

Melt Bolt T/C, Fixed

Melt Bolt Thermocouple Fixed Depth Immersion

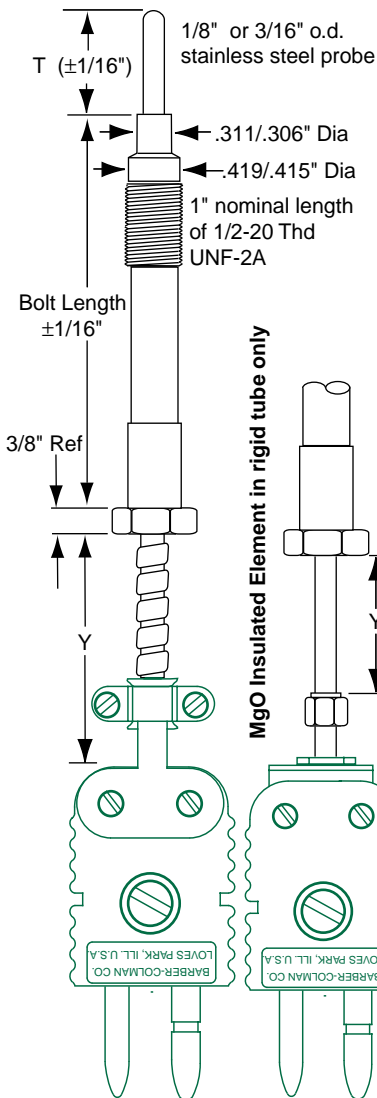
Introduction

Melt bolt thermocouples are used on extruders and injection molding machines. The immersed tip provides direct melt temperature measurement. Two styles are available:

- MgO insulated wire in a full length, rigid stainless steel probe
- Fiberglass insulated wire in a rigid stainless steel probe with a flexible, armor clad protection tube

Standard bolt lengths are 3", 4" and 6". Other lengths are available. Typically, 2" of protection tube ("Y" dimension) beyond the bolt head is satisfactory.

Ordering Information



Model No. P - - - **1** -

Field No. 1 2 3 4 - 5 6 7 8 9 - 10 11 12 - 13 14 15

Schedule: S2

Field 1. BASE MODEL

P - Plastics industry

Fields 2, 3, 4, 5, 6. THERMOCOUPLE TYPE, NUMBER OF ELEMENTS, AND JUNCTION STYLE, PROBE O.D., LEAD PROTECTION

☞ Determine length (Y + L) by completing Fields 10, 11, 12, and Field 7.

| Type | Gauge | Wire | o.d. | End | Up to 2" | Ea Add'l 6" |
|---|-------|------|-------------|------------------|----------|-------------|
| Fiberglass Insulation with Flexible Tube, Single Element | | | | | | |
| 011-51 | J | 20 | solid 3/16" | closed, grounded | | |
| 021-41 | J | 24 | solid 1/8" | closed, grounded | | |
| 021-51 | J | 24 | solid 3/16" | closed, grounded | | |
| Fiberglass Insulation with Flexible Tube, Dual Element | | | | | | |
| 024-51 | J | 24 | 3/16" | closed, grounded | | |

2" Ea Add'l 6"

MgO Insulation, Single Element

| | | | |
|--------|---|------------|--------------------|
| 161-41 | J | 1/8" o.d. | closed, grounded |
| 161-42 | J | 1/8" o.d. | closed, ungrounded |
| 161-43 | J | 1/8" o.d. | open, ungrounded |
| 161-51 | J | 3/16" o.d. | closed, grounded |
| 161-52 | J | 3/16" o.d. | closed, ungrounded |
| 161-53 | J | 3/16" o.d. | open, ungrounded |

MgO Insulation, Dual Element

| | | | |
|--------|---|------------|-----------------------|
| 164-41 | J | 1/8" o.d. | closed, grounded |
| 164-42 | J | 1/8" o.d. | common, clsd., ungrnd |
| 164-44 | J | 1/8" o.d. | common, exposed |
| 164-45 | J | 1/8" o.d. | isolated, exposed |
| 164-51 | J | 3/16" o.d. | closed, grounded |
| 164-52 | J | 3/16" o.d. | common, clsd., ungrnd |
| 164-54 | J | 3/16" o.d. | common, exposed |
| 164-55 | J | 3/16" o.d. | isolated, exposed |

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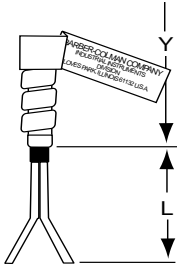
Ordering Information (continued)

Field 7. COLD END TERMINATION

**Single
Element**

**Dual
Element**

- 0 - 2-1/2" split leads, ends stripped*
- 1 - 2-1/2" split leads, spade lugs*
- 2 - 2-1/2" split leads, spade lugs, 1/2" NPS box connector with lock nut*
- 3 - Solid pin quick disconnect plug(s)
- 4 - Solid pin quick disconnect plug(s) with mating jack(s)
- 7 - Quick disconnect jack(s)
- C - Hollow pin quick disconnect plug(s), Type J only
- D - Hollow pin quick disconnect plug(s) with jack(s), Type J only



Extended Lead (DIMENSION "L")*

☞ Complete this Field to determine length for Fields 2, 3, 4, 5, 6

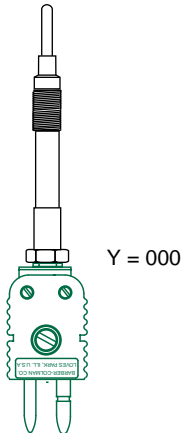
- F - 12", split ends stripped
- G - 24", split ends stripped
- H - 48", split ends stripped
- J - 96", split ends stripped
- K - 144", split ends stripped

For other lengths, consult factory

*not available on thermocouples with MgO insulation

Fields 8, 9. BOLT LENGTH

- 03 - 3"
- 04 - 4"
- 06 - 6"
- 98 - 1-7/16" to 1-7/8" – specify on order
- 99 - 2-1/4" to 12" – specify on order



Fields 10, 11, 12. FLEXIBLE LENGTH (DIMENSION "Y")

☞ Complete these Fields to determine length for Fields 2, 3, 4, 5, 6

Note: "Y" length of MgO insulated thermocouple not flexible.

YYY- Enter actual "Y" length

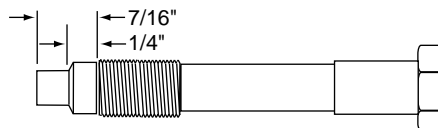
000 - No lead. Cold end termination plug (Field 7, code 3 or 4) on end of bolt (see illustration). Not available on dual element thermocouple with MgO insulation

Field 13. RESERVED

Fields 14, 15. TIP LENGTH (DIMENSION "T")

- 00 - None – flush
- 01 - 1/8"
- 03 - 1/4"
- 05 - 1/2"
- 07 - 3/4"
- 09 - 1"
- 99 - Not listed. Specify on order. 1/16" minimum for thermocouples with MgO insulation; 1/8" minimum for thermocouples with fiberglass insulation

Blank bolts are available to seal holes in extruder after the thermocouple has been removed. Dimensions illustrated here are typical of blank bolts and immersion thermocouples.



- 3" bolt A-09759-101
- 4" bolt A-09760-101
- 6" bolt A-09761-101

