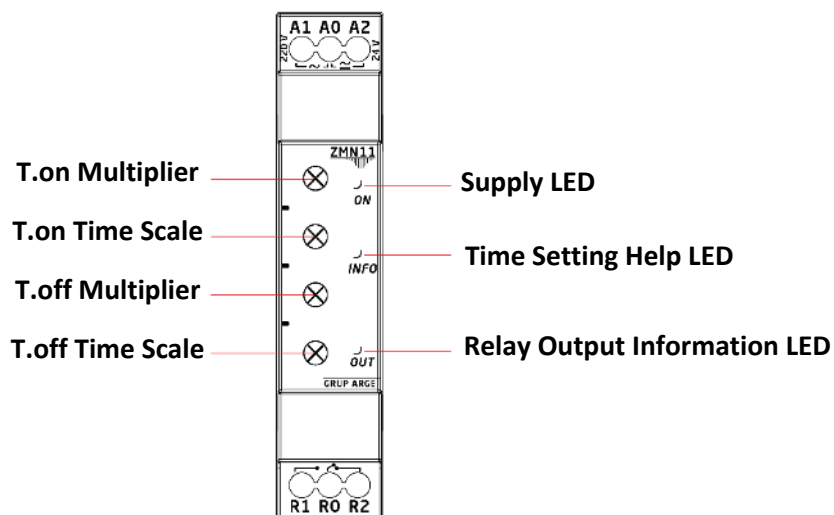
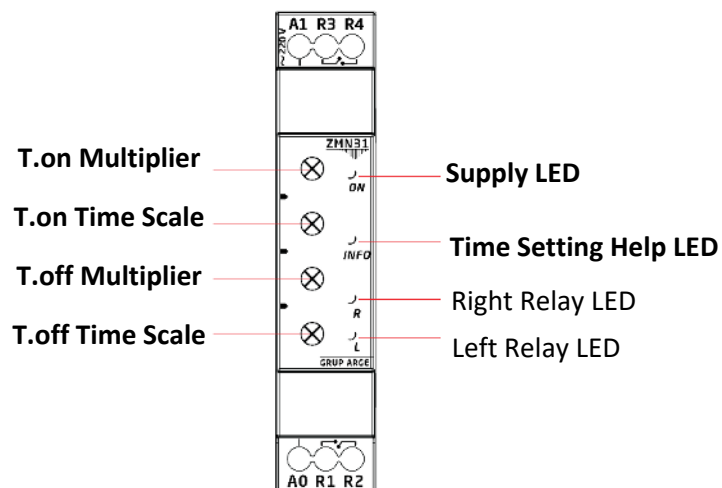


## LED Descriptions:

### For ZMN11:



### For ZMN31:



## LED Descriptions:

	<b>ON</b>	Indicates that energy is present. It also lights up when the potentiometer changes.
	<b>INFO</b>	When the potentiometer is adjusted, if the time value is set correctly, it lights up, if it remains in the unstable area, it turns off.
	<b>OUT / R / L</b>	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) (ZMN11)	18-28 V AC/DC 180 - 280 V AC
Operating Voltage (Un) (ZMN31)	180 - 280 V AC
Operating Frequency	50 / 60 Hz.
Time Range	0.1 sec-30 hours.
Relay Output (ZMN11)	1C/O, 5A, 1250 VA
Relay Output (ZMN31)	2N/O, 5A, 1385 VA
Adjustment Type	Potentiometer
Indicator (ZMN11)	3 pieces LED
Indicator (ZMN31)	4 pieces LED
Ambient Temperature	-5°C ; +50°C
Protection Class	IP20
Connection	DIN rail mounting

Table:2



## Use of the Device:

### ZMN11 and ZMN31 Time Relays;

The ZMN31 Model works as a right-left relay. The ZMN31 Right-Left Relay works as an off start. The relay starts counting the Toff time when the supply voltage arrives, at the end of the time, the right relay pulls out and remains pulled until the Tone time. At the end of the tone time, the toff time starts counting, and at the end of the toff time, the Left relay pulls out, and this process continues periodically. If the Tone and Toff times are changed with the potentiometers during operation, this change is detected and the operation continues according to the new time values.

ZMN11 model works as a flasher relay. The device operates as constant off start. If required, it is possible to operate as on start by using the other end of the relay. When the device is the first energy comes to the device, it starts counting the set Toff time, at the end of the Toff time, the relay pulls the relay and starts counting the Tone time. At the end of the Ton time, the relay releases and starts counting the Toff time again and this process continues periodically until the power is cut off. During operation, the time can be changed with the potentiometers and the operation continues according to the new set time.

ZMN11 and ZMN31 models have info LED feature. The info LED helps time adjustment. If any of the potentiometers is in the critical area when the first energy is applied, the info LED will turn on until any potentiometer changes. When there is a change in any of the potentiometers, the info LED starts to work for the potentiometer with the change. If the set potentiometer value is not in the critical area, the LED turns on, if it is in the critical area, the LED turns off.

