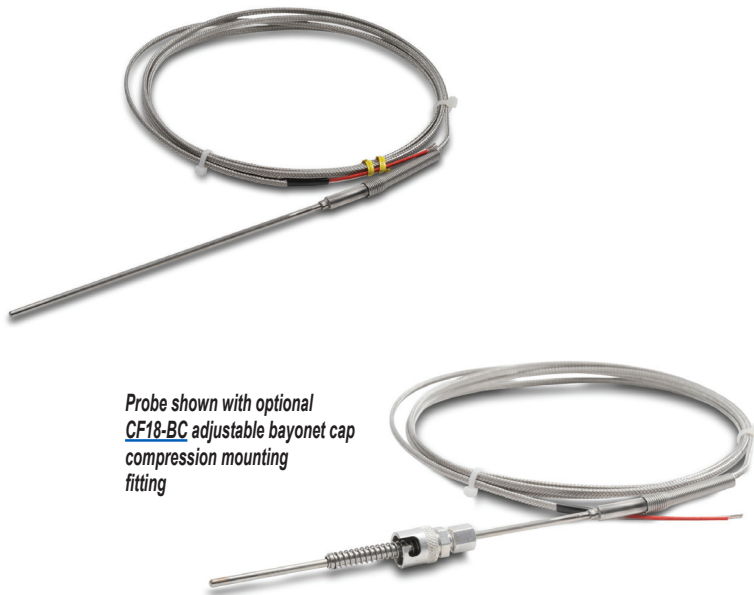


# prosense® Thermocouple Probes with Lead Wire Transition

THMJ, K & T - TXXL06-01, 02 & 03



Probe shown with optional  
CF18-BC adjustable bayonet cap  
compression mounting  
fitting

## Overview

- Type J, K or T thermocouple elements to meet many temperature sensing applications
- 1/8" or 1/4" Diameter, 316 stainless steel or Inconel Alloy 600 sheath to protect against harsh environments
- Magnesium Oxide (MgO) insulation provides vibration dampening and protection against thermal shock
- 6", 12" or 18" probe length
- Bendable probe to adapt to installation requirements
- Heavy duty lead wire transition with relief spring
- 6-foot lead wires with stainless steel overbraid
- Made in the USA

