

## SAFETY PRECAUTIONS

1. The device must be installed by a qualified person,
2. Disconnect all power before working on the device. Don't touch any terminal when the power is ON.
3. Verify correct terminal connection when wiring.
4. Don't dismantle or repair the device whether it operates normally, otherwise no responsibility is assumed by producer and seller.
5. Never use the device at the site which can be invaded by corrode gas, strong sunshine light and rain.
6. Clean the device with a dry cloth.
7. Fail to follow these instructions will result in serious injury or death.

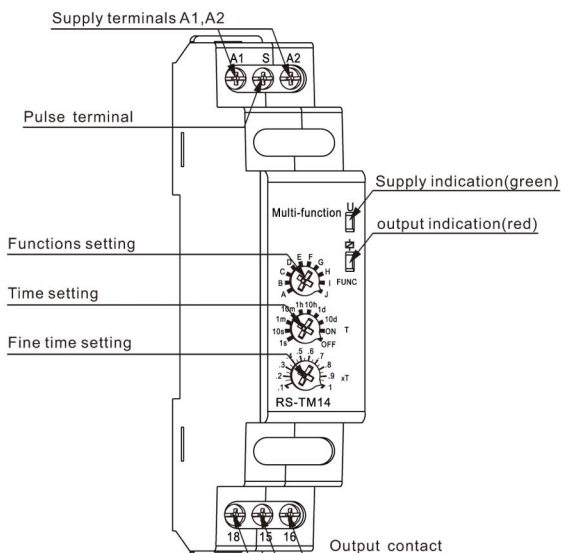
## FEATURES

- Microcontroller based.
- Modular design, 18mm wide housing.
- 10 functions
- 10 time ranges(1s, 10s, 1m, 10m, 1h, 10h, 1d, 10d, ON, OFF)
- Repetition accuracy  $\leq 0.2\%$
- LED indication for supply and output state
- DIN Rail mounting

## TECHNICAL DATA

Models	RS-TM14	RS-TM24	RS-TM34
Supply terminals	A1,A2		
Pulse terminal	S		
Supply voltage	AC/DC 12- 240V		
Rated frequency	50/60Hz		
Time range	0.1s-10days		
Setting accuracy	$\leq 5\%$		
Repetition accuracy	$\leq 0.2\%$		
Output contacts	1 C/O	2 C/O	3 C/O
Current rating	16A/AC1		8A/AC1
Insulation voltage	250V		
Protection degree	IP20		
Pollution degree	3		
Electrical life	$10^5$		
Mechanical life	$10^6$		
Altitude	$\leq 2000m$		
Ambient temperature	$-5^{\circ}C \sim +40^{\circ}C$		
Storage temperature	$-10^{\circ}C \sim +50^{\circ}C$		
Wire size	$0.5mm^2 \sim 1mm^2$		
Torque	0.5Nm		
Mounting	TH-35 DIN-Rail		

## APPEARANCE

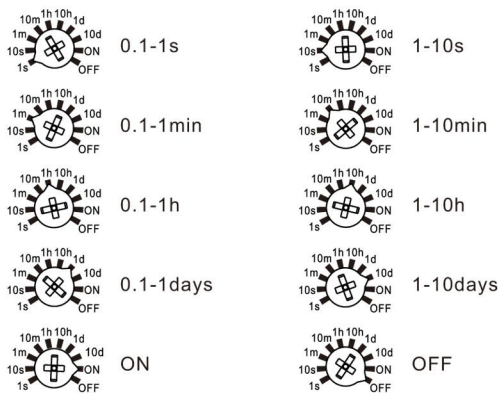


# RS-TM SERIES

## MULTIFUNCTION TIME RELAY

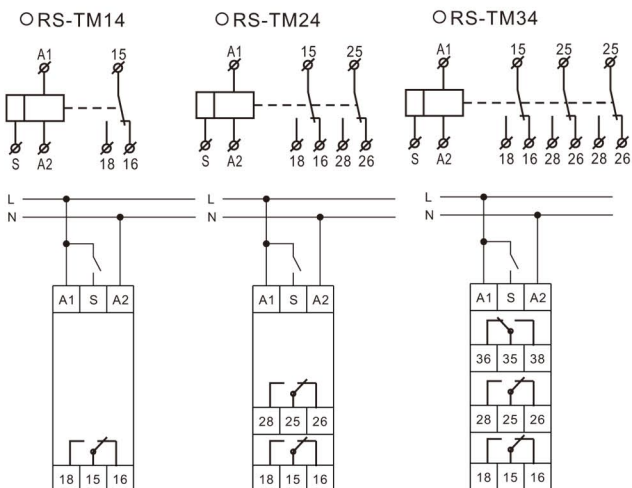
Please read complete instructions prior to installation and operation of the device.

