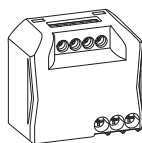


## Brightness sensor interface flush-mounted

User Guide



Art. no. MEG5195-0100

### Necessary accessories

- Complete the brightness sensor interface flush-mounted with corresponding sensors:
- Sun/twilight sensor (art. no. 580691)
- Magnetic contact (contact closed when window/door closed); This must be purchased part from third-party suppliers
- When installing in an installation box only use the following covers:
- Central plate for cable outlet

### Accessories

- PlusLink Expander (Art. no. MEG5130-0000)
- PlusLink distributor (3 cycles) (Art. no. MEG5130-0001)

### For your safety

#### ⚠ ⚠ DANGER

#### HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH

Safe electrical installation must be carried out only by skilled professionals. Skilled professionals must prove profound knowledge in the following areas:

- Connecting to installation networks
- Connecting several electrical devices
- Laying electric cables
- Safety standards, local wiring rules and regulations

**Failure to follow these instructions will result in death or serious injury.**

#### ⚠ ⚠ DANGER

#### HAZARD OF ELECTRIC SHOCK

The PlusLink carries an electrical current and the outputs may carry an electrical current even when the device is switched off.

- Before working on the device or the loads, always disconnect the device from the supply via the upstream miniature circuit breaker.

If one or more PlusLink lines are separately fused in your installation then they are not electrically isolated from one another.

- In this case, you should use the PlusLink Expander.

**Failure to follow these instructions will result in death or serious injury.**

#### Notice

#### HAZARD OF EQUIPMENT DAMAGE

The voltage difference between different phases can damage the device.

- Connect all connected devices of one or several PlusLink lines to the same phase or use a PlusLink Distributor for cross-phase installation.

**Failure to follow these instructions can damage the device.**

#### Notice

#### HAZARD OF EQUIPMENT DAMAGE

- Ensure that the device is disconnected from its circuit during the insulation resistance test.

**Failure to follow these instructions can damage the device.**

### Getting to know the sensor interface

You can use the brightness sensor interface flush-mounted (referred to below as the **sensor interface**) to control receiving devices in one PlusLink line.

Receiving devices include, for example, the following inserts completed with corresponding modules (see function overview):

- Blind control insert

The sensor interface has a PlusLink output for connecting to the PlusLink lines. To be able to use the **PlusLink (PL)**, you require a separate core in your installation.

By combining the sensor interface with corresponding sensors, you can control blinds via PlusLink, e.g.:

- Blinds/roller shutters: Sun protection function (with sun/twilight sensor), disable raising/lowering (with magnetic contacts)



Blind/roller shutter will be referred to below as just "blind".

### Function overview of the sensor interface with corresponding sensors, inserts and modules

Complete the sensor interface with brightness sensors and/or a magnetic contact

Combine the sensor interface via PlusLink with the receiving inserts for controlling the blind. The sensor values measured execute the following blind control functions:

#### Blind control insert:

- Push-button module Comfort, 1-gang/2-gang
- Push-button module Comfort Plus, 1-gang/2-gang
- Display timer module
- Wiser push-button module, 1-gang/2-gang

**Sun/twilight sensor:**  
sun protection function

**Magnetic contact:**  
disable raising/lowering

### Understanding PlusLink

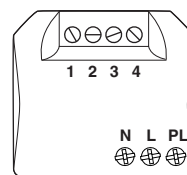
#### What you need to know about the PlusLink:

- To be able to use the PL, you require a separate core for each PL line in your installation.

Recommended cables for PL installation	Maximum total cable sections in a PL line
NYM-J 3x1.5 mm <sup>2</sup>	100 m
NYM-J 4x1.5 mm <sup>2</sup>	80 m
NYM-J 5x1.5 mm <sup>2</sup>	65 m

- All devices connected to one or more PL lines must be connected to the same phase. The PlusLink terminal is required for cross-phase installation.
- The PL carries mains voltage.
- The PL transfers the commands from the sending devices to the receiving devices. Individual addressing of the devices in the PL line is not possible. All devices are always activated at the same time.
- A maximum of 10 sending and 10 receiving devices can be connected to a PL line.
- The PL is not subject to prioritisation. Each new command overwrites the previous one.
- No separate software is required for using the PL.

