



The twilight switch is a DIN rail mounted device for insertion in the distribution board. It is connected to the EIB via the data rail. The light sensor for recording the lighting level is connected by means of two screw terminals.

The twilight switch can send switching or dimming telegrams to EIB actuators in the event of an overflow or an underflow of the threshold value.

The threshold value can be adjusted in steps between 2 and 1000 lux using a potentiometer at the front of the device. The LED lights up instantaneously when there is a underflow of the threshold value. It is extinguished when the threshold value is exceeded.

The cover in front of the potentiometer and the LED can be sealed. The twilight switch is a complete device when supplied together with the light sensor.

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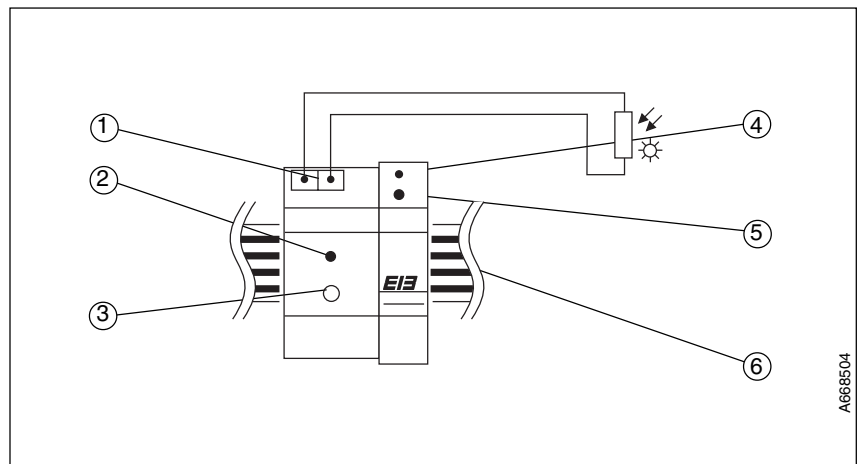
Technical Data

Power supply	– EIB	24 VDC, via the bus line
Inputs	– Brightness range	2 ... 1000 lux
	– Cable length	100 m
Operating and display elements	– red LED and push button	for assigning the physical address
	– Potentiometer	for adjusting the threshold value
	– red LED	for displaying the output state
Connections	– Light sensor	2 box terminals Wire range 0.75 ... 1.5 mm ²
	– EIB	Pressure contacts for the data rail
Type of protection	– Twilight switch	IP 20, EN 60 529
	– Light sensor	IP 54, EN 60 529
Ambient temperature range	– Operation of the twilight sensor	- 5 °C ... 45 °C
	– Operation of the light sensor	-40 °C ... 70 °C
	– Storage	-25 °C ... 55 °C
	– Transport	-25 °C ... 70 °C
Design	– modular installation device, proM	
Housing, colour	– Plastic housing, grey	
Mounting	– Twilight switch	on a 35 mm mounting rail, DIN EN 50022
	– Light sensor	with a fixing bracket on a vertical surface
Dimensions	– Twilight switch	45 x 53 x 65,5 mm (H x W x D)
	– Light sensor	74 x 27 x 38 mm (H x W x D)
	– Light sensor with fixing bracket	118 x 27 x 62 mm (H x W x D)
Mounting depth/width	– Twilight switch	68 mm / 3 modules at 18 mm
Weight	– Twilight switch	0.18 kg
	– Light sensor	0.04 kg
Certification	– EIB-certified	
CE norm	– in accordance with the EMC guideline and the low voltage guideline	

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Application programs	Number of communication objects	Max. number of group addresses	Max. number of associations
Switch Dim Value /1	4	4	4

7 Wiring diagram



- 1 Connecting terminals for the light sensor
- 2 LED
- 3 Adjustment potentiometer
- 4 Programming LED
- 5 Programming push button
- 6 Data rail

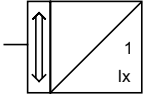
Note

The light sensor is fixed with a mounting bracket as supplied to a vertical surface. The intake for the signal cable must point downwards. When selecting the installation site, you should note the following:

The maximum cable length is 100 m. A standard two-core cable can be used.

Make sure that the light sensor is not in shadow. If the twilight switch is to be used for switching external lighting, the light sensor should face eastwards. If it is to be used for room lighting, it should preferably face northwards.

Switch Dim Value /1



Selection in ETS2

- ABB
 - └ Phys. Sensors
 - └└ Brightness

Switch

The twilight switch can send switching telegrams when there is an overflow or an underflow in the threshold value that is set at the front of the device. It is possible to specify whether an "On", an "Off" or no telegram is sent.

So that the light is not constantly activated when there are momentary fluctuations, a delay time can be set using the parameters "Time base for delay time" and "Factor for delay time".

Using the parameter "Operation mode of twilight switch", it can be specified whether the twilight switch is always activated or can only be activated by the communication object "Light sensor".

Dim

Using the parameter "Send dimming telegram", it can be determined whether the twilight switch dims up or down e.g. a group of luminaires in the event of an underflow or an overflow of the threshold value. The step size is set in the parameter "Dimming telegram".

If the parameter "Reaction after bus voltage recovery" is set so that the twilight switch sends its actual value, it will only do so according to the time that is specified in the parameter "Time for delayed sending after bus voltage recovery".

Value

With the parameters "Send brightness value" and "Brightness value", it is possible to set specific brightness values between 0 (= deactivated) and 255 (= maximum brightness) for e.g. a group of luminaires.

Communication objects

No.	Type	Name	Function
0	1 bit	Threshold value	Telegr. switch
1	4 bit	Threshold value	Telegr. relative dimming
2	1 byte	Threshold value	Telegr. brightness value
3	1 bit	Light sensor	Activation

Parameters

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

Operation mode of twilight switch	activation by object light sensor always activated
Reaction after bus voltage recovery	send actual value send no telegram
Time for delayed sending after bus voltage recovery	2 s (all devices ready to receive telegrams) 5 s (wait for activation of twilight switch) 30 s (wait for activation of twilight switch)
Separate for value above or below setpoint:	
Send switch telegram	yes, send ON telegram yes, send OFF telegram no, do not send a telegram
Send dimming telegram	yes / no
Dimming telegram	stop dimming dim down for minimum brightness dim down for 50% dim up for 1.5%
Send brightness value	yes / no
Brightness value (0 ... 255)	50
Time base for delay time	130 ms / 2.1 s / 33 s
Factor for delay time (0 ... 255)	15

ABB i-bus® EIB

Twilight Switch, 1-channel, MDRC
DM/S 1.1, GH Q605 0032 R0001

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