### TIME RANGE

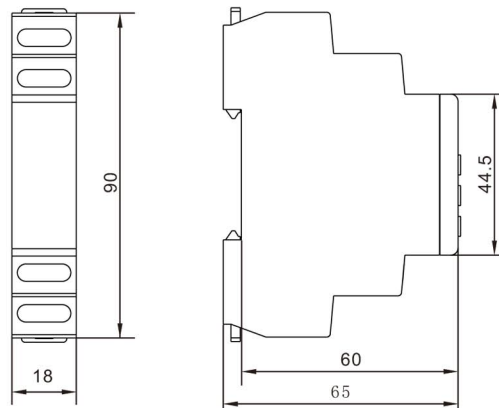


		<b>Time adjustment:</b> $t = 10m \times 0.3 = 3min$
		<b>Time adjustment:</b> $t = 1d \times 0.7 = 0.7day$





















### WIRING DIAGRAM



### DIMENSIONS



**FUNCTION DIAGRAMS**

A			<p>SWITCH ON DELAY - after the supply voltage has been applied the time <math>t</math> measurement starts. After the time is over the relay switches on (pos.15-18). The next switch on interval appears after power supply voltage reset.</p>
B			<p>SWITCH OFF DELAY - after the supply voltage has been applied, the relay switches on immediately (pos.15-18), and the preset time <math>t</math> is measured. After the preset time <math>t</math> has been measured, the output relay returns to the initial state (pos.15-16).</p>
C			<p>FLASHER STARTING WITH OFF - (Starting from the switch off position). After the supply voltage has been applied, the preset time <math>t</math> is measured. After the time <math>t</math> is over, the relay switches on (pos.15-18) and the preset time <math>t</math> is measured once more. After the preset time <math>t</math> is over, the output relay returns to the initial state (pos.15-16), and the next operating cycle of the relay starts. The relay operates until the supply voltage is removed.</p>
D			<p>FLASHER STARTING WITH ON - (Starting from the switch on position). After the supply voltage has been applied, the relay is switched on immediately (pos.15-18) and the preset time <math>t</math> is measured. After the time <math>t</math> is over, the relay switches off (pos.15-16) and the preset time <math>t</math> is measured once more. After the preset time <math>t</math> is over, the relay <math>R</math> returns to the initial state, and the next operating cycle of the relay starts. The relay operates until the supply voltage is removed.</p>
E			<p>DELAY IMPULSE GENERATION 0,5 s - after the supply voltage has been applied the time measure <math>t</math> starts. After the time is over the relay switches on (pos. 15-18) for 0,5s, and switches off (pos.15-16). The next switch on interval appears after power supply voltage reset.</p>
F			<p>TIME IMPULSE RELEASED BY RISING EDGE - after the impulse release has been applied to the powered system (rising edge) it switches on the relay (pos. 15-18), and starts to measure the preset time. After the time <math>t</math> is over the relay switches off (pos.15-16). Impulse time duration is not important here.</p>
G			<p>TIME IMPULSE RELEASED BY FALLING EDGE - powered system switches on the relay after impulse release fades (falling edge)(pos. 15-18) and time measurement starts. The relay is switched off after time <math>t</math> is over. The following impulse release fades during time measurement does not cause time measure from the beginning (non-retriggerable).</p>
H			<p>SWITCH ON/OFF DELAY - after the impulse release has been applied to the powered system (rising edge) let the relay be switched off (pos.15-16), at the same time, starts the preset time <math>t</math> measurement. After the time is over the relay is switched on (pos. 15-18). After the impulse release fade is detected (falling edge), the system starts preset time measurement again after it is over the relay is switched off (pos.15-16). In case the impulse duration is shorter than the preset time <math>t</math> the relay is switched on for the <math>t</math> time only</p>
I			<p>LATCHING RELAY - supply voltage <math>U</math> must be applies continuously. Output changes state with every trigger switch <math>s</math> closure. If supply voltage <math>U</math> is removed, relay contacts return to their shelf state.</p>
J			<p>TIME IMPULSE RELEASED BY RISING EDGE WITH SWITCH OFF DELAY (retriggerable) - after the impulse release has been applied to the powered system (rising edge) it switches on the relay (pos. 15-18). After the impulse release fade is detected (falling edge), the system starts preset time measurement again and when it is over the relay is switched off (pos.15-16). The following impulse release fade during time measurement causes from the beginning(retriggerable).</p>