## Thermocouple Probes with Lead Wire Transition - Types J, K and T

| Part Number                    | Pcs/Pkg | Wt (lb) | Price   | Type | Probe Diameter (O.D) | Probe Length | Probe Material      | Temperature Sensing Range                                                       | Mounting                                                               |
|--------------------------------|---------|---------|---------|------|----------------------|--------------|---------------------|---------------------------------------------------------------------------------|------------------------------------------------------------------------|
| <a href="#">THMJ-T06L06-01</a> | 1       | 0.4     | \$40.50 | J    | 1/8"                 | 6"           | 316 stainless steel | 0 to 521°C<br>(32 to 970°F), lead wire transition rated to 400 °F (204 °C)      | ProSense compression fitting<br>(see accessories purchased separately) |
| <a href="#">THMJ-T12L06-01</a> |         | 0.6     | \$43.00 | J    |                      | 12"          |                     |                                                                                 |                                                                        |
| <a href="#">THMJ-T18L06-01</a> |         |         | \$44.50 | J    |                      | 18"          |                     |                                                                                 |                                                                        |
| <a href="#">THMK-T06L06-01</a> |         | 0.4     | \$40.50 | K    |                      | 6"           |                     | 0 to 927°C<br>(32 to 1700°F), lead wire transition rated to 400 °F (204 °C)     |                                                                        |
| <a href="#">THMK-T12L06-01</a> |         | 0.6     | \$43.00 | K    |                      | 12"          |                     |                                                                                 |                                                                        |
| <a href="#">THMK-T18L06-01</a> |         |         | \$44.50 | K    |                      | 18"          |                     |                                                                                 |                                                                        |
| <a href="#">THMT-T06L06-01</a> |         | 0.4     | \$38.00 | T    |                      | 6"           |                     | -200 to 371°C<br>(-328 to 700°F), lead wire transition rated to 400 °F (204 °C) |                                                                        |
| <a href="#">THMT-T12L06-01</a> |         | 0.6     | \$39.00 | T    |                      | 12"          |                     |                                                                                 |                                                                        |
| <a href="#">THMT-T18L06-01</a> |         |         | \$41.50 | T    |                      | 18"          |                     |                                                                                 |                                                                        |
| <a href="#">THMJ-T06L06-02</a> |         | 0.4     | \$44.50 | J    | 1/4"                 | 6"           | 316 stainless steel | 0 to 720°C<br>(32 to 1330°F), lead wire transition rated to 400 °F (204 °C)     |                                                                        |
| <a href="#">THMJ-T12L06-02</a> |         | 0.6     | \$46.50 | J    |                      | 12"          |                     |                                                                                 |                                                                        |
| <a href="#">THMJ-T18L06-02</a> |         |         | \$51.00 | J    |                      | 18"          |                     |                                                                                 |                                                                        |
| <a href="#">THMK-T06L06-02</a> |         | 0.4     | \$44.50 | K    |                      | 6"           |                     | 0 to 927°C<br>(32 to 1700°F), lead wire transition rated to 400 °F (204 °C)     |                                                                        |
| <a href="#">THMK-T12L06-02</a> |         | 0.6     | \$46.50 | K    |                      | 12"          |                     |                                                                                 |                                                                        |
| <a href="#">THMK-T18L06-02</a> |         |         | \$51.00 | K    |                      | 18"          |                     |                                                                                 |                                                                        |
| <a href="#">THMK-T06L06-03</a> |         | 0.4     | \$45.00 | K    |                      | 6"           | Inconel Alloy 600   | 0 to 1149°C<br>(32 to 2100°F), lead wire transition rated to 400 °F (204 °C)    |                                                                        |
| <a href="#">THMK-T12L06-03</a> |         | 0.6     | \$52.50 | K    |                      | 12"          |                     |                                                                                 |                                                                        |
| <a href="#">THMK-T18L06-03</a> |         |         | \$61.00 | K    |                      | 18"          |                     |                                                                                 |                                                                        |

# pro<sup>sense</sup>® Thermocouple Probes with Lead Wire Transition

| Technical Specifications                  |                                                                                                                                                                   |
|-------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Junction Type</b>                      | Ungrounded                                                                                                                                                        |
| <b>ASTM E230 Standard Limits of Error</b> | Types J, K: $\pm 2.2^{\circ}\text{C}$ ( $\pm 4.0^{\circ}\text{F}$ ); Type T: $\pm 1^{\circ}\text{C}$ ( $\pm 1.8^{\circ}\text{F}$ ); or 0.75% whichever is greater |
| <b>Probe</b>                              | $\varnothing 1/8"$ or $\varnothing 1/4"$ , 316 stainless steel or Inconel Alloy 600 sheath, single thermocouple element is embedded in MgO powder                 |
| <b>Probe Minimum Bend Radius</b>          | 2 x sheath diameter                                                                                                                                               |
| <b>Minimum Installation Depth</b>         | 1/8" O.D.: 1.75" (44.5 mm), 1/4" O.D.: 3" (76 mm)                                                                                                                 |
| <b>Response Time</b>                      | 2.9 seconds, 63.2% of a 25-77°C step change per method ASTM E839                                                                                                  |
| <b>Wiring</b>                             | 6 foot stranded 20 AWG wire leads with stripped ends, fiberglass insulation and stainless steel overbraid                                                         |



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

## Dimensions

inches [mm]

