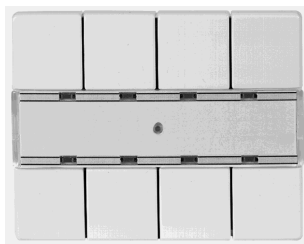


IR light scene push button comfort

Light scene push button comfort

751684xx, 751685xx

Technical Documentation



(Abb: ARSYS pw)



(Abb: ARSYS pw)

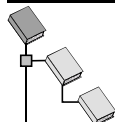
751684xx
(Light scene push button comfort)

751685xx
(IR light scene push button comfort)

The (IR) push button comfort for light scenes transmits telegrams to the instabus EIB when the button is activated, which in turn triggers appropriate functions if actuators exist. Depending on the application that is loaded, you can save and re-use up to 8 background light scenes or telegram sequences with a maximum of 8 outputs. The plug-in application module into the flush-mounted bus coupler has Berker protection during dismantling. Each of the activation buttons has an LED assigned to us, whose functions can be designated via the parameter settings. Each button can be projected freely, depending on the selected application and parameter settings to control the switch, dim or shutter actuators as well as a valuator device in conjunction with scene and telegram sequences. The push button has 2 operating levels that can be set manually. The settings for operational equipment can be set in operating level 2. No further sensors are needed. An alarm object makes the sending of an alarm command possible in case the push button is disconnected from the bus coupling unit. The functions of the IR push button for light scenes can also be operated remotely via an IR remote control unit.

Connection:	onto BA 2 x 5 pin AS
Protection type:	IP 20
Protection class:	III
Circuit insulation voltage:	As per VDE 0829 Part 230
Test symbol:	EIB
Ambient temperature:	-5 °C to +45 °C
Storage / Transit temperature:	-25 °C to +70 °C (storage at temperatures above 45 °C reduces the service life)
Installed position:	any
Minimum dimensions:	none
Fastening type:	Insert into flush-mounted bus coupling unit
Power supply <i>instabus</i> EIB	
Voltage:	24 V DC (+6 V / -4 V) via UP-BCU
Power consumption:	typ. 150 mW
Connection:	2 x 5 pin plug connector
IR receive:	Only with IR light scene push button comfort
Transmission medium:	Infrared light, IR
Wavelength:	$\lambda = 950 \text{ nm}$
Carrier frequency:	$f = 455 \text{ kHz}$
Code:	PPM-Code

Product administration



Gebr. Berker
☒ Push button
☒ Push button general



Light scene push button comfort

Light scene/dimming

Telegram sequence

Order data

Design
Modul 2

ARSYS

Colour
white
polar white

white
polar white
light bronze, varnished
stainless steel, varnished

Order no.
75168x12
75168x19

75168x42
75168x 49
75168x 44
75168x 43

IR light scene push button comfort

Light scene push button comfort

751684xx, 751685xx

Technical Documentation



CLIPTEC

polar white
light grey
deep black
platinum, varnished

75168x 59
75168x 50
75168x 55
75168x 58

B1/B3

Polar white
Alu
Anthracite

75168x89
75168x83
75168x85









Properties of application



**Light
scene /
dimming**

- ☒ Blocking function over object
- ☒ Cascading of several touch sensors for lighting arrangements
- ☒ Operating indication: variable lighting duration for status LED
- ☒ Second operation level: Setting lights
- ☒ Transmission of telegrams can be staggered.
- ☒ Adjustable dimmer function
- ☒ Ports can be removed separately from light scenes
- ☒ Option of dividing the 8 output ports into two independent light scene areas
- ☒ Uni-level activation function for dimmer
- ☒ Extension function

Bootable from mask version:		1.1			
Number of addresses (max):		22	Dynamic table administration		Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>
Number of associations (max):		22	Maximum table length		44
Communication objects:		20			
Object	Function	Name	Typ	Flag	
0	Brightness value	Output 1	1 Byte	C, W, T	
0	Switching	Output 1	1 Bit	C, W, T	
1	Brightness value	Output 2	1 Byte	C, W, T	
1	Switching	Output 2	1 Bit	C, W, T	
2	Brightness value	Output 3	1 Byte	C, W, T	
2	Switching	Output 3	1 Bit	C, W, T	
3	Brightness value	Output 4	1 Byte	C, W, T	
3	Switching	Output 4	1 Bit	C, W, T	
4	Brightness value	Output 5	1 Byte	C, W, T	
4	Switching	Output 5	1 Bit	C, W, T	
5	Brightness value	Output 6	1 Byte	C, W, T	
5	Switching	Output 6	1 Bit	C, W, T	
6	Brightness value	Output 7	1 Byte	C, W, T	
6	Switching	Output 7	1 Bit	C, W, T	
7	Brightness value	Output 8	1 Byte	C, W, T	
7	Switching	Output 8	1 Bit	C, W, T	
8	Dimming	Output 1	4 Bit	C, T	
9	Dimming	Output 2	4 Bit	C, T	
10	Dimming	Output 3	4 Bit	C, T	
11	Dimming	Output 4	4 Bit	C, T	

	12	Dimming	Output 5	4 Bit	C, T
	13	Dimming	Output 6	4 Bit	C, T
	14	Dimming	Output 7	4 Bit	C, T
	15	Dimming	Output 8	4 Bit	C, T
	16	Cascade	Input	1 Byte	C, W
	17	Extension unit	Input	1 Byte	C, W, T
	18	Cascade	Output	1 Byte	C, T
	19	Locking	In / output	1 Bit	C, W, T

Description of object

0-7	Brightness value:	1 byte object for setting defined brightness value between 0 und 255
0-7	Switching:	1 bit object to switch a load
8-15	Dimming:	4 bit object to change relative brightness between 0 und 100 %
16	Cascade input:	1 bit cascade input object to link several push buttons for light scenes for cascading operation (Master-Slave)
17	Extension unit:	1 byte object to address light scene push button via an extension
18	Cascade output:	1 bit cascading output object to link several light scene push buttons for cascading operation (Master-Slave)
19	Locking:	1 bit object to block light scene push button (normal and cascading mode)

Functional scope

General

2 operating modes: light scene operation (with/without cascading) and switching / dimming mode
Switch between operating levels (light scene mode - switching / dimming mode) using 3 keystrokes
Switch between operating levels (light scene mode - switching / dimming mode) via IR remote control (1)
Status and operating indication possible using red and green LEDs
Blocking operation can be activated via object
Setting of parameters for IR groups (A-H) possible (1)

Light scene

Polling and saving of 8 light scenes with 8 outputs ports each via push-buttons or extension (Operating level 1)
Polling and saving of 8 light scenes with 8 outputs ports each via IR remote operation (Operating level 1) (1)
Parameters can be set for object types switch (make contact) (1 bit) or brightness value (1 byte) per port
Blocking of individual output ports possible
Send delay between two values can be set

Switching / dimming mode

Switching / dimming mode (one level operation) to adjust light scene (Operating level 2)
Possibility to set parameters for repeat telegram, dimming increment and send stop telegram
Time after which the function of the longest keystroke is carried out can be set
Parameters for switchover time between switching / dimming mode to the light scene function can be set

Cascading

Combination of several light scene push buttons to increase the number of output ports (Cascading mode)
One-time or continuous cascading operation possible
Light scene number can be incremented in continuous mode
Output delay can be set

(1) only applicable for IR light scene / dimming 106301

Description of functions

Operating levels

The (IR) light scene push button comfort has two levels of operations, which contain the following functions, depending on the parameters:

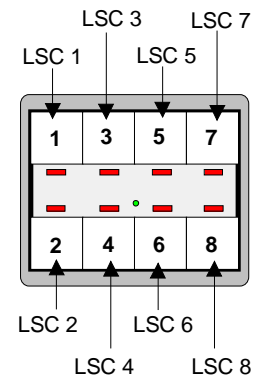
Operating level 1 (Light scene mode):

Light scene without a memory function:

Push button: Poll lighting arrangement

Light scene with memory function:

Short button pressure (< 1 s): Poll lighting arrangement
 Long button pressure (> 5 s): Save lighting arrangement
 Button pressure (> 1 s - < 5 s): no function



Operating level 2 (Switching / dimming mode):

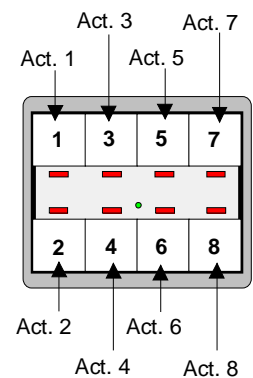
8-way switching and dimming (one-level operation)
 to set/adjust local lighting arrangement

Output object type = Switch (make contact) (1 bit)

Press button: Switch (make contact) (TOGGLE)

Output object type = Brightness (1 byte) / Dim (4 bit)

Short button pressure: Switch (make contact) (TOGGLE)
 Long button pressure: Dim (in other direction)



Setting local light scene:

Requirements:

- The "Memory function for local operation" must be set to "enabled" in the parameters
- The Read flags for the actuator objects being saved must be set

Proceed as follows for the local adjustment of the light scene parameters:

- Change to operating level 2: Switching / dimming mode -> Operating LED flashes
- Change the light scene by pressing the appropriate button
- Change to operating level 1: light scene mode -> Operating LED is lit continuously
- Save the local light scene holding down the corresponding button (long button pressure > 5 s)
- The status LED for the activated button will be lit for the duration of the save process

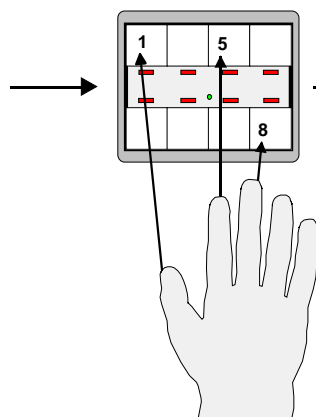
Description of functions

Switch between operating levels (manual or IR-remote control)

Manual switching between operating levels by pressing three buttons (PB1+PB5+PB8). The following illustration shows how you can manually switch from operating level 1 to 2 and back again.

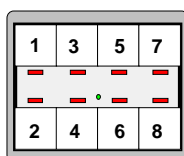
Switch over by holding 3 buttons:
Pushing the buttons 1+5+8
simultaneous approx. 3 to 8 sec

1. Operating level
Light scene



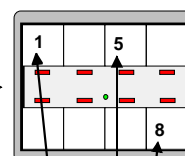
Operating LED
flashes
(280 msec interval)

2. Operating level
Switching / dimming



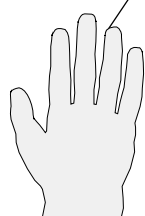
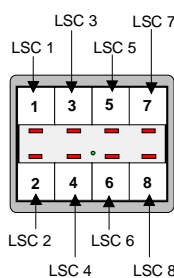
Switch over by holding 3 buttons:
Pushing the buttons 1+5+8
simultaneous approx. 3 to 8 sec

1. Operating level
Light scene



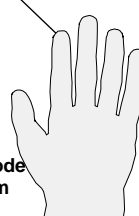
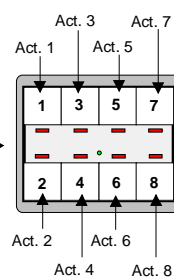
When switching using the IR remote control, then the corresponding operating level is selection by changing the IR group. The following illustration shows how you switch between operating levels from operating level 1 to 2. Switching from operating level 2 to 1 occurs similarly.

1. Operating level
Light scene
(IR group A)



Switchover IR group from
group A (Light scene)
to group B
(Switching/dimming)

2. Operating level
Switching/dimming
(IR group B)



With operation one of the
push buttons
in the switching/dimming mode
the corresponding telegram
will be sent out.

Switch between operating levels with automatic reset

If the "Switch from dimmer to light scene function" parameter is not set to "manual", then the unit will automatically switch back to operating level 1 from operating level 2 after the preset time has elapsed.

Description of functions

Changing the IR group (only applicable to IR light scene / dimming 106301 application)

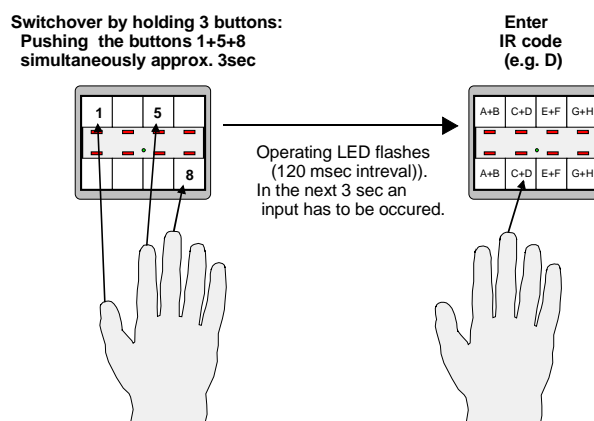
Local operations to change the IR group must first be enabled in the software through the "Local operation to adjust the IR group" parameter (see software description).

To change the IR group on the push button, you must simultaneously press buttons PB1, PB5 and PB8 (3 button operational for at least 8 sec) to reach selection mode. Selection mode for setting the IR group is visible through the rapid blinking (120 msec) of the operating LED. Selection mode remains active for 3 sec after the three buttons are released. During this time, you can define the IR groups for the two operating modes by pressing one of the eight buttons. The assignment of the buttons to the IR groups is as follows:

Push button 1 or 2:	Light scene	= IR group A
	Switching/dimming	= IR group B
Push button 3 or 4:	Light scene	= IR group C
	Switching/dimming	= IR group D
Push button 5 or 6:	Light scene	= IR group E
	Switching/dimming	= IR group F
Push button 7 or 8:	Light scene	= IR group G
	Switching/dimming	= IR group H

The operating LED is disabled for 3 sec after pressing one of the buttons (acknowledgement). Once this time has elapsed, you will revert to normal operating mode, and the operating LED will assume its parameterized status.

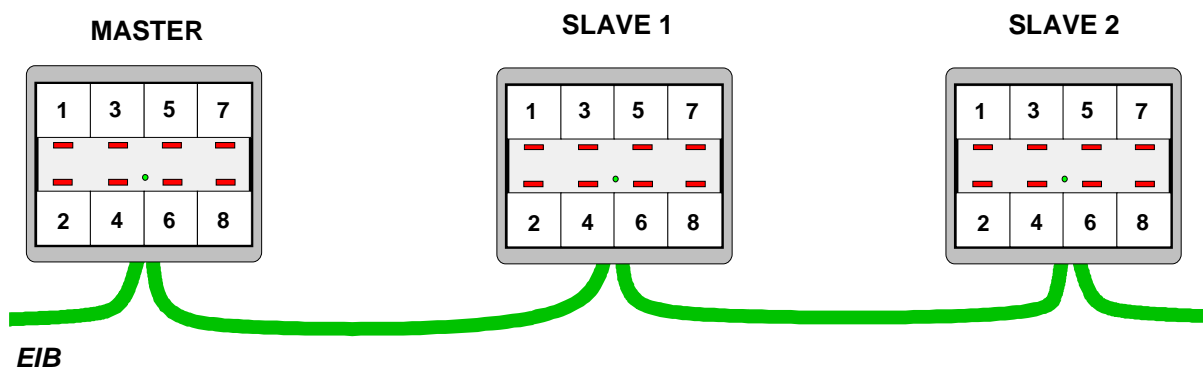
- If several buttons are pressed simultaneously during selection mode, then this will be considered as an incorrect operation and will be ignored.
- Only the first button that is operated will be recognized during selection mode. All further button operations will be ignored.
- The status of the corresponding status LED will not change when selecting an IR group by pressing a button.



