



SPECIFICATIONS

SUPPLY

Voltage	230V AC ± 10%
Frequency	50-60Hz
Power Consumption	Approx. 9 Watts at 252 VAC
Battery Backup (Replaceable by user)	TS2M1-1-16A-230V : 10 years TS1W1-1-20A-230V : 10 years

RELAY OUTPUT

Type of contact	TS2M1-1-16A-230V : 1C/O (SPDT) TS1W1-1-20A-230V : 1NO & Neutral
Contact rating (resistive load)	TS2M1-1-16A-230V : 16A (NO) & 16A (NC) @ 250V AC TS1W1-1-20A-230V : 20A (NO) @ 250V AC
Contact material	AgSnO ₂
Max. Switching Current	TS2M1-1-16A-230V : 16A TS1W1-1-20A-230V : 20A
Electrical life	TS2M1-1-16A-230V : 5x10 ⁶ Operations TS1W1-1-20A-230V : 1x10 ⁷ Operations
Mechanical life	1x10 ⁷ Operations

FUNCTIONAL

Operation Period	1 week
Weekly Program	Total 50 ON Steps and 50 OFF Steps 2 Programs x 25 steps 3 Programs x 16 steps 4 Programs x 12 steps 5 Programs x 10 steps 6 Programs x 08 steps 7 Programs x 07 steps 8 Programs x 06 steps
Display	Text LCD (Without Backlight)
Character Height	5.07mm(HH:MM) & 3.39mm(SS)
Minimum setting unit	1 second
Holiday Settings	16 Dates max.
Clock	12-hr(AM/PM) and 24-hr selection
Keys	5 Keys with 1 recessed reset button
Relay Operating Mode	Auto / Permanent Override ON / Permanent Override OFF
RTC accuracy	15 mins a year @ 25°C

ENVIRONMENTAL

Temperature Range	Operating : 0° to 50°C
	Storage : -20° to 70°C
Humidity	10% to 95% RH
Protection class	II

MECHANICAL : TS2M1-1-16A-230V

Mounting	Din Rail
Type of connection	Terminal screw-16A rating
No of Terminals	5 (L, N, NO, COM, NC)
Dimensions	60mm x 35mm x 90mm
Type of protection	IP20
Weight	105 g

MECHANICAL : TS1W1-1-20A-230V

Mounting	Wall Mount
Type of connection	Pin Type - 20A rating
No of Terminals	4 (LOAD, NEUT, LINE, NEUT)
Dimensions	60mm x 60mm x 48.50mm
Type of protection	IP20
Weight	100 g

ORDER CODE INFORMATION

Product	Certification	
	CE	cULUS LISTED
TS2M1-1-16A-230V	—	—
TS1W1-1-20A-230V	—	—
TS2M1-1-16A-230V-CE	✓	—
TS1W1-1-20A-230V-CE	✓	—

SAFETY PRECAUTIONS

All safety related codifications, symbols and instructions that appear in this operating manual or on the equipment must be strictly followed To ensure the safety of the operating personnel as well as the instrument.

If the equipment is not used in manner specified by the manufacturer it might impair the protection provided by the equipment. If there is physical damage to the unit then do not use it.

Read complete instructions prior to installation and operation of the unit.

The timer functions and set program are backed up by a battery. If the life of the battery expires, the display will become irregular or may fail to function. The battery can be replaced by the user. Contact your SELEC representative before doing so.

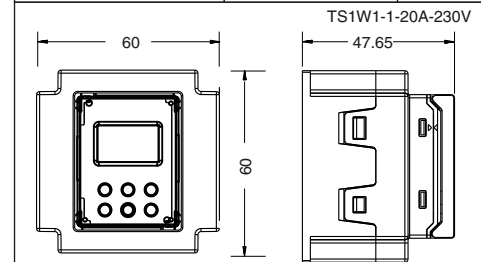
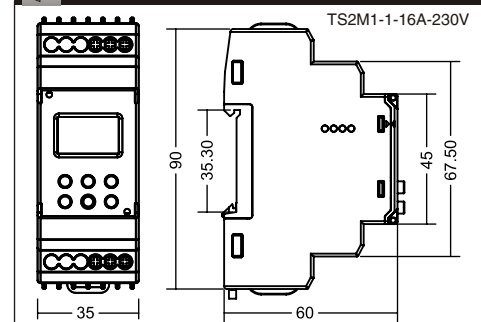
Serious injury may occasionally occur due to fire or explosion of a battery, or leakage from a battery. Never attempt to short the positive and negative terminals, recharge, disassemble, deform by applying excessive pressure, or expose the battery to fire.

