



The switch sensor application module is placed on a flush-mounted bus coupler or switch actuator/-sensor.

The 4-fold push button can send e.g. switching, dimming, shutter control or 1 byte value telegrams to EIB actuators.

Under each rocker switch there are two contacts and an LED which can flash red or green.

In addition a cover frame in the chosen colour, a flush-mounted bus coupler or switch actuator/-sensor and a bus connecting terminal are required.

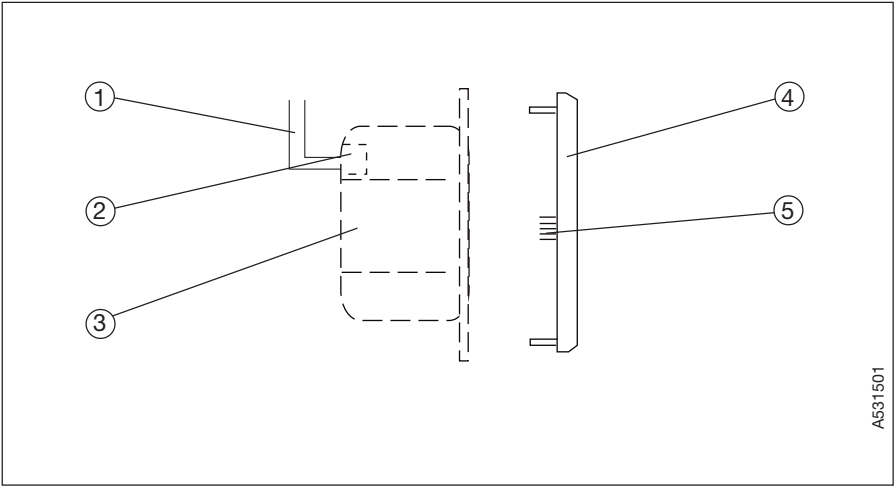
#### Technical Data

<b>Power supply</b>	– EIB	24 VDC, via the bus line
<b>Operating and display elements</b>	– four upper rocker switch contacts – four lower rocker switch contacts – four two-colour LEDs	red / green
<b>Connections</b>	– Flush-mounted bus coupler	10-pole plug connector
<b>Type of protection</b>	– IP 20, EN 60 529 – mounted on the bus coupler	
<b>Ambient temperature range</b>	– Operation – Storage – Transport	– 5 °C ... 45 °C – -25 °C ... 55 °C – -25 °C ... 70 °C
<b>Design</b>	– <i>alpha nea</i> ®	– <i>alpha exclusive</i> ®
<b>Colours</b>	– platinum, – bronze, – studio white matt, – alabaster/studio white, – hansa blue	– ivory/white, – amber, – obsidian – palladium – titanium
<b>Mounting</b>	– latched onto the flush-mounted bus coupler	
<b>Dimensions</b>	– 56 x 71 x 17 mm (H x W x D)	
<b>Weight</b>	– 0.04 kg	
<b>Certification</b>	– EIB-certified	
<b>CE norm</b>	– in accordance with the EMC guideline and the low voltage guideline	

Application programs	Number of communication objects	Max. number of group addresses	Max. number of associations
Switch LED /3	8	12	12
Switch Shutter LED /3.1	8	8	8
Switch Dim Shutter /4	8	8	8
Switch Edge Flexible allocation /3	8	8	8
Value (EIS 6) LED /3	8	8	8
Switch Dim LED /3	8	8	8
For 1-fold switch actuator/sensor, FM			
Switch LED/6	8	12	12
For 1-fold switch-/dimmactuator, FM:*			
Switch Dim Shutter Flex. alloc. Logic Status /1	10	16	21

\* A detailed description of the applications for the flush-mounted, compact devices can be found in the technical manual, chapter "Sensor/actuator combinations, FM"

Circuit diagram



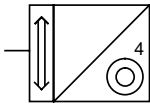
- 1 Bus cable

2 Bus terminal

3 Flush-mounted bus couplers
- 4 Application module

5 10-pole plug

Switch LED /3



Selection in ETS2

- ABB
  - └ Push Button alpha nea
  - └ Push button, 4-fold

Switch

The switch sensor sends an “On” telegram to the EIB when the upper contact on one of the rocker switches is pressed and an “Off” telegram when the lower contact on one of the rocker switches is pressed.

LED

With the parameters "Function of the ... LED", it can be determined whether the LED shows the value of the relevant object "... LED" or as an orientation light always glows the same colour.

If the LED is used as an orientation light, the communication object of the LED is not displayed in the ETS2.

