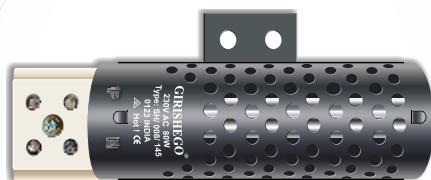




GIRISHEGO®
Electric Panel Heating & Controlling Solutions

SPACE HEATERS & THERMOSTATS



For Panel Board & Switchgear Industries

SPACE HEATERS (Perforated Body)

For Panel Boards & Switchgear Industries

(SH, SH/SS, SHIL)

- Perforated cover for protection
- Quick and uniform heating
- Withstands mechanical shock and vibration
- Very good insulation resistance



'GIRISHEGO' Range of Space Heaters are ideal for prevention of condensation, corrosion & Leakage currents in L.T. & H.T. Switchgear panel boards / electronic instruments & panels etc.

WORKING PRINCIPLE & FEATURES: The specially developed design incorporates a stainless steel sheathed cartridge heating element in perforated sheet metal enclosure. A black powder coated finish ensures rapid heat dissipation. A 2 x 2.5 mm² porcelain terminal block is provided for electrical connection. Mounting Holes are provided at one side.

Each heater is tested for following specific tests.

- 1) High Voltage Test At 2Kv/1Min
- 2) Insulation Resistance > 10 Mega Ohms.
- 3) Power Rating within ± 5%.

INTENDED USE: Prevention of condensation, corrosion, Leakage currents in L.T. & H.T. Switchgear panel boards / electronic instruments & panels etc.

INSTALLATION: Two Holes of Ø7mm are provided for mounting on one side of the heater. Installation can be done in vertical or horizontal position although horizontal mounting is preferred. Distance from surface of panel should be at least 10mm and distance from plastic parts should be at least 50mm. Connection wire must be on the side or below to avoid warming up of the wire.

REMARK: It is recommended to use a 'GIRISHEGO' thermostat to control the heater.

SPACE HEATERS (Perforated Body)

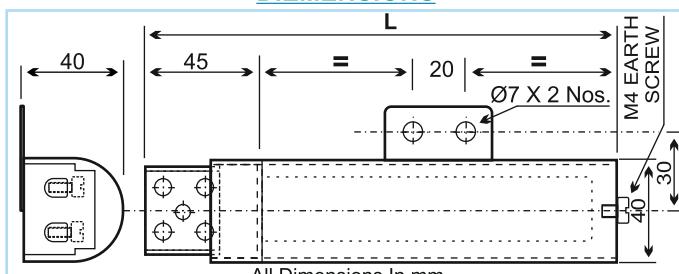


SPACE HEATERS (Perforated Body)

TECHNICAL DATA:

Heating Element	: Invariable Resistor (SS sheathed Cartridge Heater)
Heating Body	: Powder coated Mild Steel Perforated / SS-304 (Optional)
Operating Voltages	: 230Volts AC (also available in 48v,110v,250v & 415v AC)
Available Wattages	: 40Watts To 300Watts
Tolerance on Watts	: ±5% Max @ Rated Voltage
Dielectric Strength	: 2KV for 1 minute
Insulation Resistance	: >10 M ohms
Connections	: 2 Way Porcelain Connector
Terminals	: Suitable for SWG 12 (2.5 Sq.mm) wires
Protection Type	: IP20
Storage Temp.	: -20 to 100°C

DIEMENSIONS



SPACE HEATERS (WITH PERFORATED BODY)

Type No.	Watts (At 230V AC)	Total Length(L)	Standard Packing
SH/004/145	40W	145 mm	25 Nos.
SH/006/145	60W	145 mm	25 Nos.
SH/008/145	80W	145 mm	25 Nos.
SH/010/175	100W	175 mm	25 Nos.
SH/015/235	150W	235 mm	25 Nos.
SH/020/275	200W	275 mm	25 Nos.
SH/025/275	250W	275 mm	25 Nos.
SH/030/275	300W	275 mm	25 Nos.

