

## Multifunction time relay CE

### DMZ12-8..230V UC

1 CO contact potential free 10A/250V AC.

Standby loss 0.4 watt only.

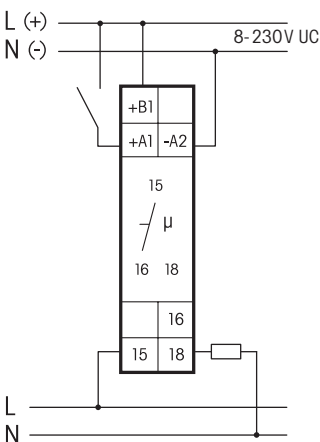
Universal control voltage 8 to 230V UC.

Supply voltage same as the control voltage.

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.

Bistable relay as relay contact.

#### Typical connections



#### Functions

- RV** = off delay
- AV** = operate delay
- AV+** = additive operate delay
- TI** = clock generator starting with impulse
- TP** = clock generator starting with pause
- IA** = impulse controlled operate delay (e.g. automatic door opener)
- IF** = pulse shaper
- EW** = fleeting NO contact
- AW** = fleeting NC contact
- EAW** = fleeting NO contact and fleeting

- ARV** = operate and release delay
- ARV+** = additive operate and release delay
- 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 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. 25 sec. 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

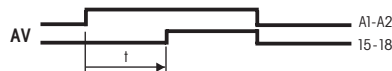
The set parameters are stored in an EEPROM and are therefore immediately available again when the power supply is restored after a power failure.



## Description of functions of time relay DMZ12



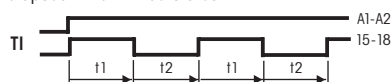
When the control voltage is applied the make-contact switches to 15-18. As the control voltage is interrupted the timing period is started; on time-out the make-contact returns to normal position. Resettable during the timing period.



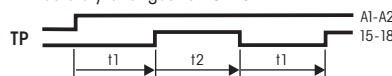
When the control voltage is applied the timing period is started; on time-out the make-contact changes to 15-18. After an interruption, the timing period is restarted.

### AV+ = Additive operate delay

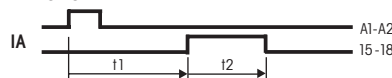
Same function as AV, but after an interruption the elapsed time will be stored.



As long as the control voltage is applied the make-contact opens and closes. When the control voltage is interrupted the make contact immediately changes to 15-18.



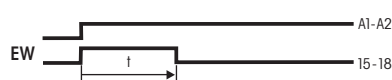
Description of function same as for T1, except that, when the control voltage is applied, the contact initially remains at 15-16 rather than changing to 15-18.



With a control impulse from 50ms the timing period  $t_1$  starts; on time-out the make-contact changes for time  $t_2$  to 15-18 (e.g. for automatic door opener). If  $t_1$  is set to  $t_1 \text{ min} = 0.1$  seconds, the IA operates as pulse shaper, at which runs down 1 second, independent from duration of the control impulse (min. 150ms).



When the control voltage is applied the make-contact changes for the time set to 15-18. Further control impulses will only be evaluated after the set time has elapsed.



When the control voltage is applied the make-contact changes to 15-18 and reverts on wiping time-out. If the control voltage is removed during the wiping time the make-contact immediately reverts into resting position and the residual time is cancelled.



When the control voltage is interrupted the make-contact changes to 15-18, and reverts on wiping time-out. If the control voltage is applied during the wiping time the make-contact immediately reverts into resting position and the residual time is cancelled.



When the control voltage is applied and interrupted the make-contact changes to 15-18 and reverts on wiping time-out.



When the control voltage is applied the timing period starts; on time-out the make-contact changes to 15-18. If the control voltage is interrupted then, another timing period is started and, on time-out, the make-contact reverts into resting position. This release delay is be set separately. After an interruption of the operating delay, the timing period is restarted.

### ARV+ = Additive operate and release delay

Same function as ARV, but after an interruption of the operate delay the elapsed time will be stored.

### ES = Impulse switch

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

### SRV = Release-delay impulse switch

With control impulses from 50ms the make contact switches to and fro. In position 15-18 it will be automatically switched to 15-16 after the delay time has elapsed.

### ESV = Impulse switch with release delay and early-warning function

Same function as SRV, but with additional early warning function: 30 seconds before time out the light starts flickering 3 times in shorter time periods.

### ER = Relais

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



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.

## Warning!

Only a trained electrician may install this equipment, otherwise there is a risk of fire or electric shock.