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Eltako ELECTRONICS

Analogue settable multifunction time relay MFZ12DX-UC with 18 functions

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%.

1 CO contact potential free 10A/250V AC.
Incandescent lamps 2000W*.
Standby loss 0.02-0.6 watt only.

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

With the Eltako Duplex technology (DX) the normally potential-free contacts can still switch in zero passage when switching 230V AC 50Hz and therefore drastically reduce wear. Simply connect the neutral conductor to the terminal (N) and L to 15(L) for this. This gives an additional standby consumption of only 0.1 Watt.

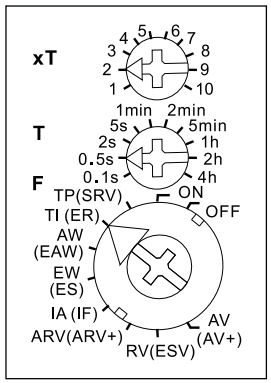
Universal control voltage 8 to 230V UC.
Supply voltage same as the control voltage.

Time setting between 0.1 seconds and 40 hours.

By using a bistable relay coil power loss and heating is avoided even in the on mode.

The switched consumer may not be connected to the mains before the short automatic synchronisation after installation has terminated.

Function rotary switches



The LED below the big rotary switch indicates the contact position while time-out is in progress. It blinks while the relay contact 15-18 is open (15-16 closed), and is continuously ON as long as the relay contact 15-18 is closed (15-16 open).

The time base T is selected by means of the middle, latching rotary switch **T**. Time-base figures available are 0.1 seconds, 0.5 seconds, 2 seconds, 5 seconds, 1 minute, 2 minutes, 5 minutes, 1 hour, 2 hours and 4 hours. The total time is obtained by multiplying the timebase by the multiplier.

The multiplier xT is set on the upper, latching rotary switch **xT** and is in the range from 1 to 10. Thus, time settings can be selected in the range from 0.1 seconds (time base 0.1 seconds and multiplier 1) and 40 hours (time base 4 hours and multiplier 10).

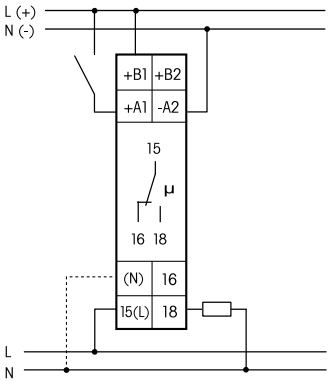
* The maximum load can be used starting at a delay time or clock cycle of 5 minutes. The maximum load will be reduced for shorter times as follows: up to 2 seconds 15%, up to 2 minutes 30%, up to 5 minutes 60%.

According to the connection of the power supply to the terminals B1-A2 or B2-A2 **two different levels of settings** can be selected.

Functions F with connection of the power supply to B1-A2
(Standby loss 0.02-0.4 W)

RV = off delay
AV = operate delay
TI = clock generator starting with impulse
TP = clock generator starting with pause
IA = impulse controlled pickup 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

Typical connection

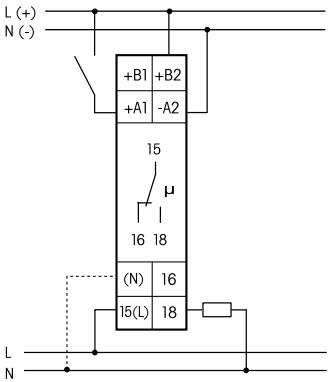


If N is connected, the zero passage switching is active.

Functions (F) with connection of the power supply to B2-A2
(Standby loss 0.02-0.6 watt)

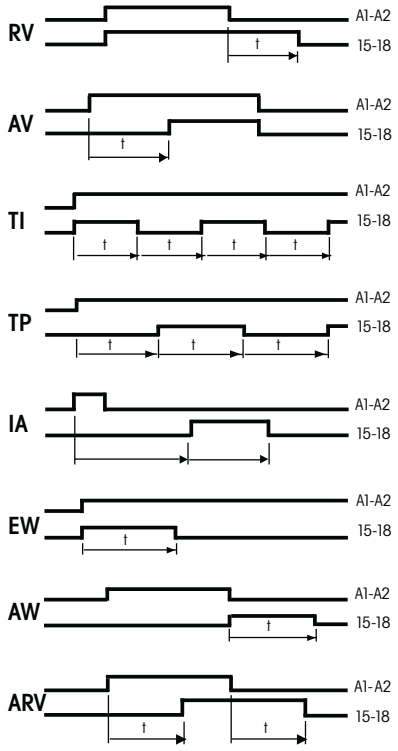
SRV = release-delay impulse switch
ER = relay
EAW = fleeting NO contact and fleeting NC contact
ES = impulse switch
IF = pulse shaper
ARV+ = additive operate and release delay
ESV = impulse switch with release delay and switch-off early-warning function
AV+ = additive operate delay
ON = permanent ON
OFF = permanent OFF

Typical connection



If N is connected, the zero passage switching is active.

Description of functions



SRV = With control impulses from 50ms the make contact switches to and fro. In the contact position 15-18, the device switches automatically to the rest position 15-16 on delay time-out.

ER = As long as the control contact is closed the make contact reverts from 15-16 to 15-18.

ES = With control impulses from 50ms the make contact switches to and fro.

ARV+ = Same function as ARV, but after an interruption of the operate delay the elapsed time is stored.

ESV = Function same as SRV. Additionally with switch-off early warning: approx. 30 sec. before time-out the lighting starts flickering 3 times at gradually shorter time intervals.

AV+ = Function same as AV. However, after an interruption the elapsed time is stored.

Technical Data

Supply voltage and control voltage AC	8..253V
Supply voltage and control voltage DC	10..230V
Rated switching capacity	10A/250V AC

The strain relief clamps of the terminals must be closed, that means the screws must be tightened for testing the function of the device. The terminals are open ex works.

Must be kept for later use!
We recommend the housing for operating instructions GBA12.

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