Communication objects

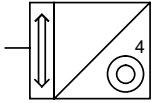
No.	Type	Name	Function
0	1 bit	Left push button	Telegr. switch
1	1 bit	Mid left push button	Telegr. switch
2	1 bit	Mid right push button	Telegr. switch
3	1 bit	Right push button	Telegr. switch
4	1 bit	Left LED	Change colour
5	1 bit	Mid left LED	Change colour
6	1 bit	Mid right LED	Change colour
7	1 bit	Right LED	Change colour

Parameters

The default setting for the values is **printed in bold type**.

Separate for each push button:

- Function of the LED	orientation light (indicates colour for "0") <b>LED indicates value of object</b> <b>"0" = green, "1" = red</b>
- Colour of the LED	<b>"0" = red, "1" = green</b>

**Switch Shutter LED /3.1****Selection in ETS2**

- ABB
  - └ Push Button alpha nea
  - └ Push button, 4-fold

The function "switch sensor" or "shutter sensor" can be selected individually for each push button.

**Switch**

In the "switch sensor" setting, an "On" telegram is sent to the EIB by the switch sensor when the push button is pressed. In this case the communication object "Push button - long" is not displayed in the ETS2 and the communication object "Push button -short" is just called "Push button".

**Shutter**

In the default setting "shutter sensor", the push button sends a "Move shutter up/down" telegram if it pressed for a long period. When it is pressed for a short period, an "Adjust lamella / stop" telegram is sent.

**LED**

If the push button is assigned the parameter of "shutter sensor", the LED normally functions as a green orientation light. It can however also display the value of the object "Push button -long". If the push button is assigned the parameter of "switch sensor", the LED displays the value of the object "Push button". Alternatively, it can be allocated the function of an orientation light.

The parameter "Switch function" is automatically adjusted to a suitable value when the settings for "shutter sensor" or "switch sensor" are changed.

**Communication objects**

for the "shutter sensor" function

No.	Type	Name	Function
0	1 bit	Left push button -long	Telegr. move shutter Up-Down
1	1 bit	Mid left push button -long	Telegr. move shutter Up-Down
2	1 bit	Mid right push button -long	Telegr. move shutter Up-Down
3	1 bit	Right push button -long	Telegr. move shutter Up-Down
4	1 bit	Left push button -short	Telegr. lamella adj. / stop
5	1 bit	Mid left push button -short	Telegr. lamella adj. / stop
6	1 bit	Mid right push button -short	Telegr. lamella adj. / stop
7	1 bit	Right push button -short	Telegr. lamella adj. / stop

**Communication objects**

for the "switch sensor" function

No.	Type	Name	Function
0	1 bit	Left push button	Telegr. switch
1	1 bit	Mid left push button	Telegr. switch
2	1 bit	Mid right push button	Telegr. switch
3	1 bit	Right push button	Telegr. switch

**Parameters**

The default setting for the values is **printed in bold type**.

Separate for each push button:

Function of the push button

**shutter sensor**  
switch sensor

Switch function

**top = up / bottom = down (Sh)**  
top = on / bottom = off (Sw)

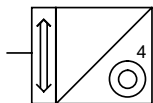
Function of the LED

LED indicates value of object  
**orientation light (indicates colour for "0")**

Colour of the LED

**"0" = green, "1" = red**  
"0" = red, "1" = green

## Switch Dim Shutter /4



## Selection in ETS2

- ABB
  - └ Push Button alpha nea
  - └ Push button, 4-fold

The function of “switch sensor” or “switch / dimming sensor” can be assigned to both the left push buttons.

## Switch

In the “switch sensor” setting, an “On” or “Off” telegram is sent to the EIB by the switch sensor when the push button is pressed. In this case the communication object “... push button - long” is not displayed in the ETS2 and the communication object “... push button -short” is just called “... push button”.

## Dim

In the “switch / dimming sensor” setting, the push button sends a switching telegram when it is pressed for a short period and a dimming telegram when it is pressed for a long period. When the push button is released, a “Stop dimming” telegram is sent.

The LED can display the value of the switch communication object. It glows red if the object value is “1” and green if the object value is “0”. Alternatively it can be used as an orientation light with a fixed colour setting.

## Shutter

Both the right push buttons always function as a “shutter sensor”. When it is pressed for a long period, it sends a “Move shutter up/down” telegram. If it is pressed for a short period, “Adjust lamella / stop” telegrams are sent.

As an orientation light, the right LEDs always glow green.

