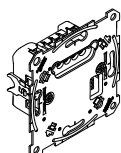


1-10 V insert

User Guide



Art. no. MEG5180-0000

Necessary accessories

- To be completed with:
- corresponding modules (see function overview).

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 fuse.

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

- Connect all connected devices of one or several PlusLink lines to the same phase or use a PlusLink terminal for cross-phase installation
- 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 1-10 V insert

You can use the 1-10 V insert (referred to in the following as **insert**) to control the controllable 1-10 V electronic ballast or electronic transformers with 1-10 V interfaces.

You can connect ohmic, inductive and capacitive 1-10 V loads to the switched phase.

The insert also comes with a **PlusLink** input, with which you can control the insert from another location. The insert, completed with a module (see the function overview), is the receiving device and is controlled via **PlusLink (PL)** by the transmitting device.

Transmitting devices are, for instance:

- Central unit inserts (completed with relevant modules)
- Side controller Plus, 1-gang/2-gang
- Mechanical push-buttons
- External sensors

To be able to use the PlusLink, you require a separate core in your installation.

i The total length of cable sections in a PL line is not allowed to exceed 100 m (when a 3-core cable is used).

The memory function with on/off function (see the module manual for instructions on operation) allows the insert to memorise the most recently set brightness value and call it up again.

Notice

HAZARD OF EQUIPMENT DAMAGE

- Only connect the 1-10 V EB (max. 25 per insert) to the 1-10 V control outputs.
- The 1-10 V control output (+,-) does not have surge protection. Connecting AC 220/230 V will destroy the insert.

- Operate the insert only on a sinusoidal mains voltage.

Failure to follow these instructions can damage the device.

Function overview of the insert completed with corresponding modules

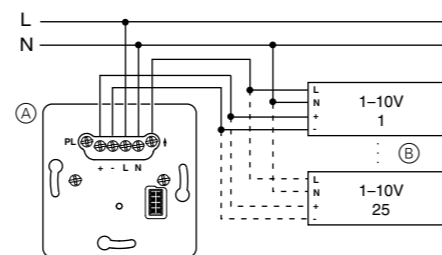
Module:	Function:
Connected push-button module, 1-gang	<ul style="list-style-type: none"> • switching on/off • Dimming Additional app functions¹
Connected push-button module, 2-gang	<ul style="list-style-type: none"> • switching on/off • Dimming Additional app functions¹
Rotary module	<ul style="list-style-type: none"> • switching on/off • Dimming • Calling up and saving lightscenes
ARGUS 180 flush-mounted sensor module	<ul style="list-style-type: none"> • Brightness dependent staircase lighting function
ARGUS 180 flush-mounted sensor module with switch	<ul style="list-style-type: none"> • Brightness dependent staircase lighting function • Permanently switching staircase lighting on/off
ARGUS Presence 180/2.20 m flush-mounted sensor module	<ul style="list-style-type: none"> • Brightness dependent staircase lighting function
ARGUS Presence sensor module with IR	<ul style="list-style-type: none"> • Brightness dependent staircase lighting function • IR function • Light control
Standard display timer module	<ul style="list-style-type: none"> • Switching and dimming manually • Time-controlled switching
Display timer module	<ul style="list-style-type: none"> • Switching and dimming manually • Time-controlled switching • Evaluating DCF timer

¹ For more information about the app and the app functions, please read the instructions for the corresponding module.

Installing the insert

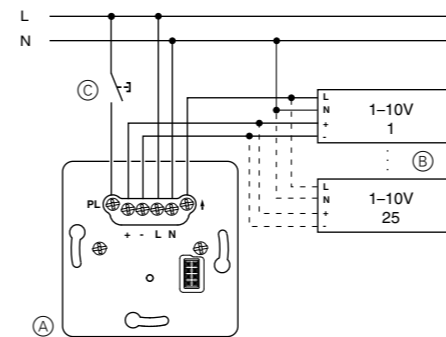
Wiring the insert for the application required

Insert as stand-alone device



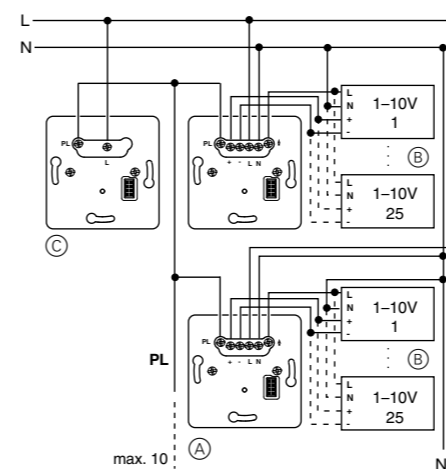
- (A) 1-10 V insert
- (B) 1-10 V EB

Insert with mechanical push-button via PlusLink



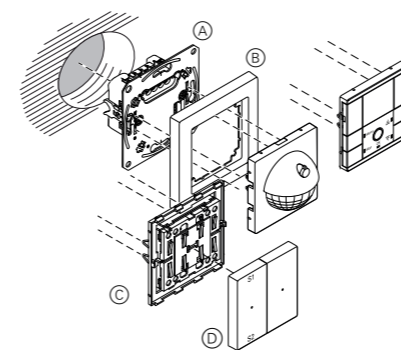
- (A) 1-10 V insert
- (B) 1-10 V EB
- (C) Mechanical push-button (toggle mode)