THMJ, K & T - TXXL06-01, 02 & 03

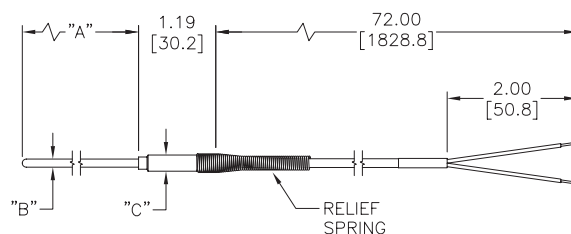


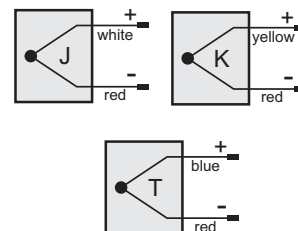
TABLE A

| PART NUMBER    | DIM "A"      | DIM "B"    | DIM "C"    |
|----------------|--------------|------------|------------|
| THMJ-T06L06-01 | 6.00[152.4]  | 0.13[3.3]  | 0.25[6.35] |
| THMJ-T12L06-01 | 12.00[304.8] | 0.13[3.3]  | 0.25[6.35] |
| THMJ-T18L06-01 | 18.00[457.2] | 0.13[3.3]  | 0.25[6.35] |
| THMT-T06L06-01 | 6.00[152.4]  | 0.13[3.3]  | 0.25[6.35] |
| THMT-T12L06-01 | 12.00[304.8] | 0.13[3.3]  | 0.25[6.35] |
| THMT-T18L06-01 | 18.00[457.2] | 0.13[3.3]  | 0.25[6.35] |
| THMK-T06L06-01 | 6.00[152.4]  | 0.13[3.3]  | 0.25[6.35] |
| THMK-T12L06-01 | 12.00[304.8] | 0.13[3.3]  | 0.25[6.35] |
| THMK-T18L06-01 | 18.00[457.2] | 0.13[3.3]  | 0.25[6.35] |
| THMJ-T06L06-02 | 6.00[152.4]  | 0.25[6.35] | 0.38[9.67] |
| THMJ-T12L06-02 | 12.00[304.8] | 0.25[6.35] | 0.38[9.67] |
| THMJ-T18L06-02 | 18.00[457.2] | 0.25[6.35] | 0.38[9.67] |
| THMK-T06L06-02 | 6.00[152.4]  | 0.25[6.35] | 0.38[9.67] |
| THMK-T12L06-02 | 12.00[304.8] | 0.25[6.35] | 0.38[9.67] |
| THMK-T18L06-02 | 18.00[457.2] | 0.25[6.35] | 0.38[9.67] |
| THMK-T06L06-03 | 6.00[152.4]  | 0.25[6.35] | 0.38[9.67] |
| THMK-T12L06-03 | 12.00[304.8] | 0.25[6.35] | 0.38[9.67] |
| THMK-T18L06-03 | 18.00[457.2] | 0.25[6.35] | 0.38[9.67] |

## Wiring Information

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

- Must use thermocouple extension lead wire
- Observe polarity when making connections
- Do not use standard wire nuts