Also Available in 48V, 110V, 240V & 415V

Also Available:

IN-LINE FIXING HOLES (SHIL)

SS-304 SHEATHING (SH/SS)



BOX TYPE SPACE HEATERS

For Panel Boards & Switchgear Industries

(BOX)

- Bigger surface area for heat dissipation in Aluminum enclosure
- Quick and uniform heating
- Withstands mechanical shock and vibration
- Very good insulation resistance



'GIRISHEGO' Range of Space Heaters are ideal for prevention of condensation, corrosion. Leakage currents in L.T. & H.T. Switchgear panel boards / electronic instruments & panels etc.

WORKING PRINCIPLE & FEATURES: A specially developed design incorporates a high Quality mica insulated heating element in Aluminum enclosure. A 2 x 2.5 mm² terminal block is provided for electrical connection.

Each heater is tested for following specific tests:

- 1) High Voltage Test At 2Kv/1Min
- 2) Insulation Resistance > 10 Mega Ohms.
- 3) Power Rating within ± 5%.

INTENDED USE: Prevention of condensation, corrosion, Leakage currents in L.T. & H.T. Switchgear panel boards / electronic instruments & panels etc.

INSTALLATION: For mounting, two 8mmX17mm oval holes at each end at 180mm center distance are provided. Two screws of M-6 size or Equivalent can be use for installation. Installation can be done in vertical or horizontal position although horizontal mounting is preferred. Distance from surface of panel should be at least 10mm

and distance from plastic parts should be at least 50mm. Connection wire must be on the side or below to avoid warming up of the wire.

REMARK: It is recommended to use a 'GIRISHEGO' thermostat to control the heater.

Box type Space Heater (BOX-)

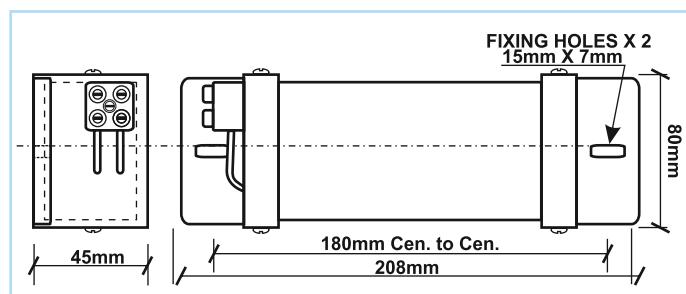


BOX TYPE SPACE HEATERS

TECHNICAL DATA:

Heating Element	: Invariable Resistor (Mica insulated Heating Element)
Heating Body	: Anodised Aluminum enclosure with Thermoset moulded brackets
Operating Voltages	: 240Volts AC (also available in 48v,110v,230v AC)
Available Wattages	: 40Watts To 100Watts
Tolerance on Watts	: ±5% Max @ Rated Voltage
Di-electric Strength	: 2KV for 1 minute
Insulation Resistance	: >10 M ohms
Connections	: 2 Way Porcelain Connector
Terminals	: Suitable for SWG 12 (2.5 Sqr.mm) wires
Protection Type	: IP20
Storage Temp.	: -20 to 100°C

DIEMENSIONS



Also Available: With Aluminum side covers



Type No.	Watts (At 240V AC)	Total Length(L)	Fixing holes Cen-to-Cen	Standard Packing
BOX-40	40W	208mm	180mm	25 Nos.
BOX-60	60W	208mm	180mm	25 Nos.
BOX-80	80W	208mm	180mm	25 Nos.
BOX-100	100W	208mm	180mm	25 Nos.

