

Temperature switch

Model ETR

WIKÀ data sheet ETR-00

Applications

- ESP hopper
- Gas heaters

Special features

- Sensitive
- Rugged
- Compact
- Weatherproof to IP:67

Description

Type ETR thermostats are meant for use in heating applications such as the temperature control of heating elements in gas heaters, electro-static precipitators, etc.

ETR thermostats are manufactured to perform in high temperature ambience prevailing in industrial atmosphere.

The power element assembly that actuates the switching mechanism is a sealed thermal system comprised of a bellows (power element) 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.



Fig.top: Industrial thermostat, model ETR without Thermowell

Fig.bottom: Industrial thermostat, model with Thermowell

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 correctly. 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.

General specification

Model

ETR

Enclosure

Aluminum die cast, IP:67 to IS/IEC 60529:2001

Sensor

Liquid vapour filled thermal system

Sensing bulb

- Copper
- Stainless Steel

Capillary

- Copper
- Stainless steel

Capillary Length (including bulb)

Refer Table. For other lengths consult Sales.

Ranges

Refer Table

Ambient Temperature

60 °C maximum

Dial

Anodized Aluminum, 270°C 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

Maximum working temperature

230 °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

Thermowell Connection

- 1/2" BSPM – Standard
- Others – Consult sales

Cable Entry

M20 × 1.5 F

Cable Gland

Nickel plated Brass Double Compression Cable gland standard.

Thermowell

Standard – 316 SS

Optional – Brass or 304 SS.

Please specify the length while ordering.

Mounting

Vertical or horizontal (switch head shall not face downwards)

Table

Model	Range in deg C	Material code	Material capillary and bulb	Standard length (of capillary including bulb)
ETR-1	15 ... 100	S	SS	upto 900 mm
ETR-2	70 ... 190	S	SS	upto 1500 mm
		C	Copper	upto 1500 mm

Ordering

How to order: Select the desired features in the form shown below to arrive at model number:

Model.....Refer table

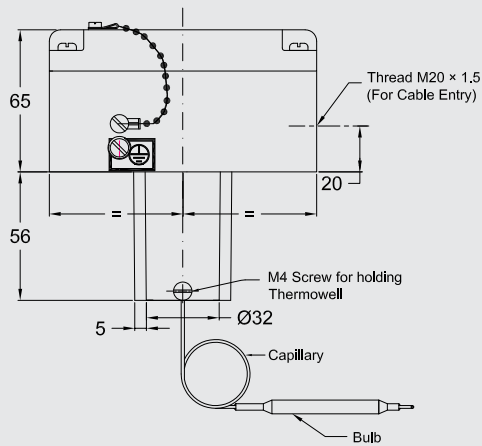
Capillary materialCopper / SS

Capillary lengthRefer table

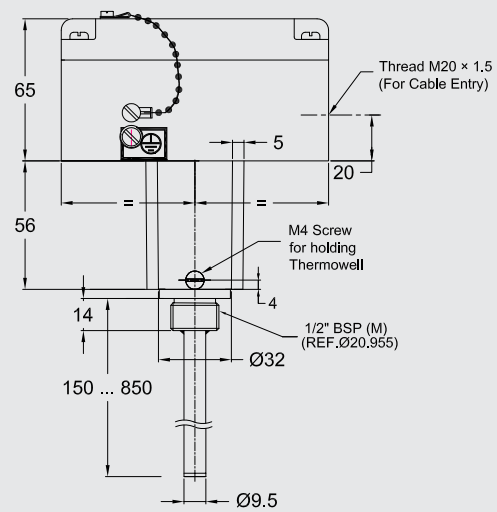
Thermowell length150 ... 850 mm

Dimensions in mm

ETR without Thermowell



ETR with Thermowell



Ordering information

Model / Capillary material / Capillary length / Thermowell length

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