

Availability:

The "Overrides status" parameter is displayed as soon as an override is activated.

Other parameters:

If the "Overrides status" parameter is set to "enable," additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication object:

If the "Overrides status" parameter is set to "enable," the communication object "A Overrides status" is displayed.

More information:

Communication object "A Overrides status" [→ 182]

Direct operation

Parameter	Settings
Direct operation	disable enable

Function:

This parameter is used to disable or enable the operation of the solar protection actuator directly on the device.

Other parameters:

If the "Direct operation" parameter is set to "enable," additional parameters are displayed, which can be used to set when direct operation can be automatically reset and if direct operation is to be restricted. It can also be defined whether the status of direct operation should be disabled or enabled and whether the status on change of status should be sent cyclically or on request:

- Parameter "Direct operation auto reset"
- Parameter "Direct operation lockable"
- Parameter "Status direct operation"

If the "Status direct operation" parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication objects:

If the "Direct operation lockable" parameter is set to "enable," the following communication object is displayed:

- "A Direct operation lock"

If the "Status direct operation" parameter is set to "enable," the following communication object is displayed:

- "A Status direct operation"

More information:

- Direct operation [→ 201]
- Parameter "Direct operation auto reset" [→ 204]
- Parameter "Direct operation lockable" [→ 90]
- Communication object "A Direct operation lock" [→ 182]
- Parameter "Status direct operation" [→ 204]
- Communication object "A Status direct operation" [→ 205]

Status solar protection position in %

Parameter	Settings
Status solar protection position in %	disable enable

Function:

This parameter is used to set whether a "A Status solar protection position" communication object is to be made available for the channel. The communication object displays the current solar protection position in percent.

Other parameters:

If the parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

If the "Send status on change of status" parameter is set to "enable," the following parameter is displayed:

- Parameter "Send status while sunblind is moving"

If the "Send status while sunblind is moving" parameter is set to "enable," the following parameters are displayed:

- Parameter "Value change since last sent (%)"
- Parameter "Block time for sending of status"

Communication object:

If the "Status solar protection position in %" parameter is set to "enable," the communication object "A Status solar protection position" is displayed.

More information:

- Communication object "A Status solar protection position" [→ 174]
- Parameter "Send status while element is moving" [→ 157]
- Parameter "Value change since last sent (%)" [→ 157]
- Parameter "Block time for sending of status" [→ 158]

Send status while sunblind is moving

Parameter	Settings
Send status while sunblind is moving	disable enable

Function:

This parameter can be used to activate or deactivate cyclic sending of the solar protection position during the move.

Other parameters:

If the "Send status while sunblind is moving" parameter is set to "enable," the following parameters are displayed:

- Parameter "Value change since last sent (%)"
- Parameter "Block time for sending of status"

Availability:

The "Send status while sunblind is moving" parameter is displayed if the following configuration has been made:

- Parameter "Status solar protection position in %"
 - Setting: "enable"
- Parameter "Send status on change of status"
 - Setting: "enable"

More information:

- Parameter "Value change since last sent (%)" [→ 157]
- Parameter "Block time for sending of status" [→ 36]

Value change since last sent (%)

Parameter	Settings
Value change since last sent (%)	0...100

Function:

If the parameter "Send status while sunblind is moving" is set to "enable," this parameter is used to set the change in value since the last transmission of the value of the communication object "A Status solar protection position" that triggers a new transmission of the value. Sending takes place if the minimum block time for sending of status has been exceeded.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Status solar protection position in %"
 - Setting: "enable"
- Parameter "Send status on change of status"
 - Setting: "enable"
- Parameter "Send status while sunblind is moving"
 - Setting: "enable"

More information:

- Parameter "Status solar protection position in %" [→ 156]
- Parameter "Send status on change of status" [→ 250]
- Parameter "Send status while element is moving" [→ 157]

Block time for sending of status

Parameter	Settings
Block time for sending of status (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter is used to set which time since the last sending of the status has to be exceeded in order for it to be sent again. Hence, no additional bus load is generated by status telegrams generated in quick succession during bus mode.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Status solar protection position in %"
 - Setting: "enable"
- Parameter "Send status on change of status"
 - Setting: "enable"
- Parameter "Send status while sunblind is moving"
 - Setting: "enable"

Note:

The block time does not apply to cyclic sending. If the block time is greater than the cycle time, the value is nonetheless sent at the end of the cycle time.

More information:

- Parameter "Solar protection position in %" [→ 156]
- Parameter "Send status on change of status" [→ 250]
- Parameter "Send status while element is moving" [→ 157]

Status moving direction

Parameter	Settings
Status moving direction	disable enable

Function:

This parameter is used to set whether a "A Status moving direction" communication object is to be made available for the channel. This status object reports whether the solar protection is moving up or down. The status is used to implement the "1 button solar protection" function from different operating terminals.

Other parameters:

If the parameter is to "enable," additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication object:

If the "Status moving direction" parameter is set to "enable," the following communication object is displayed:

- "A Status moving direction"

More information:

Communication object "A Status moving direction" [→ 174]

Change on automatic pull up

Parameter	Settings
Change on automatic pull up	disable enable

Function:

This parameter is used to set whether a value change in the communication object "A Status moving direction" is to take place in case of automatic pulling up.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Status moving direction"
 - Setting: "enable"

More information:

Parameter "Status moving direction" [→ 159]

Status drive moving

Parameter	Settings
Status drive moving	disable enable

Function:

This parameter is used to set whether a "A Status drive moving" communication object is to be made available for the channel. The status object is used to report if the solar protection is current moving or whether it has reached its end position.

Other parameters:

If the parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication object:

If the "Status drive moving" parameter is set to "enable," the communication object "A Status drive moving" is displayed.

More information:

Communication object "A Status drive moving" [→ 175]

Invert value for drive moving

Parameter	Settings
Invert value for drive moving	No Yes

Function:

This parameter can also be used to transmit the "Status drive moving" in inverted form.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Status drive moving"
 - Setting: "enable"

More information:

Parameter "Status drive moving" [→ 159]

Status end position

Parameter	Settings
Status end position	No Yes Only upper end position status Only lower end position status

Function:

This parameter is used to set whether no, both or only 1 communication object "status upper end position" or "status lower end position" is to be available. The communication object "status upper end position" (or "status lower end position") is only equal to logical "1," if the shutter is in the upper (or lower) end position.

Other parameters:

If the "Status end position" parameter is set to "Yes," "Only upper end position status" or "Only lower end position status," additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

If the parameter is set to "Yes" or "Only lower end position status," the "Lower end position reached after tilting up" parameter is displayed.

If the parameter is set to "Yes," "Only lower end position status" or "Only lower end position status," the "Send only end position On" parameter is displayed.

Communication objects:

- If the parameter is set to "Yes," the communication objects "A Status upper end position" and "A Status lower end position" are displayed.
- If the parameter is set to "Only upper end position status," only the communication object "A Status upper end position" is displayed.
- If the parameter is set to "Only lower end position status," only the communication object "A Status lower end position" is displayed.

More information:

- Parameter "Lower end position reached after pulling up" [→ 161]
- Parameter "Send only end position On" [→ 161]
- Communication object "A - Status upper end position" [→ 176]
- Communication object "A - Status lower end position" [→ 176]

Lower end position reached after tilting up

Parameter	Settings
Lower end position reached after tilting up	disable enable

Function:

This parameter is used to set whether the reaching of the lower end position with completion of a configured tilting up of the shutter (parameter: "Solar protection position after solar protection down in %") is to be sent or not.

If the parameter is set to "enable," the reaching of the lower end position is reported after the moving up of the shutter after solar protection down (value "1").

If the parameter is set to "disable," the fact that the lower end position has not been reached yet is reported after moving up the shutter after solar protection down (value "0").

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Status end position"
 - Setting: "Yes" or "Only lower end position status"

More information:

Parameter "Status end position" [→ 160]

Send only end position On

Parameter	Settings
Send only end position On	disable enable

Function:

This parameter is used to set that the solar protection actuator sends a value when the end position is reached but not when the end position is left.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Status end position"
 - Setting: "Yes," "Only upper end position status" or "Only lower end position status"

More information:

Parameter "Status end position" [→ 160]

Behavior at bus voltage failure

Parameters	Settings
Behavior at bus voltage failure	Up Down No change Stop

Function:

This parameter can be used to set how the shutter is to behave on bus voltage failure.

The following settings are possible:

- Up:
At bus voltage failure, the shutter moves up. If the shutter is currently moving in the opposite direction, the motor stops.
- Down:
At bus voltage failure, the shutter moves down. If the shutter is currently moving in the opposite direction, the motor stops.
- No change:
In case of bus voltage failure, the moving status does not change. The motor continues running.
- Stop:
The motor switches off at bus voltage failure. The shutter stops at the point where it is currently positioned.

Also do on active override**Note:**

The shutter is only stopped if a move in the opposite direction is currently underway at bus voltage failure (for settings "Up" and "Down").

Parameters	Settings
Also do on active override	disable enable

Function:

This parameter can be used to set whether the behavior at bus voltage failure is to be executed or not if an override is active.

Example: The "Lock" override is active for maintenance work. In case of a bus voltage failure, no action is executed, if the parameter is set to "disable."

Availability:

The "Also do on active override" parameter is displayed as soon as an override is activated.

Initial value after bus voltage recovery

Parameters	Settings
Initial value after bus voltage recovery	Up Down No change According to parameter Stop

Function:

This parameter can be used to set how the shutter is to behave on bus voltage recovery.

The following settings are possible:

- Up:
At bus voltage recovery, the shutter moves up.
- Down:
At bus voltage recovery, the shutter moves down.
- No change:
The shutter remains in the same position as before bus voltage failure or continues moving if it was not turned off prior to bus voltage failure.
- According to parameter:
At bus voltage recovery, the shutter moves to the height specified in the parameter "Solar protection position in %."
- Stop:
The shutter stops after bus voltage recovery. The motor switches off.

Other parameters:

If the "Initial value after bus voltage recovery" parameter is set to "According to parameter," the following parameter is displayed:

- "Solar protection position in %"

More information:

Parameter "Solar protection position in %" [→ 163]

**Solar protection position
in %**

Parameters	Settings
Solar protection position in %	0...100

Function:

This parameter can be used to enter in percentage values the position to which the shutter is to be moved after bus voltage is recovered.

Power return delay

Parameters	Settings
Power return delay (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time for the initial value after bus voltage recovery. This can be used to prevent all channels from being addressed at the same time after bus voltage recovery.

Diagnostic functions

Parameter	Settings
Diagnostic functions	disable enable

Function:

This parameter is used to activate or deactivate the diagnostic functions.

Other parameters/parameter card:

If the "Diagnostic functions" parameter is set to "enable," the following parameters are displayed on the "diagnostics" parameter card:

- "Contact Failure"

More information:

Parameter "Contact failure" [→ 262]

7.2.2.2 Parameters of the "Shutter, awning" parameter card

Delay time for central Up/Down (manual and automatic operation)

Parameter	Settings
Delay time for central Up/Down (manual and automatic operation) (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time so that not all channels start at the same time when there are central commands (manual operation central up/down and automatic operation central up/down). This is designed to prevent load peaks and excessive noise.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Central Up/Down object"
 - Setting: "enable"

More information:

- Parameter "Central up/down object" (manual operation) [→ 194]
- Parameter "Central up/down object" (automatic operation) [→ 198]

Solar protection move time from lower to upper end position

Parameter	Settings
Solar protection move time from lower to upper end position (hh:mm:ss)	00:00:03 ... 00:05:00

Function:

This parameter is used to set the move time of the solar protection from the lower to the upper end position.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "End position detection"
 - Setting: "disable"

More information:

Parameter "End position detection" [→ 152]

Solar protection move time from upper to lower end position

Parameter	Settings
Solar protection move time from upper to lower end position (hh:mm:ss)	00:00:03 ... 00:05:00

Function:

This parameter is used to set the move time of the solar protection from the upper to the lower end position.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "End position detection"
 - Setting: "disable"

More information:

Parameter "End position detection" [→ 152]

Additional move time

Parameter	Settings
Additional move time (hh:mm:ss)	00:00:00 ... 00:00:30

Function:

This parameter is used to set if the configured move time for moving the solar protection to the end position is to be extended by an additional time to ensure that the solar protection reaches the final position and the drive is switched off via the limit switch.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "End position detection"
 - Setting: "disable"

More information:

Parameter "End position detection" [→ 152]

No additional move time if moving is done from upper to lower end pos

Parameter	Settings
No additional move time if moving is done from upper to lower end pos	disable enable

Function:

If the "No additional move time if moving is done from upper to lower end pos" parameter is set to "enable," the "Additional move time" only affects the move up and not the move down.

As a result, any further command that may be required is executed immediately after the calculated end position is reached, but no safe move to the end position is performed for downward moves.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "End position detection"
 - Setting: "disable"

More information:

Parameter "End position detection" [→ 152]

End position dead time

Parameter	Settings
End position dead time (ss.fff)	01.000 ... 59.999

Function:

This parameter is used to set how long after the start of an element movement the end position is not evaluated. This prevents false detection of the end position due to fluctuating power consumption of the drive during start-up.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "End position detection"
 - Setting: "enable"

More information:

Parameter "End position detection" [→ 152]

Calibration of moving time

Parameter	Settings
Calibration of moving time	Automatically Via object Automatically and via object

Function:

This parameter is used to define how the calibration of the moving time is started.

Communication object:

If the "Calibration of moving time" parameter has been set to "Via object" or "Automatically and via object," the communication object "A Start calibration of moving time" is displayed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "End position detection"
 - Setting: "enable"

More information:

- Communication object "A Start calibration of moving time" [→ 175]
- Parameter "End position detection" [→ 152]

Calibration via Direct operation

Parameter	Settings
Calibration via Direct operation	disable enable

Function:

This parameter is used to set whether or not solar protection can be calibrated via direct operation.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "End position detection" ("Functions, objects" parameter card)
 - Setting: "enable"
- Parameter "Calibration of moving time" ("Shutter, awning" parameter card)
 - Setting: "Automatically" or "Automatically and via object"

More information:

- Parameter "End position detection" [→ 152]
- Parameter "Calibration of moving time" [→ 166]

Solar protection position after solar protection down in %

Parameters	Settings
Solar protection position after solar protection down in %	0...100

Function:

This parameter is used to specify the position the solar protection actuator is to take if it is moved uninterruptedly from top to bottom via one of the corresponding objects. The function can be deactivated by entering 100 %. The parameter also takes effect in automatic mode with the commands "sunshine on" and "automatic central down."

Stepping of solar protection (0 = disable)

Parameters	Settings
Stepping of solar protection (0 = disable) (ss.fff)	00.000 ... 59.999

Function:

This parameter is used to set if, when the move of a shutter is stopped by briefly pushing a button, each additional push of the button is to be ignored ("0") or whether each push is to move the shutter one step. If yes, you set how long the drive is to be switched on for moving one step.

Advanced configuration

Parameter	Settings
Advanced configuration	disable enable

Function:

This parameter can be used to make additional element settings to optimize the move time.

Other parameters:

If the "Advanced configuration" parameter is set to "enable," the following parameters are displayed:

- "Swap Up and Down"
- "Solar protection move time between shutter edge is down and completely closed"
- "Reverse pause time"
- "Slip compensation time"
- "Motor start up delay after relay closed"
- "Motor run out delay after relay opened"
- "External value solar protection position"

More information:

- Shutter settings for move time optimization [→ 311]
- Parameter "Swap Up and Down" [→ 167]
- Parameter "Solar protection move time between shutter edge is down and completely closed" [→ 168]
- Parameter "Reverse pause time" [→ 168]
- Parameter "Slip compensation time" [→ 169]
- Parameter "Motor start up delay after relay closed" [→ 169]
- Parameter "Motor run out delay after relay opened" [→ 169]
- Parameter "External value solar protection position" [→ 170]

Swap Up and Down

Parameter	Settings
Swap Up and Down	disable enable

Function:

The parameter "Swap Up and Down" is used to determine if the relay for up and down is to be switched with an inversion. This is particularly helpful if connections are swapped.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Advanced configuration"
 - Setting: "enable"

More information:

Parameter "Advanced configuration" [→ 167]

Solar protection move time between shutter edge is down and completely closed

Parameter	Settings
Solar protection move time between shutter edge is down and completely closed (hh:mm:ss)	00:00:00 ... 00:05:00

Function:

This parameter is used to set the time that the shutter takes from landing on the shutter edge to being completely closed. This time is deduced from the actual move time in order to implement shadow line tracking with open ventilation slits in % control in automatic operation.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Automatic operation" ("Functions, objects" parameter card)
 - Setting: "enable"
- Parameter "Advanced configuration" ("Shutter, awning" parameter card)
 - Setting: "enable"

More information:

- Parameter "move time between shutter edge is down and completely closed" in automatic operation [→ 312]
- Parameter "Automatic operation" [→ 154]
- Parameter "Advanced configuration" [→ 167]

Reverse pause time

Parameter	Settings
Reverse pause time (ss.fff)	00.200 ... 59.999

Function:

This parameter is used to specify the time that the solar protection actuator waits until it moves in the opposite direction. This setting protects against premature shortening of the engine runtime.

NOTICE! Observe the manufacturer's instructions!

Availability:

The parameter is available if the following configuration has been made:

- Parameter "Advanced configuration"
 - Setting: "enable"

More information:

Parameter "Advanced configuration" [→ 167]

Slip compensation time

Parameter	Settings
Slip compensation time (ss.fff)	00.000 ... 59.999

Function:

This parameter is used to set the time that the motor is additionally controlled when there is a change of direction. This can be used to correct a slip in case of a change in direction.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Advanced configuration"
 - Setting: "enable"

More information:

Parameter "Advanced configuration" [→ 167]

Motor start up delay after relay closed

Parameter	Settings
Motor start up delay after relay closed (ss.fff)	00.000 ... 59.999

Function:

This parameter is used to set the time that the motor is additionally controlled when the relay is closed. This can be used to correct a delay of the drive when starting.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Advanced configuration"
 - Setting: "enable"

More information:

Parameter "Advanced configuration" [→ 167]

Motor run out delay after relay opened

Parameter	Settings
Motor run out delay after relay opened (ss.fff)	Motor run out delay after relay opened

Function:

This parameter is used to set the time that the motor runs out after opening the relay. This time is added to the calculation to ensure the previously set position is reached exactly.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Advanced configuration"
 - Setting: "enable"

More information:

Parameter "Advanced configuration" [→ 167]

External value solar protection position

Parameter	Settings
External value solar protection position	disable enable

Function:

This parameter is used to enable an object with which the internal height position can be specified or overridden. This immediately sets the solar protection actuator to the synchronized state without its own movements and overwrites the current status of the element with the specified value.

NOTICE! This function must only be set at standstill and not while moving.

Communication object:

If the "External value solar protection position" parameter is enabled, a communication object of the same name is displayed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Advanced configuration"
 - Setting: "enable"

More information:

- External requirements for shutter position [→ 311]
- Parameter "Advanced configuration" [→ 167]

7.2.2.3 Communication objects in "shutter, awning" operating mode

A Manual operation solar protection

No.	Object name	Function	Datapoint type	Flags
3	A Manual operation solar protection	Up/Down	1.008 up/down	CW

Function:

This communication object is used to initiate the moving direction of the corresponding channel. When a logical "0" is received, the sunblind moves up, when a logical "1" is received, it moves down.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Note:

Without automatic end position detection, the motor is controlled for move time + move time extension for each move command.

With automatic end position detection, the motor is controlled for a maximum move time of 330 s for each move command, until an end position is detected.

Hence, the sunblind can always be moved into an end position with one move command (Up/Down).

Availability:

The "A Manual operation solar protection" communication object is only displayed if the following configuration has been made:

- Parameter "Manual operation" on the "functions, objects" parameter card
 - Setting: "enable"

A Manual operation stop

No.	Object name	Function	Datapoint type	Flags
4	A Manual operation stop	Stop	1.007 step	CW

Function:

Irrespective of whether the telegram contains a logical "0" or a logical "1," this communication object is used to stop an ongoing shutter move for the respective channel or, if configured accordingly, move up/down in steps.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object "A Manual operation stop" is displayed if the following configuration has been made:

- Parameter "Manual operation" on the "functions, objects" parameter card:
 - Setting: "enable"

A Manual operation solar protection via dimming

No.	Object name	Function	Datapoint type	Flags
5	A Manual operation solar protection via dimming	Up/Down via brighter/darker	3.007 dimming control	CW

Function:

A dimming sensor can use this communication object to control a solar protection, whereby dimming brighter results in the solar protection moving up and dimming darker results in the solar protection moving down. All dimming telegrams are interpreted as a 100 % change because the actuator does not know the current position. That is why only the "dimming with stop telegram" configuration makes sense for the dimming sensor.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object "A Manual operation solar protection via dimming" is displayed if the following configuration has been made:

- Parameter "Solar protection via dimming possible" on the "functions, objects" parameter card:
 - Setting "enable"

A Manual operation solar protection via dimming

No.	Object name	Function	Datapoint type	Flags
6	A Manual operation solar protection via dimming	Stop, Open/Close via On/Off	1.001 switch	CW

Function:

Irrespective of whether the telegram contains a logical "0" or a logical "1," this object is used to stop an ongoing shutter move for the respective channel or, if configured accordingly, move up/down in steps.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object "A Manual operation solar protection via dimming" is displayed if the following configuration has been made:

- Parameter "Solar protection via dimming possible" on the "functions, objects" parameter card:
 - Setting: "enable"

A Manual operation position solar protection

No.	Object name	Function	Datapoint type	Flags
7	A Manual operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW

Function:

This communication object can be used to move the solar protection of the corresponding channel to any position in manual operation.

- 0 % = shutter is moved up completely
- 100 % = shutter is moved completely down

If one of the end positions is to be reached, the move time to this end position is automatically extended by the configured value.

If the solar protection adjustment is completed or an end position reached, the object value of all status objects (solar protection position as well as upper and lower end position) is updated and, if configured accordingly, transferred to the bus.

Availability:

The "A Manual operation position solar protection" communication object is only displayed if the following configuration has been made:

- Parameter "Control via %-objects" on the "functions, objects" parameter card
 - Setting "enable"

A Manual operation solar protection central

No.	Object name	Function	Datapoint type	Flags
9	A Manual operation solar protection central	Up/Down	1.008 up/down	CW

Function:

If a logical "0" is received, the sunblind is moved to the upper end position; if a logical "1" is received it is moved to the lower end position. For each channel, a delay time for central commands can be set. Hence, central control with a delayed start can be implemented for each solar protection channel.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object "A Manual operation solar protection central" is displayed if the following configuration has been made:

- Parameter "Central Up/Down object" on the "functions, objects" parameter card
 - Setting: "enable"

More information:

Manual operation [→ 192]

A Automatic operation

No.	Object name	Function	Datapoint type	Flags
10	A Automatic operation	On/Off	1.001 switch	CW

Function:

This object is used to activate and deactivate automatic operation.

If a logical "0" is received, automatic operation is deactivated, if a logical "1" is received, it is activated.

Availability:

The communication object "A Automatic operation" is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card:
 - Setting: "enable"

A Automatic operation position solar protection

No.	Object name	Function	Datapoint type	Flags
11	A Automatic operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW

Function:

This communication object can be used to move the solar protection of the corresponding channel to any position in automatic operation. If the channel is in manual operation, a move command is not executed but saved and then executed after switching to automatic operation.

- 0 % = shutter is moved up completely
- 100 % = shutter is moved completely down

If one of the end positions is to be reached, the move time to this end position is automatically extended by the configured value to ensure the end position is reached and the end position switch is triggered. If the sunblind adjustment is completed or an end position reached, the object value of all status objects (solar protection position as well as upper and lower end position) is updated.

Availability:

The communication object "A Automatic operation position solar protection" is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card
 - Setting: "enable"

A Sunshine

No.	Object name	Function	Datapoint type	Flags
13	A Sunshine	On/Off	1.001 switch	CW

Function:

When using the exterior brightness sensor, this communication object is used to enable or lock the shutter positions as well as move to the upper and lower end position, if applicable. If a telegram is received for this object, the sunblind is moved with automatic operation activated and the positioning of the shutter is then released or locked via percentage commands.

If a logical "0" is received, the sunblind is moved to the upper end position (open), if applicable, and the positioning of the shutter and slats is blocked via percentage commands. If a logical "1" is received, the sunblind is moved to the lower end position (closed), if applicable, and the positioning of the shutter is enabled via percentage commands. If the shutter is moved to the lower end position, it is then moved to the position specified by the parameter "Solar protection position after solar protection down in %."

Availability:

The communication object "A Sunshine" is displayed if the following configuration has been made:

- Parameter "Object sunshine" on the "functions, objects" parameter card
 - Setting: "Yes"

A Automatic operation solar protection central

No.	Object name	Function	Datapoint type	Flags
14	A Automatic operation solar protection central	Up/Down	1.008 up/down	CW

Function:

If a telegram is received for this communication object, the output is first switched to "automatic operation" (if the parameter is enabled) and then the solar protection is moved. If a logical "0" is received, the solar protection is moved to the upper end position (opened). If a logical "1" is received, it is moved to the lower end position (closed) and then turned to the position specified via the "Solar protection position after solar protection down in %" parameter.

A delay time for central commands can be set for each channel, thus enabling central control with a delayed start to move for each sunblind channel.

Availability:

The communication object "A Automatic operation solar protection central" is displayed if the following configuration has been made:

- Parameter "Central Up/Down object" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status automatic operation

No.	Object name	Function	Datapoint type	Flags
15	A Status automatic operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether automatic operation is active. If a logical "0" is sent, automatic operation is deactivated, if a logical "1" is sent, automatic operation is activated.

Availability:

The communication object "A Status automatic operation" is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Status automatic mode" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

Automatic operation [→ 196]

A Status solar protection position

No.	Object name	Function	Datapoint type	Flags
16	A Status solar protection position	8-bit value	5.001 percentage (0..100%)	CRT

Function:

This object can be used to query the current position of the shutter (solar protection position) and, if appropriate, the position can also be sent automatically when the value is changed. The upper end position corresponds to 0 % and the lower end position to 100 %.

Availability:

The communication object "A Status solar protection position" is displayed if the following configuration has been made:

- Parameter "Status solar protection position in %" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status moving direction

No.	Object name	Function	Datapoint type	Flags
18	A Status moving direction	Up/Down	1.001 switch	CRT

Function:

This status object reports whether the sunblind is moving up or down.

When a logical "0" is received, the solar protection moves up, when a logical "1" is received, it moves down.

The status object is used to implement the "1 button solar protection" function from different operating terminals.

