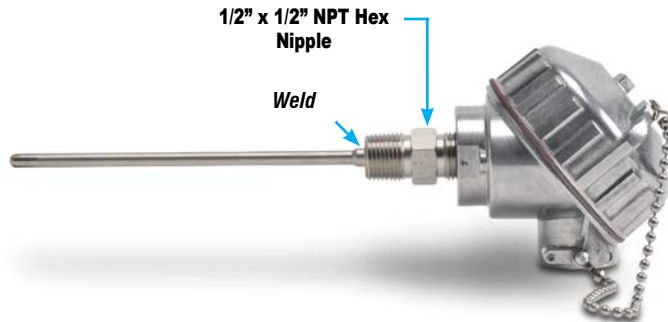


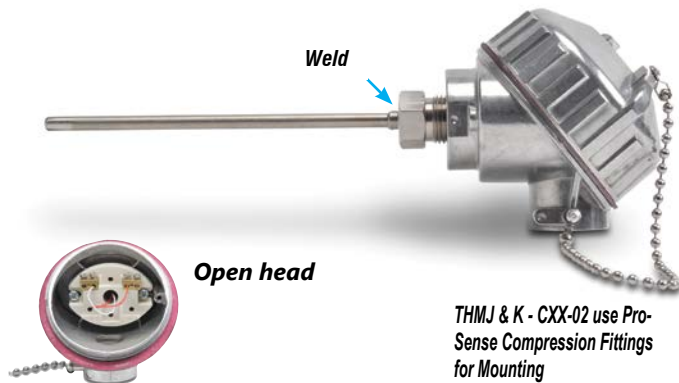
# prosense® Thermocouple Probes with Connection Head

## Overview

THMJ &amp; K - CXX-01 &amp; 04



THMJ &amp; K - CXX-02



- Probe
  - Type J or K thermocouple elements to meet many temperature sensing applications
  - 1/4" diameter, 316 SS or Inconel Alloy 600 sealed sheath to protect against harsh environments
  - Magnesium Oxide (MgO) insulation provides vibration dampening and protection against thermal shock
  - Bendable to adapt to installation requirements
  - 6", 12" or 18" probe length
- 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
  - Ceramic terminal base
  - 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

## Thermocouple Probes with Connection Head - Types J and K

| Part Number                 | Pcs/Pkg | Wt (lb) | Price   | Type | Probe Diameter (O.D.) | Probe Length | Probe Material      | Temperature Sensing Range    | Mounting                                                                       |                                                   |
|-----------------------------|---------|---------|---------|------|-----------------------|--------------|---------------------|------------------------------|--------------------------------------------------------------------------------|---------------------------------------------------|
| <a href="#">THMJ-C06-01</a> | 1       | 1.3     | \$72.00 | J    | 1/4"                  | 6"           | 316 stainless steel | 0 to 720°C<br>(32 to 1330°F) | Integral 1/2" x 1/2"<br>NPT Hex Nipple,<br>316 SS                              |                                                   |
| <a href="#">THMJ-C12-01</a> |         |         | \$77.00 | J    |                       | 12"          |                     |                              |                                                                                |                                                   |
| <a href="#">THMJ-C18-01</a> |         |         | \$80.00 | J    |                       | 18"          |                     |                              |                                                                                |                                                   |
| <a href="#">THMK-C06-01</a> |         |         | \$72.00 | K    |                       | 6"           |                     | 0 to 927°C<br>(32 to 1700°F) |                                                                                |                                                   |
| <a href="#">THMK-C12-01</a> |         |         | \$77.00 | K    |                       | 12"          |                     |                              |                                                                                |                                                   |
| <a href="#">THMK-C18-01</a> |         |         | \$80.00 | K    |                       | 18"          |                     |                              |                                                                                |                                                   |
| <a href="#">THMJ-C06-02</a> |         |         | \$69.00 | J    |                       | 6"           | Inconel Alloy 600   | 0 to 720°C<br>(32 to 1330°F) | ProSense<br>compression fitting<br>(see accessories -<br>purchased separately) |                                                   |
| <a href="#">THMJ-C12-02</a> |         |         | \$70.00 | J    |                       | 12"          |                     |                              |                                                                                |                                                   |
| <a href="#">THMJ-C18-02</a> |         |         | \$71.00 | J    |                       | 18"          |                     |                              |                                                                                |                                                   |
| <a href="#">THMK-C06-02</a> |         |         | \$69.00 | K    |                       | 6"           |                     | 0 to 927°C<br>(32 to 1700°F) |                                                                                |                                                   |
| <a href="#">THMK-C12-02</a> |         |         | \$70.00 | K    |                       | 12"          |                     |                              |                                                                                |                                                   |
| <a href="#">THMK-C18-02</a> |         |         | \$71.00 | K    |                       | 18"          |                     |                              |                                                                                |                                                   |
| <a href="#">THMK-C06-04</a> |         |         | \$75.00 | K    |                       | 6"           |                     | Inconel Alloy 600            | 0 to 1149°C<br>(32 to 2100°F)                                                  | Integral 1/2" x 1/2"<br>NPT Hex Nipple,<br>316 SS |
| <a href="#">THMK-C12-04</a> |         |         | \$85.00 | K    |                       | 12"          |                     |                              |                                                                                |                                                   |
| <a href="#">THMK-C18-04</a> |         |         | \$93.00 | K    |                       | 18"          |                     |                              |                                                                                |                                                   |

