

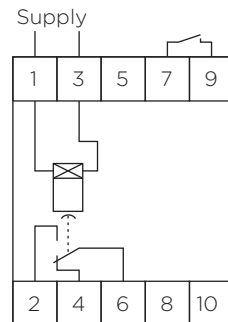
## Multi-Function Multi-Range Timer



### Description

Multi-function multi-range timer designed with the latest technology that includes all commonly used functions. DIN rail mountable for front and back panel positioning. Any change made to function or time range by means of front mounted dials will result in a reset of the unit.

### Wiring Diagram



### FEATURES

- Microprocessor controlled.
- Failsafe feature
- Front face adjustable time range and function settings
- Front face adjustable time settings
- Modular 35.5mm DIN rail mountable
- 0.3 - 60 hrs Adjustable time ranges
- 8 Selectable functions
- 10A SPDT output relay
- LED indication for relay and power supply ON

### Time Specifications

Time Ranges 1) 0.3 - 6s    5) 0.3 - 6h  
 2) 3 - 60s    6) 3 - 60h  
 3) 0.3 - 6m    7) Relay ON  
 4) 3-60m    8) Relay OFF

Range Accuracy  $\leq 0.5\%$

Scale Accuracy  $\pm 5\%$

Repeat Accuracy  $\pm 0.2\%$

Time Variation  $\leq 0.05\% / V$   
 within rated power  
 supply and ambient  
 temperature  $\leq 0.2\% / ^\circ C$

Reset Time 500 ms

Pulse Duration 500 ms (pins 7 & 9)

### Output Specifications

Output Specifications SPDT

Rated Isolation 6000 VAC

Voltage (contact / electric)  
 1000 VAC  
 (contact / contact)

Nominal Rate in AC1 2500 VA  
 (Ag-Ni)

Rated Current 10A

Rated Voltage 250V

Mechanical Life  $10 \times 10^6$  cycles

Electrical Life  $110 \times 10^3$  cycles (at max load)

Operation Frequency  $\leq 1800$  cycles/h

### Supply Specifications

Power Supply AC Type 110, 230, 400V  
 (Galvanic)  $525V \pm 10\%$   
 50 / 60 Hz  $\pm 5\text{Hz}$

Isolation 4kV

Consumption  $\pm 3VA$

$\pm 6VA$  525 V

Power Supply DC Types 12, 24, 48 V  $\pm 10\%$   
 (Non-galvanic)

Isolation None

Consumption  $\pm 100$  mA

### General Specifications

Power ON Delay  $\leq 300$  ms

Power OFF Delay  $\leq 200$  ms

Indication for  
 Power Supply ON LED green  
 Output ON LED red

Environment

Degree Of Protection IP 20  
 Operating Temperature  $-10$  to  $+50^\circ C$   
 Storage Temperature  $-50$  to  $+85^\circ C$   
 Weight 200g

## Multi-Function Multi-Range Timer Mode of Operations

### Function 1: Delay on operate

The time period begins as soon as the power is applied. At the end of the set delay time the relay operates and does not release until the power supply is disconnected.

#### Example

Delaying energization of a load on applying power.

### Function 3: Symmetrical recycler

The relay operates and the time period begins as soon as the power is applied. After the set delay period the relay releases for the same time period. This sequence continues with equal ON and OFF time periods until the power supply is interrupted.

#### Example

Switching a load on and off repetitively in equal intervals.

### Function 5: Pulsed Interval

The relay operates and the time period begins as soon as the trigger contact is closed. The relay releases at the end of this period or when the power supply is disconnected. The relay operates again when the trigger contact is closed again. If the trigger contact is closed before the end of the delay time, the device continues timing where after the relay releases.

#### Example

Delaying release after limit switch operation.

### Function 7: Pulse generator

The time period begins as soon as the power is applied. At the end of the set delay time the relay operates for 0.5s. After the pulse period the relay releases for the set delay time period. This sequence continues until the power supply is interrupted.

#### Example

Timing for dosing plants.

### Function 2: Interval

The relay operates and the time period begins as soon as the power is applied. The relay releases at the end of this period or when the power supply is disconnected. The relay operates again when the power is applied again.

#### Example

Energization of a load for a set time period.

### Function 4: Delay on release

The relay operates as soon as the trigger contact is closed. The time period begins when the trigger contact is opened. The relay releases at the end of the set delay time or when the power supply is disconnected. The relay operates again when the input contact is closed again. If it is closed before the end of the delay time the relay keeps ON, a new time period begins as soon as the contact is opened again.

#### Example

Timed interval during the change-over sequence from main supply to standby supply.

### Function 6: Step Relay

The relay operates as soon as the trigger contact is closed. The relay releases when the trigger is opened and closed again or the power supply is disconnected. The relay operates again when the trigger contact is closed again.

#### Example

Alternating pump usage.

### Function 8: On / Off Delay

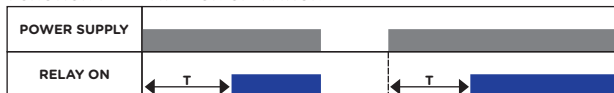
The time period begins as soon as the trigger contact is closed. At the end of the set delay time the relay operates. When the trigger contact is opened the delay period begins. At the end of the set delay time the relay releases.

#### Example

Delaying pulse and increasing pulse length.

## Operations Diagram

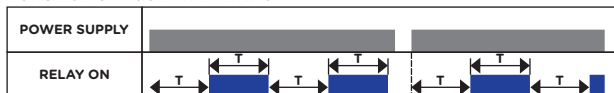
### FUNCTION 1 - DELAYED ON OPERATION



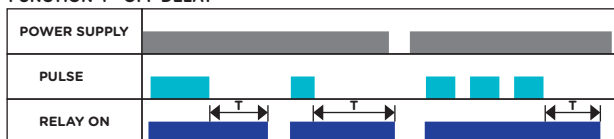
### FUNCTION 2 - INTERVAL



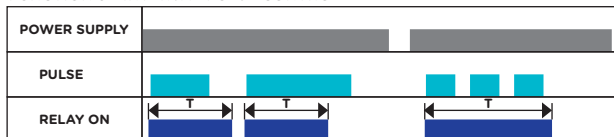
### FUNCTION 3 - EQUAL REPEATING



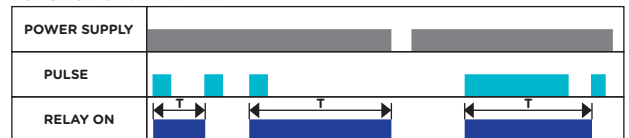
### FUNCTION 4 - OFF DELAY



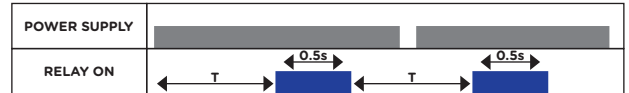
### FUNCTION 5 - INTERVAL PULSE CONTROLLED



### FUNCTION 6 - STEP RELAY



### FUNCTION 7 - PULSE GENERATOR



### FUNCTION 8 ON/OFF DELAY

