

DATA SHEET



mH-L4B

Four-channel lighting dimmer
of the F&Home system

F&Home

The mH-L4B module is a four-channel lighting dimmer designed to control the intensity of incandescent, halogen, energy-saving or LED lighting. The module (input) is controlled from the mH-IO32 or mH-IO12E6 module from the same level. Control is carried out via CAN bus. It is possible to control four independent channels with a maximum power of 500 W per channel. Incandescent lamps or halogen 230 V powered by toroidal transformer can be used as receivers. It is possible to control energy-saving light bulbs (ESL) or LEDs powered by 230 V if these light sources are adapted to work with dimmers. Due to the variety of solutions available on the market, it is recommended to exercise extreme caution and to make prior attempts of specific combinations of dimmers and LED lighting. The module is supplied with 230 V and an additional noise filter in the supply line is required. If more than 4 dimmable light points are required in the building, an additional dimmer from the next level with an additional filter on the power supply and an additional IO32 or 12E6 module at the same level for control (input) should be used.

The module is available in two versions:

mH-L4 - basic module, on sale from 2012. Described in a separate document.

mH-L4B - module with modified electronics. Described in this document.

Inputs / outputs

The mH-L4B module is available for different levels, thus enabling the expansion of the I/O network connected to the F&Home system. First install the module from level 1, then from level 2, and so on. Each level has a separate numbering, which makes it easier to install the system. The output list for the mH-L4 module is shown in the following table.

Level	Outputs	
1	65 – 68	Light source S1 switched on between output 65 and N Light source S2 switched on between output 66 and N Light source S3 switched on between output 67 and N Light source S4 switched on between output 68 and N
2	193 – 196	A connection of light sources (similar to level 1)
3	321 – 324	A connection of light sources (similar to level 1)

Power supply

The mH-L4B module is supplied with 230 V AC voltage, which is also used to supply light sources. Use the mH-SP filter module for each mH-L4B module.

CAN

Two RJ-45 sockets on the module front panel are used to connect the CAN communication network cables, which must be connected to adjacent modules using the CAN cables provided with the system.

Operating principle

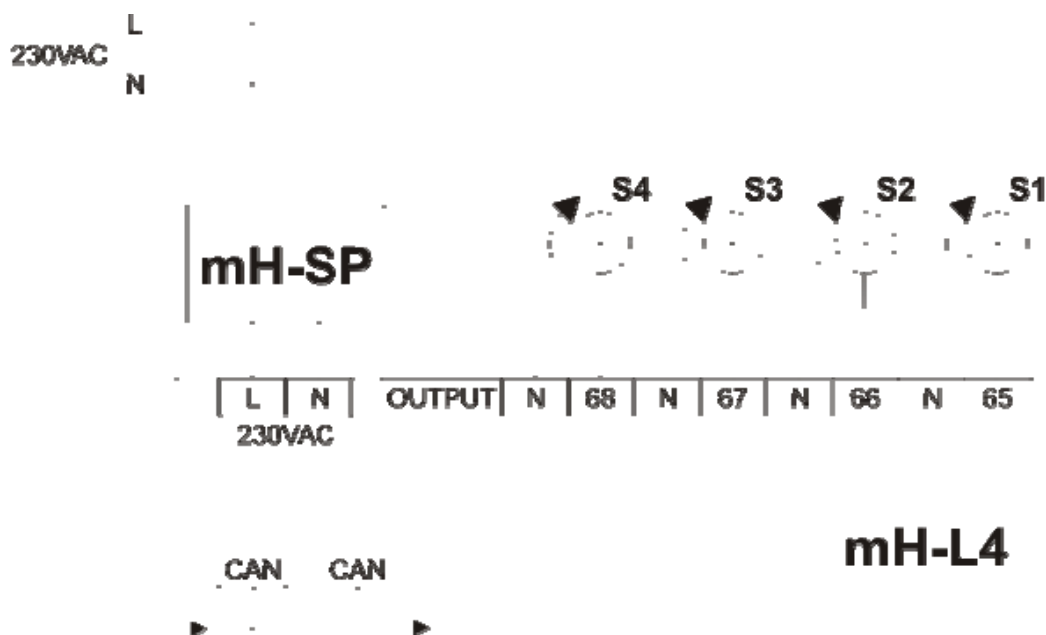
Light sources connected to the mH-L4B dimmer module are controlled only via the CAN network. The control can be carried out via buttons connected to the inputs of the mH-IO32 and mH-IO12E6 modules. If the dimmers are triggered by the buttons, a short press of the button will cause the light source to be fully switched on/off. In case of a longer triggering, the brightness of the lighting associated with the triggered input changes in the brightening loop from full brightness - dimming up to switching off - brightening to full brightness. If the dimmer is triggered from the touch panel, the panel determines the brightness and switching on of the light source.

Notes

- Remember that using another dimmer requires installing another mH-IO32 or mH-IO12E6 control module of the level corresponding to the dimmer level.
- A separate mH-SP filter module should be used for each dimmer used.

Connection diagram

WARNING: The description and numbering in the connection diagram refer to level 1. For the remaining levels, the numbering is shifted according to the relation: $33 + (N-1) \times 128$, where N is the level number.



Operation

signaling

The operation of the mH-L4B module is indicated by four LEDs on the front of the module. The meaning of the individual controls is as follows:

U	The blinking of the U diode means that the device is connected to the power supply and is working properly. The constantly lighted U diode indicates an error or malfunction of the module.
RX	Indicates that the module is in the process of receiving data through the CAN network.
TX	Indicates that the module is in the process of sending data through the CAN network.
Err	Indicates that there is no communication between the mH-L4 module and the host computer (possible power outage/damage to the host computer or damage to the communication cables).

Technical data table	
Module type	actuator - 4 channels
Rated supply voltage	230 V AC
Power supply voltage tolerance	-20%, +10%
Maximum load of a single channel	500 W
Total current (load-dependent)	10 A
Storage temperature	-20°C to +50°C
Operating temperature	0°C, +45°C
Humidity	<=85% (without condensation or aggressive gases)
Dimensions	105 x 65 x 90 mm (6 modules)
Dimensions of the packaging	119 x 104 x 75 mm
Ingress protection	IP20
Operating position	any
Enclosure type	for DIN rail
Net weight	172 g
Gross weight (including packaging)	210 g

WARNING

The method of connection is specified in this manual. Installation, connection and adjustment should be carried out by authorized electricians who are familiar with the operating instructions and the functions of the module.

The correct operation is affected by the way the module is transported, stored and used. Installation of the module is not recommended in the following cases: missing components, damage to the module or its deformation.

In case of malfunction, please contact the manufacturer.

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