Availability:

The communication object "A Status moving direction" is displayed if the following configuration has been made:

- Parameter "Status moving direction" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status drive moving

No.	Object name	Function	Datapoint type	Flags
19	A Status drive moving	Yes/No	1.002 boolean	CRT

Function:

This status object is used to report if the solar protection is current moving or whether it has reached its end position.

If a logical "1" is received, the solar protection is currently moving. If a logical "0" is received, the solar protection has reached its end position.

The "Invert value for drive moving" parameter can be used to set that this value is inverted.

Availability:

The communication object "A Status drive moving" is displayed if the following configuration has been made:

- Parameter "Status drive moving" on the "functions, objects" parameter card:
 - Setting: "enable"

A Start calibration of moving time

No.	Object name	Function	Datapoint type	Flags
20	A Start calibration of moving time	activate	1.003 enable	CW

Function:

This communication object can be used to start the calibration of the moving times for automatic end position detection at any time.

The calibration move is started when a logical "1" is received. A running calibration move can be stopped when a logical "0" is received on this object.

Availability:

The communication object "A Start calibration of moving time" is displayed if the following configuration has been made:

- Parameter "End position detection" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Calibration of moving time" of the "shutter, awning" parameter card:
 - Setting: "Via object" or "Automatically and via object"

A External value solar protection position

No.	Object name	Function	Datapoint type	Flags
21	A External value solar protection position	8-bit value	5.001 percentage (0..100%)	CW

Function:

This communication object is used to specify or override the internal height position.

NOTICE! This function must only be set when the sunblind is stationary and not while it is moving.

Communication object:

If the "External value solar protection position" parameter is set to "enable," a communication object of the same name is displayed.

Availability:

The communication object "A External value solar protection position" is displayed if the following configuration has been made:

- Parameter "Advanced configuration" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "External value solar protection position" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

External requirements for shutter position [→ 311]

A Status upper end position

No.	Object name	Function	Datapoint type	Flags
22	A Status upper end position	On/Off	1.002 boolean	CRT

Function:

This status object reports whether the sunblind has reached its upper end position. If a logical "0" is sent, the solar protection has not reached the upper end position, if a logical "1" is sent, the solar protection has successfully reached the upper end position.

Availability:

The communication object "A Status upper end position" is displayed if the following configuration has been made:

- Parameter "Status end position" on the "functions, objects" parameter card
 - Setting: "Yes" or "Only upper end position status"

A Status lower end position

No.	Object name	Function	Datapoint type	Flags
23	A Status lower end position	On/Off	1.002 boolean	CRT

Function:

This status object reports whether the sunblind has reached its lower end position. If a logical "0" is sent, the solar protection has not reached the lower end position, if a logical "1" is sent, the solar protection has successfully reached the lower end position.

Availability:

The communication object "A Status lower end position" is displayed if the following configuration has been made:

- Parameter "Status end position" on the "functions, objects" parameter card
 - Setting: "Yes" or "Only lower end position status"

A 8-bit scene

No.	Object name	Function	Datapoint type	Flags
24	A 8-bit scene	recall/store	18.001 scene control	CW

Function:

With this communication object, the 8-bit scene with the number x is recalled (re-stored) or saved. Bits 0...5 contain the scene number here. If bit 7 = logical 1, then the scene is saved; if bit 7 = logical "0", it is recalled. Bit 6 currently has no meaning and must be set to logical "0." If automatic operation is active (Automatic operation = on), the recalling (restoring) of a scene automatically leads to a switch to manual operation (Automatic operation = off).

Successful storing of a position is only possible if the sunblind has been synchronized by a move to the end position or if the sunblind has been calibrated.

Availability:

The communication object "A 8-bit scene" is displayed if the following configuration has been made:

- Parameter "8-bit scene control" on the "functions, objects" parameter card
 - Setting: "enable"

More information:

8-bit scene control [→ 183]

A Position 1/2

No.	Object name	Function	Datapoint type	Flags
25	A Position 1/2	recall	1.022 scene	CW

Function:

This and the following communication object enable a room user who has assigned the "store/recall 1-bit scene" function to a pair of buttons on a bus switch to assign this pair of buttons to any position of the shutter by pushing the buttons for a long time or to automatically restore the position of the shutter to the stored position by briefly pushing the buttons.

This communication object can be used to automatically recall any two intermediate positions of the solar protection that is connected to the respective channel. To make this possible, these positions first have to be stored using the following communication object.

Reception of a "0" telegram results in a move to the solar protection position stored in position 1, while a "1" telegram results in the position stored under position 2.

Availability:

The communication object "A Position 1/2" is displayed if the following configuration has been made:

- Parameter "Position 1/2" on the "functions, objects" parameter card
 - Setting: "enable"

A Position 1/2

No.	Object name	Function	Datapoint type	Flags
26	A Position 1/2	store	1.022 scene	CW

Function:

This communication object can be used to store any two intermediate positions of the solar protection connected to this channel. The stored positions can then be recalled (restored) via the previous communication object at any time.

Successful storing of a position is only possible if the sunblind has been synchronized by a move to the end position or if the sunblind has been calibrated.

If a "0" telegram is received, the current status of the "A Status solar protection position" communication object is read and stored in position 1. Position 2 is accordingly stored when a "1" telegram is received.

Availability:

The communication object "A Position 1/2" is displayed if the following configuration has been made:

- Parameter "Position 1/2" on the "functions, objects" parameter card
 - Setting: "enable"

A Position 3/4

No.	Object name	Function	Datapoint type	Flags
27	A Position 3/4	recall	1.022 scene	CW

Function:

This and the following communication object enable a room user who has assigned the "store/recall 1-bit scene" function to a pair of buttons on a bus switch to assign this pair of buttons to any position of the shutter by pushing the buttons for a long time or to automatically restore the position of the shutter to the stored position by briefly pushing the buttons.

This communication object can be used to automatically recall any two intermediate positions of the solar protection that is connected to the respective channel. To make this possible, these positions first have to be stored using the following communication object.

Reception of a "0" telegram results in a move to the solar protection position stored in position 3, while a "1" telegram results in the position stored under position 4.

Availability:

The communication object "A Position 3/4" is displayed if the following configuration has been made:

- Parameter "Position 3/4" on the "functions, objects" parameter card
 - Setting: "enable"

A Position 3/4

No.	Object name	Function	Datapoint type	Flags
28	A Position 3/4	store	1.022 scene	CW

Function:

This communication object can be used to store any two intermediate positions of the solar protection connected to this channel. The stored positions can then be recalled (restored) via the previous communication object at any time.

Successful storing of a position is only possible if the sunblind has been synchronized by a move to the end position or if the sunblind has been calibrated.

If a "0" telegram is received, the current status of the "A Status solar protection position" communication object is read and stored in position 3. Position 4 is accordingly stored when a "1" telegram is received.

Availability:

The communication object "A Position 3/4" is displayed if the following configuration has been made:

- Parameter "Position 3/4" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

Move to position 1/2, 3/4 (1-bit scene control) [→ 186]

A Override 1, Wind Alarm

No.	Object name	Function	Datapoint type	Flags
29	A Override 1, Wind Alarm	On/Off	1.003 enable	CW

Function:

The "wind alarm" is active when the value of the communication object is "on."
If an inversion is configured, "wind alarm" is active when the object value is "Off."

Note:

This object can then be linked to e.g. an alarm message of a wind guard.

Availability/alternative:

The communication object "A Override 1, Wind Alarm" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card
 - Setting: "Wind Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on parameter card "override 1, wind alarm" is enabled, this communication object is hidden and communication object "A Override 1, Wind Alarm, Control" is shown instead.

A Override 2, Rain Alarm

No.	Object name	Function	Datapoint type	Flags
33	A Override 2, Rain Alarm	On/Off	1.003 enable	CW

Function:

The "rain alarm" is active when the value of the communication object is "on."
If an inversion is configured, the "rain alarm" is active when the object value is "off."

Note:

This communication object can then be linked to e.g. an alarm message of a rain guard.

Availability/alternative:

The communication object "A Override 2, Rain Alarm" is displayed if the following configuration has been made:

- Parameter "Override 2" on the "functions, objects" parameter card:
 - Setting: "Rain Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 2, rain alarm" is set to "enable," this communication object is hidden and communication object "A Override 2, Rain Alarm, Control" is shown instead.

A Override 3, Frost Alarm

No.	Object name	Function	Datapoint type	Flags
37	A Override 3, Frost Alarm	On/Off	1.003 enable	CW

Function:

"Frost alarm" is active when the value of the communication object is "on."
If an inversion is configured, the "frost alarm" is active when the value of the communication object is "Off."

Note:

This object can then be linked to e.g. an alarm message of a frost guard.

Communication object:

This communication can then be linked to e.g. an alarm message of a frost guard.

Availability/alternative:

The communication object "A Override 3, Frost Alarm" is displayed if the following configuration has been made:

- Parameter "Override 3" on the "functions, objects" parameter card:
 - Setting: "Frost Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, frost alarm" is set to "enable," this communication object is hidden and communication object "A Override 3, Frost Alarm, Control" is shown instead.

A Override 4, Lock

No.	Object name	Function	Datapoint type	Flags
41	A Override 4, Lock	On/Off	1.003 enable	CW

Function:

This communication object can be used to lock the sunblind against changes for as long as the lock is active irrespective of the upstream sub-functions.

The lock is active when the value of the communication object is "on."

If an inversion is configured, the lock is active when the object value is "off."

Availability/alternative:

The communication object "A Override 4, Lock" is displayed if the following configuration has been made:

- Parameter "Override 4" on the "functions, objects" parameter card:
 - Setting: "Lock"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, lock" is set to "enable," this communication object is hidden and communication object "A Override 4, Lock, Control" is shown instead.

A Override 5, Forced position

No.	Object name	Function	Datapoint type	Flags
45	A Override 5, Forced position	On/Off	1.003 enable	CW

Function:

This communication object can be used to move the sunblind into a forced position irrespective of the upstream sub-functions. "Forced position" is active, if the value of the communication object is "On."

If an inversion is configured, the "forced position" is active when the value of the communication object is "Off."

Availability/alternative:

The communication object "A Override 5, Forced position" is displayed if the following configuration has been made:

- Parameter "Override 5" on the "functions, objects" parameter card:
 - Setting: "Forced position"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, user-defined control" is set to "enable," this communication object is hidden and communication object "A Override 5, Forced position, Control" is shown instead.

A Override 6, Forced Control

No.	Object name	Function	Datapoint type	Flags
51	A Override 6, Forced Control	Up/Down	2.001 switch control	CW

Function:

This 2-bit communication object enables forced moves to the upper or lower end position irrespective of the upstream sub-functions.

The following settings are possible:

Bit 1	Bit 0	Function
0	0	Forced control not active

0	1	Forced control not active
1	0	Forced control, move up
1	1	Forced control, move down

Availability:

The communication object "A Override 6, Forced Control" is displayed if the following configuration has been made:

- Parameter "Override 6" on the "functions, objects" parameter card:
 - Setting: "Forced Control"

A Override 7, Range limitation

No.	Object name	Function	Datapoint type	Flags
53	A Override 7, Range limitation	On/Off	1.003 enable	CW

Function:

"Range limitation" is active, if the value of the communication object is "On." In that case, the solar protection can only be moved within a certain range.

If an inversion is configured, "range limitation" is active when the communication object value is "Off."

Availability/alternative:

The communication object "A Override 7, Range limitation" is displayed if the following configuration has been made:

- Parameter "Override 7" on the "functions, objects" parameter card:
 - Setting: "Range limitation"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, range limitation" is set to "enable," this communication object is hidden and communication object "A Override 7, Range limitation, Control" is shown instead.

A Override 7, User-defined Control

No.	Object name	Function	Datapoint type	Flags
56	A Override 7, User-defined Control	On/Off	On/Off	CRT

Function:

This communication object can be used to move the solar protection into an end position or a certain position or stop it irrespective of the upstream sub-functions. The state can be retained permanently or for a limited time.

User-defined control is active when the value of the communication object is "on."

If an inversion is configured, user-defined control is active when the value of the communication object is "Off."

The behavior upon activation or deactivation of user-defined control can be configured using a parameter.

The user-defined control object ensures that all upstream function blocks are internally saved, but not evaluated and sent.

Availability/alternative:

The communication object "A Override 7, User-defined Control" is displayed if the following configuration has been made:

- Parameter "Override 7" on the "functions, objects" parameter card:
 - Setting: "User defined"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, user-defined control" is set to "enable," this communication object is hidden and communication object "A Override 7, User-defined Control, Control Value" is shown instead.

A Overrides status

No.	Object name	Function	Datapoint type	Flags
57	A Overrides status	1 = Active	1.002 boolean	CRT

Function:

This status object is used to report that an override is active. If a logical "0" is received, no override is active; if a logical "1" is received, at least one override is active.

Availability:

The communication object "A Overrides status" is displayed if the following configuration has been made:

- Parameter "Overrides status" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

Overrides [→ 206]

A Status calibration moving time

No.	Object name	Function	Datapoint type	Flags
58	A Status calibration moving time	Ok/Not ok	1.002 boolean	CRT

Function:

This status object is used to report that calibration of the moving time has been executed successfully.

If a logical "0" is received, the calibration of the move time was not successful, if a logical "1" is received, it was successful.

Availability:

The communication object "A Status calibration moving time" is displayed if the following configuration has been made:

- Parameter "End position detection" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Status calibration moving time" on the "functions, objects" parameter card:
 - Setting: "enable"

A Direct operation lock

No.	Object name	Function	Datapoint type	Flags
59	A Direct operation lock	On/Off	1.003 enable	CW

Function:

This communication object can be used to lock or enable direct operation (operation directly on the device).

If a logical "0" is received, direct operation is locked, if a logical "1" is received, direct operation is enabled.

Availability:

The communication object "A Direct operation lock" is displayed if the following configuration has been made:

- Parameter "Direct operation" on the "functions, objects" parameter card
 - Setting: "enable"
- Parameter "Direct operation lockable" on the "functions, objects" parameter card
 - Setting: "enable"

Example:

Enabling of direct operation through a key switch.

Note:

When bus voltage is recovered the setting is reset.

A Status direct operation

No.	Object name	Function	Datapoint type	Flags
60	A Status direct operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether direct operation is active or not.

If a logical "0" is sent, direct operation is deactivated, if a logical "1" is sent, direct operation is activated.

Availability:

The communication object "A Status direct operation" is displayed if the following configuration has been made:

- Parameter "Direct operation" ("functions, objects" parameter card)
 - Setting: "enable"
- Parameter "Status direct operation" ("functions, objects" parameter card)
 - Setting: "enable"

More information:

Direct operation [→ 201]

7.2.3 8-bit scene control

Users can use the function "8-bit scene recall/store," without changing the project planning with the ETS, to independently reprogram scene modules for 8-bit scene control or actuators with integrated 8-bit scene control, and thus assign current solar protection positions to the respective scene.

A single communication object is used to transmit the command to store a scene as well as the command to recall a stored scene and the number of the desired scene.

Before storing a scene, the affected actuators must be set to the desired solar protection position using the designated buttons/sensors. With the reception of a telegram for storing, the addressed scene modules or actuators with integrated scene control are prompted to request the currently configured solar protection positions from the actuators and store them in the respective scene.

NOTICE! Before is scene can be recalled or stored, solar protection must be synchronized or calibrated.

7.2.3.1 Parameters on the "Functions, objects" parameter card

8-bit scene control

Parameter	Settings
8-bit scene control	disable enable

Function:

This parameter is used to activate or deactivate 8-bit scene control.

Other parameters/parameter card:

If the "8-bit scene control" parameter is set to "enable," the "scene assignment" parameter card is displayed.

Communication object:

If the "8-bit scene control" parameter is set to "enable," the communication object "A 8-bit scene" is displayed.

More information:

- 8-bit scene control [→ 183]
- Communication object "A 8-bit scene" [→ 186]

7.2.3.2 Parameters on the "Scene assignment" parameter card

Link 1 – 8 to scene
[0...64]
(0 = disabled)

Parameters	Settings
Link 1 with scene [1...64] (0 = disable)	0...64
Link 2 with scene [1...64] (0 = disable)	0...64
Link 3 with scene [1...64] (0 = disable)	0...64
Link 4 with scene [1...64] (0 = disable)	0...64
Link 5 with scene [1...64] (0 = disable)	0...64
Link 6 with scene [1...64] (0 = disable)	0...64
Link 7 with scene [1...64] (0 = disable)	0...64
Link 8 with scene [1...64] (0 = disable)	0...64

Function:

This parameter can be used to incorporate the output of each solar protection actuator in one 8-bit scene with a number in the range from 1 to 64. "0" means that this assignment option is not being used.

Other parameters:

If the parameter "link x with scene [0...64]" is not set to "0," the following additional parameters are displayed:

- "8-bit scenes configurable by user"
- "Predefined solar protection position in %"

More information:

- Parameter "8-bit scenes configurable by user" [→ 184]
- Parameter "Predefined status solar protection position in %" [→ 67]

8-bit scenes
configurable by user

Parameters	Settings
8-bit scenes configurable by user	disable enable

Function:

If set to "disable," the scenes are not programmable (via a scene telegram). The values for recalling the scenes set via the parameter "Predefined solar protection position in %" cannot be changed during operation.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Link x with scene [0...64]"
 - Setting: unequal "0"

Other parameters:

If the parameter "8-bit scenes configurable by user" is set to "enable," the parameter "Delete learned scene" is displayed as well. The parameter "Predefined solar protection position in %" is hidden.

More information:

- Parameter "Link x with scene [0...64]" [→ 184]
- Parameter "Delete learned scene" [→ 184]
- Parameter "Predefined solar protection position in %" [→ 185]

Delete learned scene

Parameter	Settings
Delete learned scene	disable enable

Function:

If the option "disable" is selected, learned scene values are not deleted when the ETS software is downloaded into the device.

If the option "enable" is selected, learned scene values are deleted when the ETS software is downloaded into the device.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Link x with scene [0...64]"
 - Setting: unequal "0"
- Parameter "8-bit scenes configurable by user"
 - Setting: "enable"

Other parameters:

If the parameter "Delete learned scene" is set to "enable," the parameter "Predefine scene" is displayed as well.

More information:

- Parameter "Link x with scene [0...64]" [→ 184]
- Parameter "8-bit scenes configurable by user" [→ 184]
- Parameter "Predefine scene" [→ 185]

Predefine scene

Parameters	Settings
Predefine scene	disable enable

Function:

If the "disable" option is selected, the "Predefined solar protection position in %" parameter remains hidden. A scene must be programmed by the user. Already learned values are deleted during the download of the configuration from the ETS into the device. If nothing is learned, the scene is not activated.

If "enable," the respective parameter "Predefined solar protection position in %" is displayed, which is stored as a scene value during the download of the configuration from the ETS software into the device.

Availability:

The "Predefine scene" parameter is only displayed if the following configuration has been made:

- Parameter "Link x with scene [0...64]"
 - Setting: unequal "0"
- Parameter "8-bit scenes configurable by user"
 - Setting: "enable"
- Parameter "Delete learned scene"
 - Setting: "enable"

Other parameters:

If the "Predefine scene" parameter is set to "enable," the "Predefined solar protection position in %" parameter is displayed again.

More information:

- Parameter "Link x with scene [0...64]" [→ 184]
- Parameter "8-bit scenes configurable by user" [→ 184]
- Parameter "Delete learned scene" [→ 66]
- Parameter "Predefined status solar protection position in %" [→ 67]

Predefined solar protection position in %

Parameter	Settings
Predefined solar protection position in %	0...100

Function:

This parameter can be used to predefine the solar protection position for the selected scene number during the configuration and be loaded into the device with the ETS software.

Availability:

The "Predefined solar protection position in %" parameter is only displayed if the following configuration has been made:

Variant 1:

- Parameter "Link 1 with scene [1...64] (0 = disable)"
 - Setting: unequal "0"
- Parameter "8-bit scenes configurable by user"
 - Setting: "disable"

Variant 2:

- Parameter "8-bit scenes configurable by user"
 - Setting: "enable"
- "Delete learned scene"
 - Setting: "enable"
- Predefine scene"
 - Setting: "enable"

More information:

- Parameter "Link x with scene [0...64]" [→ 184]
- Parameter "8-bit scenes configurable by user" [→ 184]
- Parameter "Delete learned scene" [→ 184]
- Parameter "Predefine scene" [→ 185]

7.2.3.3 Communication objects

A 8-bit scene

No.	Object name	Function	Datapoint type	Flags
24	A 8-bit scene	recall/store	18.001 scene control	CW

Function:

With this communication object, the 8-bit scene with the number x is recalled (re-stored) or saved. Bits 0...5 contain the scene number here. If bit 7 = logical 1, then the scene is saved; if bit 7 = logical "0", it is recalled. Bit 6 currently has no meaning and must be set to logical "0." If automatic operation is active (Automatic operation = on), the recalling (restoring) of a scene automatically leads to a switch to manual operation (Automatic operation = off).

Successful storing of a position is only possible if the sunblind has been synchronized by a move to the end position or if the sunblind has been calibrated.

Availability:

The communication object "A 8-bit scene" is displayed if the following configuration has been made:

- Parameter "8-bit scene control" on the "functions, objects" parameter card
 - Setting: "enable"

7.2.4 Move to position 1/2, 3/4 (1-bit scene control)

The function "move to position 1/2, 3/4" is particularly suitable to repeatedly move to preferred element positions in combination with the 1-bit scene control.

The function can be used to specify 4 different solar protection positions for each channel. 2 of these preset positions (1/2 or 3/4) are addressed via one group address with the values "0" and "1."

The stored default settings of the positions can also be changed without programming the device via KNX. To do this, the blinds must be moved to the desired element height. This new position with the value "0" and "1" is copied to the memory of the device via the communication objects "position 1/2" (store) and "position 3/4" (store).

A preferred blind position can be called and stored at the push of a button. To do this, a key is pressed briefly to call up a position and a long key press is used to store it as a desired position.

7.2.4.1 Parameters of the "functions, objects" parameter card

Position 1/2

Parameters	Settings
Position 1/2	disable enable

Function:

This parameter is used to activate or deactivate 1-bit scene control "Position 1/2."

Other parameters/parameter cards:

If the "Position 1/2" parameter is set to "enable," the following parameters are visible on the "position 1/2" parameter card:

- Parameter "Position 1"
- Parameter "Position 2"

Communication object:

If the "Position 1/2" parameter is set to "enable," one or two communication objects "A Position 1/2" are displayed.

More information:

- Parameter "Position 1" [→ 188]
- Communication object "Position 1/2" (recall) [→ 190]
- Communication object "Position 1/2" (save) [→ 190]

Position 3/4

Parameters	Settings
Position 3/4	disable enable

Function:

This parameter is used to activate or deactivate 1-bit scene control "Position 3/4."

Other parameters/parameter cards:

If the "Position 3/4" parameter is set to "enable," the following parameters are visible on the "position 3/4" parameter card:

- Parameter "Position 3"
- Parameter "Position 4"

Communication object:

If the "Position 3/4" parameter is set to "enable," one or two communication objects "A Position 3/4" are displayed.

More information:

- Parameter "Position 1" [→ 188]
- Communication object "Position 3/4" (recall) [→ 190]
- Communication object "Position 3/4" (save) [→ 191]

7.2.4.2 Parameters on the parameter card "position 1/2" and "position 3/4"

NOTICE! The parameters "position 1" and "position 2" on the parameter card "position 1/2" and the parameters "position 3" and "position 4" on the parameter card "position 3/4" are configured in the same way and therefore only described once, for "position 1."

Position 1

Parameters	Settings
Position 1	disable enable

Function:

This parameter is used to enable or disable position 1.

Note:

The parameter description applies analogously to the parameters "Position 2," "Position 3" and "Position 4."

Other parameters:

If the "Position 1" parameter is set to "enable," the following parameters are displayed:

- "Position 1 user configurable"
- "Predefined solar protection position in %"

More information:

- Parameter "Position 1 user configurable" [→ 188]
- Parameter "Predefined status solar protection position in %" [→ 189]

Position 1 user configurable

Parameters	Settings
Position 1 user configurable	disable enable

Function:

If "disable" is selected, the position cannot be programmed. The values for recall of the position set via the "Predefined solar protection position in %" parameter cannot be changed during operation.

Other parameters:

If the "Position 1 user configurable" parameter is set to "enable," the "Delete taught in value for Position 1" parameter is displayed as well. The parameter "Predefined solar protection position in %" is hidden.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Position 1"
 - Setting: "enable"

More information:

- Parameter "Predefined status solar protection position in %" [→ 189]
- Parameter "Delete learned position value" [→ 71]

Delete taught in value for Position 1

Parameters	Settings
Delete taught in value for Position 1	disable enable

Function:

If the option "disable" is selected, learned position values are not deleted when the configuration is downloaded from the ETS software into the device.

If the option "enable" is selected, learned position values are deleted when the configuration is downloaded from the ETS software into the device.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Position 1"
 - Setting: "enable"
- Parameter "Position 1 user configurable"
 - Setting: "enable"

Other parameters:

If the "Delete taught in value for Position 1" parameter is set to "enable," the following parameter is also displayed.

- "predefine position 1"

More information:

Parameter "Predefine position 1" [→ 189]

predefine position 1

Parameters	Settings
predefine position 1	disable enable

Function:

If "disable" is selected, the "Predefined solar protection position in %" parameter remains hidden. A position must be programmed by the user. Already learned values are deleted during the download of the configuration from the ETS into the device. If nothing is learned, the position is not activated.

If "enable" is selected, the "Predefined solar protection position in %" parameter is displayed, which is stored as a position value during the download of the configuration from the ETS software into the device.

Other parameters:

If the "predefine position 1" parameter is set to "enable," the "Predefined solar protection position in %" parameter is displayed.

More information:

Parameter "Predefined status solar protection position in %" [→ 189]

Predefined solar protection position in %

Parameters	Settings
Predefined solar protection position in %	0...100

Function:

This parameter is used to specify the predefined setting for the solar protection position.

Availability:

The "Predefined solar protection position in %" parameter is only displayed if the following configuration has been made:

- Parameter "Position 1"
 - Setting: "enable"
- Parameter "Position 1 user configurable"
 - Setting: "disable"

Variant 2:

- Parameter "Position 1 user configurable"
 - Setting: "enable"
- Parameter "Delete taught in value for Position 1"
 - Setting: "enable"
- Parameter "predefine position 1"
 - Setting: "enable"

More information:

- Parameter "Position 1" [→ 71]
- Parameter "Delete learned scene" [→ 66]

7.2.4.3 Communication objects

A Position 1/2

No.	Object name	Function	Datapoint type	Flags
25	A Position 1/2	recall	1.022 scene	CW

Function:

This and the following communication object enable a room user who has assigned the "store/recall 1-bit scene" function to a pair of buttons on a bus switch to assign this pair of buttons to any position of the shutter by pushing the buttons for a long time or to automatically restore the position of the shutter to the stored position by briefly pushing the buttons.