## Communication objects

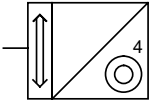
No.	Type	Name	Function
0	1 bit	Left push button -short	Telegr. switch
1	1 bit	Mid left push button -short	Telegr. switch
2	1 bit	Mid right push button -short	Telegr. lamella adj. / stop
3	1 bit	Right push button -short	Telegr. lamella adj. / stop
4	4 bit	Left push button -long	Telegr. relative dimming
5	4 bit	Mid left push button -long	Telegr. relative dimming
6	1 bit	Mid right push button -long	Telegr. move shutter Up-Down
7	1 bit	Right push button -long	Telegr. move shutter Up-Down

## Parameters

The default setting for the values is **printed in bold type**.

Function of left push button	<b>switch / dimming sensor</b> switch sensor
Function of the mid left push button	<b>switch / dimming sensor</b> switch sensor
Function of the left and mid left LED	<b>LED indicates value of object</b> orientation light (green) orientation light (red)
Function of the mid right and right LED (shutter sensors)	<b>orientation light (green)</b>

Switch Edge  
Flexible allocation /3



Selection in ETS2

- ABB
  - └ Push Button alpha nea
  - └ Push button, 4-fold

Switch

The switch sensor has eight communication objects "Object A" to "Object H", that can send switching telegrams.

Edge

With the parameters "Reaction on close upper contact", "Reaction on open upper contact" and the corresponding parameters for the lower contact, it can be determined when the push buttons send "On" or "Off" telegrams.

Flexible allocation

With this parameter setting, it can be freely determined which communication object is used for sending switching telegrams. The LEDs can if required display the value of one of the communication objects. In this case they glow red if the object value is "1" and green if the object value is "0". Alternatively as an orientation light they can glow permanently green.

Communication objects

No.	Type	Name	Function
0	1 bit	Object A	Telegr. switch
1	1 bit	Object B	Telegr. switch
2	1 bit	Object C	Telegr. switch
3	1 bit	Object D	Telegr. switch
4	1 bit	Object E	Telegr. switch
5	1 bit	Object F	Telegr. switch
6	1 bit	Object G	Telegr. switch
7	1 bit	Object H	Telegr. switch

Parameters

The default setting for the values is **printed in bold type**.

Separate for each LED:

- Function of the ...

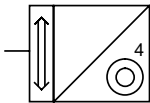
**LED indicates value of object A**  
LED indicates value of object B

...  
LED indicates value of object H  
orientation light (green)

Separate for each push button:

- |                                      |   |
|--------------------------------------|---|
| - Reaction on close upper contact    | no reaction / ON / OFF / <b>TOGGLE</b>      |
| - "Close upper contact" allocated to | <b>Object A</b> / Object B / ... / Object H |
| - Reaction on open upper contact     | <b>no reaction</b> / ON / OFF / TOGGLE      |
| - "Open upper contact" allocated to  | <b>Object A</b> / Object B / ... / Object H |
| - Reaction on close lower contact    | no reaction / ON / OFF / <b>TOGGLE</b>      |
| - "Close lower contact" allocated to | Object A / <b>Object B</b> / ... / Object H |
| - Reaction to open lower contact     | <b>no reaction</b> / ON / OFF / TOGGLE      |
| - "Open lower contact" allocated to  | Object A / <b>Object B</b> / ... / Object H |

Value (EIS 6) LED /3



Selection in ETS2

- ABB
  - └ Push Button alpha nea
  - └ Push button, 4-fold

Value (EIS 6)

When the rocker switch is pressed, the switch sensor sends a 1 byte value telegram to the bus. The values for the upper and lower contacts can be set separately in a range of 0 to 255.

LED

With the parameter “Function of the ... LED”, it can be set separately for each LED whether the LED displays the value of the object “... LED” or as an orientation light always glows in the same colour.

If the LED is used as an orientation light, the ETS2 does not display the communication object “... LED”.

Communication objects

No.	Type	Name	Function
0	1 byte	Left push button	Telegr. value
1	1 byte	Mid left push button	Telegr. value
2	1 byte	Mid right push button	Telegr. value
3	1 byte	Right push button	Telegr. value
4	1 byte	Left LED	Change colour
5	1 byte	Mid left LED	Change colour
6	1 byte	Mid right LED	Change colour
7	1 byte	Right LED	Change colour

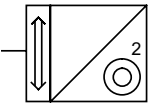
Parameters

The default setting for the values is **printed in bold type**.

Separate for each push button / LED:

- Upper push button -value on pressing (0...255)	<b>80</b>
- Lower push button -value on pressing (0...255)	<b>0</b>
- Function of the LED	<b>LED indicates value of object</b> orientation light (lights colour for "0")
- Colour of the LED	<b>"0" = green, "1...255" = red</b> "0" = red, "1...255" = green

Switch Dim LED /3



Selection in ETS2

- ABB
  - └ Push Button alpha nea
  - └ Push button, 4-fold

The function “switch sensor” or “switch / dimming sensor” can be selected separately for both push buttons.