Use in combination with transmitting device via PlusLink (here shown with side controller Plus)



- (A) 1-10 V insert
- (B) 1-10 V EB
- (C) Side controller Plus, 1-gang/2-gang (transmitting device)

Installing the device

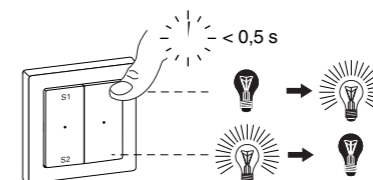


- (A) 1-10 V insert
- (B) Frame
- (C) Module (see function overview)
- (D) Rockers for module

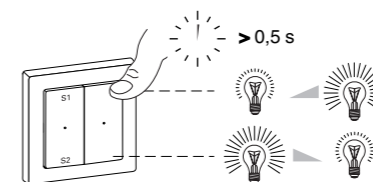
Operating the insert

i The insert is shown here in operation in combination with a push-button module. More details on how to operate the various modules can be found in the relevant operating instructions.

Switching load on/off



Dimming the load

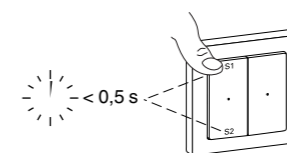


Calling up lightscenes

(only for push-button module, 2-gang)

Standard scenes

All devices are delivered from the factory with presettings for a lightscene.



- S1: Light on (100%)
- S2: Light off

Controlling loads from another location with transmitting devices via PlusLink.

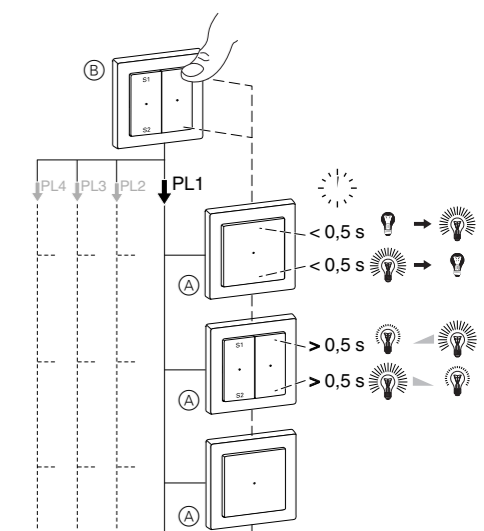
For example:

- Central unit insert with module
- Side controller Plus, 1-gang/2-gang
- Mechanical push-button
- External sensor

Example operation 1:

When the push-button module on the central unit insert is pressed, all loads in the PL lines are controlled together:

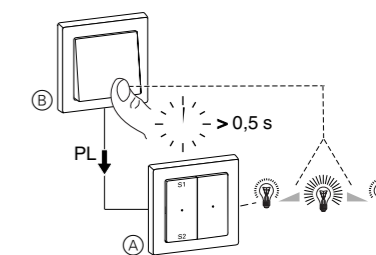
- Short push-button action (< 0.5 s): switch on/off
- Long push-button action: (> 0.5 s): dimming



- (A) 1-10 V insert in PL line 1
- (B) Central unit insert with module

Example operation 2:

i When a mechanical push-button is used, we recommend connecting only one insert. With two or more inserts, simultaneous dimming of the loads is no longer guaranteed.



- (A) 1-10 V insert
- (B) Mechanical push-button

Technical data

Nominal voltage:	AC 220/230 V ~, 50/60 Hz
Nominal current:	10 A, $\cos\phi = 0.6$
Load type:	max. 25 controllable EB (1-10 V)
Control current:	Max. 50 mA
Switching capacity to switched phase	
Incandescent lamps:	2200 W
HV halogen lamps:	2000 W
LV halogen lamps with wound transformer:	500 VA
Electronic transformers:	1050 W
Capacitive loads:	10 A, 140 μF
Neutral conductor:	required
Outputs:	<ul style="list-style-type: none">• +, - (1-10 V)• Switched phase
Connecting terminals:	Screw terminals for max. 2x 2.5 mm ²
Features:	memory function

Protection

Only use the following circuit breakers:

Schneider Electric	16 A	23617
ABB	16 A	S201-B16
ABL Sursum	16 A	B16S1
Hager	16 A	MBN116
Legrand	16 A	03270
Siemens	16 A	5SL61166



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

Fritz-Kotz-Str. 8
51674 Wiehl - Germany
se.com/contact

