



## Melt Bolt Thermocouples

### Melt Bolt Thermocouples for Plastic Extruders or Injection Molding Machines

#### Design Features

\* **Bolt Material**

Stainless Steel  
1/2-20 UNF Thread

\* **Probe Material**

Stainless Steel

\* **Probe Diameters**

Standard 1/8"

\* **Calibration**

ANSI Type J  
(Iron-Constantan)

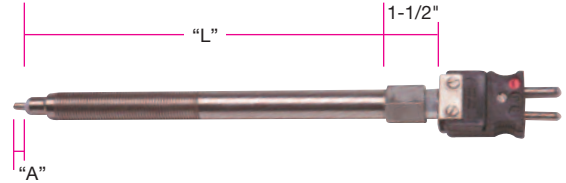
\* **Junction Style**

Closed End Grounded

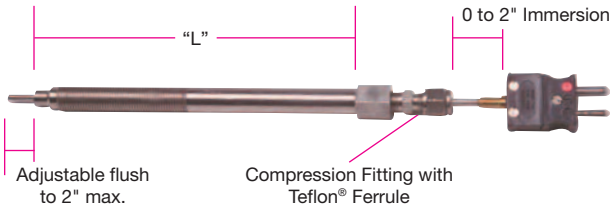
#### Style A—Adjustable Tip

- \* Eliminates excess inventory.
- \* Tip can be field adjusted from flush to 2 inches.
- \* MgO insulated.
- \* Can be installed wherever standard melt thermocouples are in use.
- \* Bolt with Teflon® insert at tip has a maximum operating temperature of 500°F (260°C). Without insert 1400°F (760°C).

#### Style R—Rigid Plug



#### Insulation—MgO or Fiberglass

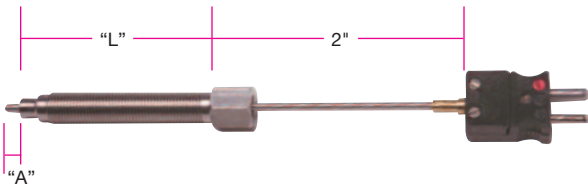


Thermocouple Diameter	Part Number			
	Without Teflon® Insert		With Teflon® Insert	
	L = 3"	L = 6"	L = 3"	L = 6"
1/8"†	TMB00001	TMB00002	TMB00003	TMB00004
3/16"	TMB00005	TMB00006	N/A	N/A

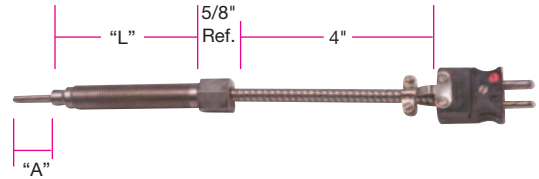
Part Number MgO Insulation	"A" (in)	"L" (in)	Part Number Fiberglass Insulation
TMB00027	Flush	3	TMB00037
TMB00028	1/4	3	TMB00038
TMB00029	1/2	3	TMB00039
TMB00030	3/4	3	TMB00040
TMB00031	1	3	TMB00041
TMB00032	Flush	6	TMB00042
TMB00033	1/4	6	TMB00043
TMB00034	1/2	6	TMB00044
TMB00035	3/4	6	TMB00045
TMB00036	1	6	TMB00046

†For 1/8" diameter, it is not recommended to immerse tip more than 1" due to bending and breakage in melt flow.

#### Style E—Extension Mounted Plug



#### Style F—Flexible Mount Plug



#### Insulation—MgO or Fiberglass

Part Number MgO Insulation	"A" (in)	"L" (in)	Part Number Fiberglass Insulation
TMB00007	Flush	3	TMB00017
TMB00008	1/4	3	TMB00018
TMB00009	1/2	3	TMB00019
TMB00010	3/4	3	TMB00020
TMB00011	1	3	TMB00021
TMB00012	Flush	6	TMB00022
TMB00013	1/4	6	TMB00023
TMB00014	1/2	6	TMB00024
TMB00015	3/4	6	TMB00025
TMB00016	1	6	TMB00026