This communication object can be used to automatically recall any two intermediate positions of the solar protection that is connected to the respective channel. To make this possible, these positions first have to be stored using the following communication object.

Reception of a "0" telegram results in a move to the solar protection position stored in position 1, while a "1" telegram results in the position stored under position 2.

Availability:

The communication object "A Position 1/2" is displayed if the following configuration has been made:

- Parameter "Position 1/2" on the "functions, objects" parameter card
 - Setting: "enable"

A Position 1/2

No.	Object name	Function	Datapoint type	Flags
26	A Position 1/2	store	1.022 scene	CW

Function:

This communication object can be used to store any two intermediate positions of the solar protection connected to this channel. The stored positions can then be recalled (restored) via the previous communication object at any time.

Successful storing of a position is only possible if the sunblind has been synchronized by a move to the end position or if the sunblind has been calibrated.

If a "0" telegram is received, the current status of the "A Status solar protection position" communication object is read and stored in position 1. Position 2 is accordingly stored when a "1" telegram is received.

Availability:

The communication object "A Position 1/2" is displayed if the following configuration has been made:

- Parameter "Position 1/2" on the "functions, objects" parameter card
 - Setting: "enable"

A Position 3/4

No.	Object name	Function	Datapoint type	Flags
27	A Position 3/4	recall	1.022 scene	CW

Function:

This and the following communication object enable a room user who has assigned the "store/recall 1-bit scene" function to a pair of buttons on a bus switch to assign this pair of buttons to any position of the shutter by pushing the buttons for a long time or to automatically restore the position of the shutter to the stored position by briefly pushing the buttons.

This communication object can be used to automatically recall any two intermediate positions of the solar protection that is connected to the respective channel. To make this possible, these positions first have to be stored using the following communication object.

Reception of a "0" telegram results in a move to the solar protection position stored in position 3, while a "1" telegram results in the position stored under position 4.

Availability:

The communication object "A Position 3/4" is displayed if the following configuration has been made:

- Parameter "Position 3/4" on the "functions, objects" parameter card
 - Setting: "enable"

A Position 3/4

No.	Object name	Function	Datapoint type	Flags
28	A Position 3/4	store	1.022 scene	CW

Function:

This communication object can be used to store any two intermediate positions of the solar protection connected to this channel. The stored positions can then be recalled (restored) via the previous communication object at any time.

Successful storing of a position is only possible if the sunblind has been synchronized by a move to the end position or if the sunblind has been calibrated.

If a "0" telegram is received, the current status of the "A Status solar protection position" communication object is read and stored in position 3. Position 4 is accordingly stored when a "1" telegram is received.

Availability:

The communication object "A Position 3/4" is displayed if the following configuration has been made:

- Parameter "Position 3/4" on the "functions, objects" parameter card:
 - Setting: "enable"

7.2.5 Manual operation

Manual operation is used for manual operation using keys or displays in the room where the drives are installed. Several drives can also be controlled manually from a central point.

7.2.5.1 Parameters on the "Functions, objects" parameter card

Manual operation

Parameter	Settings
Manual operation	disable enable

Function:

This parameter is used to activate or deactivate manual operation.

Other parameters:

If the "Manual operation" parameter is set to "enable," the following parameters are displayed:

- Parameter "Solar protection via dimming possible"
- Parameter "Control via %-objects"
- Parameter "Central Up/Down object"

If the "Solar protection via dimming possible" parameter is set to "enable," you can set whether the solar protection is not stopped and continues when the button is released.

Communication objects:

If the "Manual operation" parameter is set to "enable," the following communication objects are displayed:

- "A Manual operation solar protection"
- "A Manual operation stop"

Depending on which additional parameter cards are set to "enable," the following additional communication objects are displayed:

- "A Manual operation solar protection via dimming" (Up, down via brighter/darker)
- "A Manual operation solar protection via dimming" (Stop, open/close via on/off)
- "A Manual operation position solar protection"
- "A Manual operation solar protection central"

More information:

- Manual operation [→ 192]
- Parameter "Solar protection via dimming possible" [→ 193]
- Communication object "Manual operation solar protection via dimming" [→ 195]
- Communication object "Manual operation solar protection via dimming" (via brighter/darker) [→ 195]
- Parameter "Stop when pushbutton is released" [→ 76]
- Parameter "Control via %-objects" [→ 193]
- Parameter "Central up/down object" [→ 194]

Solar protection via dimming possible

Parameters	Settings
Solar protection via dimming possible	disable enable

Function:

This parameter is used to set whether the actuator is supposed to have two additional objects for control via a dimming sensor. Another parameter can be used to set the behavior.

If so, a 4-bit object and a 1-bit object are displayed. The 4-bit object must be connected to a dimming button "brighter/darker" and the 1-bit object to a dimming button "on/off." The 4-bit object can be used to move the solar protection up/down and the 1-bit object can be used to stop solar protection and move it up/down step-by-step. The 1-bit object responds like the object for stopping or moving step-by-step, but with inverse value. The On-telegram with object value 1 corresponds to the Up-telegram with object value 0.

Communication object:

If the "Solar protection via dimming possible" parameter is set to "enable," the following communication objects are displayed:

- "A Manual operation solar protection via dimming" (Up/Down via brighter/darker)
- "A Manual operation solar protection via dimming" (Stop via On/Off)

More information:

- "Communication object "manual operation solar protection via dimming" (Up/down via brighter/darker) [→ 195]
- Communication object "Manual operation solar protection via dimming" (stop via On / Off) [→ 171]

Stop after button release

Parameters	Settings
Stop after button release	disable enable

Function:

If the parameter is set to "disable," the solar protection is not stopped when the button is released and keeps going.

If the parameter is set to "enable," the solar protection not stopped when the button is released.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Solar protection via dimming possible"
 - Setting: "enable"

More information:

Parameter "Solar protection via dimming possible" [→ 193]

Control via %-objects

Parameters	Settings
Control via %-objects	disable enable

Function:

The parameter "Control via %-objects" can be used to move to positions via percentages in manual operation.

Communication object:

If the "Control via %-objects" parameter is enabled, the communication object "A Manual operation position solar protection" is displayed.

More information:

Communication object "A Manual operation solar protection position" [→ 195]

Central Up/Down object

Parameter	Settings
Central Up/Down object	disable enable

Function:

This parameter can be used to move the solar protection up and down with or without a delay via a central control.

Communication object:

If the "Central Up/Down object" parameter is set to "enable," the communication object "A Manual operation solar protection central" is displayed.

More information:

Parameter "Manual operation" [→ 192]

7.2.5.2 Communication objects

NOTICE! All manual operation actions as well as the 8-bit scene and position 1 - 4 deactivate automatic operation.

A Manual operation solar protection

No.	Object name	Function	Datapoint type	Flags
3	A Manual operation solar protection	Up/Down	1.008 up/down	CW

Function:

This communication object is used initiate the moving direction of the corresponding channel. When a logical "0" is received, the sunblind moves up, when a logical "1" is received, it moves down.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Note:

Without automatic end position detection, the motor is controlled for move time + move time extension for each move command.

With automatic end position detection, the motor is controlled for a maximum move time of 330 s for each move command, until an end position is detected.

Hence, the sunblind can always be moved into an end position with one move command (Up/Down).

Availability:

The "A Manual operation solar protection" communication object is only displayed if the following configuration has been made:

- Parameter "Manual operation" on the "functions, objects" parameter card
 - Setting: "enable"

A Manual operation stop

No.	Object name	Function	Datapoint type	Flags
4	A Manual operation stop	Stop	1.007 step	CW

Function:

Irrespective of whether the telegram contains a logical "0" or a logical "1," this communication object is used to stop an ongoing shutter move for the respective channel or, if configured accordingly, move up/down in steps.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object "A Manual operation stop" is displayed if the following configuration has been made:

- Parameter "Manual operation" on the "functions, objects" parameter card:

– Setting: "enable"

A Manual operation solar protection via dimming

No.	Object name	Function	Datapoint type	Flags
5	A Manual operation solar protection via dimming	Up/Down via brighter/darker	3.007 dimming control	CW

Function:

A dimming sensor can use this communication object to control a solar protection, whereby dimming brighter results in the solar protection moving up and dimming darker results in the solar protection moving down. All dimming telegrams are interpreted as a 100 % change because the actuator does not know the current position. That is why only the "dimming with stop telegram" configuration makes sense for the dimming sensor.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object "A Manual operation solar protection via dimming" is displayed if the following configuration has been made:

- Parameter "Solar protection via dimming possible" on the "functions, objects" parameter card:
 - Setting "enable"

A Manual operation solar protection via dimming

No.	Object name	Function	Datapoint type	Flags
6	A Manual operation solar protection via dimming	Stop, Open/Close via On/Off	1.001 switch	CW

Function:

A dimming sensor can use this object to control a sunblind. Irrespective of whether the telegram contains a logical "0" or a logical "1," an ongoing shutter move for the respective channel or, if configured accordingly, move up/down in steps is stopped.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object "A Manual operation solar protection via dimming" is displayed if the following configuration has been made:

- Parameter "Solar protection via dimming possible" on the "functions, objects" parameter card
 - Setting: "enable"

A Manual operation position solar protection

No.	Object name	Function	Datapoint type	Flags
7	A Manual operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW

Function:

This communication object can be used to move the solar protection of the corresponding channel to any position in manual operation.

- 0 % = shutter is moved up completely
- 100 % = shutter is moved completely down

If one of the end positions is to be reached, the move time to this end position is automatically extended by the configured value.

If the solar protection adjustment is completed or an end position reached, the object value of all status objects (solar protection position as well as upper and lower end position) is updated and, if configured accordingly, transferred to the bus.

Availability:

The "A Manual operation position solar protection" communication object is only displayed if the following configuration has been made:

- Parameter "Control via %-objects" on the "functions, objects" parameter card
 - Setting "enable"

A Manual operation solar protection central

No.	Object name	Function	Datapoint type	Flags
9	A Manual operation solar protection central	Up/Down	1.008 up/down	CW

Function:

If a logical "0" is received, the sunblind is moved to the upper end position; if a logical "1" is received it is moved to the lower end position. For each channel, a delay time for central commands can be set. Hence, central control with a delayed start can be implemented for each solar protection channel.

If a telegram is received via this communication object while the channel is in automatic operation, this always results in the respective channel being switched from automatic operation to manual operation.

Availability:

The communication object "A Manual operation solar protection central" is displayed if the following configuration has been made:

- Parameter "Central Up/Down object" on the "functions, objects" parameter card
 - Setting: "enable"

7.2.6 Automatic operation

In automatic operation, the solar protection actuator can be connected to higher level signals (e.g. a weather station or timer).

7.2.6.1 Parameters on the "Functions, objects" parameter card

Automatic operation

Parameters	Settings
Automatic operation	disable enable

Function:

This parameter is used to activate or deactivate automatic operation.

Note:

If manual operation is blocked, automatic operation is automatically activated after an ETS download.

Other parameters:

If the "Automatic operation" parameter is set to "enable," the following additional parameters are displayed:

- "Object sunshine"
- "Central Up/Down object"
- "Status automatic mode"
- "Delay time for automatic operation"
- "Automatic activation of automatic operation (0 = disabled)"

If the "Object sunshine" parameter is set to "Yes," the following parameters are displayed:

- "Behavior on sunshine = On"
- "Behavior on sunshine = Off"

Communication objects:

If the "Automatic operation" parameter is set to "enable," the following communication objects are displayed:

- "A Automatic operation"
- "A Automatic operation position solar protection"

More information:

- Communication object "A Automatic operation" [→ 200]
- Communication object "A Automatic operation solar protection position" [→ 200]
- Parameter "Object sunshine"
- Parameter "Behavior on sunshine = On" [→ 198]
- Parameter "Behavior on sunshine = Off" [→ 198]
- Parameter "Central up / down object" [→ 82]
- Parameter "Status automatic operation"
- Parameter "Delay time for automatic operation"
- Parameter "Automatic activation of automatic operation (0 = blocked)"

Object sunshine

Parameters	Settings
Object sunshine	No Yes

Function:

This parameter is used to set whether the "A Sunshine" object is enabled for this channel and can thus influence it when it is in automatic operation.

Other parameters:

If the "Object sunshine" parameter is set to "Yes," the following parameters are displayed:

- "Behavior on sunshine = On"
- "Behavior on sunshine = Off"

Communication object:

If the "Automatic operation" parameter is set to "enable," and the "Object sunshine" is set to "Yes," the communication object "A Sunshine" is displayed.

More information:

- Communication object "A Sunshine" [→ 200]
- Parameter "Behavior on sunshine = On" [→ 198]
- Parameter "Behavior on sunshine = Off" [→ 198]
- Parameter "Automatic operation" [→ 196]

Behavior on sunshine = On

Parameters	Settings
Behavior on sunshine = On	Solar protection down + do automatic commands Do automatic commands + go to stored position

Function:

This parameter is used to set how a solar protection channel responds when receiving a telegram with object value "1" for the "A Sunshine" object if it is in automatic operation.

If the parameter is set to "Solar protection down + do automatic commands," the shutter is moved to the lower end position and then moved to the value set in the "Solar protection position after solar protection down in %" parameter, the execution of automatic commands is enabled and the system waits for subsequent automatic commands.

If a telegram with a shutter position in percent is received while moving to the lower end position, this telegram is executed immediately. If the parameter is set to "Do automatic commands + go to stored position," the shutter is moved to the stored position. Only the execution of automatic commands is enabled and the system waits for subsequent automatic commands.

More information:

Communication object "A Sunshine" [→ 200]

Behavior on sunshine = Off

Parameters	Settings
Behavior on sunshine = Off	Solar protection up + ignore automatic commands Ignore automatic commands

Function:

This parameter is used to set how a solar protection channel responds when receiving a telegram with object value "0" for the "A Sunshine" object if it is in automatic operation.

If the parameter is set to "Solar protection up + ignore automatic commands," the shutter is moved to the upper end position and the execution of automatic commands is blocked. Accordingly, automatic commands are ignored and not executed for the respective channel as long as "sunshine = off" applies.

If the parameter is set to "Ignore automatic commands," the shutter position remains unchanged. Only the execution of automatic commands is disabled. Accordingly, automatic commands are ignored and not executed for the respective channel as long as "sunshine = off" applies.

More information:

Communication object "A Sunshine" [→ 200]

Central Up/Down object

Parameters	Settings
Central Up/Down object	disable enable

Function:

This parameter can be used to move the solar protection up and down with or without a delay via a central control.

Communication object:

If the "Central Up/Down object" parameter is set to "enable," the communication object "A Automatic operation solar protection central" is displayed.

More information:

Communication object "A Automatic operation solar protection" [→ 201]

Status automatic mode

Parameter	Settings
Status automatic mode	disable enable

Function:

This parameter is used to set whether the communication object "A Status automatic operation" is supposed to be available.

Availability:

The "Status automatic mode" parameter is only displayed if the following configuration has been made:

- Parameter "Automatic operation"
 - Setting: "enable"

Other parameters:

If the "Status automatic mode" parameter is enabled, additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication object:

If the "Status automatic mode" parameter is set to "enable," the communication object "A Status automatic operation" is displayed.

More information:

- Parameter "Automatic operation" [→ 196]
- Communication object "A Status automatic operation" [→ 201]

Delay time for automatic operation

Parameters	Settings
Delay time for automatic operation hh:mm:ss.f	(00:00:00.0 ... 01:49:13.5)

Function:

This parameter can be used to set a delay time to ensure all channels do not start at the same time when controlled in automatic operation. This is designed to prevent excessive noise.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Automatic operation"
 - Setting: "enable"

More information:

Parameter "Automatic operation"

Automatic activation of automatic operation (0 = disabled)

Parameter	Settings
Automatic activation of automatic operation (0 = disabled)	00:00:00 ... 18:12:15

Function:

This parameter is used to set if automatic operation is to be activated automatically, if the shutter was not moved manually during the set time.

Availability:

The "Automatic activation of automatic operation (0 = disabled)" parameter is displayed if the following configuration has been made:

- Parameter "Automatic operation"
 - Setting: "enable"

More information:

- Parameter "Automatic operation" [→ 196]

7.2.6.2 Communication objects

A Automatic operation

No.	Object name	Function	Datapoint type	Flags
10	A Automatic operation	On/Off	1.001 switch	CW

Function:

This object is used to activate and deactivate automatic operation.

If a logical "0" is received, automatic operation is deactivated, if a logical "1" is received, it is activated.

Availability:

The communication object "A Automatic operation" is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

Automatic operation [→ 196]

A Automatic operation position solar protection

No.	Object name	Function	Datapoint type	Flags
11	A Automatic operation position solar protection	8-bit value	5.001 percentage (0..100%)	CW

Function:

This communication object can be used to move the solar protection of the corresponding channel to any position in automatic operation. If the channel is in manual operation, a move command is not executed but saved and then executed after switching to automatic operation.

- 0 % = shutter is moved up completely
- 100 % = shutter is moved completely down

If one of the end positions is to be reached, the move time to this end position is automatically extended by the configured value to ensure the end position is reached and the end position switch is triggered. If the sunblind adjustment is completed or an end position reached, the object value of all status objects (solar protection position as well as upper and lower end position) is updated.

Availability:

The communication object "A Automatic operation position solar protection" is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card
 - Setting: "enable"

A Sunshine

No.	Object name	Function	Datapoint type	Flags
13	A Sunshine	On/Off	1.001 switch	CW

Function:

When using the exterior brightness sensor, this communication object is used to enable or lock the shutter positions as well as move to the upper and lower end position, if applicable. If a telegram is received for this object, the sunblind is moved with automatic operation activated and the positioning of the shutter is then released or locked via percentage commands.

If a logical "0" is received, the sunblind is moved to the upper end position (open), if applicable, and the positioning of the shutter and slats is blocked via percentage commands. If a logical "1" is received, the sunblind is moved to the lower end position (closed), if applicable, and the positioning of the shutter is enabled via percentage commands. If the shutter is moved to the lower end position, it is then moved to the position specified by the parameter "Solar protection position after solar protection down in %."

Availability:

The communication object "A Sunshine" is displayed if the following configuration has been made:

- Parameter "Object sunshine" on the "functions, objects" parameter card
 - Setting: "Yes"

A Automatic operation solar protection central

No.	Object name	Function	Datapoint type	Flags
14	A Automatic operation solar protection central	Up/Down	1.008 up/down	CW

Function:

If a telegram is received for this communication object, the output is first switched to "automatic operation" (if the parameter is enabled) and then the solar protection is moved. If a logical "0" is received, the solar protection is moved to the upper end position (opened). If a logical "1" is received, it is moved to the lower end position (closed) and then turned to the position specified via the "Solar protection position after solar protection down in %" parameter.

A delay time for central commands can be set for each channel, thus enabling central control with a delayed start to move for each sunblind channel.

Availability:

The communication object "A Automatic operation solar protection central" is displayed if the following configuration has been made:

- Parameter "Central Up/Down object" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status automatic operation

No.	Object name	Function	Datapoint type	Flags
15	A Status automatic operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether automatic operation is active. If a logical "0" is sent, automatic operation is deactivated, if a logical "1" is sent, automatic operation is activated.

Availability:

The communication object "A Status automatic operation" is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Status automatic mode" on the "functions, objects" parameter card:
 - Setting: "enable"

7.2.7 Direct operation

In direct operation, the solar protection actuator can be controlled using the buttons on the solar protection actuator. This enables the installer, for example, to check whether the solar protection actuator has been connected correctly.

NOTICE! After bus voltage recovery, direct operation is deactivated.

7.2.7.1 Operation in direct operation

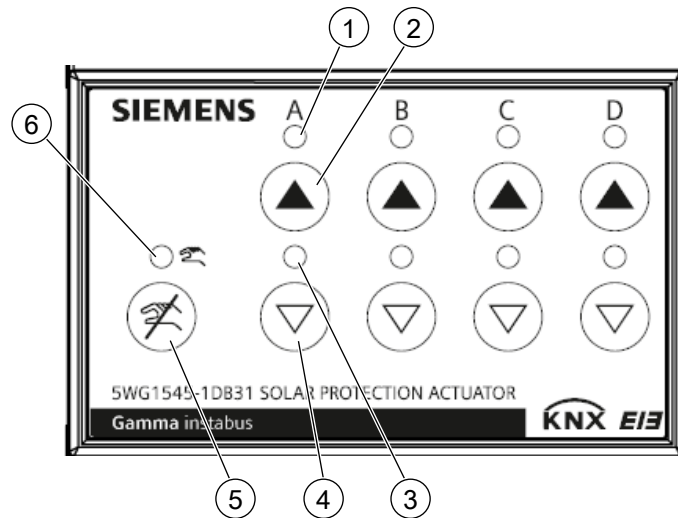


Fig. 10: Front side of the solar protection actuator Solar protection actuator N 545D31, 4 x 6 A DC

- | | | |
|---|---|--|
| 1 | Status LED of the channel, below (red) | <p>Indicates the status of the respective channel.</p> <ul style="list-style-type: none"> • LED switched off: Direct operation is switched off. • LED lit: Move command "Up" active. • LED flashing in sync with status LED: Direct operation is switched on. |
| 2 | Stop button: "Up" move command of the channel | <p>Short push of button (< 1 s):</p> <ul style="list-style-type: none"> • Move command "Stop" or "Raise" • Activate direct operation for the channel. <p>Long push of button (> 1 s):</p> <ul style="list-style-type: none"> • Move command "Up" active • Activate direct operation for the channel. |
| 3 | Status LED of the channel, below (red) | <p>Indicates the status of the respective channel.</p> <ul style="list-style-type: none"> • LED switched off: Direct operation is switched off. • LED lit: Move command "Down" active. • LED flashing in sync with status LED: Direct operation is switched on. |
| 4 | Stop button: "Up" move command of the channel | <p>Short push of button (< 1 s):</p> <ul style="list-style-type: none"> • Move command "Stop" • Activate direct operation for the channel. <p>Long push of button (> 1 s):</p> <ul style="list-style-type: none"> • Move command "Down" active |
| 5 | Button: Deactivate direct operation | <p>Short push of a button:</p> <ul style="list-style-type: none"> • Deactivate direct operation for all channels. <p>Pushing the button and pushing the Stop Up/Down button (2, 4) of a channel:</p> <ul style="list-style-type: none"> • Deactivate the direct operation of the respective channel. |
| 6 | Status LED of direct operation (yellow) | <p>The LED flashes if direct operation is active for at least one channel.</p> |

Switch on direct operation for one channel and operate channel

- ▷ Direct operation is enabled ("Direct operation" parameter).

1. On the front of the device, press the button "Stop: move command 'Up'" (2) or the button "Stop: move command 'Down'" (4).
 - ⇒ Direct operation is switched on for this channel.
 - ⇒ The status LED of the channel (1 for "Up," 3 for "Down") and the status LED of direct operation (6) flash.
2. To move the solar protection connected to the associated channel, press the "Stop: move command 'Up'" button (2) or the "Stop: Move command 'Down'" button (4) briefly (< 1 s) for step-by-step movement or press and hold (> 1 s) for continuous movement in the corresponding direction.

Switch off direct operation for one channel

- ▷ Direct operation is switched on.
- 1. Push and hold the "Deactivate direct operation" button (5).
- 2. Push and release the "Stop move command 'Up'" (2) or the "Stop: move command 'Down'" (4) button of the respective channel.
- 3. Release the "Deactivate direct operation" button (5).
 - ⇒ Direct operation is switched off for this channel.
 - ⇒ The channel returns to the state that is actually present at the device's connector (On or Off).
 - ⇒ The status LED of the channel (1, 3) again indicates the actual status of the contact of the channel (open or closed).

Switch off direct operation for all channels

- ▷ Direct operation is switched on.
- ◆ Push and release the "Deactivate direct operation" button (5).
 - ⇒ Direct operation is switched off for all channels.
 - ⇒ The status LED of direct operation (6) goes out.
 - ⇒ The channels now have the states that are actually present at the terminals of the device (on or off).
 - ⇒ The status LEDs of the channels (1, 3) again show the actual status of the contacts of the channels (open or closed).

7.2.7.2 Parameters on the "Functions, objects" parameter card

Direct operation

Parameter	Settings
Direct operation	disable enable

Function:

This parameter is used to disable or enable the operation of the solar protection actuator directly on the device.

Other parameters:

If the "Direct operation" parameter is set to "enable," additional parameters are displayed, which can be used to set when direct operation can be automatically reset and if direct operation is to be restricted. It can also be defined whether the status of direct operation should be disabled or enabled and whether the status on change of status should be sent cyclically or on request:

- Parameter "Direct operation auto reset"
- Parameter "Direct operation lockable"
- Parameter "Status direct operation"

If the "Status direct operation" parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication objects:

If the "Direct operation lockable" parameter is set to "enable," the following communication object is displayed:

- "A Direct operation lock"

If the "Status direct operation" parameter is set to "enable," the following communication object is displayed:

- "A Status direct operation"

More information:

- Direct operation [→ 201]
- Parameter "Direct operation auto reset" [→ 204]
- Parameter "Direct operation lockable" [→ 90]
- Communication object "A Direct operation lock" [→ 205]
- Parameter "Status direct operation" [→ 204]
- Communication object "A Status direct operation" [→ 205]

Direct operation auto reset

Parameters	Settings
Direct operation auto reset (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter is used to set the time after which direct operation is automatically deactivated.

The setting "00:00:00" means that direct operation is not automatically reset but can only be deactivated directly on the device or through bus voltage failure and recovery.

Note:

If direct operation has been activated on the solar protection actuator, the solar protection actuator can only be controlled directly and not remotely. This parameter can be used to prevent direct operation from being unintentionally left switched on.

Direct operation lockable

Parameters	Settings
Direct operation lockable	disable enable

Function:

This parameter can be used to control the enabling of direct operation via a communication object.

Communication objects:

If the "Direct operation lockable" parameter is set to "enable," the following communication object is displayed:

- "A Direct operation lock"

More information:

Communication object "A Direct operation lock" [→ 205]

Status direct operation

Parameter	Settings
Status direct operation	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of direct operation. This communication object is used to report whether direct operation is active.

Availability:

The "Status direct operation" parameter is only displayed if the following configuration has been made:

- Parameter "Direct operation"
 - Setting: "enable"

Other parameters:

If the "Status direct operation" parameter is set to "enable," additional parameters are displayed which can be used to set when a status is sent.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication object:

If the "Status direct operation" parameter is set to "enable," the communication object "A Status direct operation" is displayed.

More information:

- Parameter "Direct operation" [→ 203]
- Communication object "A Status direct operation" [→ 205]

This parameter is used to activate or deactivate the communication object for the status of direct operation. This communication object is used to report whether direct operation is active.

