

## General

DTR-99 triggered digital timer with ON and OFF delay is designed to be used wherever time dependent control is required.

## Usage and Working Principle of the Device

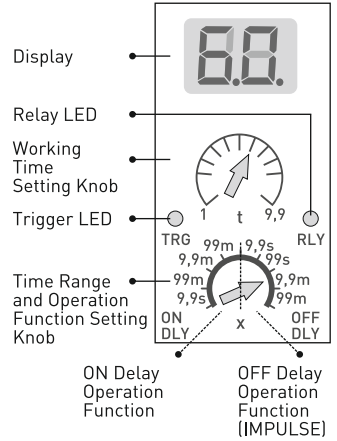
**Display:** Displayed here while setting the time and counting down the set time. If the operating time is set in minutes, the rightmost point of the display flashes while the device is counting the time. If the time is not counting (the device is not triggered), this point will not flash.

**x Knob:** To set the **time range and operating function**, move the "x" knob to the desired value. The left side of the dial is reserved for the on delayed operation function, the right side is reserved for the off delayed operation function in the release. 9.9 sec., 99 sec., 9.9 min., and 99 minutes 4 different time periods can be set. When the time range is set while the device is powered, the device must be de-energized and re-energized in order for the adjusted time range to be valid.

**t Knob:** To set the **working time value**, move the "t" knob to the desired value. When setting the "t" time, the set time is displayed on the screen. (If the time is changed while the device is counting time, the device continues to count the new time set.)

**TRG LED:** This led turns on if the trigger (TR) input is energized. In order for the device to start counting the set time, the device is triggered by energizing the TR input. After the device is triggered once and starts counting the time, cutting off the energy at the TR input does not affect the operation of the device, the device continues to count the time. After the time counting is over, the device must be triggered again to start counting again.

**RLY LED:** This LED turns on when the device energized the relay.



## Setting Working Time, Time Range and Working Function

Set the working function and time zone you want to adjust by using the "x" knob and set the working time by using the "t" knob. When adjusting the "t" knob, the set time is displayed on the screen.

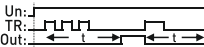
### Setting the Device as a ON Delayed Time Relay

**Ex.:** If you want to energized the relay 5 minutes after the device is triggered; Move the "x" knob to the **"9.9m" position on the left of the dial**. Turn the "t" button to the **"5.0"** position.

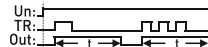
### Setting the Device as a OFF Delayed Time Relay

**Ex.:** If you want to energized the relay for 5 minutes when the device is triggered and then to de-energized the relay; Move the "x" knob to the **"9.9m" position on the right of the dial**. Turn the "t" button to the **"5.0"** position.

ON Delay Operation  
Characteristic



OFF Delay Operation  
Characteristic



## Relay Energized/De-energized Status

**Relay is Energized:** 2 (COM) and 3 (NC) short circuit, 1 (NC) and 2 (COM) open circuit.

**Relay is De-energized:** 2 (COM) and 1 (NC) short circuit, 3 (NC) and 2 (COM) open circuit.

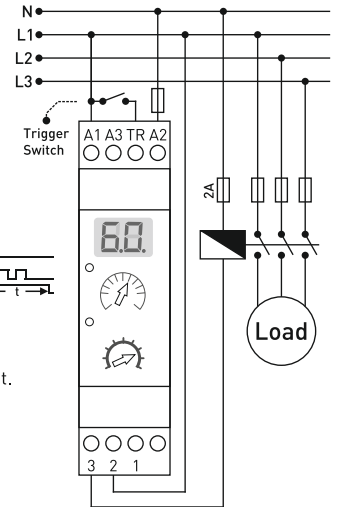
## Warnings

- Please use the device according to the manual.
- Don't use the device in wet.
- Include a switch and circuit breaker in the assembly.
- Put the switch and circuit breaker nearby the device, operator can reach easily.
- Mark the switch and circuit breaker as releasing connection for device.

## Maintenance

- Switch off the device and release from connections. Clean the trunk of device with a swab. Don't use any conductor or chemical might damage the device.
- Make sure device works after cleaning.

## Connection Diagram



## Technical Specifications

|                            |                            |
|----------------------------|----------------------------|
| Operating Voltage (A1-A2): | 230V AC 50/60Hz.           |
| Operating Voltage (A2-A3): | 24V AC/DC (A2(-), A3(+))   |
| Trigger Voltage (TR)       | 24V - 240V                 |
| Operating Power            | <6VA                       |
| Operating Temperature      | -20°C.....+55°C            |
| Working Time Range (t)     | 0,1sec. - 99 min.          |
| Display                    | 1x2 LED Display, 2x LEDs.  |
| Connection Type            | Assembled on the din rail. |
| Weight                     | 220gr.                     |
| Contact                    | 5A 250V AC Resistive Load  |
| Operating Altitude         | <2000m                     |
| Cable Diameter             | 2,5mm <sup>2</sup>         |

## Dimensions