Also Available in 48V, 110V & 230V

ALUMINIUM SPACE HEATERS

For Panel Boards & Switchgear Industries
 (SAL, SAL/C, SALM, SALM/C, SALS, SALS/C Models)

- Aluminum body for fast dissipation of heat into air
- Quick and uniform heating
- Withstands mechanical shock and vibration
- Very good insulation resistance
- Elevated body for easy passage of heat



'GIRISHEGO' Aluminium Space Heaters are ideal for prevention of condensation, corrosion, Leakage currents in L.T. & H.T. Switchgears, Panel boards / electronic instruments & panels etc

WORKING PRINCIPLE & FEATURES: Body is made of anodized heat sink grade extruded aluminium for fast dissipation of heat into air. High quality resistance heating element is insulated with mica for optimum insulation even in extreme humid conditions. Resistance element and insulation are held tight in between aluminium parts and squeezed for quick and uniform heating. Heater can withstand much higher degree of mechanical shock and vibration. Elevated body provides for easy passage of heat directly to air, without heating panel body. An optional Perforated cover made of Powder coated M.S. sheet can be provided for extra safety.

INTENDED USE: Prevention of condensation, corrosion, Leakage currents in L.T. & H.T. Switchgear panel boards, enclosures, switch boards, & electronic instruments etc.

INSTALLATION: In END FIXING type model one fixing oval holes of 6.5mmX22.5mm and two 6.5mm Holes are provided at each end. In SIDE & MIDDLE FIXING type models one fixing oval hole of 6.5mmX22.5mm and Two 6.5mm Holes are provided in a bracket at Side / Middle of the heater. Installation can be done in vertical or horizontal position although horizontal mounting is preferred. Distance from surface of panel should be at least 10mm. and distance from plastic parts should be at least 50mm. Connection wire must be on the side or below to avoid warming up of the wire.

REMARK: It is recommended to use a 'GIRISHEGO' thermostat to control the heater.

End Fixing Type (SAL)



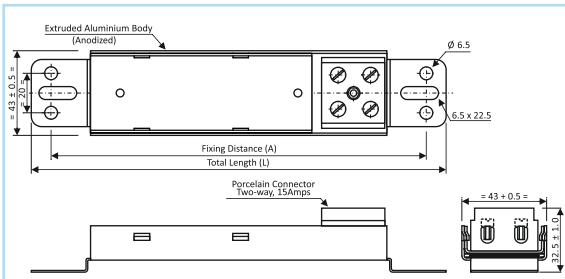
2 KV.
HIGH VOLTAGE
TESTED

CE

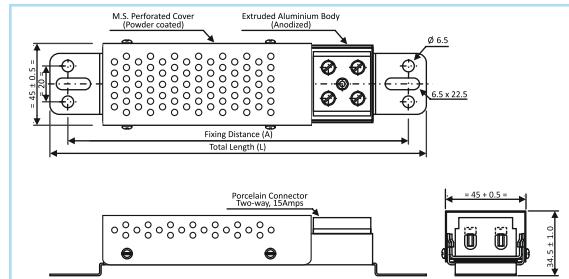
End Fixing Type with Cover (SAL/C)



DIEMENSIONS



DIEMENSIONS



ALUMINIUM SPACE HEATERS

TECHNICAL DATA:

Heating Element	: Invariable Resistor
Heating Body	: Anodised extruded Aluminum
Cover (Optional)	: Powder coated Mild steel Perforated.
Mounting	: End Fixing / Side Fixing / Middle Fixing Bracket with Ø6.5mm holes & 6.5x22.5mm slots
Operating Voltages	: 230Volts AC (also available in 24v,48v,110v, 240v & 250v)
Available Wattages	: 25Watts To 250Watts
Tolerance on Watts	: ±5% Max @ Rated Voltage
Di-electric Strength	: 2KV for 1 minute
Insulation Resistance	: >10 M ohms
Connections	: 2 Way Porcelain Connector
Terminals	: Suitable for SWG 12 (2.5 Sqmm) wires
Protection Type	: IP20
Storage Temp.	: -20 to 100°C

End Fixing Type (SAL) & with Cover (SAL/C)