7.2.7.3 Communication objects

A Direct operation lock

No.	Object name	Function	Datapoint type	Flags
59	A Direct operation lock	On/Off	1.003 enable	CW

Function:

This communication object can be used to lock or enable direct operation (operation directly on the device).

If a logical "0" is received, direct operation is locked, if a logical "1" is received, direct operation is enabled.

Availability:

The communication object "A Direct operation lock" is displayed if the following configuration has been made:

- Parameter "Direct operation" on the "functions, objects" parameter card
 - Setting: "enable"
- Parameter "Direct operation lockable" on the "functions, objects" parameter card
 - Setting: "enable"

Example:

Enabling of direct operation through a key switch.

Note:

When bus voltage is recovered the setting is reset.

A Status direct operation

No.	Object name	Function	Datapoint type	Flags
60	A Status direct operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether direct operation is active or not.

Availability:

The communication object "A Status direct operation" is displayed if the following configuration has been made:

- Parameter "Direct operation" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Status direct operation" on the "functions, objects" parameter card:
 - Setting: "enable"

7.2.8 "Wind alarm" override

The "wind alarm" override function can be used to protect the solar protection from wind and storm.

7.2.8.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.2.8.2 Parameters on the "Override 1, wind alarm" parameter card

Control Value Input

Parameters	Settings
Control Value Input	disable enable

Function:

This parameter can be set whether instead of the switching input, a control value input should be used for the activation and deactivation of the override function.

Other parameters:

If the parameter "Control Value Input" is in status "enable," parameters "Control Value Input Data Type," "Threshold for Off (<=)," and "Threshold for On (>=)" are displayed.

Communication object:

If the parameter "Control Value Input" is in status "enable," the communication object "A Override 1, Wind Alarm" is hidden and the communication object "A Override 1, Wind Alarm, Control" is displayed instead.

More information:

Communication object "A Override 1, wind alarm, control value" [→ 214]

Control Value Input Data Type

Parameters	Settings
Control Value Input Data Type	Percentage (%) DPT 5.001 Value (8-bit) DPT 5.010 2-byte unsigned value DPT 7.x 2-byte signed value DPT 8.x 2-byte floating point number DPT 9.x Temperature (°C) DPT 9.001 Illuminance (lx) DPT 9.004 Wind speed (m/s) DPT 9.005 Current (mA) DPT 9.021 Power (kW) DPT 9.024 Wind speed (km/h) DPT 9.028 4-byte unsigned value DPT 12.x 4-byte signed value DPT 13.x 4-byte floating point number DPT 14.x Power (W) DPT 14.056

Function:

This parameter defines the datapoint type of the communication object "control value."

The following datapoint types can be set:

- Percentage (%) DPT 5.001:
Corresponds to the datapoint type "5.001 percent (0...100 %)."
- Value (8-bit) DPT 5.010:
Corresponds to the datapoint type "5.010 counting impulses (0 ... 255)."
- 2-byte unsigned value DPT 7.x:
Corresponds to the datapoint type "2 bytes without prefix."
- 2-byte signed value DPT 8.x:
Corresponds to the datapoint type "2 bytes with prefix."
- 2-byte floating point number DPT 9.x:
Corresponds to the datapoint type "2 bytes floating value."
- Temperature (°C) DPT 9.001:
Corresponds to the datapoint type "9.001 temperature °C."

- Illuminance (lx) DPT 9.004:
Corresponds to the datapoint type "9.004 illuminance lx."
- Wind speed (m/s) DPT 9.005:
Corresponds to the datapoint type "9.005 speed (m/s)."
- Current (mA) DPT 9.021:
Corresponds to the datapoint type "9.021 current mA."
- Power (kW) DPT 9.024:
Corresponds to the datapoint type "9.024 output kW."
- Wind speed (km/h) DPT 9.028:
Corresponds to the datapoint type "9.028 wind speed (km/h)."
- 4-byte unsigned value DPT 12.x:
Corresponds to the datapoint type "4 bytes without prefix."
- 4-byte signed value DPT 13.x:
Corresponds to the datapoint type "4 bytes with prefix."
- 4-byte floating point number DPT 14.x:
Corresponds to the datapoint type "4 bytes floating value."
- Power (W) DPT 14.056:
Corresponds to the datapoint type "14.056 output W."

Threshold for Off (<=)

Parameters	Settings
Threshold for Off (<=)	0...100

Function:

This parameter determines the threshold for "Off."

If the value of this communication object is equal to or smaller than the configured threshold for "Off," then the determined switching value is equal to "Off" (0).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Threshold for On (>=)

Parameters	Settings
Threshold for On (>=)	0...100

Function:

This parameter determines the threshold for "On."

If the value of this communication object is equal to or greater than the configured threshold for "On," then the determined switching value is equal to "On" (1).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Invert Override Control

Parameters	Settings
Invert Override Control	No Yes

Function:

This parameter is used to set whether the input value of communication object "A Override 1, Wind Alarm" should be used directly or inverted.

More information:

Communication object "A Override 1, wind alarm" [→ 213]

Lock direct operation if override is active

Parameters	Settings
Lock direct operation if override is active	disable enable

Function:

If the parameter is enabled, operation on the device is prevented when the override is active.

Note:

Even one active override that blocks direct operation prevents operation on the device.

Delay time for override activation

Parameter	Settings
Delay time for override activation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the activation of the override.

Delay time for override deactivation

Parameters	Settings
Delay time for override deactivation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the deactivation of the override.

Delay time for activation/deactivation behavior

Parameters	Settings
Delay time for activation/deactivation behavior (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time for the behavior after activation and deactivation of the override.

Monitoring time

Parameter	Settings
Monitoring time (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter is used to set whether the cyclical input of telegrams to the communication object for central override should be monitored and how long the monitoring time is.

With a parameter value of 00:00:00, no monitoring takes place.

For all other parameter values, the cyclical input of deactivation telegrams is monitored. If the monitoring time is exceeded, the override is activated automatically.

Override Duration

Parameter	Settings
Override Duration (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set the desired on period with activated override. The override duration is then re-started with each incoming activation telegram. With a parameter value of 00:00:00, the override duration is unlimited.

Note:

If the monitoring time is simultaneously set not equal to 00:00:00, the following behavior will be observed:

- **Monitoring time < override duration:**
The override duration is triggered using a cyclically incoming activation telegram. The configured override duration is not effective.
- **Monitoring time > override duration:**
With the elapse of the override duration, the override is switched off. With the next incoming activation telegram for monitoring, it is re-activated and the override duration begins again.

Behavior on override activation

Parameters	Settings
Behavior on override activation	Up Down No change According to parameter Stop

Function:

This parameter is used to specify how the shutter responds when an override is activated.

The following settings are possible:

- Up:
The shutter moves up.
- Down:
The shutter moves down.
- No change:
All subsequent functions (manual operation, automatic operation etc.) are blocked.
- According to parameter:
The shutter moves to the value set in the parameter "Solar protection position in %."
- Stop:
The shutter stops at the position just assumed.

Other parameters:

If the "Behavior on override activation" parameter is set to "According to parameter," parameters "Solar protection position in %" and "Behavior if no sync" are displayed.

More information:

- Parameter "Solar protection position in %" [→ 211]
- Parameter "Behavior if no sync" [→ 212]

Behavior on override deactivation

Parameters	Settings
Behavior on override deactivation	Up Down No change According to parameter Updated value

Function:

This parameter is used to specify how the shutter responds if an override is deactivated.

The following settings are possible:

- Up:
The shutter moves up.
- Down:
The shutter moves down.
- No change:
The value at the output is retained until a new value arrives at the input of the function block.
- According to parameter:
The shutter moves to the value set in the parameter "Solar protection position in %."
- Updated value:
The shutter moves to the value at the input of the function block.

Other parameters:

If the "Behavior on override deactivation" parameter is set to "According to parameter," parameters "Solar protection position in %" and "Behavior if no sync" are displayed.

More information:

- Parameter "Solar protection position in %" [→ 211]
- Parameter "Behavior if no sync" [→ 212]

Solar protection position in %

Parameters	Settings
Solar protection position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the shutter is to be moved when the override is activated and deactivated.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override activation"
 - Setting: "According to parameter"

or

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

- Parameter "Behavior on override activation" [→ 210]
- Parameter "Behavior on override deactivation" [→ 211]

Behavior if no sync

Parameters	Settings
Behavior if no sync	Up Down No change Stop

Function:

This parameter is used to set the behavior of the shutter on activation or deactivation of an override (setting "According to parameter") if the device is not synchronized.

This applies as long as runtime parameters have been changed by an ETS download or the "Behavior after download" parameter is set to "Use ETS parameter" and no new calibration has been performed.

The following settings are possible:

- Up:
The shutter moves all the way up.
- Down:
The shutter moves all the way down.
- No change:
All subsequent functions (manual operation, automatic operation etc.) are blocked (Behavior on override activation). The value at the output is retained until a new value arrives at the input of the function block (Behavior on override deactivation).
- Stop:
The shutter stops at the position just assumed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override activation"
 - Setting: "According to parameter"

or

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

- Parameter "Behavior on override activation" [→ 210]
- Parameter "Behavior on override deactivation" [→ 211]

Status Override

Parameter	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter "Status Override" is set to "enable," additional parameters for sending the status of the override are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Start value/behavior of override input on bus voltage recovery

Parameters	Settings
Start value/behavior of override input on bus voltage recovery	Off On Deactivated Last value

Function:

This parameter can be used to set the desired starting value or the desired start behavior of the override input on bus voltage recovery.

The following settings are possible:

- Off:
The override function block behaves as if an "off" had been received at the override block input when bus voltage is recovered.
- On:
The override function block behaves as if an "on" had been received at the override block input when bus voltage is recovered.
- Deactivated:
The override function block is deactivated on bus voltage recovery.
- Last value:
The override input of the function block is then set to the value stored on bus voltage failure.

7.2.8.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 1, Wind Alarm

No.	Object name	Function	Datapoint type	Flags
29	A Override 1, Wind Alarm	On/Off	1.003 enable	CW

Function:

The "wind alarm" is active when the value of the communication object is "on." If an inversion is configured, "wind alarm" is active when the object value is "Off."

Note:

This object can then be linked to e.g. an alarm message of a wind guard.

Availability/alternative:

The communication object "A Override 1, Wind Alarm" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card
 - Setting: "Wind Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on parameter card "override 1, wind alarm" is enabled, this communication object is hidden and communication object "A Override 1, Wind Alarm, Control" is shown instead.

A Override 1, Wind Alarm, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Wind Alarm, Control	value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W)	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Note:

This object can then be linked to e.g. an alarm message of a wind guard.

Availability/alternative:

The communication object "A Override 1, Wind Alarm, Control" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card:
 - Setting: "Wind Alarm"
- Parameter "Control Value Input"
 - Setting: "enable"

Alternatively, a switching input can be used instead of a control value input. If the parameter "Control Value Input" on the parameter card "override 1, wind alarm" is set to "disable," this communication object is hidden and communication object "A Override 1, Wind Alarm" is shown instead.

A Override 1, Wind Alarm, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Wind Alarm, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active.

If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Wind Alarm, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, wind alarm" parameter card
 - Setting: "enable"

7.2.9 "Rain alarm" override

The override function can be used to protect a textile solar protection from rain.

7.2.9.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.2.9.2 Parameters on the "Override x, rain alarm" parameter card

The parameters for the "rain alarm" override on the "Override 1, rain alarm" parameter card are identical to the parameters for the "wind alarm" override on the "Override 1, wind alarm" parameter card.

More information:

Parameters on the "Override 1, wind alarm" parameter card [→ 92]

7.2.9.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 2, Rain Alarm

No.	Object name	Function	Datapoint type	Flags
33	A Override 2, Rain Alarm	On/Off	1.003 enable	CW

Function:

The "rain alarm" is active when the value of the communication object is "on."

If an inversion is configured, the "rain alarm" is active when the object value is "off."

Note:

This communication object can then be linked to e.g. an alarm message of a rain guard.

Availability/alternative:

The communication object "A Override 2, Rain Alarm" is displayed if the following configuration has been made:

- Parameter "Override 2" on the "functions, objects" parameter card:

- Setting: "Rain Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 2, rain alarm" is set to "enable," this communication object is hidden and communication object "A Override 2, Rain Alarm, Control" is shown instead.

A Override 1, Rain Alarm, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Rain Alarm, Control	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W) 14.* 4-byte float value	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Availability/alternative:

The communication object "A Override 1, Rain Alarm, Control" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card
 - Setting: "Rain Alarm"
- Parameter "Control Value Input" on the "override 1, rain alarm" parameter card
 - Setting: "enable"

Alternatively, a switching input can be used instead of a control value input. If the "Control Value Input" parameter on the "override 1, rain alarm" parameter card is disabled, this communication object is hidden and communication object "A Override 1, Rain Alarm" is displayed.

A Override 1, Rain Alarm, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Rain Alarm, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active.

If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Rain Alarm, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, rain alarm" parameter card
 - Setting: "enable"

7.2.10 "Frost alarm" override

The "frost alarm" override function can be used to protect the solar protection system from freezing.

7.2.10.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.2.10.2 Parameters on the "Override x, frost alarm" parameter card

The parameters for the "frost alarm" override on the "Override x, frost alarm" parameter card are identical to the parameters for the "wind alarm" override on the "Override x, wind alarm" parameter card.

More information:

Parameters on the "Override 1, wind alarm" parameter card [→ 92]

7.2.10.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 3, Frost Alarm

No.	Object name	Function	Datapoint type	Flags
37	A Override 3, Frost Alarm	On/Off	1.003 enable	CW

Function:

"Frost alarm" is active when the value of the communication object is "on."

If an inversion is configured, the "frost alarm" is active when the value of the communication object is "Off."

Note:

This object can then be linked to e.g. an alarm message of a frost guard.

Communication object:

This communication can then be linked to e.g. an alarm message of a frost guard.

Availability/alternative:

The communication object "A Override 3, Frost Alarm" is displayed if the following configuration has been made:

- Parameter "Override 3" on the "functions, objects" parameter card:
 - Setting: "Frost Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, frost alarm" is set to "enable," this communication object is hidden and communication object "A Override 3, Frost Alarm, Control" is shown instead.

A Override 1, Frost Alarm, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Frost Alarm, Control	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W) 14.* 4-byte float value	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Availability/alternative:

The communication object "A Override 1, Frost Alarm, Control" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card
 - Setting: "Frost Alarm"
- Parameter "Control Value Input" on the "override 1, frost alarm" parameter card
 - Setting: "enable"

Alternatively, a switching input can be used instead of a control value input. If the "Control Value Input" parameter on the "override 1, frost alarm" parameter card is disabled, this communication object is hidden and communication object "A Override 1, Frost Alarm" is displayed.

A Override 1, Frost Alarm, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Frost Alarm, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active.

If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Frost Alarm, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, frost alarm" parameter card
 - Setting: "enable"

More information:

Parameters of the "override 1, wind alarm" parameter card

7.2.11 Override "lock"

The "Lock" override function, for example, can be used to protect an internal element if a window is open.

7.2.11.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.2.11.2 Parameters on the "Override x, lock" parameter card

Control Value Input

Parameters	Settings
Control Value Input	disable enable

Function:

This parameter can be set whether instead of the switching input, a control value input should be used for the activation and deactivation of the override function.

Other parameters:

If the parameter "Control Value Input" is in status "enable," parameters "Control Value Input Data Type," "Threshold for Off (<=)," and "Threshold for On (>=)" are displayed.

Communication object:

If the parameter "Control Value Input" is in status "enable," the communication object "A Override 1, Lock" is hidden and the communication object "A Override 1, Lock, Control" is displayed instead.

More information:

Communication object "A Override 1, lock, control value" [→ 226]

Control Value Input Data Type

Parameters	Settings
Control Value Input Data Type	Percentage (%) DPT 5.001 Value (8-bit) DPT 5.010 2-byte unsigned value DPT 7.x 2-byte signed value DPT 8.x 2-byte floating point number DPT 9.x Temperature (°C) DPT 9.001 Illuminance (lx) DPT 9.004 Wind speed (m/s) DPT 9.005 Current (mA) DPT 9.021 Power (kW) DPT 9.024 Wind speed (km/h) DPT 9.028 4-byte unsigned value DPT 12.x 4-byte signed value DPT 13.x 4-byte floating point number DPT 14.x Power (W) DPT 14.056

Function:

This parameter defines the datapoint type of the communication object "control value."

The following datapoint types can be set:

- Percentage (%) DPT 5.001:
Corresponds to the datapoint type "5.001 percent (0...100 %)."
- Value (8-bit) DPT 5.010:
Corresponds to the datapoint type "5.010 counting impulses (0 ... 255)."
- 2-byte unsigned value DPT 7.x:
Corresponds to the datapoint type "2 bytes without prefix."
- 2-byte signed value DPT 8.x:
Corresponds to the datapoint type "2 bytes with prefix."
- 2-byte floating point number DPT 9.x:
Corresponds to the datapoint type "2 bytes floating value."
- Temperature (°C) DPT 9.001:
Corresponds to the datapoint type "9.001 temperature °C."

- Illuminance (lx) DPT 9.004:
Corresponds to the datapoint type "9.004 illuminance lx."
- Wind speed (m/s) DPT 9.005:
Corresponds to the datapoint type "9.005 speed (m/s)."
- Current (mA) DPT 9.021:
Corresponds to the datapoint type "9.021 current mA."
- Power (kW) DPT 9.024:
Corresponds to the datapoint type "9.024 output kW."
- Wind speed (km/h) DPT 9.028:
Corresponds to the datapoint type "9.028 wind speed (km/h)."
- 4-byte unsigned value DPT 12.x:
Corresponds to the datapoint type "4 bytes without prefix."
- 4-byte signed value DPT 13.x:
Corresponds to the datapoint type "4 bytes with prefix."
- 4-byte floating point number DPT 14.x:
Corresponds to the datapoint type "4 bytes floating value."
- Power (W) DPT 14.056:
Corresponds to the datapoint type "14.056 output W."

Threshold for Off (<=)

Parameters	Settings
Threshold for Off (<=)	0...100

Function:

This parameter determines the threshold for "Off."

If the value of this communication object is equal to or smaller than the configured threshold for "Off," then the determined switching value is equal to "Off" (0).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Threshold for On (>=)

Parameters	Settings
Threshold for On (>=)	0...100

Function:

This parameter determines the threshold for "On."

If the value of this communication object is equal to or greater than the configured threshold for "On," then the determined switching value is equal to "On" (1).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Invert Override Control

Parameters	Settings
Invert Override Control	No Yes

Function:

This parameter is used to set whether the input value of communication object "A Override 1, Wind Alarm" should be used directly or inverted.

More information:

Communication object "A Override 1, lock" [→ 225]

Lock direct operation if override is active

Parameters	Settings
Lock direct operation if override is active	disable enable

Function:

If the parameter is enabled, operation on the device is prevented when the override is active.

Note:

Even one active override that blocks direct operation prevents operation on the device.

Delay time for override activation

Parameter	Settings
Delay time for override activation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the activation of the override.

Delay time for override deactivation

Parameters	Settings
Delay time for override deactivation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the deactivation of the override.

Behavior on override deactivation

Parameters	Settings
Behavior on override deactivation	Up Down No change According to parameter Updated value

Function:

This parameter is used to specify how the shutter responds if an override is deactivated.

The following settings are possible:

- Up:
The shutter moves up.
- Down:
The shutter moves down.
- No change:
The value at the output is retained until a new value arrives at the input of the function block.
- According to parameter:
The shutter moves to the value set in the parameter "Solar protection position in %."
- Updated value:
The shutter moves to the value at the input of the function block.

Other parameters:

If the "Behavior on override deactivation" parameter is set to "According to parameter," parameters "Solar protection position in %" and "Behavior if no sync" are displayed.

More information:

- Parameter "Solar protection position in %" [→ 223]
- Parameter "Behavior if no sync" [→ 224]

Solar protection position in %

Parameters	Settings
Solar protection position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the shutter is to be moved when the override is activated and deactivated.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override activation"
 - Setting: "According to parameter"
- or
- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

- Parameter "Behavior on override activation" [→ 210]
- Parameter "Behavior on override deactivation" [→ 223]

Behavior if no sync

Parameters	Settings
Behavior if no sync	Up Down No change Stop

Function:

This parameter is used to set the behavior of the shutter on activation or deactivation of an override (setting "According to parameter") if the device is not synchronized.

This applies as long as runtime parameters have been changed by an ETS download or the "Behavior after download" parameter is set to "Use ETS parameter" and no new calibration has been performed.

The following settings are possible:

- Up:
The shutter moves all the way up.
- Down:
The shutter moves all the way down.
- No change:
All subsequent functions (manual operation, automatic operation etc.) are blocked (Behavior on override activation). The value at the output is retained until a new value arrives at the input of the function block (Behavior on override deactivation).
- Stop:
The shutter stops at the position just assumed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override activation"
 - Setting: "According to parameter"

or

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

- Parameter "Behavior on override activation" [→ 210]
- Parameter "Behavior on override deactivation" [→ 223]

Status Override

Parameter	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter "Status Override" is set to "enable," additional parameters for sending the status of the override are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

**Start value/behavior of
override input on bus
voltage recovery**

Parameters	Settings
Start value/behavior of override input on bus voltage recovery	Off On Deactivated Last value

Function:

This parameter can be used to set the desired starting value or the desired start behavior of the override input on bus voltage recovery.

The following settings are possible:

- Off:
The override function block behaves as if an "off" had been received at the override block input when bus voltage is recovered.
- On:
The override function block behaves as if an "on" had been received at the override block input when bus voltage is recovered.
- Deactivated:
The override function block is deactivated on bus voltage recovery.
- Last value:
The override input of the function block is then set to the value stored on bus voltage failure.

7.2.11.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 4, Lock

No.	Object name	Function	Datapoint type	Flags
41	A Override 4, Lock	On/Off	1.003 enable	CW

Function:

This communication object can be used to lock the sunblind against changes for as long as the lock is active irrespective of the upstream sub-functions.

The lock is active when the value of the communication object is "on."

If an inversion is configured, the lock is active when the object value is "off."

Availability/alternative:

The communication object "A Override 4, Lock" is displayed if the following configuration has been made:

- Parameter "Override 4" on the "functions, objects" parameter card:
 - Setting: "Lock"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, lock" is set to "enable," this communication object is hidden and communication object "A Override 4, Lock, Control" is shown instead.

A Override 1, Lock, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Lock, Control	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W)	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Availability/alternative:

The communication object "A Override 1, Lock, Control" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card:
 - Setting: "Lock"
- Parameter "Control Value Input" on the "override 1, lock" parameter card
 - Setting "enable"

Alternatively, a switching input can be used instead of a control value input. If the parameter "Control Value Input" on parameter card "override 1, lock" is set to "enable," this communication object is hidden and communication object "A Override 1, Lock" is shown instead.

A Override 1, Lock, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Lock, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active.

If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Lock, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, lock" parameter card
 - Setting: "enable"

7.2.12 "Forced position" override

The override function "forced position" can be used, for example, to protect cleaners from getting injured by the solar protection while cleaning windows.

7.2.12.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.2.12.2 Parameters on the "Override x, forced position" parameter card

Control Value Input

Parameters	Settings
Control Value Input	disable enable

Function:

This parameter can be set whether instead of the switching input, a control value input should be used for the activation and deactivation of the override function.

Other parameters:

If the parameter "Control Value Input" is in status "enable," parameters "Control Value Input Data Type," "Threshold for Off (<=)," and "Threshold for On (>=)" are displayed.

Communication object:

If the parameter "Control Value Input" is in status "enable," the communication object "A Override 1, Forced position" is hidden and the communication object "A Override 1, Forced position, Control" is displayed instead.

More information:

Communication object "A Override 1, forced position, control value" [→ 234]

Control Value Input Data Type

Parameters	Settings
Control Value Input Data Type	Percentage (%) DPT 5.001 Value (8-bit) DPT 5.010 2-byte unsigned value DPT 7.x 2-byte signed value DPT 8.x 2-byte floating point number DPT 9.x Temperature (°C) DPT 9.001 Illuminance (lx) DPT 9.004 Wind speed (m/s) DPT 9.005 Current (mA) DPT 9.021 Power (kW) DPT 9.024 Wind speed (km/h) DPT 9.028 4-byte unsigned value DPT 12.x 4-byte signed value DPT 13.x 4-byte floating point number DPT 14.x Power (W) DPT 14.056

Function:

This parameter defines the datapoint type of the communication object "control value."

The following datapoint types can be set:

- Percentage (%) DPT 5.001:
Corresponds to the datapoint type "5.001 percent (0...100 %)."
- Value (8-bit) DPT 5.010:
Corresponds to the datapoint type "5.010 counting impulses (0 ... 255)."
- 2-byte unsigned value DPT 7.x:
Corresponds to the datapoint type "2 bytes without prefix."
- 2-byte signed value DPT 8.x:
Corresponds to the datapoint type "2 bytes with prefix."
- 2-byte floating point number DPT 9.x:
Corresponds to the datapoint type "2 bytes floating value."
- Temperature (°C) DPT 9.001:
Corresponds to the datapoint type "9.001 temperature °C."
- Illuminance (lx) DPT 9.004:
Corresponds to the datapoint type "9.004 illuminance lx."
- Wind speed (m/s) DPT 9.005:
Corresponds to the datapoint type "9.005 speed (m/s)."
- Current (mA) DPT 9.021:
Corresponds to the datapoint type "9.021 current mA."
- Power (kW) DPT 9.024:
Corresponds to the datapoint type "9.024 output kW."
- Wind speed (km/h) DPT 9.028:
Corresponds to the datapoint type "9.028 wind speed (km/h)."
- 4-byte unsigned value DPT 12.x:
Corresponds to the datapoint type "4 bytes without prefix."
- 4-byte signed value DPT 13.x:
Corresponds to the datapoint type "4 bytes with prefix."
- 4-byte floating point number DPT 14.x:
Corresponds to the datapoint type "4 bytes floating value."
- Power (W) DPT 14.056:
Corresponds to the datapoint type "14.056 output W."

Threshold for Off (<=)

Parameters	Settings
Threshold for Off (<=)	0...100

Function:

This parameter determines the threshold for "Off."

If the value of this communication object is equal to or smaller than the configured threshold for "Off," then the determined switching value is equal to "Off" (0).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Threshold for On (>=)

Parameters	Settings
Threshold for On (>=)	0...100

Function:

This parameter determines the threshold for "On."

If the value of this communication object is equal to or greater than the configured threshold for "On," then the determined switching value is equal to "On" (1).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Invert Override Control

Parameters	Settings
Invert Override Control	No Yes

Function:

This parameter is used to set whether the input value of communication object "A Override 1, Forced position" should be used directly or inverted.