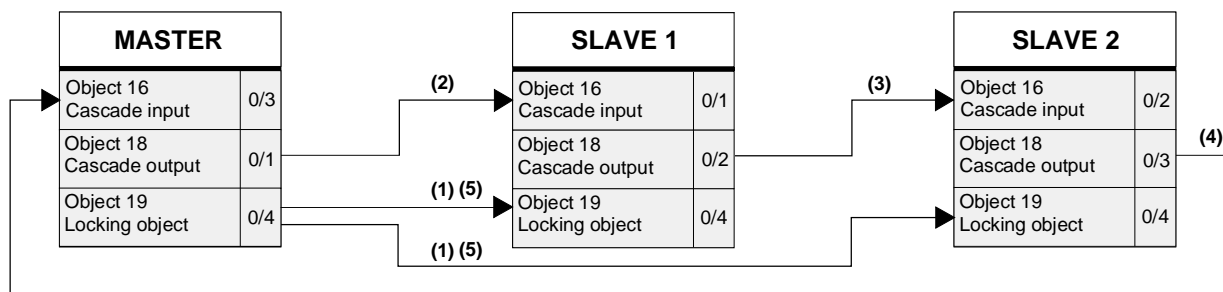
Cascade operation

Supplying more than 8 outputs per light scene with data is possible by cascading the light scene push buttons.

This mode of operation functions as a master-slave process, i.e. a master device can be cascaded with several slave devices. Parameters can be set to define whether a device will work as a master or slave. All light scenes (master and slave) can be loaded or saved if the parameter "Local operation" is not set to "local light scene". On the other hand, only the local light scenes of the slave can be loaded or saved if a slave is operated locally. The parameter "Save function for local operation" must be "enabled" before a save is possible.



When cascading, the units can be linked together via the cascade inputs and outputs within the ring. All blocking objects should be linked to one another via the same group address in order that cascading will operate trouble-free.



Cascading Steps in one pass (Example: 1 Master and 2 Slaves)

1. Activate master (push button).
2. The master transmits a blocking telegram (1) to slave 1 and slave 2.
3. The master transmits the light scene values.
4. The master transmits the corresponding light scene number (2) for the cascade input for slave 1 via the cascading port.
5. Slave 1 transmits the corresponding light scene values.
6. Slave 1 transmits the corresponding light scene number (3) for the cascade input for slave 2 via the cascading port.
7. Slave 2 transmits the corresponding light scene values.
8. Slave 2 transmits the corresponding light scene number (4) for the cascade input for the master via the cascading port.
9. The master transmits an enable telegram (5) via the blocking object to slave 1 and slave 2.

Funktionsbeschreibung

Continuous operation

Continuous operations generally function like cascading operations. However, the master does not transmit an enable telegram after receiving the light scene number, but initially transmits its local light scene and then passes on the light scene number to the next slave.

This process is repeated until a button or the extension is operated on the master (parameters on operational element must be set to continuous operation!). Then, if the master receives the light scene number again from the last slave, it terminates the output like for cascading.

Caution: Any button must be pressed briefly (< 1 sec) if continuous operation is to be terminated by pressing a button on the master. If a button is pressed for a longer time, then this button operation will be considered as a new button operation after continuous operation is completed and will therefore cause a new call up or memory process to be started.

The parameters of the master in continuous operation can be set in such a way that the master increments the light scene number after every pass. This allows special light effects to be created with a small number of light scene push buttons, which all serve the same groups (e.g. running moving lights).

When operating the slaves, only the local light scene are called up or saved.

Summary of operation combinations for 3-button operations

A) Switch between operational levels (Diagram area A)

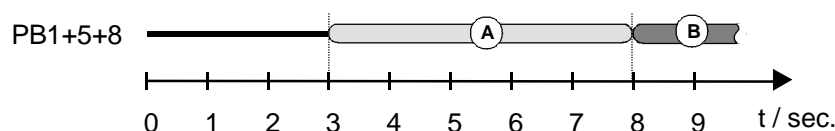
- Operating level 1 - light scene mode (operating LED continuously illuminated)
- perform 3-button operation (PB1+PB5+PB8) for 3 to 8 seconds
- Switch to operating level 2 / dimming mode (operating LED flashes with a 280 msec clock pulse)


Reverting to operating level 1 is also carried out with the 3-button operation or automatically, after the time set in the parameters has elapsed.



Switching between operating levels can be performed using an IR device or by changing the IR group on the remote control.

B) Changing the IR group (Diagram area B)

- perform 3-button operation (PB1+PB5+PB8) for at least 8 seconds
- Select IR group by pressing one of the buttons within the next 3 seconds




Parameter		
Description:	Values:	Comment:
 General		
Function of operating LED	ON OFF	The green operating LED lights up after the supply voltage (ON) is applied or is always off (OFF).
Light duration of the status LED at operating indication	0,75 sec 2,25 sec 3 sec	Illumination time of a status LED as acknowledgement of a button operation.
Memory function in case of local operation	disabled	The memory function for local operation is blocked.
	enabled	The lighting arrangements preset for operational level 2 can be saved in operational level 1 by holding the button pressed down (> 5 s).
Cascade operation ?	NO	Cascade operation is not activated.
	YES; Master YES; Slave	The light scene push button works as the master or slave in cascade operation.
IR groups ⁽¹⁾	Light scene = A; dimming = B Light scene = C; dimming = D Light scene = E; dimming = F Light scene = G; dimming = H	Pre-setting the IR channel groups for the light scene push button. The IR channel groups can be adjusted using a 3-button operation (see description of functions).
Local operation to adjust the IR group ⁽¹⁾	disabled enabled	Allows the adjustment of IR groups using a 3-button operation.
Operating LED flashes in case of IR reception ? ⁽¹⁾	YES NO	Operating LED flashes while IR receives. Operating LED does not flash while IR receives.
Delay time for light scene transmission (time between two telegrams)	40 msec (recom. for instabus) 60 msec, 80 msec, 100 msec, 200 msec, 300 msec (recom. for Powernet), 400 msec, 500 msec 1 sec, 2 sec, 4 sec	Time between two values in one lighting arrangement.
Time interval between dim operation and light scene operation	Manual switch over	Switching from operating level 2 (switching / dimming mode) back to operating level 1 (light scene mode) can only be performed manually using a 3-button operation.
	5 sec, 10 sec, 15 sec, 20sec	Switching from operational level 2 (switching / dimming mode) back to operational level 1 (light scene mode) occurs automatically after x seconds.