Type No. (Without Cover)	Type No. (With Cover)	Watts (At 230V AC)	Total Length(L)	Fixing Hole C-to-C(A)	Standard Packing
SAL/003/240	SAL/C/003/240	30W	240 mm	220 mm ±6	25 Nos.
SAL/004/240	SAL/C/004/240	40W	240 mm	220 mm ±6	25 Nos.
SAL/005/210	SAL/C/005/210	50W	210 mm	190 mm ±6	25 Nos.
SAL/006/210	SAL/C/006/210	60W	210 mm	190 mm ±6	25 Nos.
SAL/008/210	SAL/C/008/210	80W	210 mm	190 mm ±6	25 Nos.
SAL/010/240	SAL/C/010/240	100W	240 mm	220 mm ±6	25 Nos.
SAL/012/240	SAL/C/012/240	120W	240 mm	220 mm ±6	25 Nos.
SAL/015/270	SAL/C/015/270	150W	270 mm	250 mm ±6	25 Nos.
SAL/018/300	SAL/C/018/300	180W	300 mm	280 mm ±6	25 Nos.
SAL/020/300	SAL/C/020/300	200W	300 mm	280 mm ±6	25 Nos.
SAL/025/330	SAL/C/025/330	250W	330 mm	310 mm ±6	25 Nos.

Also Available in 24V, 48V, 110V, 120V, 220V, 240V & 250V

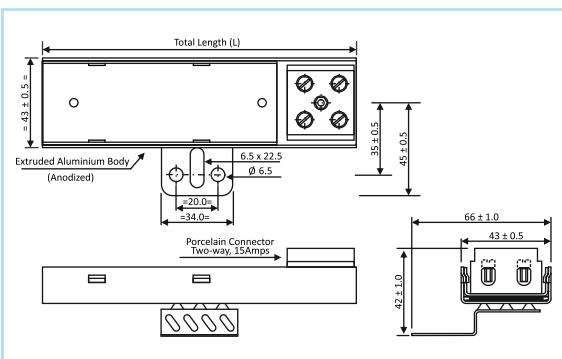


Middle Fixing Type (SALM)



CE

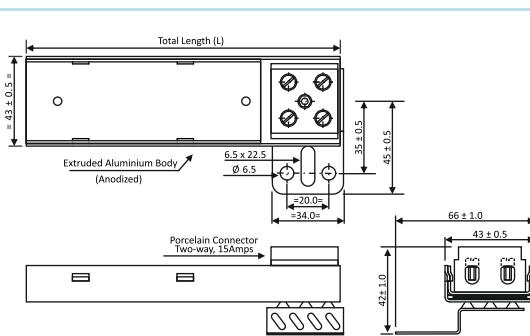
DIEMENS



Side Fixing Type (SALS)

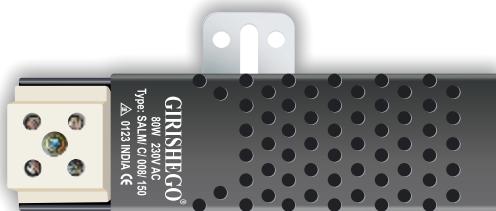


DIEMENS

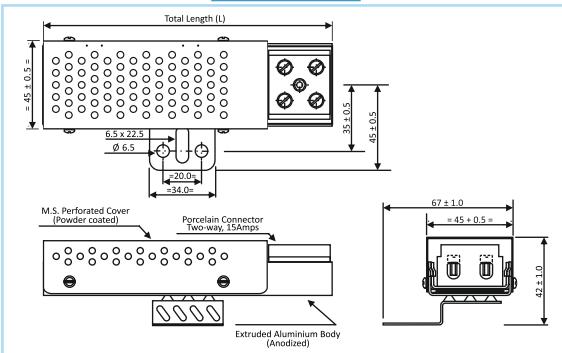


* Mounting Bracket can be provided in LEFT or RIGHT side of the heater

Middle Fixing Type with Cover (SALM/C)



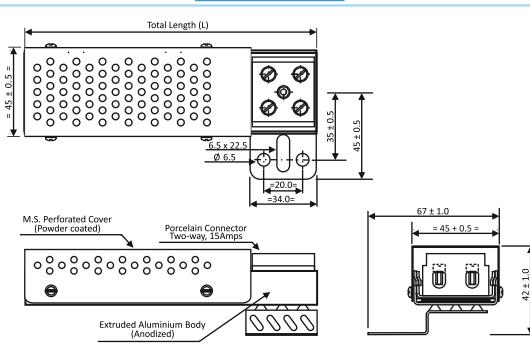
DIEMENS



Side Fixing Type with Cover (SALS/C)



