

DATA SHEET



mH-A10

Four - channel 0 – 10 V controller
of the F&Home system



The mH-A10 module is a four-channel controller designed for setting values of 0 - 10 V for devices capable of controlling voltages from 0 to 10 V. In most cases, these will be devices such as lighting (brightness control) or ventilation (fan speed control). The module has four local inputs to connect buttons operating in the same way as in dimmers (short press switches on/off, longer press changes the output value from 0 to 10 V). It is possible to control each channel independently using a touch panel. The module requires a 24 V system power supply. To expand its functionality, the module has relays built-in, which are used to cut off the power supply voltage of receivers, for which the value of less than 1 V has been set. This functionality is useful in the case of receivers that cannot be switched off by setting the minimum voltage (for example, the lighting is glowing).

Inputs / outputs

The mH-A10 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. The module in each level has four inputs (independent for each channel) and four outputs to control individual 0 - 10 V receivers. The module inputs should be connected to monostable buttons operating on the following principle - a short press switches on / off, a longer press changes the value. The relay outputs switch on the power supply to the receivers when the corresponding analog output emits a signal greater than 0V.

Power supply

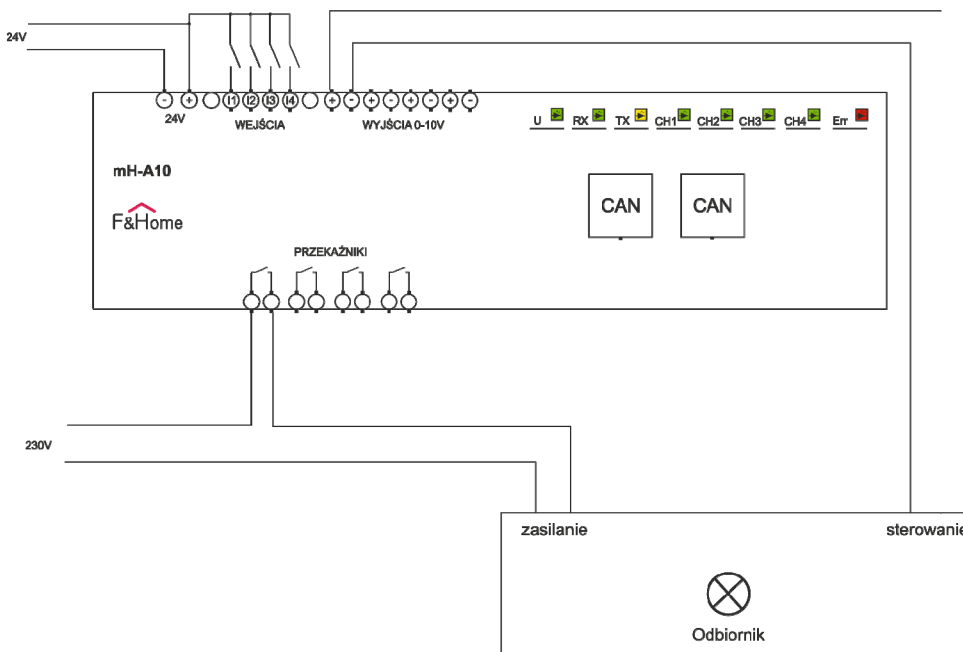
The mH-A10 module is supplied with 24 V DC voltage.

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-A10 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 receiver to be fully switched on/off. If the button is pressed for a longer time, the output voltage changes in the 0 V - 10 V - 0 V loop. If the controller is triggered from the touch panel, then the panel decides about switching on and the value of the output voltage.



- Wejścia - Inputs
- Wyjścia - Outputs
- Przełączniki - Relays
- zasilanie - power supply
- sterowanie - control
- Odbiornik - Receiver

Technical data table

Module type	actuator - 4 channels
Rated supply voltage	24 V DC
Power supply voltage tolerance	-20%, +10%
Outputs	4 x 0-10 V
Maximum current (per channel)	20 mA
Output voltage	12 – 24 V DC
Maximum output current	10 mA
Built-in relays	4 x 16 A
Storage temperature	-20°C to +50°C
Operating temperature	0°C, +40°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	198 g
Gross weight (including packaging)	245 g

Operation signaling

The operation of the mH-A10 module is indicated by eight 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).
CH1	Channel 1 switched on
CH2	Channel 2 switched on
CH3	Channel 3 switched on
CH4	Channel 4 switched on

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.