### Connections



- 1 Reference potential (common connection for all sensors)
- 2 Sensor input for magnetic contact
- 3 Sensor input for sun/twilight sensor (white/grey core)
- 4 Sensor input for sun/twilight sensor (white/grey core)

### Installing the sensor interface

#### Wiring the sensor interface for the desired application

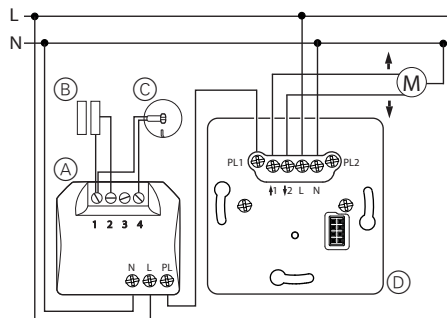
#### Notice

**The functionality of the sensor interface may be impaired**

- **Always** connect the PlusLink wire from the sensor interface to the insert's PL1 input.
- Only operate **one** sensor interface for each PL line.
- Do not connect **any** mechanical push-buttons to a PL line together with a sensor interface.
- When using brightness sensors: Make sure that the polarity is correct during connection.

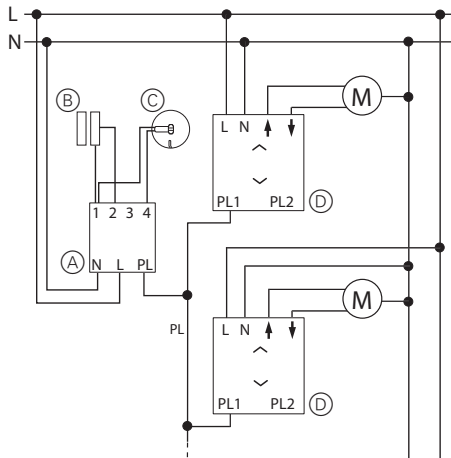
**Failure to follow these instructions can damage the device.**

#### Sensor interface with sensors via PL with blind control insert



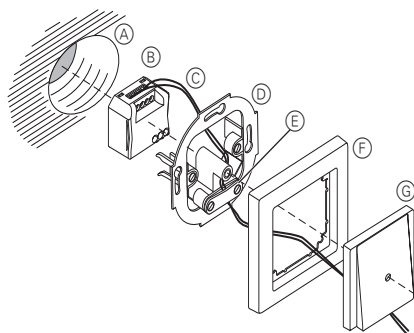
- (A) Brightness sensor interface flush-mounted
- (B) Magnetic contact
- (C) Sun/twilight sensor
- (D) Blind control insert

**Sample installation for sun protection function and magnetic contact for blind control**



- (A) Brightness sensor interface flush-mounted
- (B) Magnetic contact
- (C) Sun/twilight sensor
- (D) Blind control insert

**Installing the sensor interface**



- (A) Deep installation box
- (B) Sensor interface
- (C) Sensor cable
- (D) Cable outlet
- (E) Strain relief
- (F) Frame
- (G) Central plate for cable outlet

**⚠️ DANGER**

**HAZARD OF ELECTRIC SHOCK, EXPLOSION, OR ARC FLASH**

The sensor interface serves as a separating web between the mains voltage and the sensor cables (SELV). When installing in installation boxes, observe the following:

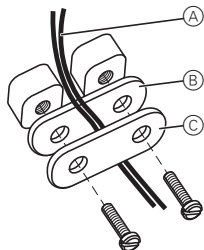
- Use only deep installation boxes.
- Use only the above-mentioned covers with a strain relief.
- Maintain a distance of at least 4 mm between the cores of the power cable and the sensor cable (SELV).