More information:

Communication object "A Override 1, forced position" [→ 233]

Lock direct operation if override is active

Parameters	Settings
Lock direct operation if override is active	disable enable

Function:

If the parameter is enabled, operation on the device is prevented when the override is active.

Note:

Even one active override that blocks direct operation prevents operation on the device.

Delay time for override activation

Parameter	Settings
Delay time for override activation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the activation of the override.

Delay time for override deactivation

Parameters	Settings
Delay time for override deactivation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the deactivation of the override.

Delay time for activation/deactivation behavior

Parameters	Settings
Delay time for activation/deactivation behavior (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time for the behavior after activation and deactivation of the override.

Monitoring time

Parameter	Settings
Monitoring time (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter is used to set whether the cyclical input of telegrams to the communication object for central override should be monitored and how long the monitoring time is.

With a parameter value of 00:00:00, no monitoring takes place.

For all other parameter values, the cyclical input of deactivation telegrams is monitored. If the monitoring time is exceeded, the override is activated automatically.

Override Duration

Parameter	Settings
Override Duration (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set the desired on period with activated override.

The override duration is then re-started with each incoming activation telegram.

With a parameter value of 00:00:00, the override duration is unlimited.

Note:

If the monitoring time is simultaneously set not equal to 00:00:00, the following behavior will be observed:

- **Monitoring time < override duration:**

The override duration is triggered using a cyclically incoming activation telegram. The configured override duration is not effective.

- **Monitoring time > override duration:**

With the elapse of the override duration, the override is switched off. With the next incoming activation telegram for monitoring, it is re-activated and the override duration begins again.

Solar protection position in %

Parameters	Settings
Solar protection position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the solar protection is to be moved when the override is activated or deactivated.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

Parameter "Behavior on override deactivation" [→ 231]

Behavior if no sync

Parameters	Settings
Behavior if no sync	Up Down No change Stop

Function:

This parameter is used to set the behavior of the shutter on activation or deactivation of an override (setting "According to parameter") if the device is not synchronized.

This applies as long as runtime parameters have been changed by an ETS download or the "Behavior after download" parameter is set to "Use ETS parameter" and no new calibration has been performed.

The following settings are possible:

- Up:
The shutter moves all the way up.
- Down:
The shutter moves all the way down.
- No change:
All subsequent functions (manual operation, automatic operation etc.) are blocked (Behavior on override activation). The value at the output is retained until a new value arrives at the input of the function block (Behavior on override deactivation).
- Stop:
The shutter stops at the position just assumed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override activation"
 - Setting: "According to parameter"

or

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

- Parameter "Behavior on override activation" [→ 210]
- Parameter "Behavior on override deactivation" [→ 231]

Behavior on override deactivation

Parameters	Settings
Behavior on override deactivation	Up Down No change According to parameter Updated value

Function:

This parameter is used to specify how the shutter responds if an override is deactivated.

The following settings are possible:

- Up:
The shutter moves up.
- Down:
The shutter moves down.
- No change:
The value at the output is retained until a new value arrives at the input of the function block.
- According to parameter:
The shutter moves to the value set in the parameter "Solar protection position in %."
- Updated value:
The shutter moves to the value at the input of the function block.

Other parameters:

If the "Behavior on override deactivation" parameter is set to "According to parameter," parameters "Solar protection position in %" and "Behavior if no sync" are displayed.

More information:

- Parameter "Solar protection position in %" [→ 223]
- Parameter "Behavior if no sync" [→ 231]

Status Override

Parameter	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter "Status Override" is set to "enable," additional parameters for sending the status of the override are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Start value/behavior of override input on bus voltage recovery

Parameters	Settings
Start value/behavior of override input on bus voltage recovery	Off On Deactivated Last value

Function:

This parameter can be used to set the desired starting value or the desired start behavior of the override input on bus voltage recovery.

The following settings are possible:

- Off:
The override function block behaves as if an "off" had been received at the override block input when bus voltage is recovered.
- On:
The override function block behaves as if an "on" had been received at the override block input when bus voltage is recovered.
- Deactivated:
The override function block is deactivated on bus voltage recovery.
- Last value:
The override input of the function block is then set to the value stored on bus voltage failure.

7.2.12.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 1, Forced position

No.	Object name	Function	Datapoint type	Flags
29	A Override 1, Forced position	On/Off	1.003 enable	CW

Function:

This communication object can be used to move the sunblind into a forced position irrespective of the upstream sub-functions.

"Forced position" is active, if the value of the communication object is "On."

If an inversion is configured, the "forced position" is active when the value of the communication object is "Off."

Availability/alternative:

The communication object "A Override 1, Forced position" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card:
 - Setting: "Forced position"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on parameter card "override 1, lock" is set to "enable," this communication object is hidden and communication object "A Override 1, Forced position, Control" is shown instead.

A Override 1, Forced position, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Forced position, Control	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W)	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Note:

This object can then be linked to e.g. an alarm message of a wind guard.

Availability/alternative:

The communication object "A Override 1, Forced position, Control" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card:
 - Setting: "Forced position"
- Parameter "Control Value Input"
 - Setting: "enable"

Alternatively, a switching input can be used instead of a control value input. If the "Control Value Input" parameter on the "override 1, forced position" parameter card is set to "disable," this communication object is hidden and communication object "A Override 1, Forced position" is shown instead.

A Override 1, Forced position, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Forced position, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active.

If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Forced position, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, forced position" parameter card
 - Setting: "enable"

7.2.13 Override "forced control"

The override function "forced control" can be used, for example, to protect cleaners from getting injured by the solar protection while cleaning windows.

7.2.13.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.2.13.2 Parameters on the "Override x, forced control" parameter card

Lock direct operation if
override is active

Parameters	Settings
Lock direct operation if override is active	disable enable

Function:

If the parameter is enabled, operation on the device is prevented when the override is active.

Note:

Even one active override that blocks direct operation prevents operation on the device.

Delay time for activation/deactivation behavior

Parameters	Settings
Delay time for activation/deactivation behavior (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time for the behavior after activation and deactivation of the override.

Behavior on override deactivation

Parameters	Settings
Behavior on override deactivation	Up Down No change According to parameter Updated value

Function:

This parameter is used to specify how the shutter responds if an override is deactivated.

The following settings are possible:

- Up:
The shutter moves up.
- Down:
The shutter moves down.
- No change:
The value at the output is retained until a new value arrives at the input of the function block.
- According to parameter:
The shutter moves to the value set in the parameter "Solar protection position in %."
- Updated value:
The shutter moves to the value at the input of the function block.

Other parameters:

If the "Behavior on override deactivation" parameter is set to "According to parameter," parameters "Solar protection position in %" and "Behavior if no sync" are displayed.

More information:

- Parameter "Solar protection position in %" [→ 223]
- Parameter "Behavior if no sync" [→ 231]

Solar protection position in %

Parameters	Settings
Solar protection position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the solar protection is to be moved when the override is activated or deactivated.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

Parameter "Behavior on override deactivation" [→ 236]

Behavior if no sync

Parameters	Settings
Behavior if no sync	Up Down No change Stop

Function:

This parameter is used to set the behavior of the shutter on deactivation of an override (setting "According to parameter") if the device is not synchronized.

This applies as long as runtime parameters have been changed by an ETS download or the "Behavior after download" parameter is set to "Use ETS parameter" and no new calibration has been performed.

The following settings are possible:

- Up:
The shutter moves all the way up.
- Down:
The shutter moves all the way down.
- No change:
All subsequent functions (manual operation, automatic operation etc.) are blocked (Behavior on override activation). The value at the output is retained until a new value arrives at the input of the function block (Behavior on override deactivation).
- Stop:
The shutter stops at the position just assumed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

Parameter "Behavior on override deactivation" [→ 236]

Status Override

Parameter	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter "Status Override" is set to "enable," additional parameters for sending the status of the override are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Start value/behavior of override input on bus voltage recovery

Parameters	Settings
Start value/behavior of override input on bus voltage recovery	Inactive Forced up Forced down As before bus voltage failure

Function:

This parameter can be used to set the desired starting value or the desired start behavior of the override input on bus voltage recovery.

The following settings are possible:

- Inactive:
The override function block is deactivated on bus voltage recovery.
- Forced up:
The override function block is activated on bus voltage recovery and the sun-blind is moved up.
- Forced down:
The override function block is activated on bus voltage recovery and the solar protection is moved down.
- As before bus voltage failure:
The override input of the function block is then set to the value stored on bus voltage failure.

7.2.13.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 6, Forced Control

No.	Object name	Function	Datapoint type	Flags
51	A Override 6, Forced Control	Up/Down	2.001 switch control	CW

Function:

This 2-bit communication object enables forced moves to the upper or lower end position irrespective of the upstream sub-functions.

The following settings are possible:

Bit 1	Bit 0	Function
0	0	Forced control not active
0	1	Forced control not active
1	0	Forced control, move up
1	1	Forced control, move down

Availability:

The communication object "A Override 6, Forced Control" is displayed if the following configuration has been made:

- Parameter "Override 6" on the "functions, objects" parameter card:
 - Setting: "Forced Control"

A Override 1, Forced Control, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Forced Control, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active. If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Forced Control, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, forced position" parameter card
 - Setting: "enable"

7.2.14 "Range limitation" override

The "range limitation" override function can be used to limit the range of the solar protection, e.g. around windows, doors and skylights.

7.2.14.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.2.14.2 Parameters on the "Override x, range limitation" parameter card

Control Value Input

Parameters	Settings
Control Value Input	disable enable

Function:

This parameter can be set whether instead of the switching input, a control value input should be used for the activation and deactivation of the override function.

Other parameters:

If the parameter "Control Value Input" is in status "enable," parameters "Control Value Input Data Type," "Threshold for Off (<=)," and "Threshold for On (>=)" are displayed.

Communication object:

If the parameter "Control Value Input" is in status "enable," the communication object "A Override 1, Range limitation" is hidden and the communication object "A Override 1, Range limitation, Control" is displayed instead.

More information:

Communication object "A Override 1, range limitation, control value" [→ 246]

Control Value Input Data Type

Parameters	Settings
Control Value Input Data Type	Percentage (%) DPT 5.001 Value (8-bit) DPT 5.010 2-byte unsigned value DPT 7.x 2-byte signed value DPT 8.x 2-byte floating point number DPT 9.x Temperature (°C) DPT 9.001 Illuminance (lx) DPT 9.004 Wind speed (m/s) DPT 9.005 Current (mA) DPT 9.021 Power (kW) DPT 9.024 Wind speed (km/h) DPT 9.028 4-byte unsigned value DPT 12.x 4-byte signed value DPT 13.x 4-byte floating point number DPT 14.x Power (W) DPT 14.056

Function:

This parameter defines the datapoint type of the communication object "control value."

The following datapoint types can be set:

- Percentage (%) DPT 5.001:
Corresponds to the datapoint type "5.001 percent (0...100 %)."
- Value (8-bit) DPT 5.010:
Corresponds to the datapoint type "5.010 counting impulses (0 ... 255)."
- 2-byte unsigned value DPT 7.x:
Corresponds to the datapoint type "2 bytes without prefix."
- 2-byte signed value DPT 8.x:
Corresponds to the datapoint type "2 bytes with prefix."
- 2-byte floating point number DPT 9.x:
Corresponds to the datapoint type "2 bytes floating value."
- Temperature (°C) DPT 9.001:
Corresponds to the datapoint type "9.001 temperature °C."
- Illuminance (lx) DPT 9.004:
Corresponds to the datapoint type "9.004 illuminance lx."
- Wind speed (m/s) DPT 9.005:
Corresponds to the datapoint type "9.005 speed (m/s)."
- Current (mA) DPT 9.021:
Corresponds to the datapoint type "9.021 current mA."
- Power (kW) DPT 9.024:
Corresponds to the datapoint type "9.024 output kW."
- Wind speed (km/h) DPT 9.028:
Corresponds to the datapoint type "9.028 wind speed (km/h)."
- 4-byte unsigned value DPT 12.x:
Corresponds to the datapoint type "4 bytes without prefix."
- 4-byte signed value DPT 13.x:
Corresponds to the datapoint type "4 bytes with prefix."
- 4-byte floating point number DPT 14.x:
Corresponds to the datapoint type "4 bytes floating value."
- Power (W) DPT 14.056:
Corresponds to the datapoint type "14.056 output W."

Threshold for Off (<=)

Parameters	Settings
Threshold for Off (<=)	0...100

Function:

This parameter determines the threshold for "Off."

If the value of this communication object is equal to or smaller than the configured threshold for "Off," then the determined switching value is equal to "Off" (0).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Threshold for On (>=)

Parameters	Settings
Threshold for On (>=)	0...100

Function:

This parameter determines the threshold for "On."

If the value of this communication object is equal to or greater than the configured threshold for "On," then the determined switching value is equal to "On" (1).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Invert Override Control

Parameters	Settings
Invert Override Control	No Yes

Function:

This parameter is used to set whether the input value of communication object "A Override 1, Lock" should be used directly or inverted.

More information:

Communication object "A Override 1, range limitation" [→ 245]

Lock direct operation if override is active

Parameters	Settings
Lock direct operation if override is active	disable enable

Function:

If the parameter is enabled, operation on the device is prevented when the override is active.

Note:

Even one active override that blocks direct operation prevents operation on the device.

Delay time for override activation

Parameter	Settings
Delay time for override activation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the activation of the override.

Delay time for override deactivation

Parameters	Settings
Delay time for override deactivation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the deactivation of the override.

Delay time for activation/deactivation behavior

Parameters	Settings
Delay time for activation/deactivation behavior (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time for the behavior after activation and deactivation of the override.

Monitoring time

Parameter	Settings
Monitoring time (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter is used to set whether the cyclical input of telegrams to the communication object for central override should be monitored and how long the monitoring time is.

With a parameter value of 00:00:00, no monitoring takes place.

For all other parameter values, the cyclical input of deactivation telegrams is monitored. If the monitoring time is exceeded, the override is activated automatically.

Override Duration

Parameter	Settings
Override Duration (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set the desired on period with activated override.

The override duration is then re-started with each incoming activation telegram.

With a parameter value of 00:00:00, the override duration is unlimited.

Note:

If the monitoring time is simultaneously set not equal to 00:00:00, the following behavior will be observed:

- **Monitoring time < override duration:**

The override duration is triggered using a cyclically incoming activation telegram. The configured override duration is not effective.

- **Monitoring time > override duration:**

With the elapse of the override duration, the override is switched off. With the next incoming activation telegram for monitoring, it is re-activated and the override duration begins again.

Behavior on override activation

Parameters	Settings
Behavior on override activation	No change Stop Go to nearest limit

Function:

This parameter is used to specify how the shutter responds when an override is activated.

The following settings are possible:

- No change:
The range limitation is active and waiting for the next move commands.
- Stop:
The shutter stops at the position just assumed and range limitation is active.
- Go to nearest limit:
The shutter is moved to the next limit and range limitation is active.

Behavior on override deactivation

Parameters	Settings
Behavior on override deactivation	Up Down No change According to parameter Updated value

Function:

This parameter is used to specify how the shutter responds if an override is deactivated.

The following settings are possible:

- Up:
The shutter moves up.
- Down:
The shutter moves down.
- No change:
The value at the output is retained until a new value arrives at the input of the function block.
- According to parameter:
The shutter moves to the value set in the parameter "Solar protection position in %."
- Updated value:
The shutter moves to the value at the input of the function block.

Other parameters:

If the "Behavior on override deactivation" parameter is set to "According to parameter," parameters "Solar protection position in %" and "Behavior if no sync" are displayed.

More information:

- Parameter "Solar protection position in %" [→ 223]
- Parameter "Behavior if no sync" [→ 231]

Solar protection position in %

Parameters	Settings
Solar protection position in %	0...100

Function:

This parameter can be used to enter as a percentage the position to which the shutter is to be moved when the override is deactivated.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

Parameter "Behavior on override deactivation" [→ 243]

Behavior if no sync

Parameters	Settings
Behavior if no sync	Up Down No change Stop

Function:

This parameter is used to set the behavior of the shutter on deactivation of an override (setting "According to parameter") if the device is not synchronized.

This applies as long as runtime parameters have been changed by an ETS download or the "Behavior after download" parameter is set to "Use ETS parameter" and no new calibration has been performed.

The following settings are possible:

- Up:
The shutter moves all the way up.
- Down:
The shutter moves all the way down.
- No change:
All subsequent functions (manual operation, automatic operation etc.) are blocked (Behavior on override activation). The value at the output is retained until a new value arrives at the input of the function block (Behavior on override deactivation).
- Stop:
The shutter stops at the position just assumed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Behavior on override deactivation"
 - Setting: "According to parameter"

More information:

Parameter "Behavior on override deactivation" [→ 243]

Upper limit for position of solar protection in %

Parameters	Settings
Upper limit for position of solar protection in %	0...100

Function:

This parameter can be used to set the upper limit for solar protection using percentages. The maximum the sunblind can then move up is to this height.

Note:

If the "Upper limit for position of solar protection in %" parameter is greater than the "Lower limit for position of solar protection in %" parameter, the higher value is automatically used as the lower limit for the solar protection.

Lower limit for position of solar protection in %

Parameters	Settings
Lower limit for position of solar protection in %	0...100

Function:

This parameter can be used to set the lower limit for solar protection using percentages. The maximum the sunblind can then move down is to this height.

Note:

If the "Upper limit for position of solar protection in %" parameter is greater than the "Lower limit for position of solar protection in %" parameter, the higher value is automatically used as the lower limit for the solar protection.

Status Override

Parameter	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter "Status Override" is set to "enable," additional parameters for sending the status of the override are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Start value/behavior of override input on bus voltage recovery

Parameters	Settings
Start value/behavior of override input on bus voltage recovery	Off On Deactivated Last value

Function:

This parameter can be used to set the desired starting value or the desired start behavior of the override input on bus voltage recovery.

The following settings are possible:

- Off:
The override function block behaves as if an "off" had been received at the override block input when bus voltage is recovered.
- On:
The override function block behaves as if an "on" had been received at the override block input when bus voltage is recovered.
- Deactivated:
The override function block is deactivated on bus voltage recovery.
- Last value:
The override input of the function block is then set to the value stored on bus voltage failure.

7.2.14.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 7, Range limitation

No.	Object name	Function	Datapoint type	Flags
53	A Override 7, Range limitation	On/Off	1.003 enable	CW

Function:

"Range limitation" is active, if the value of the communication object is "On." In that case, the solar protection can only be moved within a certain range.

If an inversion is configured, "range limitation" is active when the communication object value is "Off."

Availability/alternative:

The communication object "A Override 7, Range limitation" is displayed if the following configuration has been made:

- Parameter "Override 7" on the "functions, objects" parameter card:
 - Setting: "Range limitation"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, range limitation" is set to "enable," this communication object is hidden and communication object "A Override 7, Range limitation, Control" is shown instead.

A Override 1, Range limitation, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Range limitation, Control	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W)	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Availability/alternative:

The communication object "A Override 1, Range limitation, Control" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card:
 - Setting: "Range limitation"
- Parameter "Control Value Input"
 - Setting: "enable"

Alternatively, a switching input can be used instead of a control value input. If the parameter "Control Value Input" on the parameter card "override 1, range limitation" is set to "locked," this communication object is hidden and communication object "A Override 1, Range limitation" is shown instead.

A Override 1, Range limitation, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Range limitation, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active. If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Range limitation, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, range limitation" parameter card
 - Setting: "enable"

7.2.15 Override "user-defined"

For use cases in which none of the predefined override functions can be used, the "user-defined override function" is available.

This override function enables monitoring of cyclically incoming telegrams. In this case the override is activated when telegrams do not arrive within the monitoring time.

7.2.15.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced position Forced Control Range limitation User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.2.15.2 Parameters on the "Override 1, user-defined control" parameter card

The parameters for the "user-defined" override on the "Override 1, user-defined control" parameter card are identical to the parameters for the "wind alarm" override on the "Override 1, wind alarm" parameter card.

More information:

Parameters on the "Override 1, wind alarm" parameter card [→ 92]

7.2.15.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 7, User-defined Control

No.	Object name	Function	Datapoint type	Flags
56	A Override 7, User-defined Control	On/Off	On/Off	CRT

Function:

This communication object can be used to move the solar protection into an end position or a certain position or stop it irrespective of the upstream sub-functions. The state can be retained permanently or for a limited time.

User-defined control is active when the value of the communication object is "on."

If an inversion is configured, user-defined control is active when the value of the communication object is "Off."

The behavior upon activation or deactivation of user-defined control can be configured using a parameter.

The user-defined control object ensures that all upstream function blocks are internally saved, but not evaluated and sent.

Availability/alternative:

The communication object "A Override 7, User-defined Control" is displayed if the following configuration has been made:

- Parameter "Override 7" on the "functions, objects" parameter card:
 - Setting: "User defined"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, user-defined control" is set to "enable," this communication object is hidden and communication object "A Override 7, User-defined Control, Control Value" is shown instead.

A Override 1, User-defined Control, Control Value

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, User-defined Control, Control Value	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.* 4-byte float value 14.056 power (W)	CW

Function:

This communication object can be used to move the solar protection into an end position or a certain position or stop it irrespective of the upstream sub-functions. The state can be retained permanently or for a limited time.

User-defined control is active when the value of the communication object is "on." If an inversion is configured, user-defined control is active when the object value is "off."

The behavior upon activation or deactivation of user-defined control can be configured using a parameter.

Availability/alternative:

The communication object "A Override 1, User-defined Control, Control Value" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card:
 - Setting: "User defined"

Alternatively, a switching input can be used instead of a control value input. If the parameter "Control Value Input" on the parameter card "override 1, user-defined control" is set to "locked," this communication object is hidden and communication object "A Override 1, User-defined Control" is shown instead.

A Override 1, User-defined Control, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, User-defined Control, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active.

If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, User-defined Control, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" of the "override 1, user-defined control" parameter card
 - Setting: "enable"

7.2.16 Status

7.2.16.1 Parameters that are visible if the "status ..." parameter is set to "enable"

Send status on request

Parameter	Settings
Send status on request	disable enable

Function:

This parameter can be used to set whether the status of the communication object is sent upon request or whether requests for the status value will be rejected.

The request is triggered via the communication object "send status values."

Availability:

The parameter "Send status on request" is only displayed if the corresponding "Status..." parameter is set to "enable."

Send status on change of status

Parameter	Settings
Send status on change of status	disable enable

Function:

This parameter can be used to set whether the value of the status object is automatically sent after each status change.

Availability:

The parameter "Send status on change of status" is only displayed if the corresponding "Status..." parameter is set to "enable."

Send status cyclically

Parameter	Settings
Send status cyclically (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set the time interval at which the value of the status object is sent cyclically.

If this is set to "00:00:00," cyclic sending is deactivated.

Availability:

The parameter "Send status cyclically" is only displayed if the corresponding "Status..." parameter is set to "enable."

7.2.16.2 Parameters on the "Functions, objects" parameter card

Status calibration moving time

Parameter	Settings
Status calibration moving time	disable enable

Function:

This parameter is used to set whether a "A Status calibration moving time" communication object is to be made available for the channel.

This status object is used to report that calibration of the moving time has been executed successfully.

Other parameters:

If the parameter is enabled, additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication object:

The communication object "A Status calibration moving time" is only displayed if the parameters "End position detection" and "Status calibration moving time" are set to "enable" ("Functions, objects" parameter card).

Availability:

The "Status calibration moving time" parameter is only displayed if the following configuration has been made:

- Parameter "End position detection"
 - Setting: "enable"

More information:

- Communication object "A Status calibration moving time" [→ 260]
- Parameter "End position detection" [→ 152]

Overrides status

Parameter	Settings
Overrides status	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of the overrides. This communication object is used to report whether at least one override is active.

Availability:

The "Overrides status" parameter is displayed as soon as an override is activated.

Other parameters:

If the "Overrides status" parameter is set to "enable," additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication object:

If the "Overrides status" parameter is set to "enable," the communication object "A Overrides status" is displayed.

More information:

Communication object "A Overrides status" [→ 260]

Status direct operation

Parameter	Settings
Status direct operation	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of direct operation. This communication object is used to report whether direct operation is active.

Availability:

The "Status direct operation" parameter is only displayed if the following configuration has been made:

- Parameter "Direct operation"
 - Setting: "enable"

Other parameters:

If the "Status direct operation" parameter is set to "enable," additional parameters are displayed which can be used to set when a status is sent.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication object:

If the "Status direct operation" parameter is set to "enable," the communication object "A Status direct operation" is displayed.

More information:

- Parameter "Direct operation" [→ 203]
- Communication object "A Status direct operation" [→ 205]

This parameter is used to activate or deactivate the communication object for the status of direct operation. This communication object is used to report whether direct operation is active.

Status automatic mode

Parameter	Settings
Status automatic mode	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of automatic operation. This communication object is used to report whether automatic operation is active.

Availability:

The "Status automatic mode" parameter is only displayed if the following configuration has been made:

- Parameter "Automatic operation"
 - Setting: "enable"

Other parameters:

If the "Status automatic mode" parameter is enabled, additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication object:

If the "Status automatic mode" parameter is set to "enable," the communication object "A Status automatic operation" is displayed.

More information:

- Automatic operation [→ 196]
- Parameter "Automatic operation" [→ 154]
- Communication object "A Status automatic operation" [→ 256]

Status solar protection position in %

Parameter	Settings
Status solar protection position in %	disable enable

Function:

This parameter is used to set whether a "A Status solar protection position" communication object is to be made available for the channel. The communication object displays the current solar protection position in percent.

Other parameters:

If the parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

If the "Send status on change of status" parameter is set to "enable," the following parameter is displayed:

- Parameter "Send status while sunblind is moving"

If the "Send status while sunblind is moving" parameter is set to "enable," the following parameters are displayed:

- Parameter "Value change since last sent (%)"
- Parameter "Block time for sending of status"

Communication object:

If the "Status solar protection position in %" parameter is set to "enable," the communication object "A Status solar protection position" is displayed.

More information:

- Communication object "A Status solar protection position" [→ 256]
- Parameter "Send status while element is moving" [→ 157]
- Parameter "Value change since last sent (%)" [→ 157]
- Parameter "Block time for sending of status" [→ 158]

Status moving direction

Parameter	Settings
Status moving direction	disable enable

Function:

This parameter is used to set whether a "A Status moving direction" communication object is to be made available for the channel. This status object reports whether the solar protection is moving up or down. The status is used to implement the "1 button solar protection" function from different operating terminals.

Other parameters:

If the parameter is to "enable," additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication object:

If the "Status moving direction" parameter is set to "enable," the following communication object is displayed:

- "A Status moving direction"

More information:

Communication object "A Status moving direction" [→ 257]

Status drive moving

Parameter	Settings
Status drive moving	disable enable

Function:

This parameter is used to set whether a "A Status drive moving" communication object is to be made available for the channel. The status object is used to report if the solar protection is current moving or whether it has reached its end position.

