RS485 bus actuator

Multifunction time relay

FMZ14

CE

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

Temperature at mounting location:
-20°C up to +50°C.
Storage temperature: -25°C up to +70°C.
Relative humidity:
annual average value <75%.

valid for devices from production week 40/17 (see bottom side of housing)

Multifunction time relay with 10 functions, 1 CO contact potential free 10 A/250 V AC, incandescent lamps 2000 watts*, with DX technology. Bidirectional. Only 0.4 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. Bus cross wiring and power supply with jumper.

Wireless window contacts (FTK) and window handles at opened windows with the function NO or NC can be taught-in. Several FTK and (or) window handles are linked to each other. If a direction switch is taught-in, a function (e.g. TI) can be started using the top switch (START) and stopped with the bottom switch (STOP).

Patented Eltako Duplex technology 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.

If supply voltage fails, the two contacts switch off. When power is restored, contact 1 closes.

Time setting between 0.5 second and 20 hours.

Function rotary switches
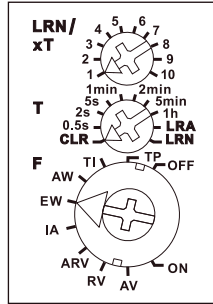
Teach-in takes place **using the top and middle rotary switches** and then the time is set. T is the time base and xT the multiplier.

The function is selected **using the bottom rotary switch:**

RV = off delay

AV = operate delay

TI = clock generator starting with impulse

TP = clock generator starting with pause

**IA** = impulse controlled operate delay (e.g. automatic door opener)

EW = fleeting NO contact

AW = fleeting NC contact

ARV = operate and release delay

ON = Permanent ON

OFF = Permanent OFF

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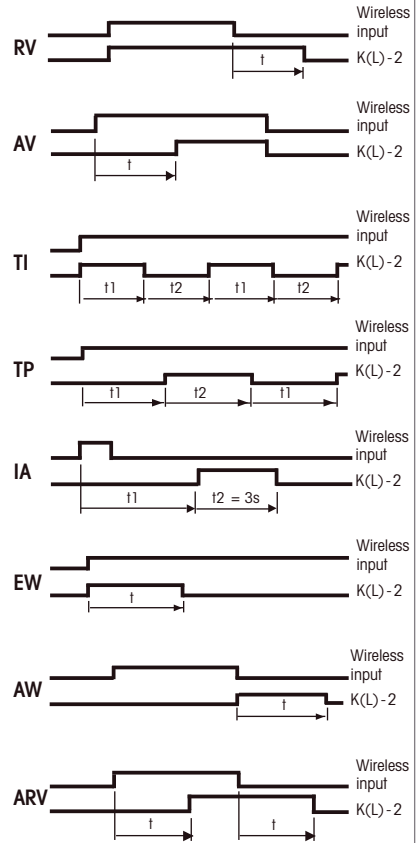It shows control commands by short flickering during operation.

* The maximum load can be used starting at a delay time or clock cycle of 5 minutes. The maximum load will be reduced for shorter times as follows: up to 2 seconds 15 %, up to 2 minutes 30 %, up to 5 minutes 60 %.

Typical connection
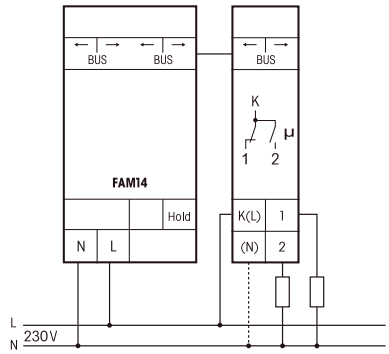
Description of functions

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 FMZ14

The teach-in memory is clear on delivery from the factory. To ensure that a device was not previously taught-in, **clear the complete memory:**

Turn the middle rotary switch to CLR. The LED flashes at a high rate. Within 10 seconds, turn the top rotary switch three times to right stop (turn clockwise) and back again. The LED stops flashing and goes out after 2 seconds. All taught-in sensors are cleared.

Clear single 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;

   5 = teach-in direction switches;

   Direction switches are completely taught-in automatically when operating the top or bottom pushbutton. The side on which the pushbutton is first operated is defined for START and the other side for STOP.

   6 = teach-in FTK and window handle as NC contact;

   8 = teach-in FTK and window handle as NO contact.

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 time after teach-in with the middle and top rotary switches.

Assign device address for the FMZ14:
The rotary switch on the FAM14 is set to position 1, its lower LED flashes red. The middle rotary switch of the FMZ14 is set to LRN, the LED flashes smoothly.

After the address of the FAM14 was assigned, its lower LED flashes green for 5 seconds and the LED of the FMZ14 goes out.

Delete device configuration:
Set the middle rotary switch to CLR. The LED flashes nervously. Then turn the upper rotary switch within 10 seconds 3 times to the leftmost stop (anticlockwise) and turn it back again. The LED stops flashing and goes out after 5 seconds. The factory settings are restored.

Delete device configuration and device address:
Set the middle rotary switch to CLR. The LED flashes nervously. Then turn the upper rotary switch within 10 seconds 6 times to the leftmost stop (anticlockwise) and turn it back again. The LED stops flashing and goes out after 5 seconds. The factory settings are restored and the device address deleted.

Configure FMZ14:
The following points can be configured with the PC tool PCT14:

- duty cycle pulse control (IA)
- teaching-in of wireless pushbuttons with single or double click
- add or change sensors

CAUTION! Don't forget 'disconnect FAM' in the PC tool. While the connection from the PC tool to the FAM14 exists, no wireless commands are executed.

Teach-in confirmation telegram of another bus actuator to the FMZ14:
As in the teach-in procedure, only set the middle rotary switch to LRA instead to LRN.
Teach-in 'switch OFF' as 'central OFF'.

⚠ 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.

Must be kept for later use!
We recommend the housing for operating instructions GBA14.

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