

# pro<sup>sense</sup>® Thermocouple Heat Trace Probe with Connection Head

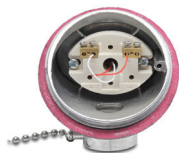
## Overview

Heat Trace Thermocouples are used to measure the surface temperature of process pipe that is carrying products whose temperatures must be controlled to prevent freeze-up, or to maintain a viscosity level so that the inner medium will flow.

- Probe
  - Type J thermocouple element
  - 1/4" diameter, 316 SS sealed sheath to protect against harsh environments
  - 3" hot leg with 1"x2" weld pad for mounting to pipe surface
  - Mounting weld pad is flexible enough to be formed around nominal pipe sizes from 1" to 12"
  - 4" cold leg allows for electrical connections outside of pipe insulation
- Connection Head
  - Cast aluminum NEMA 4X, IP66 screw cover head with captive gasket
  - One turn cover removal & installation eliminates cross threading and saves time
  - 3/4" NPT conduit opening with internal stop to prevent overtightening and installation damage
  - Gripping ribs on cover edge
  - Stainless steel cover chain
- Wiring
  - Brass terminals with stainless steel screws eliminate the need to wrap connections around screws
  - Elevated terminal block for easy wire termination
- Made in the USA



**THMJ-HT34-01**



**Open head**

## Thermocouple Heat Trace Probe with Connection Head

| Part Number         | Pcs/Pkg | Wt (lb) | Price   | Type | Probe Length             | Temperature Sensing Range    | Mounting                             |
|---------------------|---------|---------|---------|------|--------------------------|------------------------------|--------------------------------------|
| <b>THMJ-HT34-01</b> | 1       | 1.44    | \$69.00 | J    | 3" Hot Leg / 4" Cold Leg | -18 to 482°C<br>(0 to 900°F) | 1" X 2" X R3/4"<br>Weld Pad, 304 SS* |

\* Mounting pad is flexible enough to be formed around nominal pipe sizes from 1" to 12"

## Technical Specifications

|                                           |                                                                                                                                                         |
|-------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Junction Type</b>                      | Ungrounded                                                                                                                                              |
| <b>ASTM E230 Standard Limits of Error</b> | ±2.2°C (±4.0°F) or 0.75%, whichever is greater                                                                                                          |
| <b>Probe</b>                              | ø1/4", 316 stainless steel sheath, single thermocouple element                                                                                          |
| <b>Connection Head</b>                    | Die-cast aluminum, screw cover with stainless steel chain, compressed graphite gasket, NEMA 4X, IP66, 3/4" NPT conduit opening, max temp. 400°F (204°C) |
| <b>Response Time</b>                      | 2.9 seconds, 63.2% of a 25-77°C step change per method ASTM E839                                                                                        |
| <b>Wiring</b>                             | Connection head: Ceramic terminal base with brass terminals and stainless steel screws (Recommended tightening torque 3-4 lb-in)                        |

Thermocouple extension lead wire available at [www.automationdirect.com](http://www.automationdirect.com).

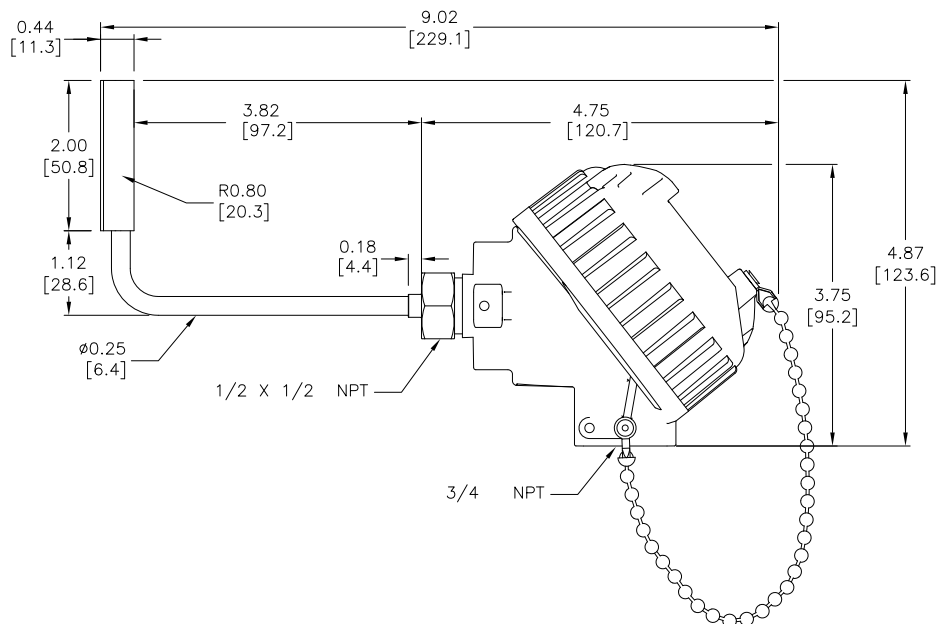


*Note: Check the chemical compatibility of the sensor's wetted parts with the medium to be measured.*

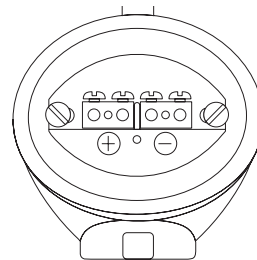
# prosense® Thermocouple Heat Trace Probes with Connection Head

## Dimensions

inches [mm]



## Wiring Information



**Type J: (+) white (-) red**

- Must use thermocouple extension lead wire
- Observe polarity when making connections
- Do not use standard wire nuts
- Recommended screw terminal tightening torque 3-4 lb-in