## Technical Specifications

|                                    |                                                                                                                                                         |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Junction Type                      | Ungrounded                                                                                                                                              |
| ASTM E230 Standard Limits of Error | ±2.2°C (±4.0°F) or 0.75%, whichever is greater                                                                                                          |
| Probe                              | 4", 316 stainless steel or Inconel Alloy 600 sheath, single thermocouple element is embedded in MgO powder                                              |
| Probe Minimum Bend Radius          | 2 x sheath diameter                                                                                                                                     |
| Minimum Installation Depth         | 3" (76 mm)                                                                                                                                              |
| Connection Head                    | 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) |
| Response Time                      | 2.9 seconds, 63.2% of a 25-77°C step change per method ASTM E839                                                                                        |
| Wiring                             | Ceramic terminal base with brass terminals and stainless steel screws (Recommended tightening torque 3-4 lb-in)                                         |



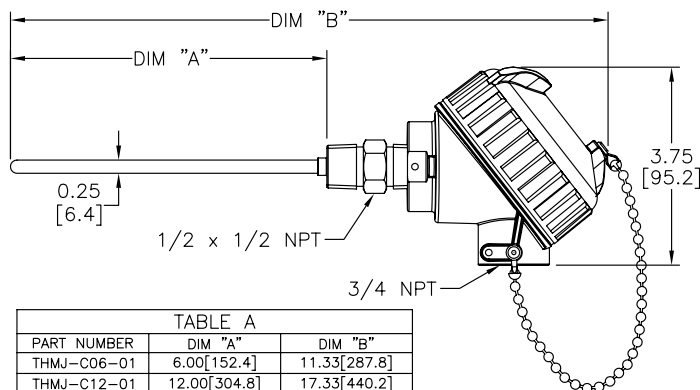
Note: Check the chemical compatibility of the sensor's wetted parts with the medium to be measured. Not designed for use in a thermowell. Use spring-loaded probe when installing in a thermowell.

# prosense® Thermocouple Probes with Connection Head

## Dimensions

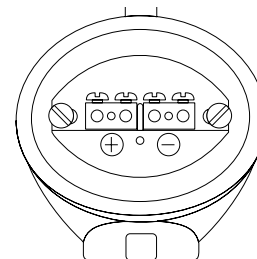
inches [mm]