Switch

In the default setting “switch / dimming sensor”, an “On” or “Off” telegram is sent to the EIB by the switch sensor when one of the rockers is pressed for a short period. If the parameter setting “switch sensor” is selected, no distinction is made between whether the push button is pressed for a long or short period.

Dim

When a rocker is pressed for a long period, the switch sensor sends a dimming telegram. When it is released, a “Stop dimming” telegram is sent.

LED

With the parameters “Function of the LED” and “Colour of the LED”, it can be determined whether the LED shows the value of the object “...push button -short” or as an orientation light always glows the same colour.

Communication objects  
for “switch / dimming sensor” function

No.	Type	Object name	Function
0	1 bit	Left push button -short	Telegr. switch
1	1 bit	Right push button -short	Telegr. switch
2	4 bit	Left push button -long	Telegr. relative dimming
3	4 bit	Right push button -long	Telegr. relative dimming

Communication objects  
for “switch sensor” function

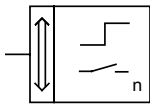
No.	Type	Object name	Function
0	1 bit	Left push button	Telegr. switch
1	1 bit	Right push button	Telegr. switch

Parameters  
The default setting for the values is **printed in bold type**.

Separate for both push buttons:	
- Function	<b>switch / dimming sensor</b> switch sensor
- Function of the LED	<b>LED indicates value of object</b> orientation light (indicates colour for "0")
- Colour of the LED	<b>"0" = green, "1" = red</b> "0" = red, "1" = green



Switch LED /6



Selection in ETS2

- ABB
  - └ Push Button alpha nea
  - └ Push button, 4-fold for 1SA

The application program is specifically for the 4-fold switch sensor application module in connection with the flush-mounted switch actuator/sensor.

The application program has four communication objects for the push buttons and four for the LEDs. One of the communication objects for the LEDs is used simultaneously for controlling the relay. This assignment can be set in the parameters.

Switch

The switch sensor sends an “On” telegram to the EIB when the upper contact of one of the rockers is pressed and an “Off” telegram when the lower rocker of one of the rockers is pressed.

LED

With the parameters “Function of the LED”, it can be determined whether the LED displays the value of the object “... LED” or as an orientation light always glows the same colour. The function “Orientation light” is not available for the LED that is linked with the relay.

If the LED is to be used as an orientation light, the ETS2 does not display the “LED” communication object.

On bus voltage failure, all the communication objects are set to “0”. The relay contact is opened.

**Communication objects**  
when the relay is linked  
with the left LED

No.	Type	Object name	Function
0	1 bit	Left push button	Telegr. switch
1	1 bit	Mid left push button	Telegr. switch
2	1 bit	Mid right push button	Telegr. switch
3	1 bit	Right push button	Telegr. switch
4	1 bit	Left LED / output	Change colour / switch
5	1 bit	Mid left LED	Change colour
6	1 bit	Mid right LED	Change colour
7	1 bit	Right LED	Change colour

**Communication objects**  
when the relay is linked  
with the mid left LED

No.	Type	Object name	Function
...			
4	1 bit	Left LED	Change colour
5	1 bit	Mid left LED / output	Change colour / switch
6	1 bit	Mid right LED	Change colour
7	1 bit	Right LED	Change colour

**Communication objects**  
when the relay is linked  
with the mid right LED

No.	Type	Object name	Function
...			
4	1 bit	Left LED	Change colour
5	1 bit	Mid left LED	Change colour
6	1 bit	Mid right LED / output	Change colour / switch
7	1 bit	Right LED	Change colour

**Communication objects**  
when the relay is linked  
with the right LED

No.	Type	Object name	Function
...			
4	1 bit	Left LED	Change colour
5	1 bit	Mid left LED	Change colour
6	1 bit	Mid right LED	Change colour
7	1 bit	Right LED / output	Change colour / switch

Parameters

The default setting for the values is **printed in bold type**.

For the switch output:	
– Relay is linked with	<b>object no. 4 (left LED)</b> object no. 5 (mid left LED) object no. 6 (mid right LED) object no. 7 (right LED)
– Default position on bus voltage failure	<b>contact opened</b>
Separate for the push buttons:	
– Function of the LED	orientation light (indicates colour for “0”) <b>LED indicates value of object</b>
only for orientation light:	
– Colour of the LED	<b>green</b> red
only for display of object value:	
– Colour of the LED	<b>“0” = green, “1” = red</b> “0” = red, “1” = green