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## Accessories

| Part No.                          | Description                                                                                                                                                                                                        | Pcs/Pkg | Price   |
|-----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|
| <a href="#"><u>BCF18-125N</u></a> | Compression fitting, brass, for 1/8 inch diameter temperature probes, 1/8 inch NPT male thread                                                                                                                     | 1       | \$3.25  |
| <a href="#"><u>BCF14-125N</u></a> | Compression fitting, brass, for 1/4 inch diameter temperature probes, 1/8 inch NPT male thread                                                                                                                     | 1       | \$3.25  |
| <a href="#"><u>BCF18-25N</u></a>  | Compression fitting, brass, for 1/8 inch diameter temperature probes, 1/4 inch NPT male thread                                                                                                                     | 1       | \$4.25  |
| <a href="#"><u>BCF14-25N</u></a>  | Compression fitting, brass, for 1/4 inch diameter temperature probes, 1/4 inch NPT male thread                                                                                                                     | 1       | \$4.25  |
| <a href="#"><u>BCF18-50N</u></a>  | Compression fitting, brass, for 1/8 inch diameter temperature probes, 1/2 inch NPT male thread                                                                                                                     | 1       | \$6.00  |
| <a href="#"><u>BCF14-50N</u></a>  | Compression fitting, brass, for 1/4 inch diameter temperature probes, 1/2 inch NPT male thread                                                                                                                     | 1       | \$6.50  |
| <a href="#"><u>CF18-125N</u></a>  | Compression fitting, 316 stainless steel, for 1/8 inch diameter temperature probes, 1/8 inch NPT male thread                                                                                                       | 1       | \$8.00  |
| <a href="#"><u>CF14-125N</u></a>  | Compression fitting, 316 stainless steel, for 1/4 inch diameter temperature probes, 1/8 inch NPT male thread                                                                                                       | 1       | \$8.00  |
| <a href="#"><u>CF18-25N</u></a>   | Compression fitting, 316 stainless steel, for 1/8 inch diameter temperature probes, 1/4 inch NPT male thread                                                                                                       | 1       | \$9.25  |
| <a href="#"><u>CF14-25N</u></a>   | Compression fitting, 316 stainless steel, for 1/4 inch diameter temperature probes, 1/4 inch NPT male thread                                                                                                       | 1       | \$9.25  |
| <a href="#"><u>CF18-50N</u></a>   | Compression fitting, 316 stainless steel, for 1/8 inch diameter temperature probes, 1/2 inch NPT male thread                                                                                                       | 1       | \$13.50 |
| <a href="#"><u>CF14-50N</u></a>   | Compression fitting, 316 stainless steel, for 1/4 inch diameter temperature probes, 1/2 inch NPT male thread                                                                                                       | 1       | \$14.00 |
| <a href="#"><u>CFTF-18</u></a>    | Teflon ferrule for brass or stainless steel compression fittings and 1/8 diameter temperature probes                                                                                                               | 5       | \$7.25  |
| <a href="#"><u>CFTF-14</u></a>    | Teflon ferrule for brass or stainless steel compression fittings and 1/4 diameter temperature probes                                                                                                               | 5       | \$7.75  |
| <a href="#"><u>CF18-BC</u></a>    | Bayonet adapter, 7/8 inch long, 7/16 inch outside diameter, 9/32 inch inside diameter, 1/8 inch MNPT                                                                                                               | 1       | \$10.00 |
| <a href="#"><u>THMJ-SP</u></a>    | Thermocouple connector, Type J, standard round pin plug, maximum continuous temperature 400°F (200°C), glass filled thermoplastic black body, thermocouple material pins, 14 AWG maximum (2.0 mm) wire size        | 1       | \$4.50  |
| <a href="#"><u>THMJ-SJ</u></a>    | Thermocouple connector, Type J, standard round pin jack, maximum continuous temperature 400°F (200°C), glass filled thermoplastic black body, thermocouple material pins, 14 AWG maximum (2.0 mm) wire size        | 1       | \$5.75  |
| <a href="#"><u>THMK-SP</u></a>    | Thermocouple connector, Type K, standard round pin plug, maximum continuous temperature 400°F (200°C), glass filled thermoplastic yellow body, thermocouple material pins, 14 AWG maximum (2.0 mm) wire size       | 1       | \$4.50  |