 Object types										
Output 1	Switching (1 Bit) Brightness value (1 Byte) / dimming (4 Bit)	Setting the data type for output 1.								
Output 2		Setting the data type for output 2.								
Output 3		Setting the data type for output 3.								
Output 4		Setting the data type for output 4.								
Output 5	Switching (1 Bit) Brightness value (1 Byte) / dimming (4 Bit)	Setting the data type for output 5.								
Output 6		Setting the data type for output 6.								
Output 7		Setting the data type for output 7.								
Output 8		Setting the data type for output 8.								
 Dimming										
Dimming brighter by	<table><tr><td>100 %</td><td>6 %</td></tr><tr><td>50 %</td><td>3 %</td></tr><tr><td>25 %</td><td>1,5 %</td></tr><tr><td>12,5 %</td><td></td></tr></table>	100 %	6 %	50 %	3 %	25 %	1,5 %	12,5 %		A dimming telegram can be used to dim brighter by a maximum of x %.
100 %	6 %									
50 %	3 %									
25 %	1,5 %									
12,5 %										
Dimming darker by	<table><tr><td>100 %</td><td>6 %</td></tr><tr><td>50 %</td><td>3 %</td></tr><tr><td>25 %</td><td>1,5 %</td></tr><tr><td>12,5 %</td><td></td></tr></table>	100 %	6 %	50 %	3 %	25 %	1,5 %	12,5 %		A dimming telegram can be used to dim darker by a maximum of x %.
100 %	6 %									
50 %	3 %									
25 %	1,5 %									
12,5 %										
Telegram repetition ?	YES NO	Cyclical repetition of dimming telegram during button operation.								
Time between two telegrams	<table><tr><td>200 msec</td><td>750 msec</td></tr><tr><td>300 msec</td><td>1 sec</td></tr><tr><td>400 msec</td><td>1,5 sec</td></tr><tr><td>500 msec</td><td>2 sec</td></tr></table>	200 msec	750 msec	300 msec	1 sec	400 msec	1,5 sec	500 msec	2 sec	Time between two telegrams when telegram repetition is set. Upon completion of this time, a new dimming telegram will be triggered.
200 msec	750 msec									
300 msec	1 sec									
400 msec	1,5 sec									
500 msec	2 sec									
Time between switching and dimming, base	100 msec 300 msec 500 msec 1 sec	Time after which the function of the extended button operation (dim) is carried out.								
Time between switching and dimming, factor (2...127)	2...127, 3	Time = Base x Factor Time after which the function of the extended button operation (dim) is carried out. Default: 130 ms · 3 = 390 msec								
Send a stop telegram ?	YES NO	One or no stop telegram will be sent after releasing the button.								

IR light scene push button comfort
Light scene push button comfort
751684xx, 751685xx

Technical
Documentation



	Light scene 1	Light scene 3	Light scene 5	Light scene 7
	Light scene 2	Light scene 4	Light scene 6	Light scene 8
Output 1	ON	locked	Selection of pre-settings for object type parameter "Switching (1 bit)" for the corresponding output.	
Output 2	OFF			
Output 3	locked			
Output 4	OFF			
	Basic brightness	10 % brightness 20 % brightness 25 % brightness 30 % brightness 40 % brightness 50 % brightness 60 % brightness 70 % brightness 75 % brightness 80 % brightness 90 % brightness 100 % brightness	Selection of pre-settings for object type parameter "Brightness value (1 byte) / Dimming (4 bit)" for the corresponding output.	
Output 5	ON	locked	Selection of pre-settings for object type parameter "Switching (1 bit)" for the corresponding output.	
Output 6	OFF			
Output 7	locked	OFF	Selection of pre-settings for object type parameter "Brightness value (1 byte) / Dimming (4 bit)" for the corresponding output.	
Output 8	Basic brightness			
	10 %, 20 %, 25 %, 30 %, 40 %	50 % brightness 60 % brightness 70 % brightness 75 % brightness 80 % brightness 90 % brightness 100 % brightness		
Local operation	Local light scene		The light scene push button only issues its local light scene if this is requested by a button operation.	
		Unique cascade run through	The light scene push button initially issues its local light scene if this is requested by a button operation. Subsequently, it transmits the corresponding light scene number via the cascading output to the next slave (setting only possible if parameterized as "Master").	
		Endless cascade run through	The light scene push button initially issues its local light scene both when requested through a button operation or by polling or upon receipt of a light scene number from the last slave. It subsequently transmits the corresponding light scene number to the next slave via the cascading output. (setting only possible if parameterized as "Master").	

IR light scene push button comfort
Light scene push button comfort
751684xx, 751685xx

Technical
Documentation



Extension unit operation	<p>Local light scene</p> <p>Unique cascade run through</p> <p>Endless cascade run through</p>	<p>The light scene push button only issues its local light scene if this is requested by a button operation.</p> <p>The light scene push button initially issues its local light scene if this is requested by a button operation. Subsequently, it transmits the corresponding light scene number via the cascading output to the next slave (setting only possible if parameterized as "Master").</p> <p>The light scene push button initially issues its local light scene both when requested through a button operation or by polling or upon receipt of a light scene number from the last slave. It subsequently transmits the corresponding light scene number to the next slave via the cascading output. (setting only possible if parameterized as "Master").</p>
Light scene counter ?	<p>NO</p> <p>YES</p>	<p>The master retains the current light scene number during continuous operation after every pass.</p> <p>The master increments the light scene number following every pass in continuous operation.</p>
Delay time for output signal, base	100 msec; 1 sec; 10 sec; 1 min; 10 min	Time between outputting one light scene and transferal to the cascading output.
Delay time for output signal, faktor (0...255)	0...255, 2	<p>Output delay = Base x Faktor</p> <p>Time between outputting one light scene and the transfer to the cascading output.</p>
Default value = 100 msec x 2 x 200 ms		
(1) Parameter is only available for the "IR light scene / dimming 106301" application		
Comments on software		
<p>Bus voltage return</p> <p>Even if operating level 2 is set, software will reset to operating level 1 when the bus voltage is restored</p>		

IR light scene push button comfort

Light scene push button comfort

751684xx, 751685xx

Technical Documentation





























Application characteristics



Telegram sequence

- ☒ Alarm function
- ☒ 4 telegram sequences
- ☒ Random operation
- ☒ Continuous operation
- ☒ 8 outputs
- ☒ blockable outputs
- ☒ Unilevel operation - dimming function
- ☒ Extension unit function