DIEMENS



Middle Fixing (SALM) & with cover (SALM/C) Side Fixing (SALS) & with Cover (SALS/C)

Type No. (With middle Brkt)	Type No. (Middle Brkt with Cover)	Type No. (With side Brkt)	Type No. (Side Brkt with Cover)	Watts (At 230V AC)	Total Length(L)	Standard Packing
SALM/003/180	SALM/C/003/180	SALS/003/180	SALS/C/003/180	30W	180 mm	25 Nos.
SALM/004/180	SALM/C/004/180	SALS/004/180	SALS/C/004/180	40W	180 mm	25 Nos.
SALM/005/150	SALM/C/005/150	SALS/005/150	SALS/C/005/150	50W	150 mm	25 Nos.
SALM/006/150	SALM/C/006/150	SALS/006/150	SALS/C/006/150	60W	150 mm	25 Nos.
SALM/008/150	SALM/C/008/150	SALS/008/150	SALS/C/008/150	80W	150 mm	25 Nos.
SALM/010/180	SALM/C/010/180	SALS/010/180	SALS/C/010/180	100W	180 mm	25 Nos.
SALM/012/180	SALM/C/012/180	SALS/012/180	SALS/C/012/180	120W	180 mm	25 Nos.
SALM/015/210	SALM/C/015/210	SALS/015/210	SALS/C/015/210	150W	210 mm	25 Nos.
SALM/018/240	SALM/C/018/240	SALS/018/240	SALS/C/018/240	180W	240 mm	25 Nos.
SALM/020/240	SALM/C/020/240	SALS/020/240	SALS/C/020/240	200W	240 mm	25 Nos.
SALM/025/270	SALM/C/025/270	SALS/025/270	SALS/C/025/270	250W	270 mm	25 Nos.

Also Available in 24V, 48V, 110V, 120V, 220V, 240V & 250V

NOTE : The manufacturer reserves the right to change the specification, design & materials of products without prior notice.

'DLX' THERMOSTAT

For Panel Boards & Switchgear Industries

(*DLX, DLX-LB, DLX-L, DLX-LT, DLX-LS Model*)

WORKING PRINCIPLE & FEATURES: 'GIRISHEGO' thermostats are ideal for temperature control of space heaters used in LT & HT switchgear & panel boards etc.

PRINCIPLE OF OPERATION: With temp rise, the principle of differential expansion of brass tube and a Nickel/Iron (inver) Rod is used to actuate a highly accurate snap action micro gap switch, located in the head which makes it keep the temperature constant within the differential i.e. a single pole, single throw, normally closed circuit breaks (opens) on rise of temperature.

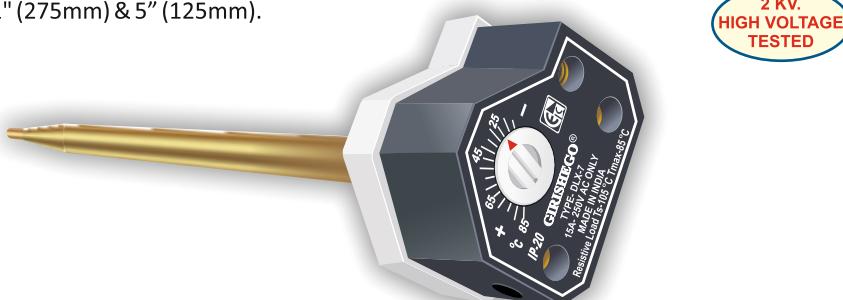
CONSTRUCTION: The micro gap switch assembly is mounted on a heat resistant base, with rigid brass pillar terminals. Heavy duty Ag cdo contacts are provided for long trouble free life. A thermoplastic cover with clear and precise graduations is provided along with a setting knob. Optional bracket with two fixing oval holes of Dia. 5 x 8mm at a center distance of 58mm can be provided. Thermostat can be fixed in any position. These are available in standard stem lengths of 7"(175mm)

INTENDED USE: Temperature control of space heaters used in LT & HT switchgear & panel boards etc.

