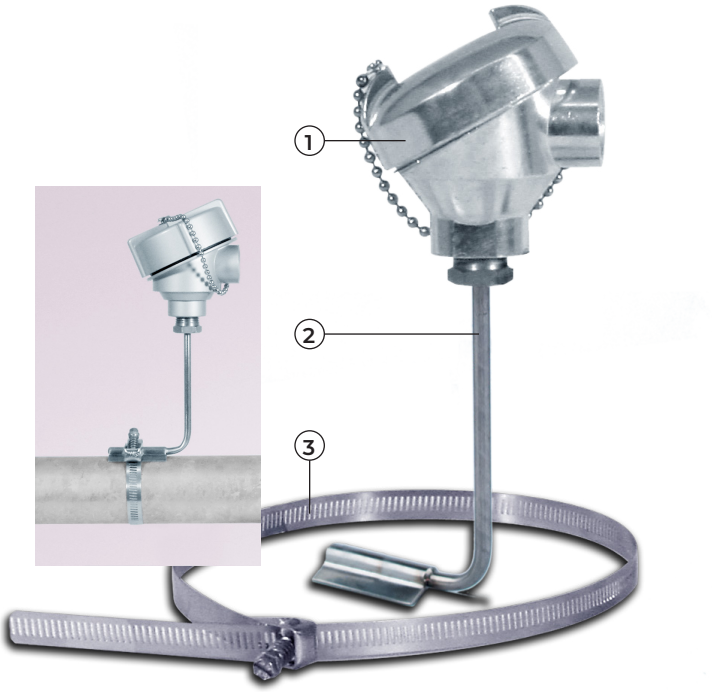
PRODUCT DATASHEET

RTD-100-HT

TEMPERATURE SENSOR



APPLICATION

Electric Heat Tracing Control

The RTD-100-HT is designed for use as control input for freeze protection and temperature maintenance applications requiring pipewall or tankwall temperature sensing.

A cast-aluminum NEMA 4/7 enclosure and terminal block assembly allows ease of field wiring. The sensor housing and mounting pad provide mounting support while ensuring accuracy in temperature sensing.

The RTD-100-HT is suitable for use in heat tracing applications where surface temperatures do not exceed 649°C (1200°F).

RATINGS

Electrical connection.ceramic strip w/brass terminals
Enclosure rating.....NEMA 4/7
Enclosure hub size .....3/4" NPT female hub
RTD leads..... 22 AWG fluoropolymer
RTD type.....3-wire platinum thin film
RTD resistance .....100 ohms at 0°C (32°F)
RTD tolerance
IEC 60751 Class B
Temperature coefficient .....00385 Ohms/Ohms - °C
Maximum sensor temperature..... 649°C (1200°F)
Sensor housing material.....316 stainless steel

Note
1. For additional options or enclosure materials contact Thermon.

CONSTRUCTION

1. Junction Box With Terminal Strip
2. RTD Housing
3. Pipe Strap
B4 = pipe dia. up to 4"
B10 = pipe dia. up to 10"
B21 = pipe dia. up to 21

CERTIFICATIONS/APPROVALS

Canadian Standards Association
The RTD-100-HT is CSA certified for use in North America.
Ordinary Locations
Hazardous (Classified) Locations
Class I, Division 2, Groups A, B, C and D
Class II, Division 2, Groups E, F and G

The RTD-100-HT-D1 (pictured at left) is provided with a cast aluminum explosion proof enclosure and is CSA certified for use in North America.

Ordinary Locations
Hazardous (Classified) Locations
Class I, Division 1, Groups A, B, C and D
Class II, Division 1, Groups E, F and G

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For the Thermon office nearest you visit us at www.thermon.com