Application:		2. IR telegram sequence 106201 4. Telegram sequence 106401			
Executable from mask version onwards:		1.1			
Number of addresses (max):		10	dynamic table management		YES <input checked="" type="checkbox"/> NO <input type="checkbox"/>
Number of associations (max):		10	Max. table length		20
Communication objects:		10			
Object	Function	Name	Type	Flag	
 0	Switching	Output 1	1 Bit	C, W, T	
 0	Value transmitter 1 Byte	Output 1	1 Byte	C, W, T	
 0	Value transmitter 2 Bytes	Output 1	2 Bytes	C, W, T	
 1	Switching	Output 2	1 Bit	C, W, T	
 1	Value transmitter 1 Byte	Output 2	1 Byte	C, W, T	
 1	Value transmitter 2 Bytes	Output 2	2 Bytes	C, W, T	
 2	Switching	Output 3	1 Bit	C, W, T	
 2	Value transmitter 1 Byte	Output 3	1 Byte	C, W, T	
 2	Value transmitter 2 Bytes	Output 3	2 Bytes	C, W, T	
 3	Switching	Output 4	1 Bit	C, W, T	
 3	Value transmitter 1 Byte	Output 4	1 Byte	C, W, T	
 3	Value transmitter 2 Bytes	Output 4	2 Bytes	C, W, T	
 4	Switching	Output 5	1 Bit	C, W, T	
 4	Value transmitter 1 Byte	Output 5	1 Byte	C, W, T	
 4	Value transmitter 2 Bytes	Output 5	2 Bytes	C, W, T	
 5	Switching	Output 6	1 Bit	C, W, T	
 5	Value transmitter 1 Byte	Output 6	1 Byte	C, W, T	
 5	Value transmitter 2 Bytes	Output 6	2 Bytes	C, W, T	
 6	Switching	Output 7	1 Bit	C, W, T	
 6	Value transmitter 1 Byte	Output 7	1 Byte	C, W, T	
 6	Value transmitter 2 Bytes	Output 7	2 Bytes	C, W, T	
 7	Switching	Output 8	1 Bit	C, W, T	
 7	Value transmitter 1 Byte	Output 8	1 Byte	C, W, T	
 7	Value transmitter 2 Bytes	Output 8	2 Bytes	C, W, T	
 8	Extension unit	Input	1 Byte	C, W, T	
 9	Alarm message	Application modul	1 Bit	C, T	

Object description

0-7	Switch (make cont.):	1 Bit object to switch a load
0-7	Value transm. 1 Byte	1 Byte object to transmit values (0-255)
0-7	Value transm. 2 Bytes:	2 Bytes object to transmit values (0-65535)
8	Extension unit:	1 Byte object for addressing the light scene push button via an extension
9	Alarm message:	1 Bit object to transmit alarm message

Scope of functions

Telegram sequence

- 4 Telegram sequences with up to 8 ports respectively
- Supported object types: 1 bit, 1 byte, and 2 bytes
- Operation possible via extension
- Memory function for values selectable using extended button operation
- Telegram sequence and all times between telegrams can be parameterized individually
- Multiple repetitions of telegram sequences and cascading of telegram sequences possible
- Parameter for alarm message upon detaching device from UP bus coupling unit
- Blocking function using 4-digit, parameterized button code

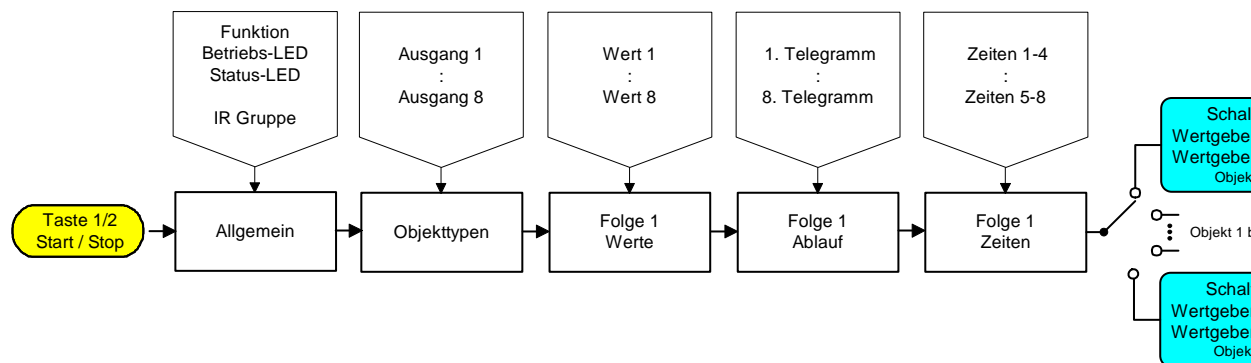
General

- Status and operating indication possible using either red or green LED
- Parameterable IR groups (1)

(1) only applicable for IR telegram sequence 106201 application

Flow diagram of functions

Telegrammfolge ohne Kaskadierung (hier nur Folge 1)



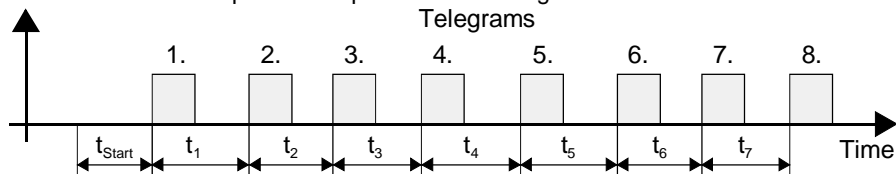
Sequence 2-4 analogue to sequence 1

Description of functions

Telegram sequence and status LED function

A maximum of 4 telegram sequences with up to 8 telegrams respectively (1 bit, 1 byte or 2 byte) can be generated with the (IR) telegram sequence application. All times can be set as a parameter between telegrams.

The following illustrations show an example of a sequence with 8 telegrams and the behavior of the status LED:



t_{Start} = Time until Telegram 1

t_1 = Time between telegrams 1 and 2

t_2 = Time between telegrams 2 and 3

t_3 = Time between telegrams 3 and 4

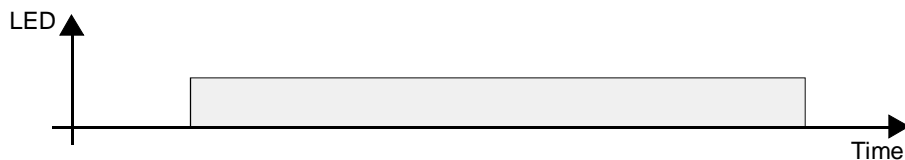
t_4 = Time between telegrams 4 and 5

t_5 = Time between telegrams 5 and 6

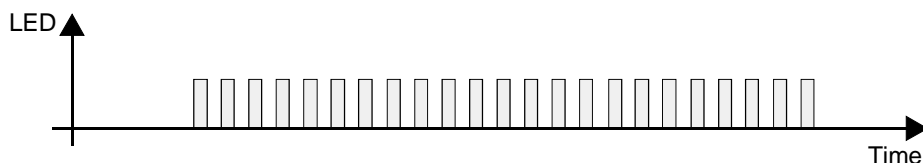
t_6 = Time between telegrams 6 and 7

t_7 = Time between telegrams 7 and 8

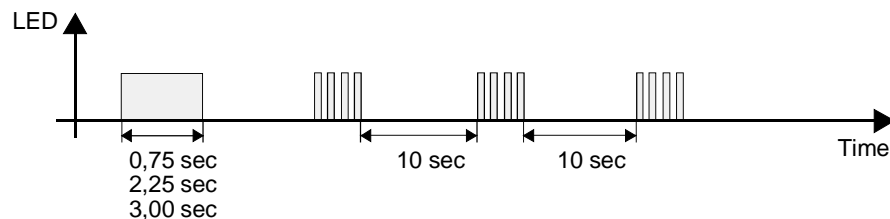
- 1.) Function of status LED: Status indication
Status LED flashes: NO



- 2.) Function of status LED: Status indication
Status LED flashes: YES



- 3.) Function of status LED: Operating indication



- 4.) Function of status LED: LED always off

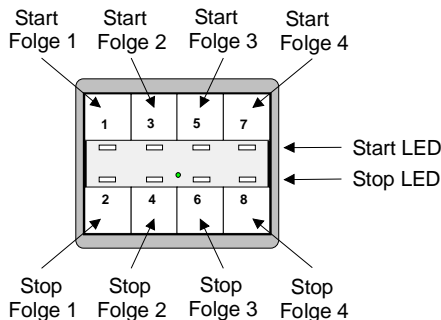


Description of functions

Button assignment and status indication with/without stop LED

Four telegram sequences are started following pressing the button briefly (< 1 sec) via the upper row of buttons and these are stopped via the lower row of buttons.

