Temperature Sensing



MI Cable Thermocouple Assemblies

Style MTA1 — Transition to Lead Wire (Custom Manufactured)



Ordering Information

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.



Optional Installation Compression Fitting See Box 13

Design Features

- * Mineral insulated sheath provides flexibility to form and bend the thermocouple to meet design requirements.
- * Stainless steel transition with optional Strain Relief Spring
- Standard epoxy potting transition provides greater moisture resistance rated to 450°F (232°C). Optional ceramic based potting rated to 1000°F (538°C). Ceramic potting not recommended with Teflon® leads, nor for high humidity applications.

Ordering Code:

	1	2	3	4	5	6	7	8	9	10	11	12	13	14
MTA1														

Calibration Code BOX 1

ANSI Standard Tolerances	J	K	E	T	N	R	S	F
Special Tolerances	3	4	5	6	7			

Junction BOX 8

	Grounded	Ungrounded	Exposed
Single	G	U	Ē
Dual, common	4	5	6
Dual, isolated	_	7	8

Lead Wire Length BOX 9

In inches **001** to **999** 12" (012) Standard

w/ SS Overbraid w/ SS Flex Armor

Number of Conductors BOX 2

- 2 = Single (Standard)
- 4 = Duplex

Insulation BOX 3

M = 96% min. MgO (Standard)

 $\mathbf{H} = 99.4\% \text{ min. } \overline{\text{MgO}}$

Lead Wire Construction BOX 10

Depending on availability .040" to .125" uses 24 gauge lead wire. Larger than .125" thermocouples use 20 gauge lead wire depending on availability and insulation type.

В

D

Sheath Material BOX 4

A = Alloy 600

B = 304 SS

C = 316 SS

Lead Wire Termination BOX 11

P = Standard Male Plug **F** = Miniature Plug with Mating Jack J = Standard Female Jack

K = Std. Plug with Mating Conn.

D = Miniature Male Plug

Fiberglass 900°F (482°C)

Teflon 400°F (204°C)

E = Miniature Female Jack

 $\mathbf{B} = \text{Standard} - 2 \cdot 1/2 \text{ in. Split Leads}$ S = 2-1/2 in. Split Leads with Spade Lugs

C = 2-1/2 in. Split Leads with BX

connector and Spade Lugs X = Other (Specify)

See page 14-9 for Termination Style descriptions

Sheath O.D. BOX 5

J = .313" + .003/-.002

$A = .020" \pm .001$	K = .375" + .003/002
$\mathbf{B} = .032" \pm .001$	$L = 1.0 \text{mm} \pm .03$
$C = .040" \pm .001$	$N = 1.5 \text{mm} \pm .03$
$D = .063$ " $\pm .001$	$P = 2.0 \text{ mm} \pm .03$
$E = .093" \pm .002$	$Q = 3.0 \text{ mm} \pm .03$
$\mathbf{F} = .125" \pm .002$	$R = 4.5 \text{ mm} \pm .05$
$G = .188" \pm .002$	S = 6.0 mm + .07/05

H = .250'' + .003/-.002 T = 8.0 mm + .07/-.05

Strain Relief Spring BOX 12

• Not Required Y = Required

Sheath Length "L" BOX 6

Whole inches

01 to 99

Sheath Length "L" BOX 7

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

Optional Compression Fitting BOX 13

1 = 1/8" NPT SS **4** = 1/8" NPT Brass 2 = 1/4" NPT SS **5** = 1/4" NPT Brass

6 = 1/2" NPT Brass 3 = 1/2" NPT SS

0 = None Required

For lengths over 99 in. consult TEMPCO.

Special Requirements BOX 14

 $\mathbf{H} = \text{High temp potting } 1000^{\circ}\text{F } (538^{\circ}\text{C})$

O = Standard Epoxy Potting 450°F (232°C)

X = Other (Specify)

V = 9.0 mm + .07/-.05