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DATA SHEET

mH-LED

Three-channel low-voltage LED controller
of the F&Home system

F&Home

The mH-LED module is a three-channel dimmer of low-voltage lighting (12 V). The module should be connected to the LED light sources, for example, LED stripes, single-colored hoses. The module has three local inputs to connect buttons operating in the same way as in dimmers (short press switches on/off, longer press dims/brightens). It is possible to control each channel independently using a touch panel. The module requires connecting an independent 12 V DC power supply with a power matched to the connected LED load. The correct polarity of a power supply is very important. A reverse connection may damage the connected light source (the module is protected).

Inputs / outputs

The mH-LED 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, etc. The module in each level has three inputs (independent for each channel) and three outputs for controlling individual low voltage (12 V) receivers.

Power supply

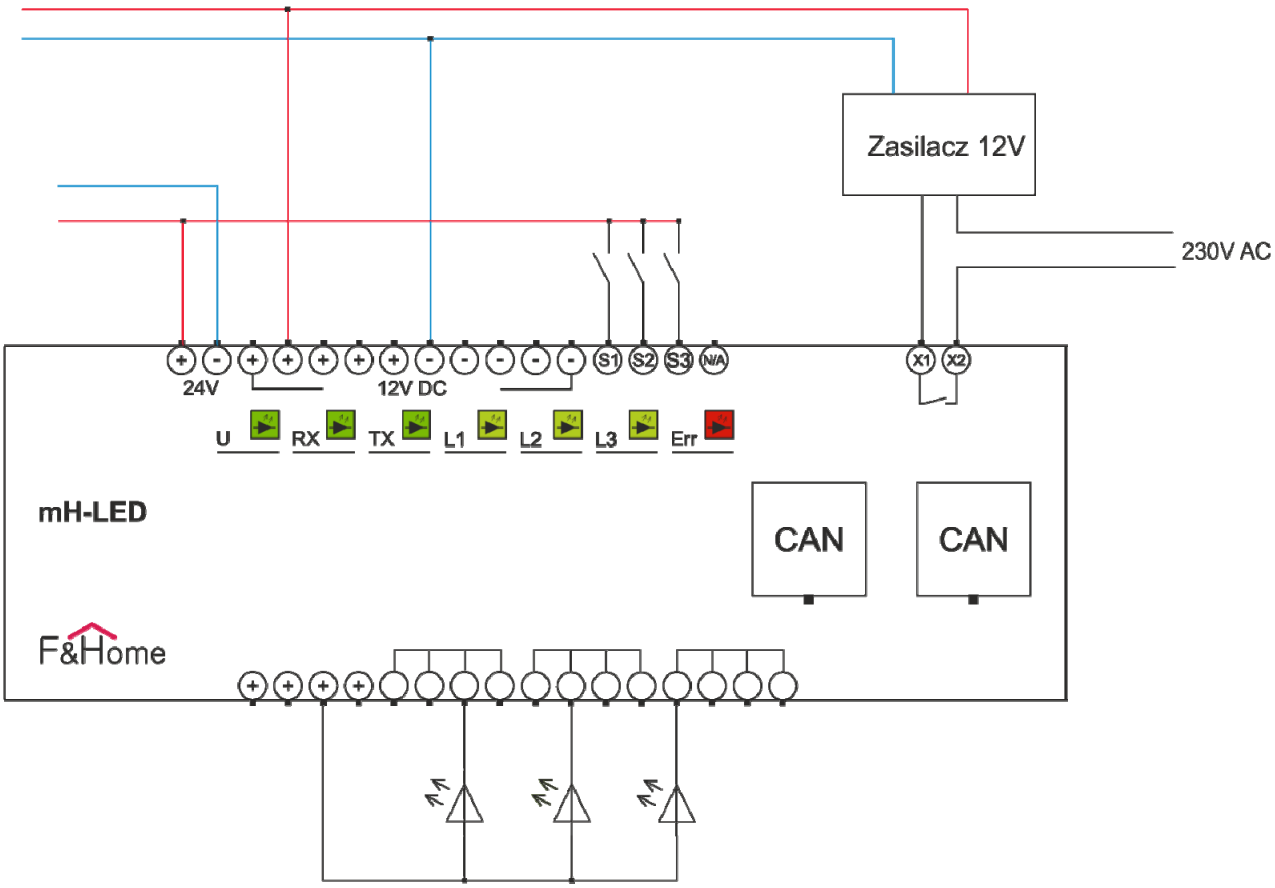
The mH-LED module is supplied with 24 V DC voltage. In addition, a separate 12 V DC power supply must be used to supply the receivers.

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

Receivers connected to the mH-LED controller module are controlled using the buttons connected to its inputs and CAN network. If the module is triggered by the buttons, a short press of the button will cause the light source to be fully switched on/off. In case the button is pressed for a longer time, the brightness of the lighting 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.



Zasilacz 12 V - 12 V power supply

Operation signaling

The operation of the mH-LED module is indicated by seven 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).
L1	Channel 1 switched on
L2	Channel 2 switched on

L3	Channel 3 switched on

Technical data table	
Module type	actuator - 3 channels
Rated supply voltage	24 V DC
Power supply voltage tolerance	-20%, +10%
LED power supply voltage (actuator part)	12 V DC
Maximum current (per channel)	8 A
Output voltage	12 – 24 V DC
Maximum output current	10 mA
Storage temperature	-20^{O}C to +50^{O}C
Operating temperature	0^{O}C, +45^{O}C
Humidity	<=85% (without condensation or aggressive gases)
Dimensions	87.5 x 65 x 90 mm (5 modules)
Dimensions of the packaging	105 x 104 x 75 mm
Ingress protection	IP20
Operating position	any
Enclosure type	for DIN rail
Net weight	175 g
Gross weight (including packaging)	238 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.