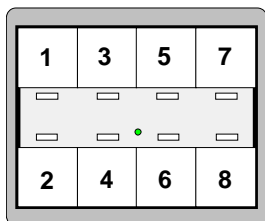
The extended pressing of a button (> 5 sec) in the upper row of buttons causes the enabled values for the corresponding telegram sequence to be saved if the "Memory function at local operation = enabled" in the parameters.



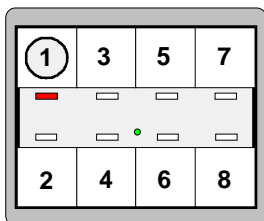
Depending on the parameters, the Status LED behaves as follows:

Function of status LED: Status indication
 Status indication with Stop-LED: NO

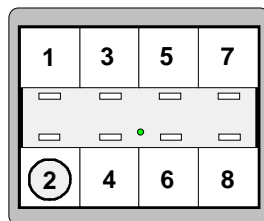
Basic status:
No activated sequence



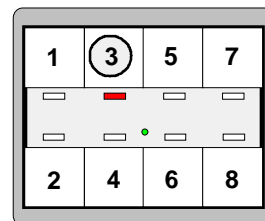
Start of sequence 1:
Status LED 1 on



Sequence 1 stops:
Status LED 1 off

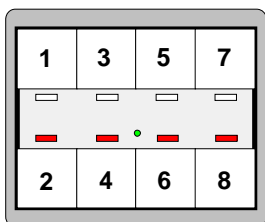


Start of sequence 2:
Status LED 2 on

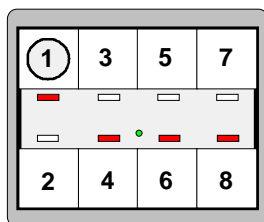


Funktion of status LED: Status indication
 Status indication with Stop-LED: YES

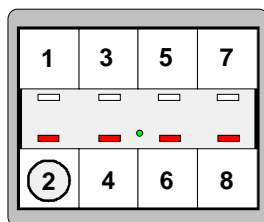
Basic status:
No activated sequence,
All Stop LEDs on



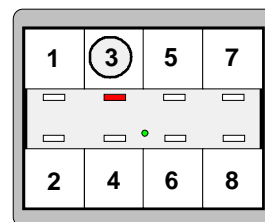
Start of sequence 1:
Status LED 1 on,
Stop LED 1 off



Sequence 1 stops:
Status LED 1 off,
All Stop LEDs on



Start of sequence 2:
Status LED 2 on,
Stop LED 2 off



Description of functions

Cascading

The four telegram sequences can be cascaded randomly one behind the other. For this purpose, the following telegram sequence will be loaded after the completion of one sequence via the parameter "Load a sequence upon completion of a sequence".

The time between sequences always depends on the parameter for "Time until telegram 1".

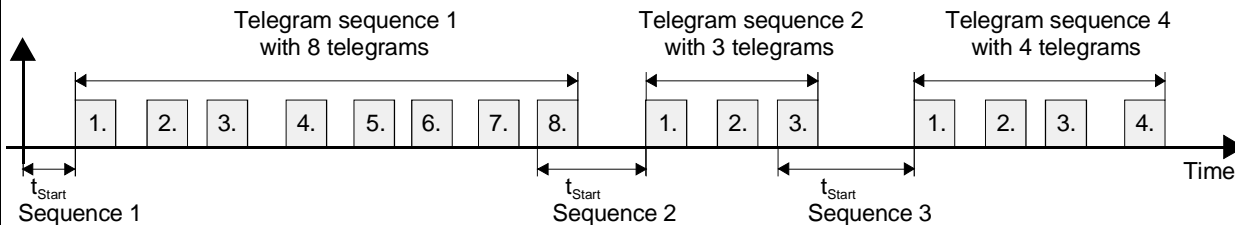


Fig.: Cascading of sequence 1, sequence 2 and sequence 4 with varying numbers of telegrams

Multiple repetition of a telegram sequence

A sequence of telegrams can be repeated a number of times. The number of repetitions is set in the parameter "Number of telegrams (0...255)". The "Time between last and first telegram" can be set in the parameters.

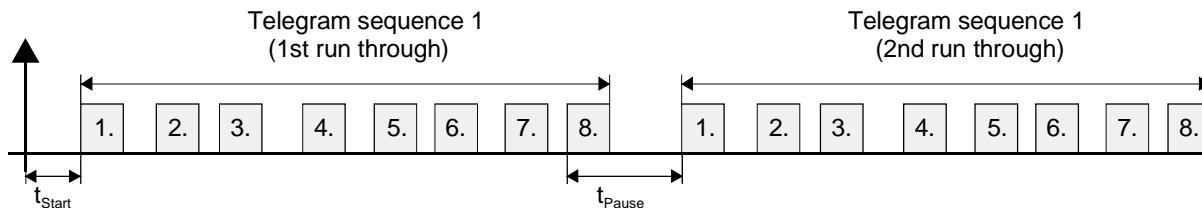


Fig.: 2 telegram sequence 1 passes

Changing the IR group (only applicable for IR telegram sequence 106201 application)

A local operation to change the IR group must first be enabled in the software in the parameter "Local variation of the IR group" (see description of software).

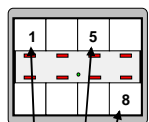
In order to reposition the push button, you must enter selection mode by simultaneously pressing buttons PB1, PB5 and PB8 (3-button operation for at least 8 sec). Selection mode for the IR group settings is displayed by the rapid blinking of the (120 msec) of the status LED. After releasing the three buttons, selection mode remains active for 3 sec (status LED continues blinking). During this time, you can set the IR group for the light scene push button by pressing one of the eight buttons. The assignment of the buttons to the IR groups is defined as follows:

Push button 1 (PB1)	⇒	IR group A
Push button 2 (PB 2)	⇒	IR group B
Push button 3 (PB 3)	⇒	IR group C
Push button 4 (PB 4)	⇒	IR group D
Push button 5 (PB 5)	⇒	IR group E
Push button 6 (PB 6)	⇒	IR group F
Push button 7 (PB 7)	⇒	IR group G
Push button 8 (PB 8)	⇒	IR group H

The status LED is switched off (confirmation) for 3 s after the button is pressed. After this time has elapsed, you switch into normal operating mode, and the status LED assumes its parameterized condition.

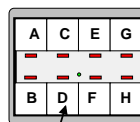
- If several buttons are pressed at the same time in selection mode, then this will be recognized to be an incorrect operation and it will be ignored.
- While in selection mode, only the first button that is pressed will be recognized. Follow-up button operations will be ignored.
- When selecting an IR group by pressing a button, the status on the corresponding status LED will not change.

Switchover by holding 3 button:
Pushing the buttons 1+5+8
simultaneous approx. 3 to 8 sec



Operating LED flashes
(120 msec interval).
In the next 5 sec an
input has to occurred.