**Failure to follow these instructions will result in death or serious injury.**

**Laying sensor cable**

**i** When the sensor cable is built into installation boxes, it must be secured to prevent it from being pulled out and pushed in. To do this, use the strain relief of the central plate for the cable outlet with an additional retaining bridge (provided with the sensor interface).

- 1 Connect sensor cable (A) to the sensor interface.
- 2 Lead the sensor cable (A) through the retaining ring of the cable outlet to the strain relief.



- 3 Lay the sensor cable (A) between the two retaining bridges (B)/(C) of the strain relief.
- 4 Screw the two retaining bridges of the strain relief to the cable outlet.

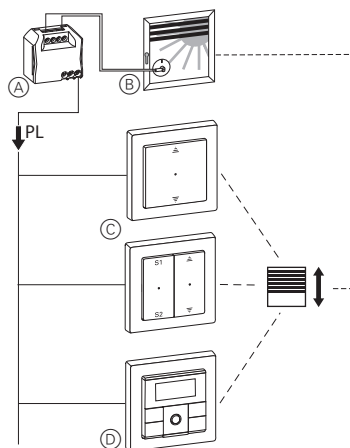
**Application example: Sun protection function**

The sun protection function is activated as soon as the brightness measured by the sun/twilight sensor exceeds the limit value for 2 minutes. The blind is lowered to below the sensor, is raised a little and stops above the sensor. If the brightness falls below the limit value for 15 minutes, the blind is raised again.

The limit value can be adjusted in the menu of the display timer module. The push-button modules Comfort and Comfort Plus have fixed limit values.

Manual operation of the modules deactivates the sun protection function.

**i** The sun protection function is only active when the blind is completely raised.



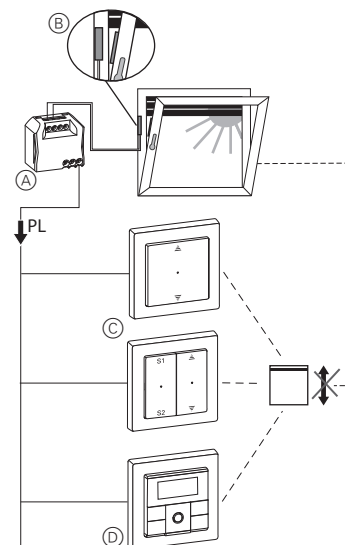
- (A) Brightness sensor interface flush-mounted
- (B) Sun/twilight sensor
- (C) Blind control insert with push-button modules Comfort and Comfort Plus, 1-gang / 2-gang
- (D) Blind control insert with display timer module

**Application example: Magnetic contact for disabling blind control when the window/door is open**

Raising/lowering of the blind via PL or via switching times of the display timer module is disabled by a mag-

netic contact when the window or door is open.

**i** The blind does not close while the window/door is open when using the magnetic contact. There is an increased risk of burglary.



- (A) Brightness sensor interface flush-mounted
- (B) Magnetic contact
- (C) Blind control insert with push-button module Comfort and Comfort Plus, 1-gang / 2-gang
- (D) Blind control insert with display timer module

**Technical data**

Nominal voltage:	AC 220/230 V ~, 50/60 Hz
Neutral conductor:	required
Output:	1 x PlusLink
Sensor inputs (SELV):	
1:	Reference potential (common connection for all sensors)
2:	Magnetic contact
3:	unassigned
4:	Sun/twilight sensor
Cable length sensors:	Max. 10 m
Connecting terminals:	
Sensor inputs:	Screw terminals for max. 2x 0.75 mm <sup>2</sup>
N, L, PL:	Screw terminals for max. 2x 2.5 mm <sup>2</sup>
Protection:	max. 16 A circuit breaker
Dimensions (WxHxD):	45x41x23 mm

Dispose of the device separately from household waste at an official collection point. Professional recycling protects people and the environment against potential negative effects.

**Merten GmbH**

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