LED Descriptions:

For ZMN03:

Mode Selection — Supply LED

Multiplier — Time Setting Help LED

Time Scale — Relay Output Information LED

For ZMN04:

Time Scale and Mode Selection — Supply LED

x10 Multiplier — Time Setting Help LED

x1 Multiplier —

x0.1 Multiplier — Relay Output Information LED
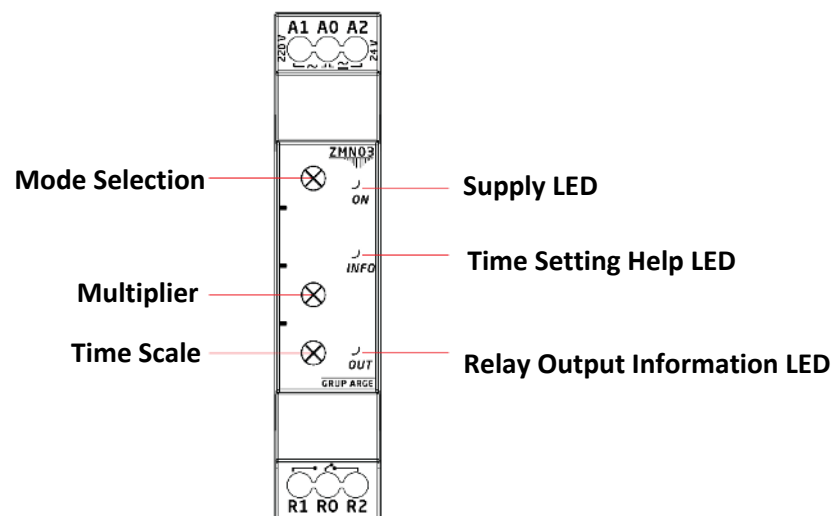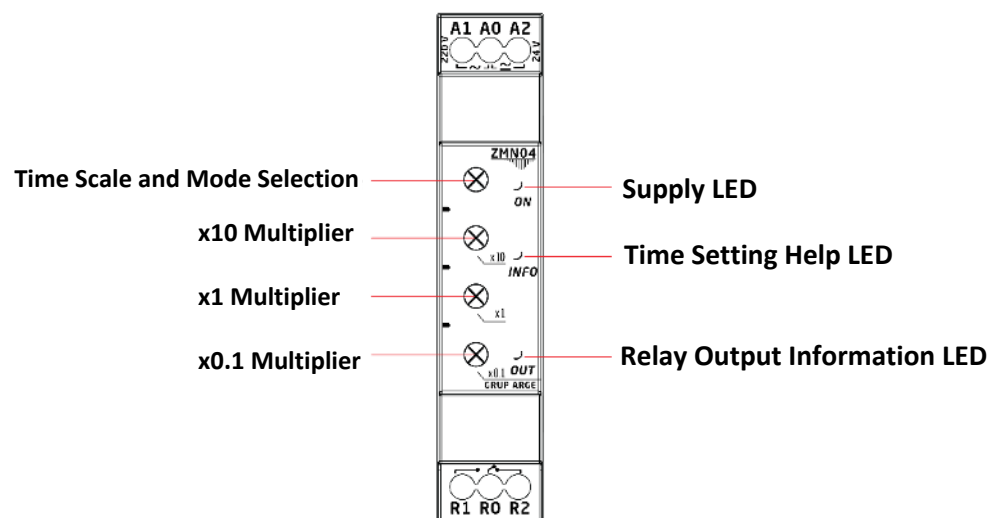
LED Descriptions:

●	ON	It shows that energy exists. At the same time, the potentiometer flashes when it changes.
◐	INFO	When adjusting the potentiometer, if the time value is set correctly, it lights up, if it stays in the unstable area, it turns off.
●	OUT	It lights up when the relay is pulled and turns off when it is not pulled.

Table:1

* ◐ *Flasher

* ● *Lighting

Technical Features:

Operating Voltage (Un)	18-28 V AC/DC 180 – 280 V AC
Operating Frequency	50 / 60 Hz.
Time Range	0.1 sec-30 hrs. (ZMN03) 0.1 s-999 min. (ZMN04)
Relay Output	1C/O, 5A, 1250 VA
Adjustment Type	Potentiometer
Indicator	3 pieces LED
Ambient Temperature	-5ºC ; +50ºC
Protection Class	IP20
Connection	DIN rail mounting

Table:2

Use of the Device:

ZMN03 and ZMN04 Time Relays;
If the set mode is delayed in drawing, the 'Toff' time starts counting when the 'U' voltage is applied to the supply input. After the Toff Period ends, the relay changes its position and the relay LED lights up. The relay remains in the open state until the supply voltage is disconnected. When the supply voltage is restored, the time is reset and counted again. If the set mode is delayed in releasing, the relay LED lights up when the voltage 'U' is applied to the supply input, the relay immediately pulls out and starts counting the 'Tone' time. At the end of the tone time, the relay releases and the relay remains closed until the supply voltage is switched off. When the power is cut off, the counted time is reset.