**Enter
IR code
(e.g. D)**



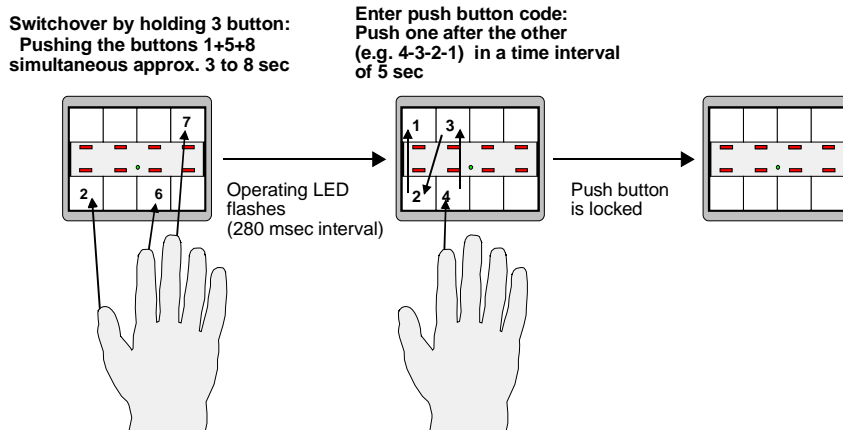
Comments:

- Never cover up the receiver eye in the center of the unit.
- It is not possible to switch the IR group for the light scene push button using the IR remote control.

Blocking of buttons as a result of code

A local operation to block the light scene push button must initially be enabled in the software in the parameter "Lock function?" (see description of software).

Blocking a button number is carried out using a 3-button operation (press PB2+PB6+PB7 for approx. 3 sec) and a button code that can be set in the parameters. A blocking push button is enabled via the same button operation and the current button code. The following illustration shows the button blocking procedure.



Comments:

- The function of the operating LED for a push button that is set up to block is parameterized on the "Lock function" on the index card.

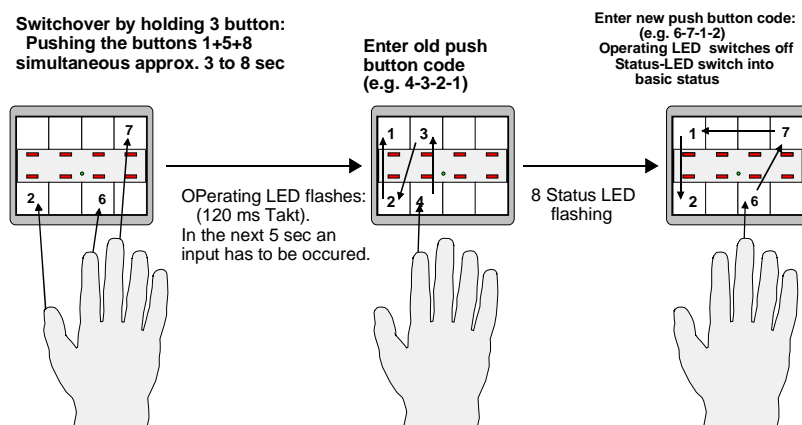
Description of functions

Changing button codes

Local changing of button codes must first be enabled in the "Local variation of the push button code" parameter in the software (see description of software).

Changing the button code is done by pressing 3 buttons (2+6+7) for at least 8 sec followed by the entry of the old button code. The flashing of all 8 status LEDs acknowledges this. You can then enter the new button code.

The following illustration simplifies what occurs when button codes are changed:



Comment:

- A button code change can also be carried out if the light scene push button is blocked.
- The altered button code remains valid after the bus voltage is restored.
- You can use the ETS to program a new code if a user has forgotten his/her button code.

Summary of operational combinations for 3 button operations

A) no function (diagram area A)

- 3-button operation (PB1+PB5+PB8) operated for 3 to 8 seconds has no affect on the function

B) Changing the IR group (diagram area B)

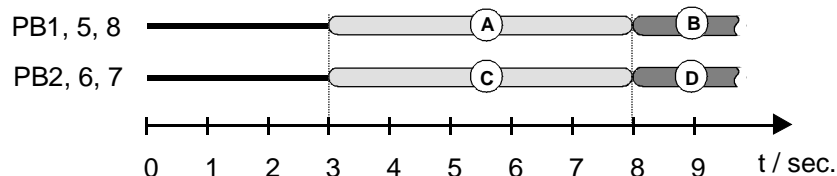
- 3-button operation (PB1+PB5+PB8) operated for at least 8 seconds
- Select IR group by pressing a button within the next 3 seconds

C) Button blocking (diagram area C)

- 3-button operation (PB2+PB6+PB7) operated for 3 to 8 seconds

D) Change button code (diagram area D)

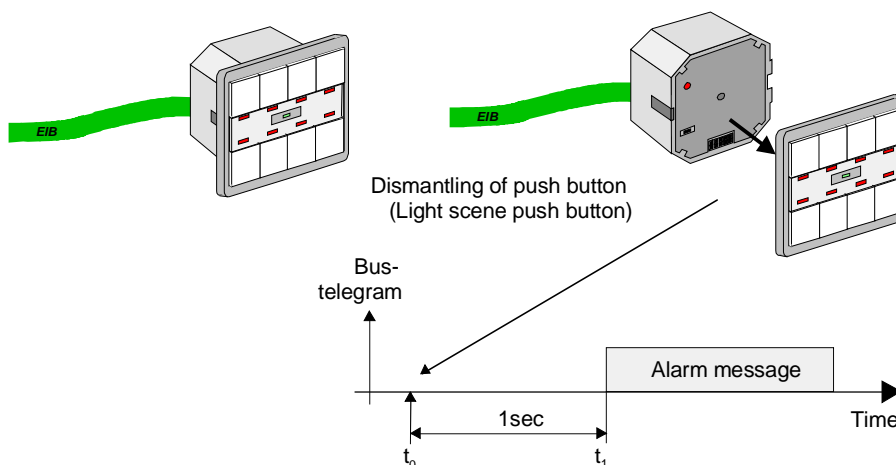
- 3-button operation (PB2+PB6+PB7) operated for at least 8 seconds
- Enter old button code
- Enter new button code






Disconnection ID - Dismantling message

A 1-bit alarm message can be generated via object 9 (alarm message) when disconnecting the application module from the bus coupling unit. For this purpose, the "Alarm function?" parameter must be set to "YES".

The time between disconnecting the module and the dispatching of a telegram equals 1 second.



Parameter		
Description:	Value:	Comment:
 General		
Function of operating LED	ON OFF	The green operating LED lights up after the supply voltage (ON) is applied or remains off permanently (OFF).
Function of status LED	Operating indication Status indication LED always off	<p>If a button is operated, the corresponding status LED becomes illuminated for the time specified under "Light duration of status LED at operating indication". If the started telegram sequence takes longer than 10 seconds, then the status LED will flash four times every 10 seconds (see Description of functions).</p> <p>The corresponding status LED for the upper button row is illuminated while a telegram sequence is in progress (Start sequence 1-4) (see description of functions).</p> <p>Die Status LED is always off.</p>
Light duration of the status LED at operating indication	0,75 sec 2,25 sec 3 sec	Illumination time of a status-LED to acknowledge a button operation
Status indication with stop LED ?	YES NO	<p>The corresponding status LED for the lower row of buttons (Stop sequence 1-4) is illuminated for every sequence that is not active. If a sequence is activated, then the corresponding status LED on the lower row of buttons and the corresponding status LED on the lower row of buttons stops being illuminated.</p> <p>The 4 status-LEDs on the lower row of buttons are always off (see Description of functions).</p>
Status LED flashes at active telegram sequence ?	NO YES	<p>The corresponding status LED on the upper row of buttons is illuminated while a telegram sequence is in progress (Start sequence 1-4).</p> <p>The corresponding status LED for the lower row of buttons (Start sequence 1-4) is illuminated while a telegram sequence is in progress (see description of functions).</p>
Memory function at local operation ?	disabled enabled	<p>The memory function for local operations is blocked.</p> <p>Pressing a button for an extended period of time (> 5 sec) enables you to save the values for the corresponding telegram sequence. The read flags for the actuator objects that are to be saved must be set for this purpose.</p>