#### Insulation—Fiberglass only

Stock Items Are Shown In RED

"A" (in)	"L" (in)	Part Number Fiberglass Insulation
Flush	3	TMB00047
1/4	3	<b>TMB00048</b>
1/2	3	TMB00049
3/4	3	TMB00050
1	3	TMB00051
Flush	6	TMB00052
1/4	6	TMB00053
1/2	6	TMB00054
3/4	6	TMB00055
1	6	TMB00056



See page 14-101 for Blank Melt Bolts



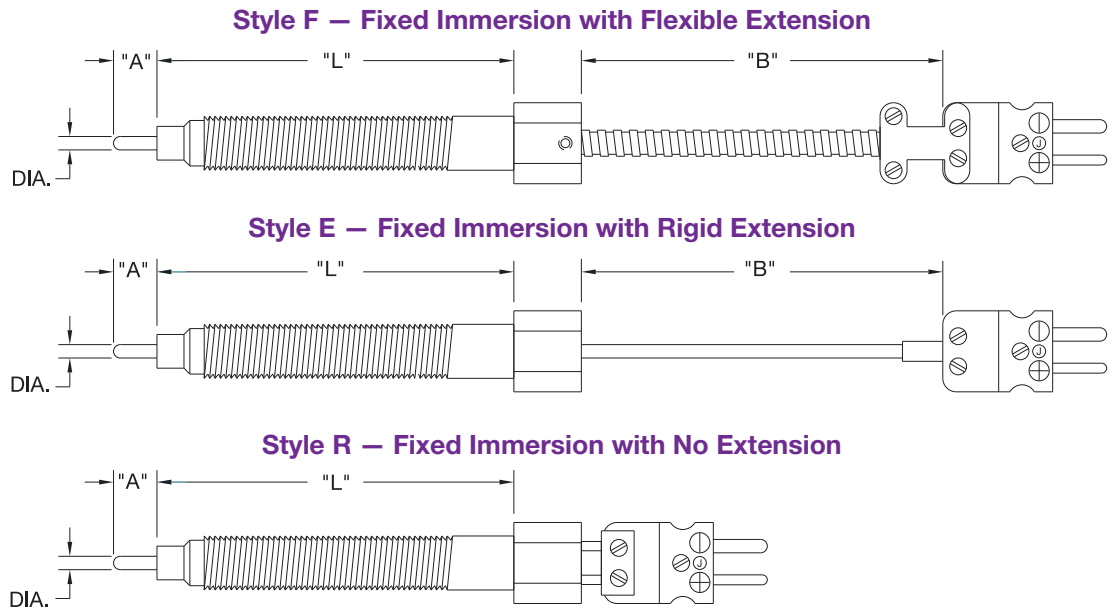
### Melt Bolt Thermocouples (Custom Engineered/Manufactured)

#### Design Features

- \* Designed to Measure the Temperature of Plastic Stream of an Extruder or Injection Molding Machine
- \* 304 Stainless Steel Construction
- \* 900°F (482°C) Operating Temperature
- \* 1/2-20 UNF Thread

**Ordering Information**

TMB Melt Bolt Thermocouples are offered with the options listed in the worksheet below. Create an ordering code by filling in the boxes with the appropriate number and/or letter designation for your requirements, and a part number will be assigned.



**Ordering Code:** TMB -                                 

**Style** BOX 1  
**F** = w/ Flexible Extension  
**E** = w/ Rigid Extension  
**R** = w/ No Extension

**Tip Diameter** BOX 2  
**F** = 0.125 (Standard)  
**G** = 0.188  
**X** = Other (Specify)

**Melt Bolt Length** BOX 3  
 "L" Dim.  
**03** = 3"    **09** = 9"  
**04** = 4"    **10** = 10"  
**06** = 6"    **12** = 12"

**Calibration** BOX 4  
 ANSI Standard Tolerances    **J**   **K**   **E**   **T**   **N**

**"A" Dimension** BOX 5  
 Whole inches  
**0** to **9** (Enter 0 if less than 1)

**Junction** BOX 7  
**G** = Grounded  
**U** = Ungrounded

**"B" Dimension** BOX 8  
 Whole inches  
 Example: Enter **006** for 6 inches  
 Enter **000** for Style R

**"A" Dimension** BOX 6  
 Fractional inches  
**0** = 0"    **3** = 3/8"    **6** = 3/4"  
**1** = 1/8"    **4** = 1/2"    **7** = 7/8"  
**2** = 1/4"    **5** = 5/8"