CAUTION :
1. This equipment, being built-in-type, normally becomes a part of main control panel and in such case the terminals do not remain accessible to the end user after installation and internal wiring.

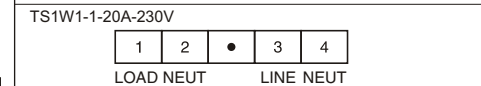
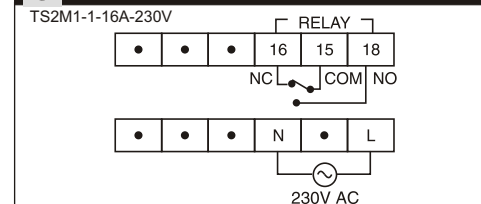
2. Conductors must not come in contact with the internal Circuitry of the equipment or else it may lead to a safety hazard that may in turn endanger life or cause electrical shock to the operator.
3. Circuit breaker or mains switch must be installed between power source and supply terminals to facilitate power 'ON' or 'OFF' function. However this switch or breaker must be installed in a convenient position normally accessible to the operator.
4. Inductive loads should be equipped with interference suppressors like varistors, RC snubbers.
5. Use of contactors is recommended if load exceeds the contact rating.

- WARNING :**
1. To prevent risk of electric shock power supply to the equipment must be kept OFF while doing to the wiring arrangement. Use lugged terminals to Meet M3 screws.
 2. Wiring shall be done strictly according to the terminal layout with shortest connections. Conform that all connections are correct.
 3. To eliminate electromagnetic interference use of short wire with adequate ratings and twists of the same in equal size shall be made.

MECHANICAL INSTALLATION



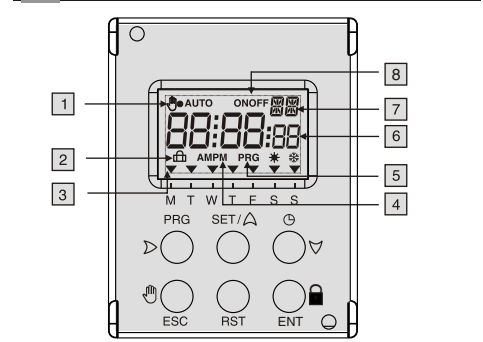
TERMINAL CONNECTIONS



OPERATION FUNCTIONS

FUNCTION	DESCRIPTION
Adjusting Clock	Allows current date & time settings through day, hrs (24-hr indication and 12-hr indication), minutes, seconds settings
Weekly Timer Operation	Controls the output according to the set time of ON and OFF for specified days of the week
Holiday setting	Sets holidays without having to revise the existing program. Can be set 0 to 16 dates max.
Permanent Override ON / Permanent Override OFF	Allows the output to be forcibly turned ON/OFF regardless of the control output setting.
Keypad Lock	Allows each key to lock / unlock. When key is locked programming parameters of that key cannot be edited.
Programmable No of steps	Allows to modify No of steps per program (Minimum Value = 6, Maximum Value = 25)
Enable / Disable program	Allows to enable / disable particular program

FRONT PANEL DESCRIPTION



1	Auto : Automatic mode
2	Holiday
3	Day of Week indication
4	AM/PM Indication
5	PRG Mode indication (when in programming mode only)
6	Hours/minutes/seconds indication (HH:MM:SS)
7	LB → Lock All & Battery mode L → Lock All & Auxiliary mode B → Unlock All & Battery mode
8	Relay ON/OFF indication



(Specifications are subject to change, since development is a continuous process.)

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