Alarm function?	YES NO	<p>If the alarm function is activated, then disconnecting the light scene push button from the UP bus coupling unit will cause a telegram to be dispatched via object 9. The value of the telegram can be specified in the "Alarm" index card.</p> <p>The light push button can be blocked through a 3-button operation so that none of the buttons can trigger any actions.</p> <p>Setting the channel group for the IR remote control.</p> <p>Enables the adjustment of the IR group through a 3-button operation.</p> <p>The operating LED flashes during IR reception. The operating LED does not flash during IR reception.</p>
Lock function ?	NO YES	
IR group ⁽¹⁾	A...F, A	
Local variation of the IR group ⁽¹⁾	disabled enabled	
Operating LED flashes in case of IR reception ? ⁽¹⁾	YES NO	
 Object types		
Output 1	Switching (1 Bit) Value transmitter 1 Byte Value transmitter 2 Bytes	Setting the data type for output 1.
Output 2		Setting the data type for output 2.
Output 3		Setting the data type for output 3.
Output 4		Setting the data type for output 4.
Output 5		Setting the data type for output 5.
Output 6		Setting the data type for output 6.
Output 7		Setting the data type for output 7.
Output 8		Setting the data type for output 8.
Displays the consecutive sequence and times for	Sequence 1 Sequence 2 Sequence 3 Sequence 4	Only the index cards for the consecutive sequence and the times of the sequences set here are displayed in the ETS.
 Sequence 1 - values Sequence 2 - values Sequence 3 - values Sequence 4 - values		
Values 1 - 8 (can be set separately) (0...1), (0...255), (0...65535)	0...1, 1 (only for switching 1 Bit) 0...255, 255 (only for val. transm. 1 Byte) 0...65535, 65535 (only for val. transm. 2 Byte)	Enter the 8 values for sequence x (x = 1-4) The value range is the result of the parameterized object types, as follows: - Switching 1 bit 0...1 - Value transmitter 1 byte 0...255 - Value transmitter 2 bytes 0...65535

IR light scene push button comfort

Light scene push button comfort

751684xx, 751685xx

Technical Documentation



Sequence 1 - process Sequence 2 - process		Sequence 3 - process Sequence 4 - process
Flowing of telegrams	Parameter setting possible by chance	The consecutive telegram sequence of sequence x (x = 1-4) can be parameterized in parameters "Telegram 1" to "Telegram 8". The consecutive telegram sequence for sequence x (x = 1-4) is random
Number of telegrams	1...8, 8	Setting the number of telegrams for sequence x (x = 1-4)
1 st telegram	Output 1 (Default for telegram 1)	Assignment of the 8 possible telegrams to the 8 output ports. These parameters are only relevant if the parameter for "Telegram sequence" has been set.
2 nd telegram	Output 2 (Default for telegram 2)	
3 rd telegram	Output 3 (Default for telegram 3)	
4 th telegram	Output 4 (Default for telegram 4)	
5th telegram	Output 5 (Default for telegram 5)	
6th telegram	Output 6 (Default for telegram 6)	
7th telegram	Output 7 (Default for telegram 7)	
8th telegram	Output 8 (Default for telegram 8)	
Sequence 1 - Times 1-4 Sequence 2 - Times 1-4		Sequence 3 - Times 1-4 Sequence 4 - Times 1-4
Number of sequences (0...255) (0 = cyclic)	0...255, 1	Setting the number of passes for sequence x (x = 1-4)
Call up next sequence after the last sequence is run off	NO Sequence 1 Sequence 2 Sequence 3 Sequence 4	Upon completion of sequence x (x = 1-4) sequence y (y = 1-4) can be loaded or no other sequence will be loaded.
Time up to 1 st telegram base	40 msec 1 min 100 msec 10 min 1 sec 30 min 5 sec 1 h	Time elapsed until telegram 1 of sequence x (x = 1-4) Time = Base x Factor
Time up to 1 st telegram factor (1...30)	1..30, 10	Time elapsed until telegram 1 of sequence x (x = 1-4) Default: 100 msec x 10 x 1 sec
Time between - 1st and 2nd Telegram - 2nd and 3rd Telegram - 3rd and 4th Telegram base	40 msec 1 min 100 msec 10 min 1 sec 30 min 5 sec 1 h	Time between - 1st und 2nd telegram of sequence x (x = 1-4) - 2nd und 3rd telegram of sequence x (x = 1-4) - 3rd und 4th telegram of sequence x (x = 1-4) Time = Base x Factor
Time between - 1st and 2nd Telegram - 2nd and 3rd Telegram - 3rd and 4th Telegram factor (1...30)	1..30, 10	Time between - 1 st and 2nd telegram of sequence x (x = 1-4) - 2nd. und 3rd telegram of sequence x (x = 1-4) - 3rd und 4th telegram of sequence x (x = 1-4) Default: 100 msec x 10 x 1 sec

IR light scene push button comfort

Light scene push button comfort

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Technical Documentation



Sequence 1 - Time 5-8 Sequence 2 - Time 5-8		Sequence 3 - Time 5-8 Sequence 4 - Time 5-8
Time between - 4th and 5th telegram - 5th and 6th telegram - 6th and 7th telegram - 7th and 8th telegram - last and 1st telegram Base Time between - 4th and 5th telegram - 5th and 6th telegram - 6th and 7th telegram - 7th and 8th telegram - last and 1st telegram Faktor (1...30)	40 msec 100 msec 1 sec 5 sec 1 min 10 min 30 min 1 h 1..30, 10	Time between - 4th and 5th telegram of sequence x (x = 1-4) - 5th and 6th telegram of sequence x (x = 1-4) - 6th and 7th telegram of sequence x (x = 1-4) - 7th and 8th telegram of sequence x (x = 1-4) - last and 1st telegram of sequence x (x = 1-4) Time = Base x Factor Time between - 4th and 5th telegram of sequence x (x = 1-4) - 5th and 6th telegram of sequence x (x = 1-4) - 6th and 7th telegram of sequence x (x = 1-4) - 7th and 8th telegram of sequence x (x = 1-4) - last and 1st telegram of sequence x (x = 1-4) factor : default: 100 msec x 10 x 1 sec
Alarm		
Value in case of alarm	1 0	Defines the value of the telegram that is issued in case of an alarm via object 9.
Lock function		
Function of operating LED at lock function	LED always off LED always on flashing	The operating LED is always OFF if the light scene push button is blocked, and is always ON or in flashing mode if blocking operation is enabled.
Extension unit at lock operation	enabled disabled	The blocking light scene push button continues to be operational via the extension. The light scene push button is not operational via the extension if it is in blocked mode.
1 st push button	Push button 1 Push button 2 Push button 3 Push button 4	Push button 5 Push button 6 Push button 7 Push button 8
2 nd push button	Push button 1 Push button 2 Push button 3 Push button 4	Push button 5 Push button 6 Push button 7 Push button 8
3 rd push button	Push button 1 Push button 2 Push button 3 Push button 4	Push button 5 Push button 6 Push button 7 Push button 8
4 th push button	Push button 1 Push button 2 Push button 3 Push button 4	Push button 5 Push button 6 Push button 7 Push button 8