### THMJ & K - CXX-01 & 04



| TABLE A     |              |              |
|-------------|--------------|--------------|
| PART NUMBER | DIM "A"      | DIM "B"      |
| THMJ-C06-01 | 6.00[152.4]  | 11.33[287.8] |
| THMJ-C12-01 | 12.00[304.8] | 17.33[440.2] |
| THMJ-C18-01 | 18.00[457.2] | 23.33[592.6] |
| THMK-C06-01 | 6.00[152.4]  | 11.33[287.8] |
| THMK-C12-01 | 12.00[304.8] | 17.33[440.2] |
| THMK-C18-01 | 18.00[457.2] | 23.33[592.6] |
| THMK-C06-04 | 6.00[152.4]  | 11.33[287.8] |
| THMK-C12-04 | 12.00[304.8] | 17.33[440.2] |
| THMK-C18-04 | 18.00[457.2] | 23.33[592.6] |

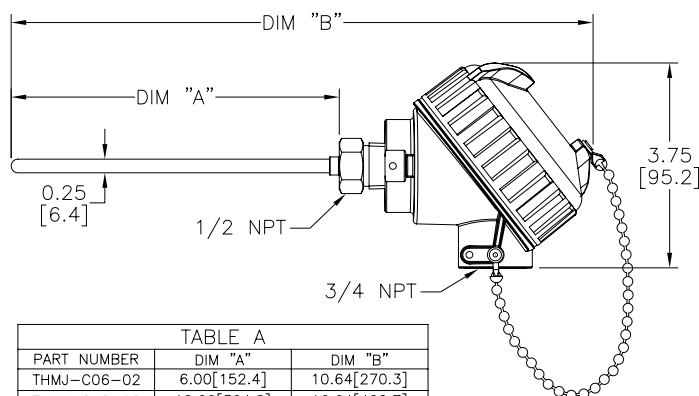
## Wiring Information



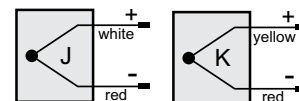
**Type J: (+) white (-) red**  
**Type K: (+) yellow (-) red**

- 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

### THMJ & K - CXX-02



| TABLE A     |              |              |
|-------------|--------------|--------------|
| PART NUMBER | DIM "A"      | DIM "B"      |
| THMJ-C06-02 | 6.00[152.4]  | 10.64[270.3] |
| THMJ-C12-02 | 12.00[304.8] | 16.64[422.7] |
| THMJ-C18-02 | 18.00[457.2] | 22.64[575.1] |
| THMK-C06-02 | 6.00[152.4]  | 10.64[270.3] |
| THMK-C12-02 | 12.00[304.8] | 16.64[422.7] |
| THMK-C18-02 | 18.00[457.2] | 22.64[575.1] |



## Accessories

| Part No.          | Description                                                                                               | Pcs/Pkg | Price   |
|-------------------|-----------------------------------------------------------------------------------------------------------|---------|---------|
| <b>BCF14-125N</b> | Compression fitting, brass, for 1/4 inch diameter temperature probes, 1/8 inch male thread                | 1       | \$3.25  |
| <b>BCF14-25N</b>  | Compression fitting, brass, for 1/4 inch diameter temperature probes, 1/4 inch male thread                | 1       | \$4.25  |
| <b>BCF14-50N</b>  | Compression fitting, brass, for 1/4 inch diameter temperature probes, 1/2 inch male thread                | 1       | \$6.50  |
| <b>CF14-125N</b>  | Compression fitting, 316 stainless steel, for 1/4 inch diameter temperature probes, 1/8 inch male thread  | 1       | \$8.00  |
| <b>CF14-25N</b>   | Compression fitting, 316 stainless steel, for 1/4 inch diameter temperature probes, 1/4 inch male thread  | 1       | \$9.25  |
| <b>CF14-50N</b>   | Compression fitting, 316 stainless steel, for 1/4 inch diameter temperature probes, 1/2 inch male thread  | 1       | \$14.00 |
| <b>CFTE-14</b>    | Teflon ferrule for brass or stainless steel compression fittings and 1/4 inch diameter temperature probes | 5       | \$7.75  |

Note: Full listing of accessories available at the end of this section. Thermocouple extension lead wire available at [www.automationdirect.com](http://www.automationdirect.com).