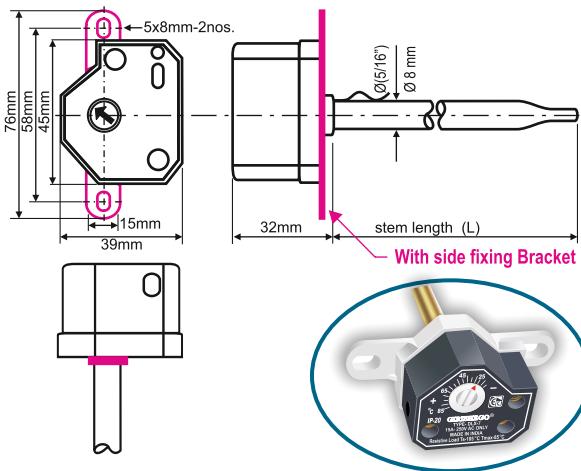
INSTALLATION: A spring steel clip is provided for snap on fixing of Thermostat, Optional bracket with two fixing holes of Dia. 5mm at a center distance of 58mm can be provided. It can be fixed in any position.

ALSO AVAILABLE:

- 1) 48V, 110V & 415V AC,
- 2) Stem length of 11" (275mm) & 5" (125mm).

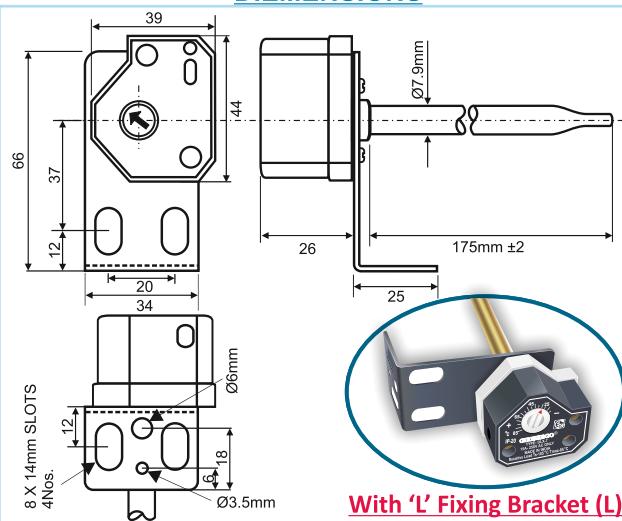


DIEMENSIONS



With Side Fixing Bracket(LB)

DIEMENSIONS



With 'L' Fixing Bracket (L)

TECHNICAL DATA:

Contact Rating	: 250V AC - 15 Amps Max.
Contact Type	: Single Pole Single Throw (SPST)
Function	: Breaks On Temp. Rise, Make On Temp. Fall.
Temp. Range	: 25-85°C, 25-90°C, 25-125°C
Differential	: 3-10C or 5% of the Temperature Range
Material	: Brass, Invar, Nylon, PP, MS
Stem Length	: 175mm (7"), 275mm(11")
On Request	: 100mm(4"), 125mm (5")
Stem Dia	: 7.9mm (5/16")
Adjustment	: Control Knob
Connections	: Pillar Terminals
Mounting	: Spring Steel Clip Or Bracket With Two Fixing Holes / 'L' type Bracket
Max. Head Temp.	: T85
Dielectric Strength	: 2KV
Approvals	: ISI, (On select models)

DLX Model Thermostat 15Amp-250V AC

Model No.	Stem Length(L.)	Temp. Range	Standard Packing
DLX-7	175mm	15-85°C	100 Nos
DLX-7-60	175mm	0-60°C	100 Nos
DLX-7-90	175mm	20-90°C	100 Nos
DLX-7-125	175mm	25-125°C	100 Nos
DLX-4	100mm	20-80°C	100 Nos
DLX-5	125mm	20-80°C	100 Nos
DLX-11	275mm	30-85°C	100 Nos
DLX-11-125	275mm	70-125°C	100 Nos

For bracket type, add at end of model no.

