

Digital settable multifunction  
time relay MFZ12DDX-UC  
with 18 functions



**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 0.05-0.5 watt only.  
Modular device for DIN-EN 60715 TH35  
rail mounting. 1 module = 18mm wide,  
58mm deep.

**With the Eltako Duplex technology 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.**

Both functions and times are entered at the touch of a key and indicated digitally on an LC display. Only two keys are required for this purpose.

When setting the time all values can be entered within preset time ranges (0.1 to 9.9 or 1 to 99 seconds, minutes or hours). The longest possible setting is 99 hours. 600 settings are possible. The time setting is continuously displayed digitally.

**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.

### Functions

- RV** = off delay  
**AV** = operate delay  
**AV+** = operate delay additive  
**TI** = clock generator starting with impulse  
**TP** = clock generator starting with pause  
**IA** = impulse controlled pickup delay (e.g. automatic door opener)  
**IF** = pulse shaper  
**EW** = fleeting NO contact  
**AW** = fleeting NC contact  
**EAW** = fleeting NO contact and fleeting NC contact  
**ARV** = operate and release delay  
**ARV+** = operate and release delay additive  
**ES** = impulse switch  
**SRV** = release-delay impulse switch  
**ESV** = impulse switch with release delay and switch-off early-warning function  
**ER** = relay  
**ON** = permanent ON  
**OFF** = permanent OFF

With TI, TP, IA, EAW, ARV and ARV+ functions, a different second time can be entered also with different time ranges.

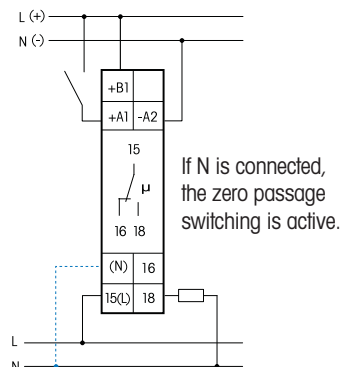
**Setting the times and functions:** The LCD component to be changed is selected by pressing the MODE key. The component accessed flashes. Press the SET key to change the component accessed. This may be the function, the time ranges, time T1 or time T2 (on TI, TP, IA, EAW, ARV and ARV+ only). Pressing the MODE key terminates each input. Once the time has been set with MODE, no more components are flashing. The timing relay is now ready to operate. Press the MODE key again to restart the input cycle. All the entered parameters are retained if they are not changed using SET. 25sec. after the last operation and if the component still flashes the input cycle is automatically terminated and the previously made changes lapse.

**Functions of the LC display:** If the ON or OFF function was selected, no time is displayed, only ON and OFF and a contact symbol in the correct position. On all other functions, the set time, the function code and the contact symbol are shown

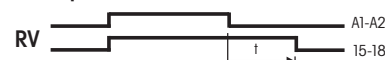
in the correct position (open or closed). The clock symbol flashes while the set time is elapsing and the remaining time is shown.

**Safety in the event of a power failure:** The set parameters are stored in an EEPROM and are therefore immediately available again when the power supply is restored after a power failure.

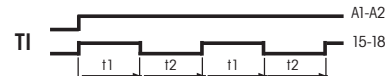
### Typical connection



### Description of functions



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



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

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

**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.

**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.

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

\* 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%.

### 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.

### Eltako GmbH

D-70736 Fellbach

+49 711 94350000

www.eltako.com