Form TEP0084C-0421

PRODUCT DATASHEET

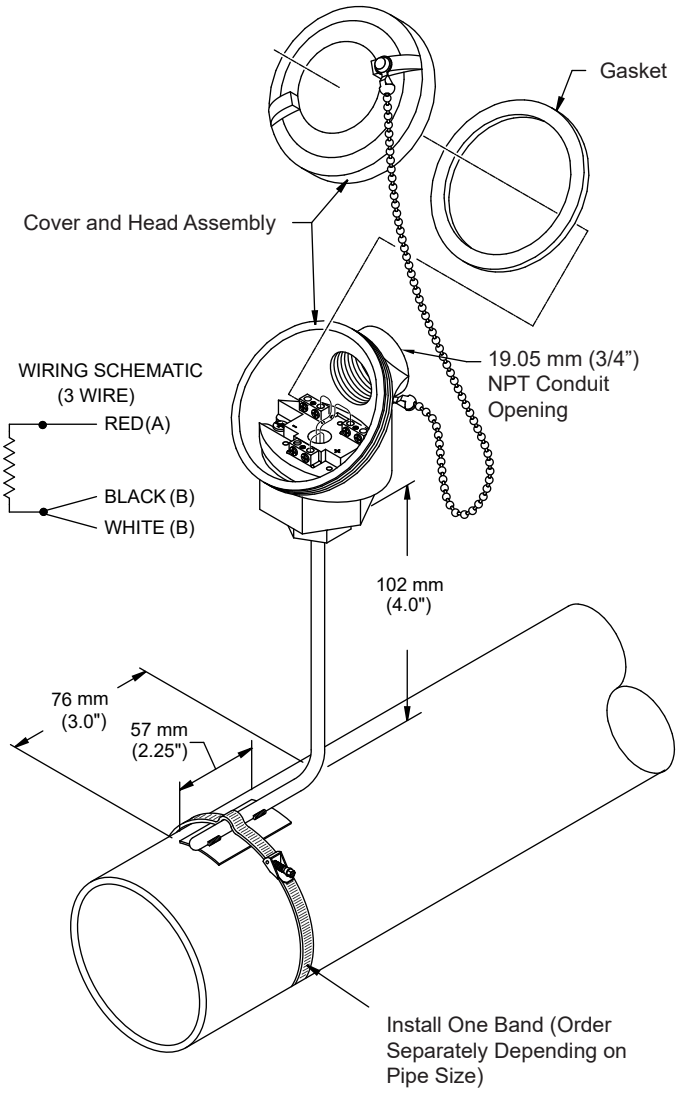
RTD-100-HT

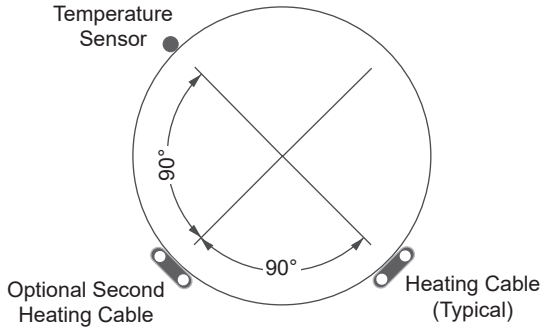
TEMPERATURE SENSOR

The following installation procedures are suggested guidelines for the installation of a Thermon temperature sensor. They are not intended to preclude the use of other methods utilizing accepted engineering or field construction practices. Temperature sensors are used for freeze protection or temperature maintenance of piping, tanks and instrumentation.

TEMPERATURE SENSOR INSTALLATION

1. Upon receipt, check to make sure the proper type has been received.
2. Store in a dry place.
3. Ensure that temperature sensor/junction box combination is suitable for the area classification.
4. Mount the temperature sensor/junction box vertically upright and in a position that will prevent condensation from draining into the enclosure from the connected conduit. **Do not bend sensor or lead. Adequately support conduit leading to enclosure.**
5. The sensor should be placed at least 90° around the circumference from the heating cable, or at least 5 cm (2") from the cable. Mount the sensor in a location that is representative of the overall system temperature away from valves, pipe supports, nozzles, or other heat sinks. Fasten the temperature sensor securely to the pipe/vessel with banding (purchased separately), being sure that the entire length of the sensor is in intimate contact with the pipe surface. The sensor may be covered with a parallel pass of metallic tape to enhance heat transfer (not shown).
6. **Power should always be disconnected and a lockout/tagout procedure performed prior to opening the box enclosure for maintenance.**
7. Any modification to the enclosure or deviation from these procedures may affect unit's rating or approvals. Contact factory if modifications are necessary.





Heating Cable vs. Sensor Location (Line Sensing Control)