

# Strap-on Temperature Sensor

# Installation Instructions

## ABS Enclosure



## Other Enclosure Styles

### Metal Enclosure



### Weatherproof Enclosure



## Strap-on Temperature Sensor

Designed for monitoring temperatures on pipes where an immersion sensor can not be used. It is available with various probe lengths and enclosures to fit any application

## Temperature Transmitter Information

Mount the probe under any pipe insulation in direct contact with the pipe to measure the temperature of the pipe using metal pipe straps or cable ties. For best results, thermal compound should be used between the probe and pipe to improve heat transfer and the installation should be wrapped with insulation to reduce the effects of ambient air

## Specifications

Standard Length	2", 4", 6", 8", 12", 18"
Operating Temperature Range	-20 to 105 °C (-4 to 221 °F)
Cable Type	PVC insulated, parallel bonded
Wiring Connections	Pig Tail (2 or 3 wire)
Enclosures	ABS, Metal or Weatherproof
Sensor Types	100 Ω, 1K PT, 1K Nickel RTD's, 1801 K, 3K, 10K (type 2 & 3) 20K & 100K Thermistors

## Typical Wire Resistance Values

When using low resistance sensors (i.e. 100 ohm RTD), long wire runs can add significant error to the readings. Use the following chart to determine errors due to wire resistance or consider using a 1000 ohm sensor or a transmitter for better accuracy. Locate the type of wire being used. Multiply the total length of the wire (distance from the controller to the sensor and back) by the number found in the following chart for total resistance

GAUGE WIRE TYPE	18 AWG	22 AWG	24 AWG
STRANDED (OHMS/ FOOT)	5.85 mΩ	14.75 mΩ	23.29 mΩ
SOLID (OHMS/FOOT)	6.4 mΩ	15.85 mΩ	25.72 mΩ

## Wiring & Color codes

All two-wire sensors are polarity insensitive. The three-wire sensors have the following color code:

<u>Connection</u>	<u>Strap-on Wire Color</u>
EXCitation	RED
SENse	GREEN
NEGative	BLACK

To connect a three-wire sensor as a two-wire, tie the EXCitation and SENSE lines together.

Dual sensor probes will have one sensor on the RED and BLACK wires and the second sensor on the GREEN and WHITE wires.

