

RS485 Bus Switching Actuator

Multifunction Impulse switch with integrated relay function FMS12-12VDC

valid for devices from production week 37/10
(see bottom side of housing)

Switching actuator multifunction impulse switch with integrated relay function, 1+1 NO potential free 16A/250V AC, incandescent lamps 2000W, with DX technology. Only 0,05–0,5 watt standby loss.

Modular device for DIN-EN 60715 TH35 rail mounting.
1 module = 18 mm wide, 58 mm deep.

Connection to the Eltako RS485 Bus, terminals RSA and RSB. Up to a total of 128 actuators can be added in this way.

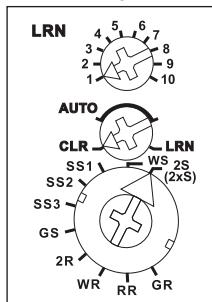
Up to 35 pushbuttons can be assigned, of which one or more central control pushbuttons.

Eltako Duplex technology (DX) allows you to switch normally potential free contacts in zero passage switching when 230V A/C voltage 50 Hz is switched. This drastically reduces wear. To achieve this, simply connect the N conductor to the terminal (N) and L to K(L). This results in an additional standby consumption of only 0.1 watt.

Maximum current over both contacts 16A for 230V.

The complete RS485 bus is powered with 12V DC at 6W, 12W or 24W by switch mode power supply unit SNT12-12V DC that is only 1 or two pitch units wide. When the two relays of the FMS12 are switched on, a power of 0.5 watts is required.

Function rotary switches



The upper and the middle rotary switches are for teaching-in the sensors. In normal mode, the middle rotary switch is then set to AUTO and the bottom rotary switch to the required function:

2S = Impulse switch with 2 NO contacts
(2xS) = 2-way impulse switch each with one NO relay

WS = Impulse switch with 1 NO contact and 1 NC contact (0,3 watt standby loss)

SS1 = Impulse multi circuit switch 1 + 1 NO contacts for switching sequence 1

SS2 = Impulse multi circuit switch 1 + 1 NO contacts for switching sequence 2

SS3 = Impulse multi circuit switch 1 + 1 NO contacts for switching sequence 3

GS = Impulse group switch 1 + 1 NO contacts

2R = Switching relay with 2 NO contacts

WR = Switching relay with 1 NO contact and 1 NC contact (0,3 watt standby loss)

RR = Switching relay (closed-circuit current relay) with 2 NC contacts (0,5 watt standby loss)

GR = Group relay 1 + 1 NO contacts

Switching sequence SS1:

0 - contact 1 (1-2) - contact 2 (3-4) - contacts 1 + 2

Switching sequence SS2:

0 - contact 1 - contacts 1 + 2 - contact 2

Switching sequence SS3:

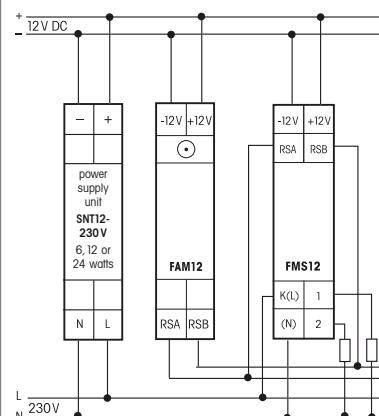
0 - contact 1 - contacts 1 + 2

Switching sequence GS: 0 - contact 1 - 0 - contact 2

GR: Relay with alternating closing contacts.

The LED below the upper function rotary switch performs during the teach-in process according to the operation manual. It shows control commands by short flickering during operation.

Typical connection



Teaching-in Wireless Sensors in Wireless Actuators

All sensors must be taught-in in the actuators so that they can detect and execute commands.

Teaching-in actuator FMS12

The teach-in memory is empty on delivery from the factory. If you are unsure whether the teach-in memory contains something or not,

you must first clear the memory contents completely:

Set the middle rotary switch to CLR. The LED flashes at a high rate. Within the next 10 seconds, turn the upper rotary switch three times to the right stop (turn clockwise) and then turn back away from the stop. The LED stops flashing and goes out after 2 seconds. All taught-in sensors or sensors of a channel are cleared.

Clear individual taught-in sensors in the same way as in the teach-in procedure, except that you set the middle rotary switch to CLR instead of LRN, and operate the sensor. The LED previously flashing at a high rate goes out.

Teaching-in sensors

1. Set the top rotary switch to the required teach-in function:

2 = teach-in 'central OFF';

3 = teach-in universal switch;

4 = teach-in 'central ON';

5 = teach-in direction switches;

Direction switches are completely taught-in automatically when operating the top or bottom pushbutton.

7 = Teach in universal switch Contact 1;

8 = Teach in universal switch Contact 2;

9 = Teach in direction switch Contact 1;

10 = Teach in direction switch Contact 2.

2. Set the middle rotary switch to LRN.. The LED flashes at a low rate.

3. Operate the sensor to be taught-in. The LED goes out.

To teach-in further sensors, turn the middle rotary switch briefly away from position LRN. Continue the procedure from pos 1.

Set the middle rotary switch to AUTO after teach-in.



When an actuator is ready for teach-in (the LED flashes at a low rate), the very next incoming signal is taught-in. Therefore, make absolutely sure that you do not activate any other sensors during the teach-in phase.

Important Note!

Only skilled electricians may install this electrical equipment otherwise there is the risk of fire or electric shock.