**Termination** BOX 9 †  
**B** = 2-1/2 in. Split Leads (Style F only)    **P** = Standard Plug  
**S** = Spade Lugs (Style F only)    **J** = Standard Jack  
**C** = Spade Lugs with BX Conn. (Style F only)    **K** = Standard Plug and Jack  
**X** = Other (Specify)

**Special Requirements** BOX 10  
**X** = Specify  
**0** = None

† See page 14-9 for Termination Style descriptions

**⚠ WARNING:** Cancer and Reproductive Harm - [www.P65Warnings.ca.gov](http://www.P65Warnings.ca.gov).

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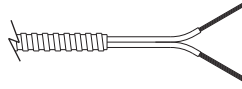
### Optional Thermocouple Termination Styles

#### Optional Termination Styles

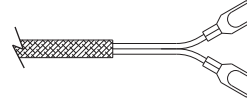
Available for the following thermocouples:

Style	Page
TTW	14-2
TCP	14-3 through 14-5
TRW	14-6
TSW	14-6
TPW	14-7
TNW	14-7
TWW	14-8
TMW	14-8
MTA1	14-15

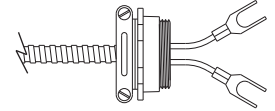
Style B—Plain Ends



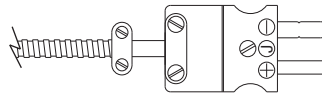
Style S—Spade Lugs



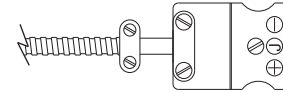
Style C—Spade Lugs with BX connector



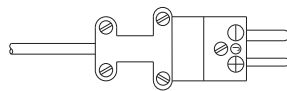
Style P—Standard Plug



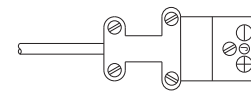
Style J—Standard Jack



Style D—Miniature Plug



Style E—Miniature Jack



### Thermocouple Extension Assemblies

Termination 1

Termination 2



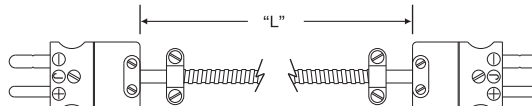
Jack to Plug

Termination 1

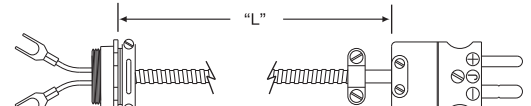
Termination 2



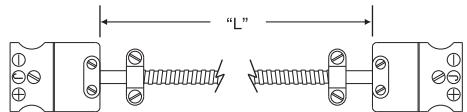
BX Connector to BX Connector



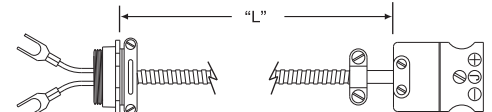
Plug to Plug



BX Connector to Plug



Jack to Jack



BX Connector to Jack

#### Ordering Information

ECA Thermocouple Extension Assemblies are offered with the options listed in the worksheet below. Create an ordering code by filling in the boxes with the appropriate number and/or letter designation for your requirements, and a part number will be assigned.

Ordering Code: **ECA** -

#### Termination 1 & 2 BOX 1 & 2 †

**S** = Spade Lugs                      **B** = 2-1/2 in. Split Leads  
**C** = Spade Lugs with BX Conn.   **D** = Miniature Plug  
**P** = Standard Plug                  **E** = Miniature Jack  
**J** = Standard Jack                  **X** = Other (Specify)

#### Calibration BOX 3

ANSI Standard Tolerances **J K E T N**

† See above for Termination Style descriptions

#### "L" Dimension BOX 4

Whole inches **006 to 999**

#### Lead Insulation BOX 5

	Standard	w/ SS Overbraid	w/ SS Armor Cable
Fiberglass 900°F (482°C)	<b>S</b>	<b>B</b>	<b>A</b>
Teflon® 400°F (204°C)	<b>T</b>	<b>D</b>	<b>F</b>

#### Special Requirements BOX 6

**X** = Specify  
**0** = None

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