Other parameters:

If the parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication object:

If the "Status drive moving" parameter is set to "enable," the communication object "A Status drive moving" is displayed.

More information:

Communication object "A Status drive moving" [→ 257]

Status end position

Parameter	Settings
Status end position	No Yes Only upper end position status Only lower end position status

Function:

This parameter is used to set whether no, both or only 1 communication object "status upper end position" or "status lower end position" is to be available. The communication object "status upper end position" (or "status lower end position") is only equal to logical "1," if the shutter is in the upper (or lower) end position.

Other parameters:

If the "Status end position" parameter is set to "Yes," "Only upper end position status" or "Only lower end position status," additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

If the parameter is set to "Yes" or "Only lower end position status," the "Lower end position reached after tilting up" parameter is displayed.

If the parameter is set to "Yes," "Only lower end position status" or "Only lower end position status," the "Send only end position On" parameter is displayed.

Communication objects:

- If the parameter is set to "Yes," the communication objects "A Status upper end position" and "A Status lower end position" are displayed.
- If the parameter is set to "Only upper end position status," only the communication object "A Status upper end position" is displayed.
- If the parameter is set to "Only lower end position status," only the communication object "A Status lower end position" is displayed.

More information:

- Parameter "Lower end position reached after pulling up" [→ 255]
- Parameter "Send only end position On" [→ 255]
- Communication object "A - Status upper end position" [→ 257]
- Communication object "A - Status lower end position" [→ 257]

Lower end position reached after tilting up

Parameter	Settings
Lower end position reached after tilting up	disable enable

Function:

This parameter is used to set whether the reaching of the lower end position with completion of a configured tilting up of the shutter (parameter: "Solar protection position after solar protection down in %") is to be sent or not.

If the parameter is set to "enable," the reaching of the lower end position is reported after the moving up of the shutter after solar protection down (value "1").

If the parameter is set to "disable," the fact that the lower end position has not been reached yet is reported after moving up the shutter after solar protection down (value "0").

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Status end position"
 - Setting: "Yes" or "Only lower end position status"

More information:

Parameter "Status end position" [→ 254]

Send only end position On

Parameter	Settings
Send only end position On	disable enable

Function:

This parameter is used to set that the solar protection actuator sends a value when the end position is reached but not when the end position is left.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Status end position"
 - Setting: "Yes," "Only upper end position status" or "Only lower end position status"

More information:

Parameter "Status end position" [→ 254]

7.2.16.3 Parameters on the "Override x, [type of override]" parameter card

Status Override

Parameter	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter "Status Override" is set to "enable," additional parameters for sending the status of the override are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

Communication objects

A Status automatic operation

No.	Object name	Function	Datapoint type	Flags
15	A Status automatic operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether automatic operation is active. If a logical "0" is sent, automatic operation is deactivated, if a logical "1" is sent, automatic operation is activated.

Availability:

The communication object "A Status automatic operation" is displayed if the following configuration has been made:

- Parameter "Automatic operation" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Status automatic mode" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

Automatic operation [→ 196]

A Status solar protection position

No.	Object name	Function	Datapoint type	Flags
16	A Status solar protection position	8-bit value	5.001 percentage (0..100%)	CRT

Function:

This object can be used to query the current position of the shutter (solar protection position) and, if appropriate, the position can also be sent automatically when the value is changed. The upper end position corresponds to 0 % and the lower end position to 100 %.

Availability:

The communication object "A Status solar protection position" is displayed if the following configuration has been made:

- Parameter "Status solar protection position in %" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status moving direction

No.	Object name	Function	Datapoint type	Flags
18	A Status moving direction	Up/Down	1.001 switch	CRT

Function:

This status object reports whether the sunblind is moving up or down. When a logical "0" is received, the solar protection moves up, when a logical "1" is received, it moves down.

The status object is used to implement the "1 button solar protection" function from different operating terminals.

Availability:

The communication object "A Status moving direction" is displayed if the following configuration has been made:

- Parameter "Status moving direction" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status drive moving

No.	Object name	Function	Datapoint type	Flags
19	A Status drive moving	Yes/No	1.002 boolean	CRT

Function:

This status object is used to report if the solar protection is current moving or whether it has reached its end position.

If a logical "1" is received, the solar protection is currently moving. If a logical "0" is received, the solar protection has reached its end position.

The "Invert value for drive moving" parameter can be used to set that this value is inverted.

Availability:

The communication object "A Status drive moving" is displayed if the following configuration has been made:

- Parameter "Status drive moving" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status upper end position

No.	Object name	Function	Datapoint type	Flags
22	A Status upper end position	On/Off	1.002 boolean	CRT

Function:

This status object reports whether the sunblind has reached its upper end position. If a logical "0" is sent, the solar protection has not reached the upper end position, if a logical "1" is sent, the solar protection has successfully reached the upper end position.

Availability:

The communication object "A Status upper end position" is displayed if the following configuration has been made:

- Parameter "Status end position" on the "functions, objects" parameter card
 - Setting: "Yes" or "Only upper end position status"

A Status lower end position

No.	Object name	Function	Datapoint type	Flags
23	A Status lower end position	On/Off	1.002 boolean	CRT

Function:

This status object reports whether the sunblind has reached its lower end position. If a logical "0" is sent, the solar protection has not reached the lower end position, if a logical "1" is sent, the solar protection has successfully reached the lower end position.

Availability:

The communication object "A Status lower end position" is displayed if the following configuration has been made:

- Parameter "Status end position" on the "functions, objects" parameter card
 - Setting: "Yes" or "Only lower end position status"

A Override 1, [type of override], status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active:

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 1, [type of override], status" is only displayed, if the following configuration has been made:

- Parameter "Status Override" on the "Override 1, [type of override]" parameter card
 - Setting: "enable"

A Override 2, [type of override], status

No.	Object name	Function	Datapoint type	Flags
36	A Override 2, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 2 is active:

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 2, [type of override], status" is only displayed, if the following configuration has been made:

- Parameter "Status Override" on the "Override 2, [type of override]" parameter card
 - Setting: "enable"

A Override 3, [type of override], status

No.	Object name	Function	Datapoint type	Flags
40	A Override 3, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 3 is active.

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 3, [type of override], status" is only displayed, if the following configuration has been made:

- Parameter "Status Override" on the "Override 3, [type of override]" parameter card
 - "enable"

A Override 4, [type of override], status

No.	Object name	Function	Datapoint type	Flags
44	A Override 4, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 4 is active.

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 4, [type of override], status" is displayed, if the following configuration has been made:

- Parameter "Status Override" on the "Override 4, [type of override]" parameter card
 - Setting: "Status Override"

A Override 5, [type of override], status

No.	Object name	Function	Datapoint type	Flags
48	A Override 5, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 5 is active:

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 5, [type of override], status" is displayed, if the following configuration has been made:

- Parameter "Status Override" on the "Override 5, [type of override]" parameter card
 - Setting: "enable"

A Override 6, [type of override], status

No.	Object name	Function	Datapoint type	Flags
52	A Override 6, [type of override], status	enable	1.002 boolean	CRT

Function:

This status object is used to report whether override 6 is active:

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 6, [type of override], status" is only displayed, if the following configuration has been made:

- Parameter "CRT" on the "Override 6, [type of override]" parameter card
 - Setting: "enable"

A Override 7, [type of override], status

No.	Object name	Function	Datapoint type	Flags
56	A Override 7, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 7 is active:

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 7, [type of override], status" is displayed, if the following configuration has been made:

- Parameter "Status Override" on the "override 7, [type of override]" parameter card
 - Setting: "CRT"

A Overrides status

No.	Object name	Function	Datapoint type	Flags
57	A Overrides status	1 = Active	1.002 boolean	CRT

Function:

This status object is used to report that an override is active. If a logical "0" is received, no override is active; if a logical "1" is received, at least one override is active.

Availability:

The communication object "A Overrides status" is displayed if the following configuration has been made:

- Parameter "Overrides status" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

Overrides [→ 206]

A Status calibration moving time

No.	Object name	Function	Datapoint type	Flags
58	A Status calibration moving time	Ok/Not ok	1.002 boolean	CRT

Function:

This status object is used to report that calibration of the moving time has been executed successfully.

If a logical "0" is received, the calibration of the move time was not successful, if a logical "1" is received, it was successful.

Availability:

The communication object "A Status calibration moving time" is displayed if the following configuration has been made:

- Parameter "End position detection" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Status calibration moving time" on the "functions, objects" parameter card:
 - Setting: "enable"

A Status direct operation

No.	Object name	Function	Datapoint type	Flags
60	A Status direct operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether direct operation is active or not.

If a logical "0" is sent, direct operation is deactivated, if a logical "1" is sent, direct operation is activated.

Availability:

The communication object "A Status direct operation" is displayed if the following configuration has been made:

- Parameter "Direct operation" ("functions, objects" parameter card)
 - Setting: "enable"
- Parameter "Status direct operation" ("functions, objects" parameter card)
 - Setting: "enable"

More information:

Direct operation [→ 201]

7.2.17 Diagnostic functions

7.2.17.1 Parameters on the "Functions, objects" parameter card

Diagnostic functions

Parameter	Settings
Diagnostic functions	disable enable

Function:

This parameter is used to activate or deactivate the diagnostic functions.

Other parameters/parameter card:

If the "Diagnostic functions" parameter is set to "enable," the following parameters are displayed on the "diagnostics" parameter card:

- "Contact Failure"

More information:

Parameter "Contact failure" [→ 150]

7.2.17.2 Parameters on the "Diagnostics" parameter card

Contact Failure

Parameter	Settings
Contact Failure	disable enable

Function:

If the "Contact Failure" parameter is set to "enable," a communication object can be used to query whether there is a contact failure on the relay. There is a contact failure if a current is measured even though the relay contact should be open.

Note:

After opening the relay contact, the flow of current must have fallen to "0" within a second so that no contact failure is reported.

The dead time of one second is fixed and cannot be changed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Diagnostic functions"
 - Setting: "enable"

Other parameters:

If the "Contact Failure" parameter is set to "enable," additional parameters for sending the value of the contact failure are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication object:

If the "Contact Failure" parameter is set to "enable," the communication object "A Load Check-Contact Failure" is also displayed.

More information:

Communication object "Load check contact failure" [→ 262]

7.2.17.3 Communication objects

A Load Check-Contact Failure

No.	Object name	Function	Datapoint type	Flags
69	A Load Check-Contact Failure	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report a contact failure, or can be used to query via the bus whether there is a contact failure. A contact failure is detected if there is an active flow of current while the channel is switched off.

If a logical "0" is received, there is no load check contact failure. If a logical "1" is received, there is a load check contact failure.

Note:

The status of this communication object is retained when the channel is subsequently switched on again and only receives a new value when it is switched off again.

Availability:

The communication object "A Load Check-Contact Failure" is displayed if the following configuration has been made:

- Parameter "Diagnostic functions" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Contact Failure" on the "diagnostics" parameter card
 - Setting: "enable"

7.3 Operating mode "Ventilation flaps"

The communication objects and parameters are configured in the same way for all channels and are therefore just described once for channel A.

7.3.1 Ventilation flaps process diagram

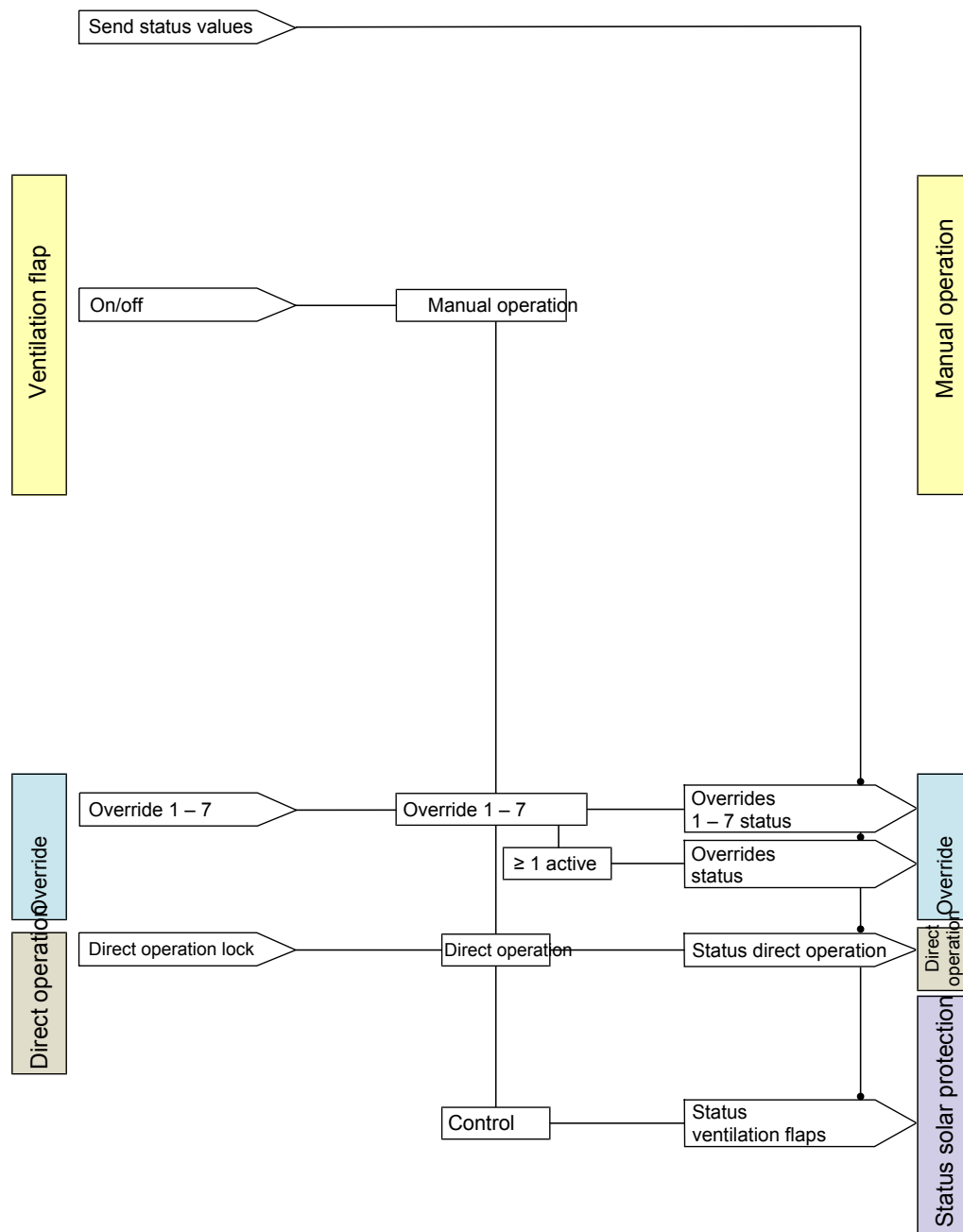


Fig. 11: Ventilation flaps

7.3.2 "Functions, objects" parameter card

7.3.2.1 Parameter

Operation Mode

Parameters	Settings
Operation Mode	Blinds Shutter, awning Ventilation flap

Function:

This parameter is used to set the desired operating mode. Detailed settings for the selected operating mode can be made on the parameter card of the same name.

The following operating modes are possible:

- Blinds
- Shutter, awning
- Ventilation flap

Other parameters/parameter card:

The parameter card for the selected operating mode is displayed.

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced Control User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

More information:

Overrides [→ 276]

Overrides status

Parameters	Settings
Overrides status	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of the overrides. This communication object is used to report whether at least one override is active.

Availability:

The "Overrides status" parameter is displayed as soon as an override is activated.

Other parameters:

If the "Overrides status" parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "status ..." parameter is set to "enable"

Communication object:

If the "Overrides status" parameter is set to "enable," the communication object "A Overrides status" is displayed.

More information:

Communication object "A Overrides status" [→ 272]

Direct operation

Parameter	Settings
Direct operation	disable enable

Function:

This parameter is used to disable or enable the operation of the solar protection actuator directly on the device.

Other parameters:

If the "Direct operation" parameter is set to "enable," additional parameters are displayed, which can be used to set when direct operation can be automatically reset and if direct operation is to be restricted. It can also be defined whether the status of direct operation should be disabled or enabled and whether the status on change of status should be sent cyclically or on request:

- Parameter "Direct operation auto reset"
- Parameter "Direct operation lockable"
- Parameter "Status direct operation"

If the "Status direct operation" parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 299]

Communication objects:

If the "Direct operation lockable" parameter is set to "enable," the following communication object is displayed:

- "A Direct operation lock"

If the "Status direct operation" parameter is set to "enable," the following communication object is displayed:

- "A Status direct operation"

More information:

- Direct operation [→ 273]
- Parameter "Direct operation auto reset" [→ 274]
- Parameter "Direct operation lockable" [→ 90]
- Communication object "A Direct operation lock" [→ 272]
- Parameter "Status direct operation"
- Communication object "A Status direct operation" [→ 275]

This parameter is used to disable or enable the operation of the solar protection actuator directly on the device.

Status ventilation flap

Parameter	Settings
Status ventilation flap	disable enable

Function:

This parameter is used to set whether a "Status ventilation flap" communication object is to be made available for the channel.

The status object shows whether the output is switched on or off.

Other parameters:

If the parameter is set to "Status ventilation flap," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable"

Communication object:

If the "Status ventilation flap" parameter is set to "enable," the communication object "A Status ventilation flap" is displayed.

More information:

Communication object "A Status ventilation flaps" [→ 269]

Invert outputs

Parameters	Settings
Invert outputs	disable enable

Function:

This parameter can be used to switch the outputs relay "Down" and relay "Up."

If the parameter is set to "enable" and a logical "0" is received on the "ventilation flap" object, the "Down" relay is permanently switched on and the "Up" relay is switched off. If a logical "1" is received, the "Up" relay is permanently switched on and the "Down" relay is switched off.

Behavior at bus voltage failure

Parameters	Settings
Behavior at bus voltage failure	Off On No change

Function:

This parameter can be used to set how the output is to behave at bus voltage failure.

The following settings are possible:

- Off:
In case of bus voltage failure, the output is deactivated.
- On:
In case of bus voltage failure, the output is activated.
- No change:
In case of bus voltage failure, the output does not change.

Also do on active override

Parameters	Settings
Also do on active override	disable enable

Function:

This parameter can be used to set whether the behavior at bus voltage failure is to be executed or not if an override is active.

Example:

The "lock" override is active for maintenance work. In case of a bus voltage failure, no action is executed, if the parameter is set to "disable."

Availability:

The parameter "Also do on active override" is displayed as soon as an override is active.

Initial value after bus voltage recovery

Parameters	Settings
Initial value after bus voltage recovery	Off On No change

Function:

This parameter is used to set the start value of the "A Ventilation flap" communication object when bus voltage is recovered.

The following settings are possible:

- Off:
After bus voltage is recovered, the status of the "A Ventilation flap" communication object is set to "Off."
- On:
After bus voltage is recovered, the status of the "A Ventilation flap" communication object is set to "On."
- No change:
In case of bus voltage is recovered, the output does not change.

Power return delay

Parameters	Settings
Power return delay (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time for the initial value after bus voltage recovery. This can be used to prevent all channels from being addressed at the same time after bus voltage recovery.

Diagnostic functions

Parameter	Settings
Diagnostic functions	disable enable

Function:

This parameter is used to activate or deactivate the diagnostic functions.

Other parameters/parameter card:

If the "Diagnostic functions" parameter is set to "enable," the following parameters are displayed on the "diagnostics" parameter card:

- "Contact Failure"

More information:

Parameter "Contact failure"

7.3.2.2 Communication objects

A Ventilation flap

No.	Object name	Function	Datapoint type	Flags
3	A Ventilation flap	On/Off	1.001 switch	CW

Function:

This object can be used to switch ventilation flaps connected to the output.

In "Ventilation flap" mode, the solar protection actuator acts like a switching actuator on the output.

When receiving a logical "0" is received, the "Up" relay is permanently switched on and the "Down" relays is switched off, when a logical "1" is received, the "Down" relay is permanently switched on and the "Up" relays is switched off.

Availability:

The communication object "A Ventilation flap" is displayed if the following configuration has been made:

- Parameter "Operation Mode" on the "functions, objects" parameter card
 - Setting: "Ventilation flap"

A Status ventilation flap

No.	Object name	Function	Datapoint type	Flags
18	A Status ventilation flap	On/Off	1.001 switch	CRT

Function:

This object can be used to query the current solar protection position and, if appropriate, the position can also be sent automatically when the value is changed. If a logical "0" is sent, the current switching state is not queried, if a logical "1" is sent, it is queried.

Availability:

The "A Status ventilation flap" communication object is only displayed if the following configuration has been made:

- Parameter "Status ventilation flap" ("functions, objects" parameter card)
 - Setting: "enable"

A Override 1, Wind Alarm

No.	Object name	Function	Datapoint type	Flags
29	A Override 1, Wind Alarm	On/Off	1.003 enable	CW

Function:

The "wind alarm" is active when the value of the communication object is "on."

If an inversion is configured, "wind alarm" is active when the object value is "Off."

Note:

This object can then be linked to e.g. an alarm message of a wind guard.

Availability/alternative:

The communication object "A Override 1, Wind Alarm" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card
 - Setting: "Wind Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on parameter card "override 1, wind alarm" is enabled, this communication object is hidden and communication object "A Override 1, Wind Alarm, Control" is shown instead.

A Override 2, Rain Alarm

No.	Object name	Function	Datapoint type	Flags
33	A Override 2, Rain Alarm	On/Off	1.003 enable	CW

Function:

The "rain alarm" is active when the value of the communication object is "on."

If an inversion is configured, the "rain alarm" is active when the object value is "off."

Note:

This communication object can then be linked to e.g. an alarm message of a rain guard.

Availability/alternative:

The communication object "A Override 2, Rain Alarm" is displayed if the following configuration has been made:

- Parameter "Override 2" on the "functions, objects" parameter card:
 - Setting: "Rain Alarm"

Alternatively, a control value input can be used instead of a switching control input.

If the parameter "Control Value Input" on the parameter card "override 2, rain alarm" is set to "enable," this communication object is hidden and communication object "A Override 2, Rain Alarm, Control" is shown instead.

A Override 3, Frost Alarm

No.	Object name	Function	Datapoint type	Flags
37	A Override 3, Frost Alarm	On/Off	1.003 enable	CW

Function:

"Frost alarm" is active when the value of the communication object is "on."

If an inversion is configured, the "frost alarm" is active when the value of the communication object is "Off."

Note:

This object can then be linked to e.g. an alarm message of a frost guard.

Communication object:

This communication can then be linked to e.g. an alarm message of a frost guard.

Availability/alternative:

The communication object "A Override 3, Frost Alarm" is displayed if the following configuration has been made:

- Parameter "Override 3" on the "functions, objects" parameter card:
 - Setting: "Frost Alarm"

Alternatively, a control value input can be used instead of a switching control input.

If the parameter "Control Value Input" on the parameter card "override 1, frost alarm" is set to "enable," this communication object is hidden and communication object "A Override 3, Frost Alarm, Control" is shown instead.

A Override 4, Lock

No.	Object name	Function	Datapoint type	Flags
41	A Override 4, Lock	On/Off	1.003 enable	CW

Function:

This communication object can be used to lock the sunblind against changes for as long as the lock is active irrespective of the upstream sub-functions.

The lock is active when the value of the communication object is "on."

If an inversion is configured, the lock is active when the object value is "off."

Availability/alternative:

The communication object "A Override 4, Lock" is displayed if the following configuration has been made:

- Parameter "Override 4" on the "functions, objects" parameter card:
 - Setting: "Lock"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, lock" is set to "enable," this communication object is hidden and communication object "A Override 4, Lock, Control" is shown instead.

A Override 5, Forced Control

No.	Object name	Function	Datapoint type	Flags
47	A Override 5, Forced Control	Up/Down	2.001 switch control	CW

Function:

This 2-bit communication object enables forced moves to the upper or lower end position irrespective of the upstream sub-functions.

The following settings are possible:

Bit 1	Bit 0	Function
0	0	Forced control not active
0	1	Forced control not active
1	0	Forced control, move up
1	1	Forced control, move down

Availability:

The communication object "A Override 5, Forced Control" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card:
 - Setting: "Forced Control"

A Override 6, User-defined Control

No.	Object name	Function	Datapoint type	Flags
49	A Override 6, User-defined Control	On/Off	1.003 enable	CW

Function:

This communication object can be used to switch an output on or off irrespective of the upstream sub-functions. The state can be retained permanently or for a limited time.

User-defined control is active when the value of the communication object is "on."

If an inversion is configured, user-defined control is active when the value of the communication object is "Off."

The behavior upon activation or deactivation of user-defined control can be configured using a parameter.

The user-defined control object ensures that all upstream function blocks are internally saved, but not evaluated and sent.

Availability/alternative:

The communication object "A Override 6, User-defined Control" is displayed if the following configuration has been made:

- Parameter "Override 6" on the "functions, objects" parameter card:
 - Setting: "User defined"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, user-defined control" is set to "enable," this communication object is hidden and communication object "A Override 6, User-defined Control, Control Value" is shown instead.

A Overrides status

No.	Object name	Function	Datapoint type	Flags
57	A Overrides status	1 = Active	1.002 boolean	CRT

Function:

This status object is used to report that an override is active. If a logical "0" is received, no override is active; if a logical "1" is received, at least one override is active.

Availability:

The communication object "A Overrides status" is displayed if the following configuration has been made:

- Parameter "Overrides status" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

Overrides [→ 276]

A Direct operation lock

No.	Object name	Function	Datapoint type	Flags
59	A Direct operation lock	On/Off	1.003 enable	CW

Function:

This communication object can be used to lock or enable direct operation (operation directly on the device).

If a logical "0" is received, direct operation is locked, if a logical "1" is received, direct operation is enabled.

Availability:

The communication object "A Direct operation lock" is displayed if the following configuration has been made:

- Parameter "Direct operation" on the "functions, objects" parameter card
 - Setting: "enable"
- Parameter "Direct operation lockable" on the "functions, objects" parameter card
 - Setting: "enable"

Example:

Enabling of direct operation through a key switch.

Note:

When bus voltage is recovered the setting is reset.

A Status direct operation

No.	Object name	Function	Datapoint type	Flags
60	A Status direct operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether direct operation is active or not.

If a logical "0" is sent, direct operation is deactivated, if a logical "1" is sent, direct operation is activated.