## Selection Table:

Product Model	ZMN11	ZMN31
Time Range	0.1sec-30hours	0.1sec-30hours
Open Flasher	√	
Off Flasher	√	
Symmetrical Flasher	√	
Right-Left		√
Contact Output	1C/O, 5A, 1250 VA	2N/O, 5A, 1385 VA
24 V AC/DC	√	
220 V AC	√	√
DIN I Box	√	√

Table:3

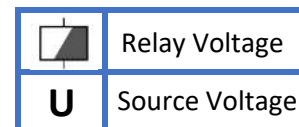
## Time Account:

$$t = \frac{\text{Multiplier}}{\text{Time Scale}} \times \text{Time Scale} = 5 \text{sn}$$

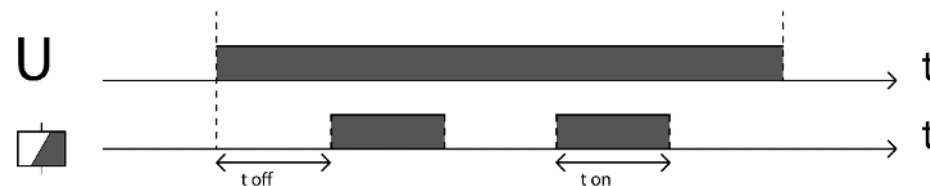
Multiplier

Time Scale

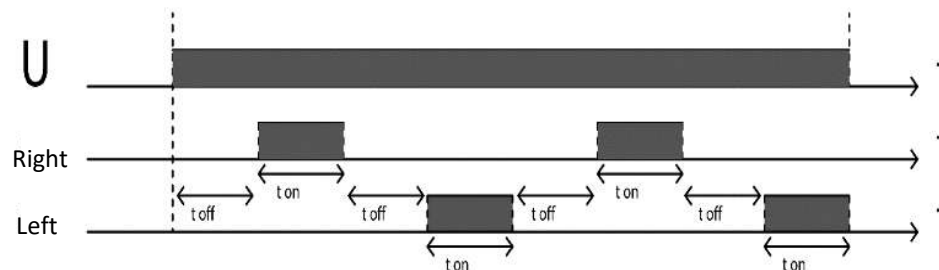
## Function Diagram:



### For ZMN11:

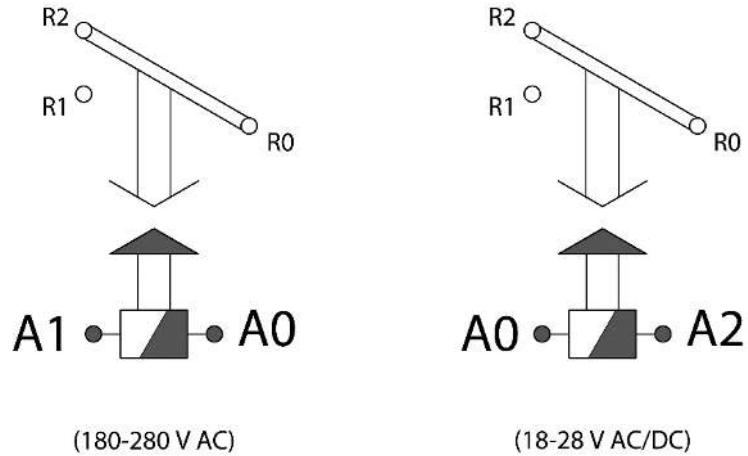


### For ZMN31:

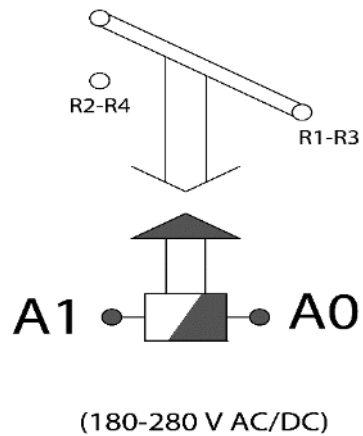


Connection Diagram:

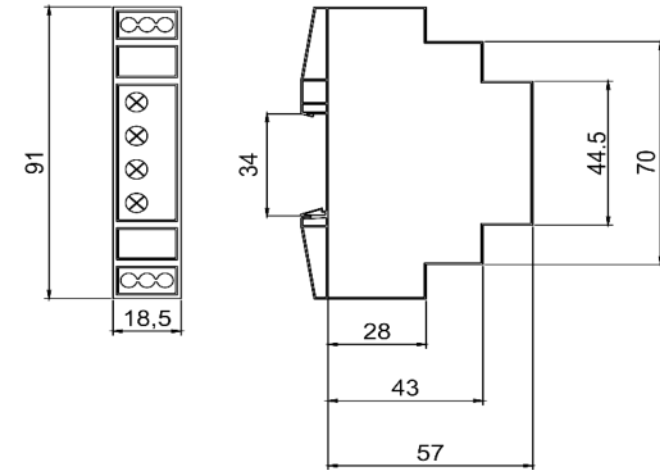
For ZMN11:



For ZMN31:

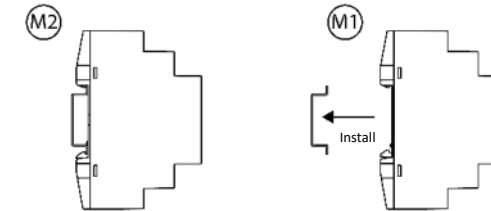


Product Size(mm):



Product Installation:

Time Relay Installation



Time Relay Disassembly

