Eltako
ELECTRONICS

RS485 Bus Switching Actuator $C\epsilon$

Multifunction Impulse switch with integrated relay function FMS12-12 V DC

Switching actuator multifunction impulse switch with integrated relay function, 1+1 NO potential free 16 A/250 V AC, incandescent lamps 2000 W, 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 channels can be added in this way.
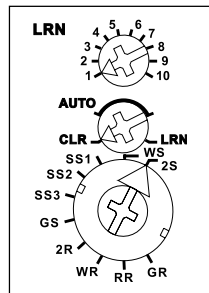
Up to 35 pushbuttons can be assigned, of which one or more central control pushbuttons.

Eltako Duplex technology (DX) allows you to switch normally potential free contacts in zero passage switching when 230 V 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 16 A for 230 V.

A 12 V DC voltage is supplied from a switching power supply unit SNT12-12 V DC which has a width of only 1 module.
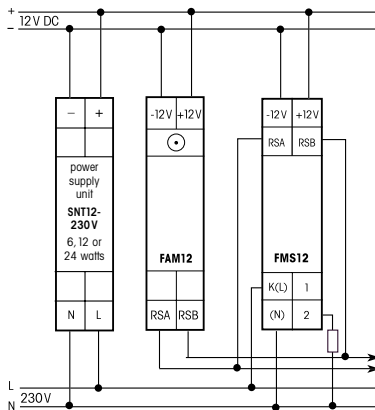
Function rotary switches

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
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 such as wireless pushbuttons, wireless hand-held transmitters, wireless transmitter modules, wireless window/door contacts, wireless timers and wireless motion and brightness sensors must be taught-in in the actuators (receivers with dimmers, switches and relays) 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.
   6 = teach-in FTK as NC contact;
   7 = teach-in FTK as NO contact.
2. Set the upper 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 reminder!

This electrical equipment may only be installed by skilled electricians otherwise fire hazard or danger of electric shock exists!