Availability:

The communication object "A Status direct operation" is displayed if the following configuration has been made:

- Parameter "Direct operation" ("functions, objects" parameter card)
 - Setting: "enable"
- Parameter "Status direct operation" ("functions, objects" parameter card)
 - Setting: "enable"

7.3.3 Direct operation

In direct operation, the solar protection actuator can be controlled using the buttons on the solar protection actuator. This enables the installer, for example, to check whether the solar protection actuator has been connected correctly.

NOTICE! After bus voltage recovery, direct operation is deactivated.

7.3.3.1 Parameters on the "Functions, objects" parameter card

Direct operation

Parameter	Settings
Direct operation	disable enable

Function:

This parameter is used to disable or enable the operation of the solar protection actuator directly on the device.

Other parameters:

If the "Direct operation" parameter is set to "enable," additional parameters are displayed, which can be used to set when direct operation can be automatically reset and if direct operation is to be restricted. It can also be defined whether the status of direct operation should be disabled or enabled and whether the status on change of status should be sent cyclically or on request:

- Parameter "Direct operation auto reset"
- Parameter "Direct operation lockable"
- Parameter "Status direct operation"

If the "Status direct operation" parameter is set to "enable," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 299]

Communication objects:

If the "Direct operation lockable" parameter is set to "enable," the following communication object is displayed:

- "A Direct operation lock"

If the "Status direct operation" parameter is set to "enable," the following communication object is displayed:

- "A Status direct operation"

More information:

- Direct operation [→ 273]
- Parameter "Direct operation auto reset" [→ 274]
- Parameter "Direct operation lockable" [→ 90]
- Communication object "A Direct operation lock" [→ 275]
- Parameter "Status direct operation"
- Communication object "A Status direct operation" [→ 275]

Direct operation auto reset

Parameters	Settings
Direct operation auto reset (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter is used to set the time after which direct operation is automatically deactivated.

The setting "00:00:00" means that direct operation is not automatically reset but can only be deactivated directly on the device or through bus voltage failure and recovery.

Note:

If direct operation has been activated on the solar protection actuator, the solar protection actuator can only be controlled directly and not remotely. This parameter can be used to prevent direct operation from being unintentionally left switched on.

Direct operation lockable

Parameters	Settings
Direct operation lockable	disable enable

Function:

This parameter can be used to control the enabling of direct operation via a communication object.

Communication objects:

If the "Direct operation lockable" parameter is set to "enable," the following communication object is displayed:

- "A Direct operation lock"

More information:

Communication object "A Direct operation lock" [→ 275]

Status direct operation

Parameter	Settings
Status direct operation	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of direct operation. This communication object is used to report whether direct operation is active.

Availability:

The "Status direct operation" parameter is only displayed if the following configuration has been made:

- Parameter "Direct operation"
 - Setting: "enable"

Other parameters:

If the "Status direct operation" parameter is set to "enable," additional parameters are displayed which can be used to set when a status is sent.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 299]

Communication object:

If the "Status direct operation" parameter is set to "enable," the communication object "A Status direct operation" is displayed.

More information:

- Parameter "Direct operation" [→ 266]
- Communication object "A Status direct operation" [→ 275]

7.3.3.2 Communication objects

A Direct operation lock

No.	Object name	Function	Datapoint type	Flags
59	A Direct operation lock	On/Off	1.003 enable	CW

Function:

This communication object can be used to lock or enable direct operation (operation directly on the device).

If a logical "0" is received, direct operation is locked, if a logical "1" is received, direct operation is enabled.

Availability:

The communication object "A Direct operation lock" is displayed if the following configuration has been made:

- Parameter "Direct operation" on the "functions, objects" parameter card
 - Setting: "enable"
- Parameter "Direct operation lockable" on the "functions, objects" parameter card
 - Setting: "enable"

Example:

Enabling of direct operation through a key switch.

Note:

When bus voltage is recovered the setting is reset.

A Status direct operation

No.	Object name	Function	Datapoint type	Flags
60	A Status direct operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether direct operation is active or not.

Availability:

The communication object "A Status direct operation" is displayed if the following configuration has been made:

- Parameter "Direct operation" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Status direct operation" on the "functions, objects" parameter card:
 - Setting: "enable"

7.3.4 "Wind alarm" override

The "wind alarm" override function can be used to protect the solar protection from wind and storm.

7.3.4.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced Control User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.3.4.2 Parameters on the "Override x, wind alarm" parameter card

Control Value Input

Parameters	Settings
Control Value Input	disable enable

Function:

This parameter can be set whether instead of the switching input, a control value input should be used for the activation and deactivation of the override function.

Other parameters:

If the parameter "Control Value Input" is in status "enable," parameters "Control Value Input Data Type," "Threshold for Off (<=)," and "Threshold for On (>=)" are displayed.

Communication object:

If the parameter "Control Value Input" is in status "enable," the communication object "A Override 1, Wind Alarm" is hidden and the communication object "A Override 1, Wind Alarm, Control" is displayed instead.

More information:

Communication object "A Override 1, wind alarm, control value" [→ 282]

Control Value Input Data Type

Parameters	Settings
Control Value Input Data Type	Percentage (%) DPT 5.001 Value (8-bit) DPT 5.010 2-byte unsigned value DPT 7.x 2-byte signed value DPT 8.x 2-byte floating point number DPT 9.x Temperature (°C) DPT 9.001 Illuminance (lx) DPT 9.004 Wind speed (m/s) DPT 9.005 Current (mA) DPT 9.021 Power (kW) DPT 9.024 Wind speed (km/h) DPT 9.028 4-byte unsigned value DPT 12.x 4-byte signed value DPT 13.x 4-byte floating point number DPT 14.x Power (W) DPT 14.056

Function:

This parameter defines the datapoint type of the communication object "control value."

The following datapoint types can be set:

- Percentage (%) DPT 5.001:
Corresponds to the datapoint type "5.001 percent (0...100 %)."
- Value (8-bit) DPT 5.010:
Corresponds to the datapoint type "5.010 counting impulses (0 ... 255)."
- 2-byte unsigned value DPT 7.x:
Corresponds to the datapoint type "2 bytes without prefix."
- 2-byte signed value DPT 8.x:
Corresponds to the datapoint type "2 bytes with prefix."
- 2-byte floating point number DPT 9.x:
Corresponds to the datapoint type "2 bytes floating value."
- Temperature (°C) DPT 9.001:
Corresponds to the datapoint type "9.001 temperature °C."
- Illuminance (lx) DPT 9.004:
Corresponds to the datapoint type "9.004 illuminance lx."
- Wind speed (m/s) DPT 9.005:
Corresponds to the datapoint type "9.005 speed (m/s)."
- Current (mA) DPT 9.021:
Corresponds to the datapoint type "9.021 current mA."
- Power (kW) DPT 9.024:
Corresponds to the datapoint type "9.024 output kW."
- Wind speed (km/h) DPT 9.028:
Corresponds to the datapoint type "9.028 wind speed (km/h)."
- 4-byte unsigned value DPT 12.x:
Corresponds to the datapoint type "4 bytes without prefix."
- 4-byte signed value DPT 13.x:
Corresponds to the datapoint type "4 bytes with prefix."
- 4-byte floating point number DPT 14.x:
Corresponds to the datapoint type "4 bytes floating value."
- Power (W) DPT 14.056:
Corresponds to the datapoint type "14.056 output W."

Threshold for Off (<=)

Parameters	Settings
Threshold for Off (<=)	0...100

Function:

This parameter determines the threshold for "Off."

If the value of this communication object is equal to or smaller than the configured threshold for "Off," then the determined switching value is equal to "Off" (0).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Threshold for On (>=)

Parameters	Settings
Threshold for On (>=)	0...100

Function:

This parameter determines the threshold for "On."

If the value of this communication object is equal to or greater than the configured threshold for "On," then the determined switching value is equal to "On" (1).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Invert Override Control

Parameters	Settings
Invert Override Control	No Yes

Function:

This parameter is used to set whether the input value of communication object "A Override 1, Wind Alarm" should be used directly or inverted.

More information:

Communication object "A Override 1, wind alarm" [→ 281]

Lock direct operation if override is active

Parameters	Settings
Lock direct operation if override is active	disable enable

Function:

If the parameter is enabled, operation on the device is prevented when the override is active.

Note:

Even one active override that blocks direct operation prevents operation on the device.

Delay time for override activation

Parameter	Settings
Delay time for override activation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the activation of the override.

Delay time for override deactivation

Parameters	Settings
Delay time for override deactivation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the deactivation of the override.

Delay time for activation/deactivation behavior

Parameters	Settings
Delay time for activation/deactivation behavior (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time for the behavior after activation and deactivation of the override.

Monitoring time

Parameter	Settings
Monitoring time (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter is used to set whether the cyclical input of telegrams to the communication object for central override should be monitored and how long the monitoring time is.

With a parameter value of 00:00:00, no monitoring takes place.

For all other parameter values, the cyclical input of deactivation telegrams is monitored. If the monitoring time is exceeded, the override is activated automatically.

Override Duration

Parameter	Settings
Override Duration (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set the desired on period with activated override.

The override duration is then re-started with each incoming activation telegram.

With a parameter value of 00:00:00, the override duration is unlimited.

Note:

If the monitoring time is simultaneously set not equal to 00:00:00, the following behavior will be observed:

- **Monitoring time < override duration:**

The override duration is triggered using a cyclically incoming activation telegram. The configured override duration is not effective.

- **Monitoring time > override duration:**

With the elapse of the override duration, the override is switched off. With the next incoming activation telegram for monitoring, it is re-activated and the override duration begins again.

Behavior on override activation

Parameters	Settings
Behavior on override activation	Off On No change

Function:

This parameter is used to specify how the output responds when an override is activated.

The following settings are possible:

- Off:
The value at the output of the function block is set to "off" (0).
- On:
The value at the output of the function block is set to "on" (1).
- No change:
The value waiting at the output of the function block is retained. Values arriving at the input of the function block are not passed on to the output.

Behavior on override deactivation

Parameters	Settings
Behavior on override deactivation	Off On No change Updated value

Function:

This parameter is used to specify how the output responds when an override is deactivated.

The following settings are possible:

- Off:
The value at the output of the function block is set to "off" (0).
- On:
The value at the output of the function block is set to "on" (1).
- No change:
The value at the output is retained until a new value arrives at the input of the function block.
- According to parameter:
The value at the input of the function block is passed on at the output of the function block.

Status Override

Parameter	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter "Status Override" is set to "enable," additional parameters for sending the status of the override are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Start value/behavior of override input on bus voltage recovery

Parameters	Settings
Start value/behavior of override input on bus voltage recovery	Off On Deactivated Last value

Function:

This parameter can be used to set the desired starting value or the desired start behavior of the override input on bus voltage recovery.

The following settings are possible:

- Off:
The override function block behaves as if an "off" had been received at the override block input when bus voltage is recovered.
- On:
The override function block behaves as if an "on" had been received at the override block input when bus voltage is recovered.
- Deactivated:
The override function block is deactivated on bus voltage recovery.
- Last value:
The override input of the function block is then set to the value stored on bus voltage failure.

7.3.4.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 1, Wind Alarm

No.	Object name	Function	Datapoint type	Flags
29	A Override 1, Wind Alarm	On/Off	1.003 enable	CW

Function:

The "wind alarm" is active when the value of the communication object is "on." If an inversion is configured, "wind alarm" is active when the object value is "Off."

Note:

This object can then be linked to e.g. an alarm message of a wind guard.

Availability/alternative:

The communication object "A Override 1, Wind Alarm" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card
 - Setting: "Wind Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on parameter card "override 1, wind alarm" is enabled, this communication object is hidden and communication object "A Override 1, Wind Alarm, Control" is shown instead.

A Override 1, Wind Alarm, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Wind Alarm, Control	value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W)	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Note:

This object can then be linked to e.g. an alarm message of a wind guard.

Availability/alternative:

The communication object "A Override 1, Wind Alarm, Control" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card:
 - Setting: "Wind Alarm"
- Parameter "Control Value Input"
 - Setting: "enable"

Alternatively, a switching input can be used instead of a control value input. If the parameter "Control Value Input" on the parameter card "override 1, wind alarm" is set to "disable," this communication object is hidden and communication object "A Override 1, Wind Alarm" is shown instead.

A Override 1, Wind Alarm, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Wind Alarm, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active.

If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Wind Alarm, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, wind alarm" parameter card
 - Setting: "enable"

7.3.5 "Rain alarm" override

The override function can be used to protect a textile solar protection from rain.

7.3.5.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced Control User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.3.5.2 Parameters of the "override x, rain alarm" parameter card

The parameters for the "rain alarm" override on the parameter card "override 1, rain alarm" are identical to the parameters for the "wind alarm" override on the parameter card "override 1, wind alarm."

More information:

Parameters of the "override 1, wind alarm" parameter card

7.3.5.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 2, Rain Alarm

No.	Object name	Function	Datapoint type	Flags
33	A Override 2, Rain Alarm	On/Off	1.003 enable	CW

Function:

The "rain alarm" is active when the value of the communication object is "on."

If an inversion is configured, the "rain alarm" is active when the object value is "off."

Note:

This communication object can then be linked to e.g. an alarm message of a rain guard.

Availability/alternative:

The communication object "A Override 2, Rain Alarm" is displayed if the following configuration has been made:

- Parameter "Override 2" on the "functions, objects" parameter card:
 - Setting: "Rain Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 2, rain alarm" is set to "enable," this communication object is hidden and communication object "A Override 2, Rain Alarm, Control" is shown instead.

A Override 1, Rain Alarm, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Rain Alarm, Control	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W) 14.* 4-byte float value	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Availability/alternative:

The communication object "A Override 1, Rain Alarm, Control" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card
 - Setting: "Rain Alarm"
- Parameter "Control Value Input" on the "override 1, rain alarm" parameter card
 - Setting: "enable"

Alternatively, a switching input can be used instead of a control value input. If the "Control Value Input" parameter on the "override 1, rain alarm" parameter card is disabled, this communication object is hidden and communication object "A Override 1, Rain Alarm" is displayed.

A Override 1, Rain Alarm, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Rain Alarm, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active.

If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Rain Alarm, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, rain alarm" parameter card
 - Setting: "enable"

7.3.6 "Frost alarm" override

The "frost alarm" override function can be used to protect the solar protection system from freezing.

7.3.6.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced Control User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.3.6.2 Parameters of the "override x, frost alarm" parameter card

The parameters for the "frost alarm" override on the parameter card "override 1, frost alarm" are identical to the parameters for the "wind alarm" override on the parameter card "override 1, wind alarm." More information:

More information:

Parameters of the "override x, wind alarm" parameter card

7.3.6.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 3, Frost Alarm

No.	Object name	Function	Datapoint type	Flags
37	A Override 3, Frost Alarm	On/Off	1.003 enable	CW

Function:

"Frost alarm" is active when the value of the communication object is "on."

If an inversion is configured, the "frost alarm" is active when the value of the communication object is "Off."

Note:

This object can then be linked to e.g. an alarm message of a frost guard.

Communication object:

This communication can then be linked to e.g. an alarm message of a frost guard.

Availability/alternative:

The communication object "A Override 3, Frost Alarm" is displayed if the following configuration has been made:

- Parameter "Override 3" on the "functions, objects" parameter card:
 - Setting: "Frost Alarm"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, frost alarm" is set to "enable," this communication object is hidden and communication object "A Override 3, Frost Alarm, Control" is shown instead.

A Override 1, Frost Alarm, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Frost Alarm, Control	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W) 14.* 4-byte float value	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Availability/alternative:

The communication object "A Override 1, Frost Alarm, Control" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card
 - Setting: "Frost Alarm"
- Parameter "Control Value Input" on the "override 1, frost alarm" parameter card
 - Setting: "enable"

Alternatively, a switching input can be used instead of a control value input. If the "Control Value Input" parameter on the "override 1, frost alarm" parameter card is disabled, this communication object is hidden and communication object "A Override 1, Frost Alarm" is displayed.

A Override 1, Frost Alarm, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Frost Alarm, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active.
If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Frost Alarm, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, frost alarm" parameter card
 - Setting: "enable"

More information:

Parameters of the "override 1, wind alarm" parameter card

7.3.7 Override "lock"

The "Lock" override function, for example, can be used to protect an internal element if a window is open.

7.3.7.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced Control User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.3.7.2 Parameters of the "override x, lock" parameter card

Override

Control Value Input

Parameters	Settings
Control Value Input	disable enable

Function:

This parameter can be set whether instead of the switching input, a control value input should be used for the activation and deactivation of the override function.

Other parameters:

If the parameter "Control Value Input" is in status "enable," parameters "Control Value Input Data Type," "Threshold for Off (<=)," and "Threshold for On (>=)" are displayed.

Communication object:

If the parameter "Control Value Input" is in status "enable," the communication object "A Override 1, Lock" is hidden and the communication object "A Override 1, Lock, Control" is displayed instead.

More information:

Communication object "A Override 1, lock, control value" [→ 293]

Control Value Input Data Type

Parameters	Settings
Control Value Input Data Type	Percentage (%) DPT 5.001 Value (8-bit) DPT 5.010 2-byte unsigned value DPT 7.x 2-byte signed value DPT 8.x 2-byte floating point number DPT 9.x Temperature (°C) DPT 9.001 Illuminance (lx) DPT 9.004 Wind speed (m/s) DPT 9.005 Current (mA) DPT 9.021 Power (kW) DPT 9.024 Wind speed (km/h) DPT 9.028 4-byte unsigned value DPT 12.x 4-byte signed value DPT 13.x 4-byte floating point number DPT 14.x Power (W) DPT 14.056

Function:

This parameter defines the datapoint type of the communication object "control value."

The following datapoint types can be set:

- Percentage (%) DPT 5.001:
Corresponds to the datapoint type "5.001 percent (0...100 %)."
- Value (8-bit) DPT 5.010:
Corresponds to the datapoint type "5.010 counting impulses (0 ... 255)."
- 2-byte unsigned value DPT 7.x:
Corresponds to the datapoint type "2 bytes without prefix."
- 2-byte signed value DPT 8.x:
Corresponds to the datapoint type "2 bytes with prefix."
- 2-byte floating point number DPT 9.x:
Corresponds to the datapoint type "2 bytes floating value."
- Temperature (°C) DPT 9.001:
Corresponds to the datapoint type "9.001 temperature °C."

- Illuminance (lx) DPT 9.004:
Corresponds to the datapoint type "9.004 illuminance lx."
- Wind speed (m/s) DPT 9.005:
Corresponds to the datapoint type "9.005 speed (m/s)."
- Current (mA) DPT 9.021:
Corresponds to the datapoint type "9.021 current mA."
- Power (kW) DPT 9.024:
Corresponds to the datapoint type "9.024 output kW."
- Wind speed (km/h) DPT 9.028:
Corresponds to the datapoint type "9.028 wind speed (km/h)."
- 4-byte unsigned value DPT 12.x:
Corresponds to the datapoint type "4 bytes without prefix."
- 4-byte signed value DPT 13.x:
Corresponds to the datapoint type "4 bytes with prefix."
- 4-byte floating point number DPT 14.x:
Corresponds to the datapoint type "4 bytes floating value."
- Power (W) DPT 14.056:
Corresponds to the datapoint type "14.056 output W."

Threshold for Off (<=)

Parameters	Settings
Threshold for Off (<=)	0...100

Function:

This parameter determines the threshold for "Off."

If the value of this communication object is equal to or smaller than the configured threshold for "Off," then the determined switching value is equal to "Off" (0).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Threshold for On (>=)

Parameters	Settings
Threshold for On (>=)	0...100

Function:

This parameter determines the threshold for "On."

If the value of this communication object is equal to or greater than the configured threshold for "On," then the determined switching value is equal to "On" (1).

The permitted values for the threshold depend on the selected data type.

Note:

If the entered threshold values are equal, then when exactly this value is received this is interpreted as the "threshold for ON."

If the "threshold for OFF" is configured such that it is greater than the "threshold for ON," then the higher value is automatically used as the "threshold for ON."

Invert Override Control

Parameters	Settings
Invert Override Control	No Yes

Function:

This parameter is used to set whether the input value of communication object "A Override 1, Wind Alarm" should be used directly or inverted.

More information:

Communication object "A Override 1, lock" [→ 293]

Lock direct operation if override is active

Parameters	Settings
Lock direct operation if override is active	disable enable

Function:

If the parameter is enabled, operation on the device is prevented when the override is active.

Note:

Even one active override that blocks direct operation prevents operation on the device.

Delay time for override activation

Parameter	Settings
Delay time for override activation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the activation of the override.

Delay time for override deactivation

Parameters	Settings
Delay time for override deactivation (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set a delay time for the deactivation of the override.

Behavior on override deactivation

Parameters	Settings
Behavior on override deactivation	Off On No change Updated value

Function:

This parameter is used to specify how the output responds when an override is deactivated.

The following settings are possible:

- Off:
The value at the output of the function block is set to "off" (0).
- On:
The value at the output of the function block is set to "on" (1).
- No change:
The value at the output is retained until a new value arrives at the input of the function block.
- According to parameter:
The value at the input of the function block is passed on at the output of the function block.

Status Override

Parameters	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter "Status Override" is set to "enable," additional parameters for sending the status of the override are displayed.
Parameters that are visible if the "status ..." parameter is set to "enable"

**Start value/behavior of
override input on bus
voltage recovery**

Parameters	Settings
Start value/behavior of override input on bus voltage recovery	Off On Deactivated Last value

Function:

This parameter can be used to set the desired starting value or the desired start behavior of the override input on bus voltage recovery.

The following settings are possible:

- Off:
The override function block behaves as if an "off" had been received at the override block input when bus voltage is recovered.
- On:
The override function block behaves as if an "on" had been received at the override block input when bus voltage is recovered.
- Deactivated:
The override function block is deactivated on bus voltage recovery.
- Last value:
The override input of the function block is then set to the value stored on bus voltage failure.

7.3.7.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 4, Lock

No.	Object name	Function	Datapoint type	Flags
41	A Override 4, Lock	On/Off	1.003 enable	CW

Function:

This communication object can be used to lock the sunblind against changes for as long as the lock is active irrespective of the upstream sub-functions.

The lock is active when the value of the communication object is "on."

If an inversion is configured, the lock is active when the object value is "off."

Availability/alternative:

The communication object "A Override 4, Lock" is displayed if the following configuration has been made:

- Parameter "Override 4" on the "functions, objects" parameter card:
 - Setting: "Lock"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, lock" is set to "enable," this communication object is hidden and communication object "A Override 4, Lock, Control" is shown instead.

A Override 1, Lock, Control

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, Lock, Control	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W)	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Availability/alternative:

The communication object "A Override 1, Lock, Control" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card:
 - Setting: "Lock"
- Parameter "Control Value Input" on the "override 1, lock" parameter card
 - Setting "enable"

Alternatively, a switching input can be used instead of a control value input. If the parameter "Control Value Input" on parameter card "override 1, lock" is set to "enable," this communication object is hidden and communication object "A Override 1, Lock" is shown instead.

A Override 1, Lock, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Lock, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active.

If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Lock, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, lock" parameter card
 - Setting: "enable"

7.3.8 Override "forced control"

The override function "forced control" can be used, for example, to protect cleaners from getting injured by the solar protection while cleaning windows.

7.3.8.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced Control User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.3.8.2 Parameters of the "override x, forced control" parameter card

Lock direct operation if override is active

Parameters	Settings
Lock direct operation if override is active	disable enable

Function:

If the parameter is enabled, operation on the device is prevented when the override is active.

Note:

Even one active override that blocks direct operation prevents operation on the device.

Delay time for activation/deactivation behavior

Parameters	Settings
Delay time for activation/deactivation behavior (hh:mm:ss.f)	00:00:00.0 ... 01:49:13.5

Function:

This parameter can be used to set a delay time for the behavior after activation and deactivation of the override.

Behavior on override deactivation

Parameters	Settings
Behavior on override deactivation	Off On No change Updated value

Function:

This parameter is used to specify how the output responds when an override is deactivated.

The following settings are possible:

- Off:
The value at the output of the function block is set to "off" (0).
- On:
The value at the output of the function block is set to "on" (1).
- No change:
The value at the output is retained until a new value arrives at the input of the function block.
- According to parameter:
The value at the input of the function block is passed on at the output of the function block.

Status Override

Parameters	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter "Status Override" is set to "enable," additional parameters for sending the status of the override are displayed.

Parameters that are visible if the "status ..." parameter is set to "enable"

Start value/behavior of override input on bus voltage recovery

Parameters	Settings
Start value/behavior of override input on bus voltage recovery	Inactive Forced off Forced on As before bus voltage failure

Function:

This parameter can be used to set the desired starting value or the desired start behavior of the override input on bus voltage recovery.

The following settings are possible:

- Inactive:
The override function block is deactivated on bus voltage recovery.
- Forced off:
The override function block is activated on bus voltage recovery and the output is switched off.
- Forced on:
The override function block is activated on bus voltage recovery and the output is switched on.
- As before bus voltage failure:
The override input of the function block is then set to the value stored on bus voltage failure.

7.3.8.3 Communication objects

As the communication objects for the 7 override function blocks are the same and only differ in their numbers, the following lists only the communication objects of override function block 1. The respective numbers of the communication objects of the other override function blocks are shown in the table of all communication objects (Communication objects).

A Override 6, Forced Control

No.	Object name	Function	Datapoint type	Flags
51	A Override 6, Forced Control	Up/Down	2.001 switch control	CW

Function:

This 2-bit communication object enables forced moves to the upper or lower end position irrespective of the upstream sub-functions.

The following settings are possible:

Bit 1	Bit 0	Function
0	0	Forced control not active
0	1	Forced control not active
1	0	Forced control, move up
1	1	Forced control, move down

Availability:

The communication object "A Override 6, Forced Control" is displayed if the following configuration has been made:

- Parameter "Override 6" on the "functions, objects" parameter card:
 - Setting: "Forced Control"

A Override 1, Forced Control, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, Forced Control, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active.

If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, Forced Control, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" on the "override 1, forced position" parameter card
 - Setting: "enable"

7.3.9 Override "user-defined"

For use cases in which none of the predefined override functions can be used, the "user-defined override function" is available.

This override function enables monitoring of cyclically incoming telegrams. In this case the override is activated when telegrams do not arrive within the monitoring time.

7.3.9.1 Parameters of the "functions, objects" parameter card

Override 1 – 7

Parameters	Settings
Override 1 – 7	Deactivated Wind Alarm Rain Alarm Frost Alarm Lock Forced Control User defined

Function:

This parameter can be used to set 7 overrides. The priority of the override function blocks is determined by the position in the processing chain. Override block 7 has the highest priority, while override block 1 has the lowest priority.

Other parameter cards:

If an override is activated, the parameter card "override [number], [type of override]" is displayed.

Communication object:

Depending on which override was activated and which settings were made, different communication objects are displayed.

