

# prosense® Melt-Bolt Thermocouple Probes with Attached Plug

**THMJ-MB3T14-02****THMJ-MB6T00-02****THMJ-MB6TA-01**

## Overview

- Used on extruders and injection molding machines to directly measure the melt temperature of plastic as it moves down the extruder barrel
- Commonly used Type J thermocouple
- 3" or 6" bolt lengths
- Flush, 1/8", 1/4", or adjustable tip lengths
- Grounded or ungrounded junctions
- 1/2-20 UNF thread process connection
- 2-pin standard size plug

| Melt-Bolt Thermocouple Probes with Attached Plug - Type J |         |         |          |      |                        |              |             |                                                           |               |                    |                                                    |
|-----------------------------------------------------------|---------|---------|----------|------|------------------------|--------------|-------------|-----------------------------------------------------------|---------------|--------------------|----------------------------------------------------|
| Part Number                                               | Pcs/Pkg | Wt (lb) | Price    | Type | Tip Length             | Tip Diameter | Bolt Length | Temperature Sensing Range                                 | Junction Type | Attached Plug Size | Mating Jack (see accessories-purchased separately) |
| <a href="#">THMJ-MB3T00-01</a>                            | 1       | 0.63    | \$49.00  | J    | Flush                  | 1/8"         | 3"          | -18 to 482°C<br>(0 to 900°F), plug rated to 204°C (400°F) | Grounded      | Standard           | THMJ-SJ or THMJ-SPJ                                |
| <a href="#">THMJ-MB3T18-01</a>                            |         | 0.63    | \$49.00  |      | 1/8"                   |              |             |                                                           |               |                    |                                                    |
| <a href="#">THMJ-MB3T14-01</a>                            |         | 0.63    | \$49.00  |      | 1/4"                   |              |             |                                                           |               |                    |                                                    |
| <a href="#">THMJ-MB3T00-02</a>                            |         | 0.63    | \$51.50  |      | Flush                  |              |             |                                                           |               |                    |                                                    |
| <a href="#">THMJ-MB3T18-02</a>                            |         | 0.63    | \$51.50  |      | 1/8"                   |              |             |                                                           |               |                    |                                                    |
| <a href="#">THMJ-MB3T14-02</a>                            |         | 0.63    | \$51.50  |      | 1/4"                   |              |             |                                                           |               |                    |                                                    |
| <a href="#">THMJ-MB6T00-01</a>                            |         | 0.75    | \$61.00  |      | Flush                  | 1/8"         | 6"          |                                                           | Grounded      |                    |                                                    |
| <a href="#">THMJ-MB6T18-01</a>                            |         | 0.75    | \$61.00  |      | 1/8"                   |              |             |                                                           |               |                    |                                                    |
| <a href="#">THMJ-MB6T14-01</a>                            |         | 0.75    | \$61.00  |      | 1/4"                   |              |             |                                                           |               |                    |                                                    |
| <a href="#">THMJ-MB6T00-02</a>                            |         | 0.75    | \$63.50  |      | Flush                  |              |             |                                                           |               |                    |                                                    |
| <a href="#">THMJ-MB6T18-02</a>                            |         | 0.75    | \$63.50  |      | 1/8"                   |              |             |                                                           |               |                    |                                                    |
| <a href="#">THMJ-MB6T14-02</a>                            |         | 0.75    | \$63.50  |      | 1/4"                   |              |             |                                                           |               |                    |                                                    |
| <a href="#">THMJ-MB3TA-01</a>                             |         | 0.75    | \$156.00 |      | Adjustable<br>(0 - 1") | 5/32"        | 3"          |                                                           | Exposed       |                    |                                                    |
| <a href="#">THMJ-MB6TA-01</a>                             |         | 0.75    | \$161.00 |      |                        |              | 6"          |                                                           |               |                    |                                                    |

| Technical Specifications           |                                                                                                                                                                                 |
|------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ASTM E230 Standard Limits of Error | ±2.2°C (±4.0°F) or 0.75%, whichever is greater                                                                                                                                  |
| Bolt Threads                       | 1/2-20 UNF - 2A Bolt Thread (Nominal Thread Length 1-7/8")                                                                                                                      |
| Response Time                      | 2.9 seconds, 63.2% of a 25-77°C step change per method ASTM E839                                                                                                                |
| Wiring                             | Fixed tip: Fiberglass insulation with flexible armor<br>Adjustable tip: MgO insulated tube 1/8" graduated marks<br>Attached plug, mating jack sold separately. See accessories. |



