INDUSTRIAL THERMOSTAT
ETR

- **SENSITIVE**
- **RUGGED**
- **COMPACT**

Model ETR thermostat for industrial heating control, is manufactured by Indfos, the pioneers of thermostats for HVAC applications in India.

ETR thermostats are meant for use in heating applications such as the temperature control of heating elements in gas heaters electro static precipitators and so on.

ETR thermostats are manufactured to perform in high temperature ambient and prevailing in the industrial units.

The power element assembly that actuates the switching mechanism is a sealed thermal system comprised of a bellows and a temperature sensing bulb and capillary tube. The power element system is filled with a liquid / vapour charge selected for the specific application.

Variations in temperature at the bulb (sensing element), cause changes in the pressure within the power element, which in turn actuate the switching mechanism to open or close the desired electrical circuit.

Potential free changeover contacts rated for 16 Amp, 250 V AC are provided for switching and control purpose.

A graduated scale allows the user to set the actuating temperature accurately. The on-off differential (Dead band) is a fixed minimum value and is essentially constant so that the cut-in value follows the cut-out value within the dead band.

ETR without Thermowell ETR with Thermowell

The entire assembly is housed in an aluminum die cast enclosure weatherproof to IP 65. The thermostat can be mounted horizontally or vertically without any influence on its performance.

The sensing bulb is normally positioned in the stream of hot air or fluid to sense its temperature. Some applications may warrant the bulb or the thermowell to be in contact with metal structure or pipe to sense the temperature.

Thermowells are available in brass or stainless steel to facilitate direct mounting on equipment or pipes.

GENERAL SPECIFICATION

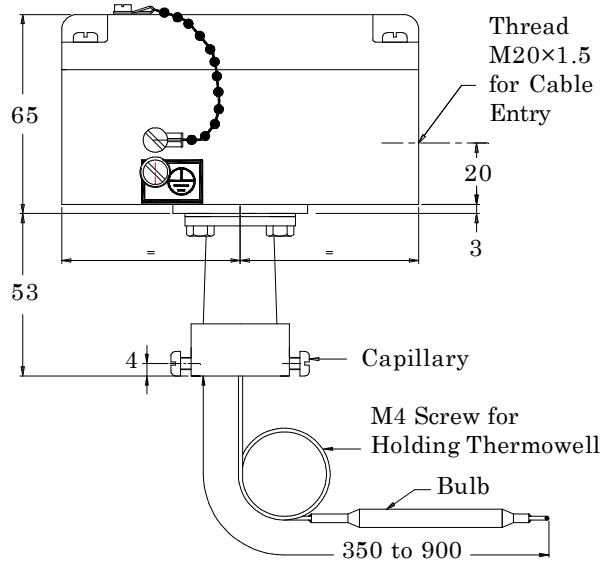
Model	ETR
Enclosure	Aluminum die cast, IP65 to IS 13947, Cat.1
Sensor	Liquid filled thermal system
Sensing bulb	Copper or Stainless Steel
Capillary	Copper or stainless steel
Capillary Length (including bulb)	Standard : 350 to 900 mm. For other lengths consult Sales.
Ranges	Refer Table below

Range Code	Range (°C)	Max. Working Temperature (°C)
0	15 to 95	200
1	50 to 130	
2	70 to 190	230

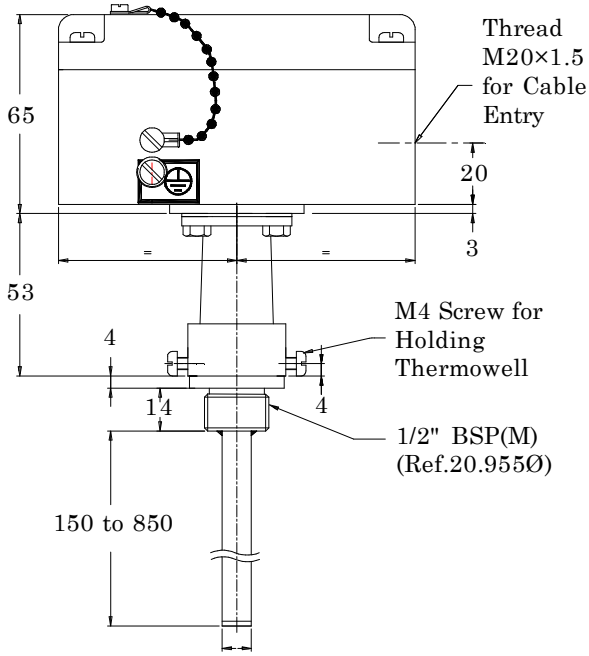
Ambient Temperature	60° C Max.
Dial	Anodized Aluminum, 270 ° over setting range
Set point	Adjustable over the entire range
Setting	Internal knurled knob
Scale Accuracy	± 3% FSR
Repeatability	±1% FSR
Differential	Fixed less than 7°C
Reset	Auto reset
Response time	< 50 secs without thermowell
Switching	Potential free SPDT changeover contacts
Contact rating	16A, 250 V AC
Contact resistance	< 50 m Ohms
High Voltage withstandability	1500 V AC for 1 minute between contacts and body & 1000 V AC between contacts
Insulation resistance	>100 M Ohms at 500 V DC
Process connection	1/2" BSP M or 1/2" NPT M
Cable entry	M20 × 1.5 F
Cable Gland	Nickel plated Brass Double Compression Cable gland standard.
Thermowell	Optional – Brass or 304 SS
Mounting	Vertical or horizontal (switch head shall not face downwards)

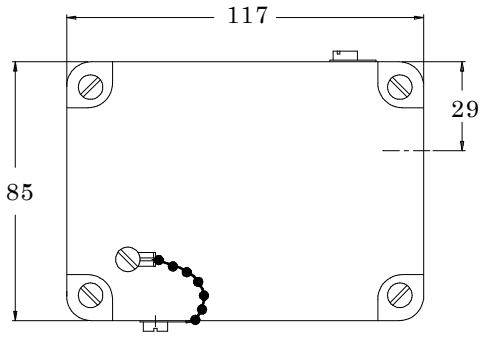
MOUNTING DIMENSIONS

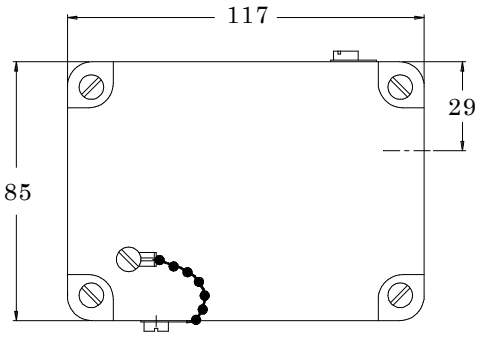
ETR without Thermowell



ETR with Thermowell







All dimensions are in mm

This is not a contractual document. Prior notification of changes in specifications is impracticable due to continuous improvement

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