The info LED feature is available on the ZMN03 and ZMN04 models. The Info LED helps to set the time. If any of the potentiometers are in the critical zone when the first energy arrives, the info LED will turn on and off until any potentiometer changes. When there is a change in any of the potentiometers, the info LED starts working for the potentiometer where there is a change, If the set potentiometer value is not in the critical zone, the LED lights up, if it is in the critical zone, the LED turns off.

Selection Table:

Product Model	ZMN03	ZMN04
Time Range	0.1sec-30hours	0.1sec - 999 min
Pull Delayed	√	√
Drop Delayed	√	√
Contact Output	1C/O, 5A, 1250 VA	1C/O, 5A, 1250 VA
24 V AC/DC	√	√
220 V AC	√	√
DIN I Box	√	√

Table:3

Time Account:

For ZMN03:

$$t = \frac{5}{10} \times 10sn = 5sn$$

(Multiplier: 5/10; Time Scale: 10sn)

For ZMN03:

X10	X1	X0.1	Mod	Set time
5	3	9	1s	53.9 seconds
5	3	9	10s	539 seconds
5	3	9	1m	53.9 Minutes
5	3	9	10m	53.9 Minutes

Table:4

Function Diagram:

� symbol	Relay Voltage
U	Source Voltage
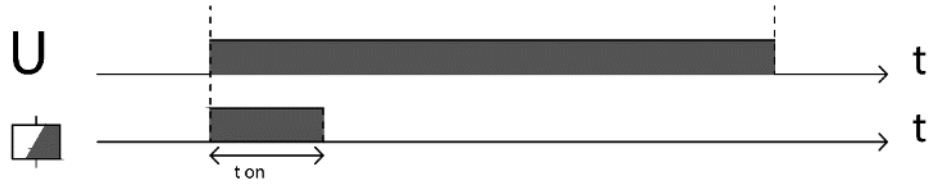
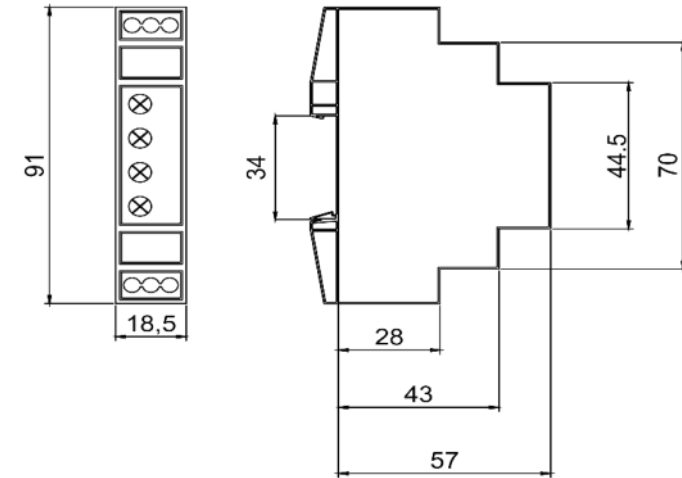## Connection Diagram:

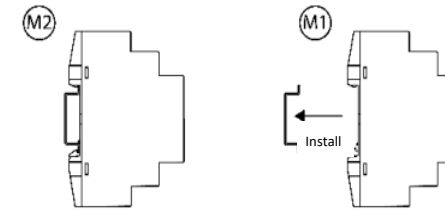(180-280 V AC)

(18-28 V AC/DC)
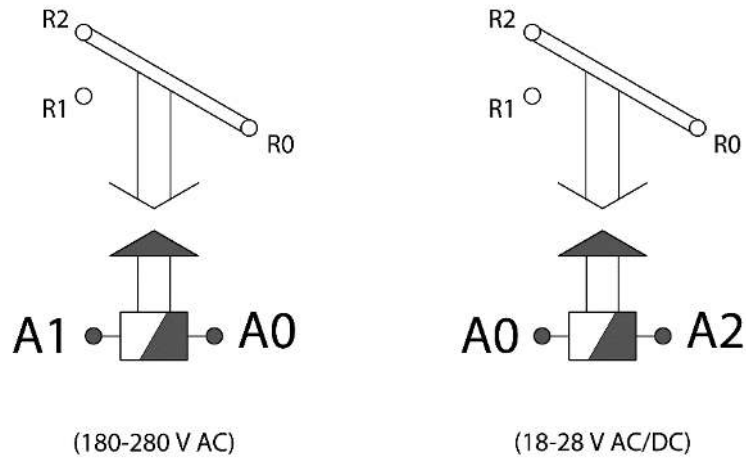
Product Size(mm):

Product Installation:

Time Relay Installation

Time Relay Disassembly