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

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## Dimensions

**inches [mm]**

**THMJ-MBxxx-xx**

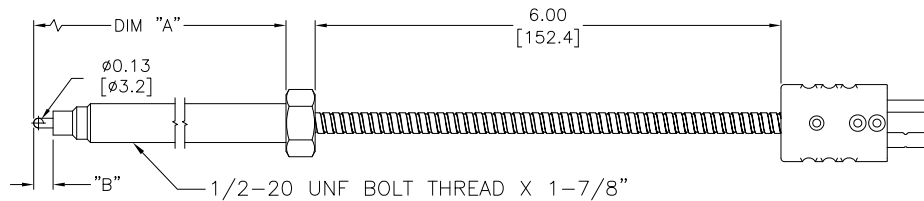


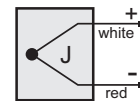
TABLE A

| PART NUMBER    | DIM "A"     | DIM "B"     |
|----------------|-------------|-------------|
| THMJ-MB3T00-01 | 3.00[76.2]  | 0.00[FLUSH] |
| THMJ-MB3T14-01 | 3.00[76.2]  | 0.25[6.4]   |
| THMJ-MB3T18-01 | 3.00[76.2]  | 0.125[3.2]  |
| THMJ-MB3T00-02 | 3.00[76.2]  | 0.00[FLUSH] |
| THMJ-MB3T14-02 | 3.00[76.2]  | 0.25[6.4]   |
| THMJ-MB3T18-02 | 3.00[76.2]  | 0.125[3.2]  |
| THMJ-MB6T00-01 | 6.00[152.4] | 0.00[FLUSH] |
| THMJ-MB6T14-01 | 6.00[152.4] | 0.25[6.4]   |
| THMJ-MB6T18-01 | 6.00[152.4] | 0.125[3.2]  |
| THMJ-MB6T00-02 | 6.00[152.4] | 0.00[FLUSH] |
| THMJ-MB6T14-02 | 6.00[152.4] | 0.25[6.4]   |
| THMJ-MB6T18-02 | 6.00[152.4] | 0.125[3.2]  |

## Wiring Information

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

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



## Dimensions

**inches [mm]**

**THMJ-MB3TA-0X**

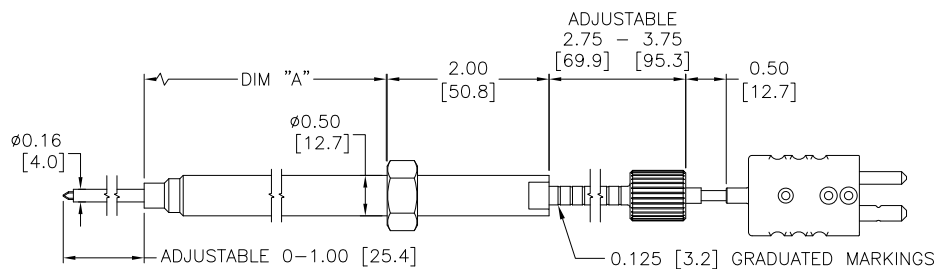


TABLE A

| TABLE A       |             |
|---------------|-------------|
| PART NUMBER   | DIM "A"     |
| THMJ-MB3TA-01 | 3.00[76.2]  |
| THMJ-MB3TA-02 | 6.00[152.4] |

# prosense® Melt-Bolt Thermocouple Probes with Attached Plug - Accessories

## Accessories

| Part No.                        | Description                                                                                                                                                                                                       | Pcs/Pkg | Price   |
|---------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------|---------|
| <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>WCB-S</u></a>    | Wire / cable clamp bracket for use with standard thermocouple and RTD 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>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  |

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.

[THMJ-SPJ](#)



[THMJ-SJ](#)