-LB : for side fixing bracket

-L : for 'L' type fixing bracket

-LT : for 'L' fixing bracket on Top side*

-LS : for small 'L' type bracket*

*Contact us for details

ROUND THERMOSTAT

For Panel Boards & Switchgear Industries

(100 series, 200 series, & LB)

WORKING PRINCIPLE & FEATURES: 'GIRISHEGO' thermostats are ideal for temperature control of space heaters used in LT & HT switchgear & panel boards etc.

PRINCIPLE OF OPERATION: With temp rise, the principle of differential expansion of brass tube and a Nickel/Iron (inver) Rod is used to actuate a highly accurate snap action micro gap switch located in the head which makes it keep the temperature constant within the differential i.e. a single pole, single throw, normally closed circuit breaks (opens) on rise of temperature.

CONSTRUCTION: The micro gap switch assembly is mounted on a heat resistant base, with rigid brass pillar terminals. Heavy duty Ag cdo contacts are provided for long trouble free life. A thermosetting / thermoplastic cover with clear and precise graduations is provided along with a setting knob. Optional bracket with two fixing holes of Dia. 5mm at a center distance of 58mm can be provided. Thermostat can be fixed in any position. These are available in standard stem lengths of 7"(175mm)

INTENDED USE: Temperature control of space heaters used in LT & HT switchgear & panel boards etc.

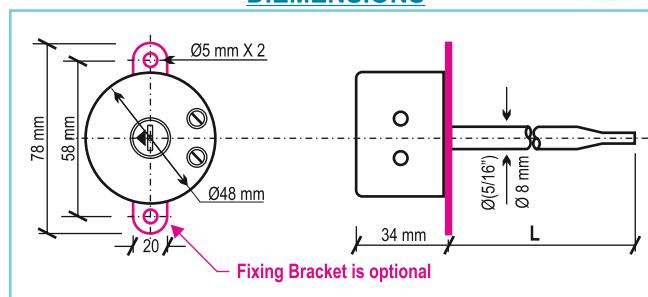
INSTALLATION: A spring steel clip is provided for snap on fixing of Thermostat, Optional bracket with two fixing holes of Dia. 5mm at a center distance of 58mm can be provided. It can be fixed in any position.

ALSO AVAILABLE:

- 1) 48V, 110V & 415V AC,
- 2) Stem length of 11" (275mm) & 5" (125mm).
- 3) Normally open contacts (N.O.C)
- 4) 20 Amp. thermostat
- 5) Preset at fixed temperature



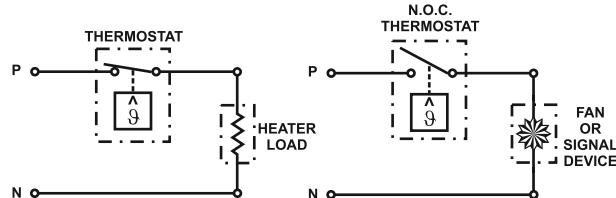
DIEMENSIONS



With Fixing Bracket (LB)



WIRING DIAGRAM



Round Shape Thermostat 15amp-250v Ac

TECHNICAL DATA:

Contact Rating	: 250V AC - 15 Amps Max.
Contact Type	: Single Pole Single Throw (SPST)
Function	: Breaks On Temp. Rise, Make On Temp. Fall.
Temp. Range	: 25-85°C, 0-60°C,
Differential	: 3-10C or 5% of the Temperature Range
Material	: Brass, Inver, DMC, PF, MS
Stem Length	: 175mm (7"), 275mm(11"),
On Request	: 100mm(4"), 125mm (5")
Stem Dia	: 7.9mm (5/16")
Adjustment	: Control Knob
Connections	: Pillar Terminals
Mounting	: Spring Steel Clip Or Bracket With Two Fixing Holes.
Max. Head Temp.	: T85
Dielectric Strength	: 2KV
Approvals	: ISI, CE (On select models)

Model No.	Stem Length(L.)	Temp. Range	Standard Packing
205C	175mm	25-85°C	50 Nos
200C	175mm	0-60°C	50 Nos
208C	175mm	25-125°C	50 Nos
105C	125mm	20-80°C	50 Nos

Standard bracket for type...