| <a href="#"><u>THMK-SJ</u></a>    | Thermocouple connector, Type K, standard round pin jack, maximum continuous temperature 400°F (200°C), glass filled thermoplastic yellow body, thermocouple material pins, 14 AWG maximum (2.0 mm) wire size       | 1       | \$5.50  |
| <a href="#"><u>THMK-HSP</u></a>   | Thermocouple connector, Type K, high-temperature standard round pin plug, maximum continuous temperature 662°F (350°C), thermoset brown body, thermocouple material pins, 14 AWG (2.0 mm) maximum wire size        | 1       | \$14.00 |
| <a href="#"><u>THMK-HSJ</u></a>   | Thermocouple connector, Type K, high-temperature standard round pin jack, maximum continuous temperature 662°F (350°C), thermoset brown body, thermocouple material pins, 14 AWG (2.0 mm) maximum wire size        | 1       | \$16.50 |
| <a href="#"><u>THMT-SP</u></a>    | Thermocouple connector, Type T, standard round pin plug, maximum continuous temperature 400°F (200°C), glass filled thermoplastic blue body, thermocouple material pins, 14 AWG (2.0 mm) maximum wire size         | 1       | \$4.75  |
| <a href="#"><u>THMT-SJ</u></a>    | Thermocouple connector, Type T, standard round pin jack, maximum continuous temperature 400°F (200°C), glass filled thermoplastic blue body, thermocouple material pins, 14 AWG (2.0 mm) maximum wire size         | 1       | \$6.25  |
| <a href="#"><u>THMJ-MP</u></a>    | Thermocouple connector, Type J, miniature flat pin plug, maximum continuous temperature 400°F (200°C), glass filled thermoplastic black body, thermocouple material pins, 20 AWG maximum (0.8 mm) wire size        | 1       | \$3.75  |
| <a href="#"><u>THMJ-MJ</u></a>    | Thermocouple connector, Type J, miniature flat pin jack, maximum continuous temperature 400°F (200°C), glass filled thermoplastic black body, thermocouple material pins, 20 AWG maximum (0.8 mm) wire size        | 1       | \$4.25  |
| <a href="#"><u>THMK-MP</u></a>    | Thermocouple connector, Type K, miniature flat pin plug, maximum continuous temperature 400°F (200°C), glass filled thermoplastic yellow body, thermocouple material pins, 20 AWG maximum (0.8 mm) wire size       | 1       | \$4.00  |
| <a href="#"><u>THMK-MJ</u></a>    | Thermocouple connector, Type K, miniature flat pin jack, maximum continuous temperature 400°F (200°C), glass filled thermoplastic yellow body, thermocouple material pins, 20 AWG maximum (0.8 mm) wire size       | 1       | \$4.25  |
| <a href="#"><u>THMT-MP</u></a>    | Thermocouple connector, Type T, miniature flat pin plug, maximum continuous temperature 400°F (200°C), glass filled thermoplastic blue body, thermocouple material pins, 20 AWG (0.8 mm) maximum wire size         | 1       | \$4.00  |
| <a href="#"><u>THMT-MJ</u></a>    | Thermocouple connector, Type T, miniature flat pin jack, maximum continuous temperature 400°F (200°C), glass filled thermoplastic blue body, thermocouple material pins, 20 AWG (0.8 mm) maximum wire size         | 1       | \$4.50  |
| <a href="#"><u>WCB-S</u></a>      | Wire / cable clamp bracket for use with standard thermocouple and RTD connectors                                                                                                                                   | 4       | \$12.00 |
| <a href="#"><u>WCB-M</u></a>      | Wire / cable clamp bracket for use with miniature thermocouple connectors                                                                                                                                          | 4       | \$12.00 |
| <a href="#"><u>THMJ-SPJ</u></a>   | Thermocouple connector, Type J, standard round pin panel jack, maximum continuous temperature 400°F (200°C), glass filled thermoplastic black body, thermocouple material pins, 14 AWG (2.0 mm) maximum wire size  | 1       | \$11.00 |
| <a href="#"><u>THMK-SPJ</u></a>   | Thermocouple connector, Type K, standard round pin panel jack, maximum continuous temperature 400°F (200°C), glass filled thermoplastic yellow body, thermocouple material pins, 14 AWG (2.0 mm) maximum wire size | 1       | \$10.50 |
| <a href="#"><u>THMT-SPJ</u></a>   | Thermocouple connector, Type T, standard round pin panel jack, maximum continuous temperature 400°F (200°C), glass filled thermoplastic blue body, thermocouple material pins, 14 AWG (2.0 mm) maximum wire size   | 1       | \$10.50 |
| <a href="#"><u>THMJ-MPJ</u></a>   | Thermocouple connector, Type J, miniature flat pin panel jack, maximum continuous temperature 400°F (200°C), glass filled thermoplastic black body, thermocouple material pins, 14 AWG (2.0 mm) maximum wire size  | 1       | \$8.25  |
| <a href="#"><u>THMK-MPJ</u></a>   | Thermocouple connector, Type K, miniature flat pin panel jack, maximum continuous temperature 400°F (200°C), glass filled thermoplastic yellow body, thermocouple material pins, 14 AWG (2.0 mm) maximum wire size | 1       | \$9.00  |
| <a href="#"><u>THMT-MPJ</u></a>   | Thermocouple connector, Type T, miniature flat pin panel jack, maximum continuous temperature 400°F (200°C), glass filled thermoplastic blue body, thermocouple material pins, 14 AWG (2.0 mm) maximum wire size   | 1       | \$9.75  |

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

See end of section for full listing of accessories and dimension information.

\*Working pressure of compression fitting should not exceed 500 psi.  
 However we recommend any pressure application use a thermowell

[THMJ-SPJ](#)



[CF14-25N](#)



[BCF18-125N](#)