7.3.9.2 Parameters of the "override X, user-defined control" parameter card

The parameters for the "user-defined" override on the parameter card "override 1, user-defined control" are identical to the parameters for the "wind alarm" override on the parameter card "override 1, wind alarm."

Parameters of the "override 1, wind alarm" parameter card

7.3.9.3 Communication objects

A Override 6, User-defined Control

No.	Object name	Function	Datapoint type	Flags
49	A Override 6, User-defined Control	On/Off	1.003 enable	CW

Function:

This communication object can be used to switch an output on or off irrespective of the upstream sub-functions. The state can be retained permanently or for a limited time.

User-defined control is active when the value of the communication object is "on."

If an inversion is configured, user-defined control is active when the value of the communication object is "Off."

The behavior upon activation or deactivation of user-defined control can be configured using a parameter.

The user-defined control object ensures that all upstream function blocks are internally saved, but not evaluated and sent.

Availability/alternative:

The communication object "A Override 6, User-defined Control" is displayed if the following configuration has been made:

- Parameter "Override 6" on the "functions, objects" parameter card:
 - Setting: "User defined"

Alternatively, a control value input can be used instead of a switching control input. If the parameter "Control Value Input" on the parameter card "override 1, user-defined control" is set to "enable," this communication object is hidden and communication object "A Override 6, User-defined Control, Control Value" is shown instead.

A Override 1, User-defined Control, Control Value

No.	Object name	Function	Datapoint type	Flags
30	A Override 1, User-defined Control, Control Value	Value	5.001 percentage (0..100%) 5.010 counter pulses (0..255) 7.* 2-byte unsigned value 8.* 2-byte signed value 9.001 temperature (°C) 9.004 lux (Lux) 9.005 speed (m/s) 9.021 current (mA) 9.024 power (kW) 9.028 wind speed (km/h) 9.* 2-byte float value 12.* 4-byte unsigned value 13.* 4-byte signed value 14.056 power (W)	CW

Function:

This communication object enables the use of a control value as the input value for the override.

Availability/alternative:

The communication object "A Override 1, User-defined Control, Control Value" is displayed if the following configuration has been made:

- Parameter "Override 1" on the "functions, objects" parameter card:
 - Setting: "User defined"

Alternatively, a switching input can be used instead of a control value input. If the parameter "Control Value Input" on the parameter card "override 1, user-defined control" is set to "locked," this communication object is hidden and communication object "A Override 1, User-defined Control" is shown instead.

A Override 1, User-defined Control, Status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, User-defined Control, Status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active. If a logical "0" is sent, no override is active; if a logical "1" is sent, an override is active.

Availability:

The communication object "A Override 1, User-defined Control, Status" is displayed if the following configuration has been made:

- Parameter "Status Override" of the "override 1, user-defined control" parameter card
 - Setting: "enable"

7.3.10 Status

7.3.10.1 Parameters that are visible if the "status ..." parameter is set to "enable"

Send status on request

Parameter	Settings
Send status on request	disable enable

Function:

This parameter can be used to set whether the status of the communication object is sent upon request or whether requests for the status value will be rejected.

The request is triggered via the communication object "send status values."

Availability:

The parameter "Send status on request" is only displayed if the corresponding "Status..." parameter is set to "enable."

Send status on change of status

Parameter	Settings
Send status on change of status	disable enable

Function:

This parameter can be used to set whether the value of the status object is automatically sent after each status change.

Availability:

The parameter "Send status on change of status" is only displayed if the corresponding "Status..." parameter is set to "enable."

Send status cyclically

Parameter	Settings
Send status cyclically (hh:mm:ss)	00:00:00 ... 18:12:15

Function:

This parameter can be used to set the time interval at which the value of the status object is sent cyclically.

If this is set to "00:00:00," cyclic sending is deactivated.

Availability:

The parameter "Send status cyclically" is only displayed if the corresponding "Status..." parameter is set to "enable."

7.3.10.2 Parameters of the "Functions, objects" parameter card

Overrides status

Parameter	Settings
Overrides status	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of the overrides. This communication object is used to report whether at least one override is active.

Availability:

The "Overrides status" parameter is displayed as soon as an override is activated.

Other parameters:

If the "Overrides status" parameter is set to "enable," additional parameters for configuring the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication object:

If the "Overrides status" parameter is set to "enable," the communication object "A Overrides status" is displayed.

More information:

Communication object "A overrides status" [→ 304]

Status direct operation

Parameter	Settings
Status direct operation	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of direct operation. This communication object is used to report whether direct operation is active.

Availability:

The "Status direct operation" parameter is only displayed if the following configuration has been made:

- Parameter "Direct operation"
 - Setting: "enable"

Other parameters:

If the "Status direct operation" parameter is set to "enable," additional parameters are displayed which can be used to set when a status is sent.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 299]

Communication object:

If the "Status direct operation" parameter is set to "enable," the communication object "A Status direct operation" is displayed.

More information:

- Parameter "Direct operation" [→ 266]
- Communication object "A Status direct operation" [→ 275]

Status ventilation flap

Parameter	Settings
Status ventilation flap	disable enable

Function:

This parameter is used to set whether a "Status ventilation flap" communication object is to be made available for the channel.

The status object shows whether the output is switched on or off.

Other parameters:

If the parameter is set to "Status ventilation flap," additional parameters for configuration of the status are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable"

Communication object:

If the "Status ventilation flap" parameter is set to "enable," the communication object "A Status ventilation flap" is displayed.

More information:

Communication object "A Status ventilation flaps" [→ 302]

7.3.10.3 Parameters on the "Override x, [type of override]" parameter card

Status Override

Parameter	Settings
Status Override	disable enable

Function:

This parameter is used to activate or deactivate the communication object for the status of override x. This communication object is used to report whether the override is active.

Other parameters:

If the parameter "Status Override" is set to "enable," additional parameters for sending the status of the override are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 136]

7.3.10.4 Communication objects

A Status ventilation flap

No.	Object name	Function	Datapoint type	Flags
18	A Status ventilation flap	On/Off	1.001 switch	CRT

Function:

This object can be used to query the current solar protection position and, if appropriate, the position can also be sent automatically when the value is changed. If a logical "0" is sent, the current switching state is not queried, if a logical "1" is sent, it is queried.

Availability:

The "A Status ventilation flap" communication object is only displayed if the following configuration has been made:

- Parameter "Status ventilation flap" ("functions, objects" parameter card)
 - Setting: "enable"

A Override 1, [type of override], status

No.	Object name	Function	Datapoint type	Flags
32	A Override 1, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 1 is active:

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 1, [type of override], status" is only displayed, if the following configuration has been made:

- Parameter "Status Override" on the "Override 1, [type of override]" parameter card
 - Setting: "enable"

A Override 2, [type of override], status

No.	Object name	Function	Datapoint type	Flags
36	A Override 2, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 2 is active:

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 2, [type of override], status" is only displayed, if the following configuration has been made:

- Parameter "Status Override" on the "Override 2, [type of override]" parameter card
 - Setting: "enable"

A Override 3, [type of override], status

No.	Object name	Function	Datapoint type	Flags
40	A Override 3, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 3 is active.

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 3, [type of override], status" is only displayed, if the following configuration has been made:

- Parameter "Status Override" on the "Override 3, [type of override]" parameter card
 - "enable"

A Override 4, [type of override], status

No.	Object name	Function	Datapoint type	Flags
44	A Override 4, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 4 is active.

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 4, [type of override], status" is displayed, if the following configuration has been made:

- Parameter "Status Override" on the "Override 4, [type of override]" parameter card
 - Setting: "Status Override"

A Override 5, [type of override], status

No.	Object name	Function	Datapoint type	Flags
48	A Override 5, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 5 is active:

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 5, [type of override], status" is displayed, if the following configuration has been made:

- Parameter "Status Override" on the "Override 5, [type of override]" parameter card
 - Setting: "enable"

A Override 6, [type of override], status

No.	Object name	Function	Datapoint type	Flags
52	A Override 6, [type of override], status	enable	1.002 boolean	CRT

Function:

This status object is used to report whether override 6 is active:

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 6, [type of override], status" is only displayed, if the following configuration has been made:

- Parameter "CRT" on the "Override 6, [type of override]" parameter card
 - Setting: "enable"

A Override 7, [type of override], status

No.	Object name	Function	Datapoint type	Flags
56	A Override 7, [type of override], status	On/Off	1.002 boolean	CRT

Function:

This status object is used to report whether override 7 is active:

If a logical "0" is sent, the override is not active; if a logical "1" is sent, the override is active.

Availability:

The communication object "override 7, [type of override], status" is displayed, if the following configuration has been made:

- Parameter "Status Override" on the "override 7, [type of override]" parameter card
 - Setting: "CRT"

A Overrides status

No.	Object name	Function	Datapoint type	Flags
57	A Overrides status	1 = Active	1.002 boolean	CRT

Function:

This status object is used to report that an override is active. If a logical "0" is received, no override is active; if a logical "1" is received, at least one override is active.

Availability:

The communication object "A Overrides status" is displayed if the following configuration has been made:

- Parameter "Overrides status" on the "functions, objects" parameter card:
 - Setting: "enable"

More information:

Overrides [→ 276]

A Status direct operation

No.	Object name	Function	Datapoint type	Flags
60	A Status direct operation	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report whether direct operation is active or not.

If a logical "0" is sent, direct operation is deactivated, if a logical "1" is sent, direct operation is activated.

Availability:

The communication object "A Status direct operation" is displayed if the following configuration has been made:

- Parameter "Direct operation" ("functions, objects" parameter card)
 - Setting: "enable"
- Parameter "Status direct operation" ("functions, objects" parameter card)
 - Setting: "enable"

More information:

Direct operation [→ 273]

7.3.11 Diagnostic functions

7.3.11.1 Parameters on the "Functions, objects" parameter card

Diagnostic functions

Parameter	Settings
Diagnostic functions	disable enable

Function:

This parameter is used to activate or deactivate the diagnostic functions.

Other parameters/parameter card:

If the "Diagnostic functions" parameter is set to "enable," the following parameters are displayed on the "diagnostics" parameter card:

- "Contact Failure"

More information:

Parameter "Contact failure" [→ 150]

7.3.11.2 Parameters on the "Diagnostics" parameter card

Contact Failure

Parameter	Settings
Contact Failure	disable enable

Function:

If the "Contact Failure" parameter is set to "enable," a communication object can be used to query whether there is a contact failure on the relay. There is a contact failure if a current is measured even though the relay contact should be open.

Note:

After opening the relay contact, the flow of current must have fallen to "0" within a second so that no contact failure is reported.

The dead time of one second is fixed and cannot be changed.

Availability:

The parameter is displayed if the following configuration has been made:

- Parameter "Diagnostic functions"
 - Setting: "enable"

Other parameters:

If the "Contact Failure" parameter is set to "enable," additional parameters for sending the value of the contact failure are displayed.

Parameters that are visible if the "Status..." parameter is set to "enable" [→ 250]

Communication object:

If the "Contact Failure" parameter is set to "enable," the communication object "A Load Check-Contact Failure" is also displayed.

More information:

Communication object "Load check contact failure" [→ 307]

7.3.11.3 Communication objects

A Load Check-Contact Failure

No.	Object name	Function	Datapoint type	Flags
69	A Load Check-Contact Failure	On/Off	1.002 boolean	CRT

Function:

This communication object is used to report a contact failure, or can be used to query via the bus whether there is a contact failure. A contact failure is detected if there is an active flow of current while the channel is switched off.

If a logical "0" is received, there is no load check contact failure. If a logical "1" is received, there is a load check contact failure.

Note:

The status of this communication object is retained when the channel is subsequently switched on again and only receives a new value when it is switched off again.

Availability:

The communication object "A Load Check-Contact Failure" is displayed if the following configuration has been made:

- Parameter "Diagnostic functions" on the "functions, objects" parameter card:
 - Setting: "enable"
- Parameter "Contact Failure" on the "diagnostics" parameter card
 - Setting: "enable"

8 Initial output behavior of a channel with different parameter configurations

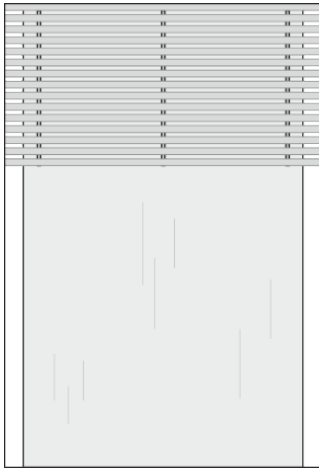
8.1 Automatic moving time calculation, calibration

The following graphic shows the automatic calibration of the moving time for the operating modes “shutter” and “shutter, awning.” The graphic shows an example of how a shutter behaves. The following parameters are used for this:

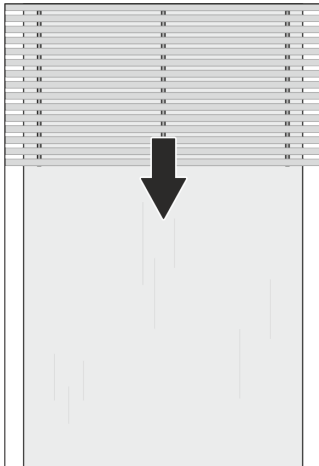
- End position detection: enable (“Functions, objects” parameter card)
- End position dead time: 2 s (“shutter” parameter card or “shutter, awning” parameter card)
- Calibration of moving time: Automatically (“Shutter” parameter card or “shutter, awning” parameter card)

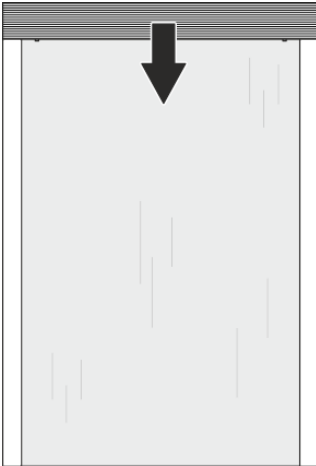
Calibration move

Starting position: The sunblind is in any position. No calibration has been performed yet. Any move command starts the calibration move (e.g. solar protection position 50 %).

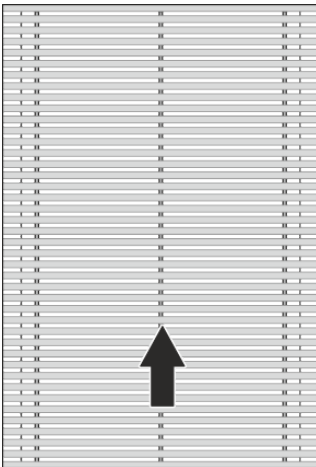


The solar protection moves down in the time set in end pos dead time (e.g. 2 s), stops and then moves up until the upper end position is reached.

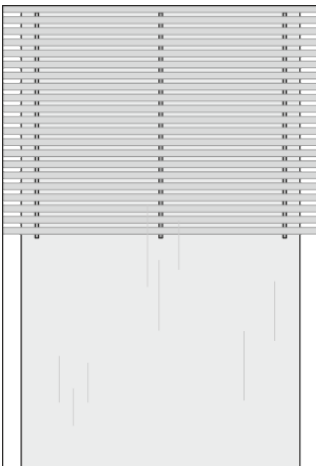




Once the sunblind has reached the upper end position, it moves from the upper end position to the lower end position and measures the move time. The solar protection actuator stores this as the “moving time from upper end to lower end.”



The sunblind moved from the lower end position to the upper end position and measures the move time. The solar protection actuator stores this as the “moving time from lower end to upper end.”



After reaching the upper end position, the calibration move is complete. The move command with which the calibration move was started or a move command received during the calibration move is executed again.

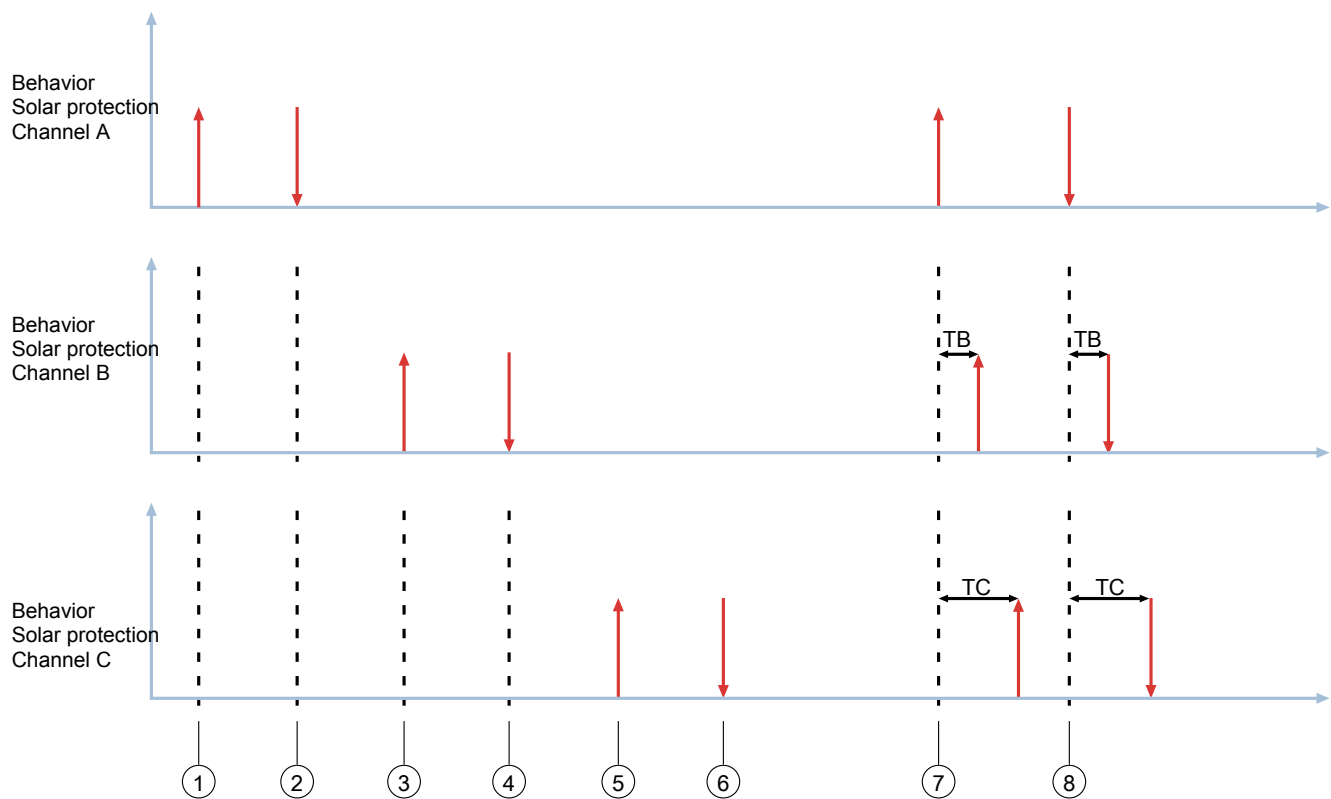
The solar protection moves down to the height of the starting command (here: 50 %).

8.2 Central move commands with time delay

For each channel, it is possible to specify a delay time for moving up and down by means of a central object. Aside from avoiding current peaks, this also prevents the sudden starting on an entire building front. This reduces the amount of noise when starting up.

The example below shows how the following parameter settings were made for the delay time for central up / down (manual and automatic operation):

- Channel A: Delay time: $TA = 0$
- Channel B: Delay time: $TB \neq 0, TB < TC$
- Channel C: Delay time: $TC > TB$



- | | | | |
|---|--|---|---|
| 1 | Move command for channel A solar protection up | 5 | Move command for channel C solar protection up |
| 2 | Move command for channel A solar protection down | 6 | Move command for channel C solar protection down |
| 3 | Move command for channel B solar protection up | 7 | Move command for channels A + B + C central solar protection up |
| 4 | Move command for channel B solar protection down | 8 | Move command for channels A + B + C central solar protection down |

The configured delay times are applied to all channels.

8.3 Shutter settings for move time optimization

As an example, the following parameters can be set in the advanced configuration for move time optimization:

- End position detection: locking
- Solar protection move time from lower to upper end pos: 30 s
- Solar protection move time from upper to lower end pos: 30 s
- Additional move time: 2 s
- Slat move time from completely closed to completely opened: 1 s
- Number of slat steps from slats completely closed to slats completely opened: 5
- Advanced configuration: enable
- Slip compensation time: 1 s
- Motor start up delay after relay closed: 0.5 s
- Motor run out delay after relay opened: 0.7 s

Move time determination

For an Up/Down command

Actual move time

= move time + move time extension + slip compensation time (only in case of a change of direction) + start up delay – run out delay

$$= 30 \text{ s} + 2 \text{ s} + 1 \text{ s} + 0.5 \text{ s} - 0.7 \text{ s} = 32.8 \text{ s}$$

For a step command

Slat move time/step

= slat move time from closed to open / number of steps slat + slip compensation time (only in case of a change of direction) + start up delay – run out delay

$$= 1 \text{ s} / 5 + 1 \text{ s} + 0.5 \text{ s} - 0.7 \text{ s} = 1 \text{ s}$$

8.4 External requirements for shutter position

The user of the solar protection actuator can specify percentages for the solar protection position via the ETS.

Use cases:

- In buildings and halls in which as few synchronization moves are to take place
- To control skylights of a greenhouse
- Very large solar protection equipment which spans e.g. an entire facade

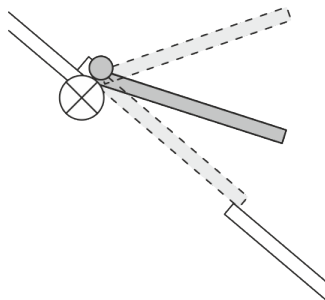
Due to a voltage failure of the KNX voltage supply phases that failed (poss. several times in short succession), some positions can shift up or down. A synchronization move to the end positions would help. However, this could lead to significant heating up in summer and significant cooling in spring. That is why, e.g. an actual value transmitter with KNX connection is attached to each drive in order to update the actual position during standstill via the “External value solar protection position” parameter.

Example 1: Roof hood with switch

The roof hood is stopped when the switch is activated and the previously determined, fixed position value (e.g. 25 %) is sent to the “External value solar protection position” object of the solar protection actuator for synchronization.

To implement this, an external logic function and a device for phase monitoring are required.





Example 2: Ventilation flaps with actual value transmitter

On request, the actual value transmitter transmits the current position value to the “External value solar protection position” object of the solar protection actuator for synchronization. The transaction can be repeated for every standstill.

An external logic function is required for implementation.

This use case most commonly occurs in greenhouses. Unnecessary opening and thus changing the greenhouse temperature is avoided.

8.5 Parameter “move time between shutter edge is down and completely closed” in automatic operation

Use: The parameter is used to leave the ventilation slits of the shutter open when controlled using % commands.

Case 1:

- Parameter “Solar protection move time between shutter edge is down and completely closed” set to “> 0 s”
- Control: Automatic operation position sunblind with 99 %
- Shutter behavior:



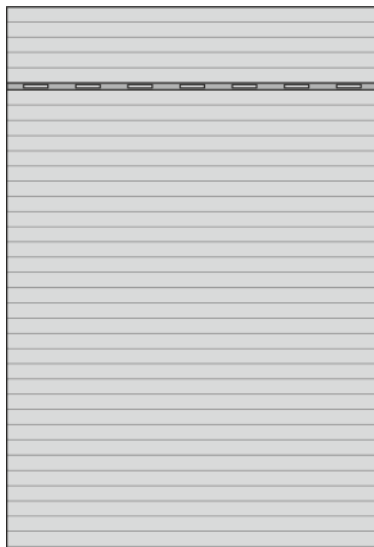
The “solar protection move time between shutter edge is down and completely closed” is deducted from the actual move time. Hence, the ventilation slits stay open.

- Exception: For a 100% command (solar protection position), the parameter is not taken into account to make it possible to close the shutter completely.

Case 2:

- Parameter “Solar protection move time between shutter edge is down and completely closed” on setting “0 s” (= not active)
- Control automatic operation solar protection position with 99 %

- Shutter behavior:



The 99% command (solar protection position) is used to close the shutter almost completely.

8.6 Behavior of manual and automatic operation with sunshine and central commands

In manual operation, the central Up/Down commands behave like the Up/Down move commands.

When automatic operation is started using a down command (e.g. sun = on or central down"), the "Slat position after solar protection down in %" parameter is always taken into account irrespective of whether or not the shutter is in the upper end position. The down command is treated like a move down command with subsequent tilting up (slat position after solar protection down).

Example:

Configuration:

- Slat position after solar protection down in %: 50 %
- Behavior on sunshine = On: Solar protection down
- Behavior on sunshine = Off: Ignore automatic commands
- Starting position: Automatic OFF

Test step	Reaction of solar protection actuator
Automatic % command height 33 %	No action
Automatic % command slat 33 %	No action
Automatic ON	No action
Sun ON	The blind moves to the lower end position and tilts up. Height: 98 %; slat: 50 %
Automatic % command slat 10 %	The shutter moves up. Height: 33%; slat: 10%
Sun OFF	No action
Manual operation solar protection OPEN	Automatic operation is terminated. The blind moves to the upper end position.
Automatic ON	No action
Sun ON	The blind moves to the lower end position and tilts up. Height: 98 %; slat: 50 %
Sun OFF	No action
Manual operation solar protection OPEN	Automatic operation is terminated. The blind moves to the upper end position.
Automatic % command height 33 %	No action
Automatic % command slat 33 %	No action
Automatic ON	No action
Sun ON	The blind moves to the lower end position and tilts up. Height: 98 %; slat: 50 %
Manual operation solar protection OPEN + stop with slat prior to upper end position	Automatic operation is terminated. The blind moves and stops after the step command.
Automatic central DOWN	Automatic operation is activated. The blind moves to the lower end position and tilts up. Height: 98 %; slat: 50 %

Test step	Reaction of solar protection actuator
Automatic % command height 70 %	The blind moves up to 70 % and sets the slats to 50 %.
Manual operation solar protection OPEN + stop with slat prior to upper end position	Automatic operation is terminated. The blind moves and stops after the step command.
Central manual operation DOWN	The blind moves to the lower end position and does not tilt up. Height: 100 %; slat: 100 %

9 Help in case of errors and problems

9.1 Frequently asked questions

Frequently asked questions

For frequently asked questions about the product and their solutions, see:

<https://support.industry.siemens.com/cs/products?dtp=Faq&mfn=ps&lc=de-VWV>



9.2 Troubleshooting using ETS

The ETS offers the following error analysis options, among others:

‘Diagnostics’ section

In this area, the physical addresses, the group monitor and the bus monitor can be checked, among others.

‘Reports’ area:

In this area, details on the various areas of the project can be exported as a file or printed directly.



For more information on ETS, see the online help of the ETS software.



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