205C: for small clip

200C / 208C / 210C / 105C: Big clip

For bracket type, add at end of model no. : -LB for side fixing bracket

For Normal open contacts add at end of the model no. : -NOC

STEM THERMOSTAT

For Appliances & Process Industries

(200 series, 300 series, 400series, GEC, GEO, TCO)

'GIRISHEGO' Range of stem type thermostats are designed to meet a variety of requirements for domestic, industrial and commercial heating systems. Our thermostats come in different shapes and models to suit the individual requirement of application and economy. These are suitable for instant and storage type water heaters, water and oil baths, moulds, sterilizers, ovens, boilers, switchgear and panel boards and other domestic and industrial heating appliances.

PRINCIPLE OF OPERATION: With temp rise, the principle of differential expansion of brass tube and a nickel / iron (inver) Rod is used to actuate a highly accurate snap action micro gap switch located in the head which makes it keep the temperature of liquid or solid, constant within the differential i.e. A Single pole, single throw, normally closed circuit breaks (opens) on rise of temperature.

CONSTRUCTION: The micro gap switch assembly is mounted on a heat resistant base, with brass terminals. Heavy duty Ag cdo contacts are provided for long trouble free life. A thermoplastic/thermosetting cover with clear and precise graduations is provided along with a setting knob. A spring steel clip is provided for snap on fixing of Thermostat. It can be fixed in any position. Thermostats are available in three standard stem lengths 7" (175mm), 11" (275 mm), 18" (450mm) with tube diameter of 5/16" (8mm).

AVAILABLE ON REQUEST:

- 1) Smaller stem lengths of 4" (100 mm) & 5" (125mm)
- 2) Normally Open Contacts. (N.O.C.)
- 3) Preset at fixed temperature
- 4) 20 Amp Thermostat.



Model No.	Stem Length	Temp. Range	Standard Packing	Despatch Packing
ROUND SHAPE THERMOSTAT 15 AMP 250V A.C.				
200-C	175 mm	0-60°C	25 Nos.	100 Nos.
205-C	175 mm	30-85°C	50 Nos.	100 Nos.
208-C	175 mm	25-125°C	25 Nos.	100 Nos.
210-C	175 mm	25-150°C	25 Nos.	100 Nos.
215-C	175 mm	50-200°C	25 Nos.	100 Nos.
305-C	275 mm	25-85°C	25 Nos.	100 Nos.
306-C	275 mm	5-90°C	25 Nos.	100 Nos.
308-C	275 mm	25-125°C	25 Nos.	100 Nos.
310-C	275 mm	25-150°C	25 Nos.	100 Nos.
315-C	275 mm	25-200°C	25 Nos.	100 Nos.
410-C	450 mm	25-150°C	25 Nos.	50 Nos.
"POPULAR" MODEL THERMOSTAT 15 AMP 250V A.C.				
GEC-5	125 mm	20-80°C	100 Nos.	100 Nos.
GEC-7	175 mm	20-80°C	100 Nos.	400 Nos.
GEC-11	275 mm	25-80°C	100 Nos.	400 Nos.
SQUARE (BIG) THERMOSTAT 15 AMP 250V A.C.				
GEO-11	275 mm	30-75°C	25 Nos.	100 Nos.
THERMAL CUT-OUT 20 AMP 250V A.C.				
TCO-7	175 mm	Set at 90°C	100 Nos.	400 Nos.
TCO-11	275 mm	Set at 90°C	100 Nos.	400 Nos.

* 'ISI' & 'CE' marking on selected models

Mfd. & Exported By:



GIRISH EGO CONTROLS

31, Tavawala Bldg., 147, Lohar Chawl, Mumbai-400 002, INDIA.

Tel : 91 22 2206 8032, 2208 3857 Mob : 97692 81724, 98201 57929

E-mail : sales@girishego.com , info@girishego.com , Website : www.girishego.com.

Authorised Dealers :-