

MGO Insulated Thermocouples Index

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GENERAL INFORMATION, MgO INSULATED THERMOCOUPLES

Sure Controls utilizes the highest quality MgO (magnesium oxide) insulated metal sheathed cable available in all MgO thermocouples. All cable meets or exceeds all applicable ANSI/ASTM standards. MgO insulated thermocouples have many desirable characteristics (i.e. fast response, compact size, broad temperature range, formability, weldability, durability, accuracy, thermal shock and vibration resistance). These characteristics make the Sure Controls MgO insulated thermocouple an excellent choice for virtually all laboratory or process applications.

The standard MgO insulated thermocouple configuration consists of ANSI/ASTM standard limits of error conductor material and standard (96%) pure insulation. Each catalog page details a variety of other configurations available.

INITIAL CALIBRATION TOLERANCES FOR THERMOCOUPLES (0°C/32°F REFERENCE JUNCTION)

| Type | Color Material | | Temperature Range | | Tolerances (whichever is greater) | |
|------|-----------------------|----------|-------------------|------------------|-----------------------------------|--|
| | °C | °F | Standard | Special | | |
| J | + Lead White Iron | 0 to 750 | 32 to 1652 | ±2.2°C or +0.75% | ±1.1°C or ±0.4% | |
| | - Lead Red Constantan | | | | | |
| K | + Lead Yellow Chromel | 0 to 750 | 32 to 1652 | ±2.2°C or +0.75% | ±1.1°C or ±0.4% | |
| | - Lead Red Alumel | | | | | |
| E | +Lead Purple Chromel | 0 to 900 | 32 to 1652 | +1.7°C or +0.50% | ±1.1°C or ±0.4% | |
| | - Lead Red Constantan | | | | | |
| T | + Lead Blue Copper | 0 to 350 | 32 to 662 | +1.0°C or +0.75% | +0.5°C or +0.4% | |
| | - Lead Red Constantan | | | | | |

STANDARD SHEATH MATERIALS

| Type | Code | Temperature Range |
|---------------------|------|-------------------|
| 304 Stainless Steel | T | 899°C (1650°F) |
| 310 Stainless Steel | V | 1150°C (2100°F) |
| 316 Stainless Steel | W | 899°C (1650°F) |
| 446 Stainless Steel | S | 1150°C (2100°F) |
| Inconel Alloy 600 | J | 1212°C (2150°F) |

The following table gives the maximum recommended temperature for each sheath size and material type by thermocouple calibration: (Based on single element types)

MgO SHEATH SIZE AND RATING (°F)

| Calibration | Material | 1/16" | 1/8" | 3/16" | 1/4" | 3/8" |
|-------------|-----------|-------|------|-------|------|------|
| J | ALL | 1500 | 1500 | 1500 | 1500 | 1500 |
| K | 304 SS | 1600 | 1600 | 1600 | 1600 | 1600 |
| | 310 SS | 1900 | 2000 | 2000 | 2000 | 2000 |
| | 316 SS | 1600 | 1600 | 1600 | 1600 | 1600 |
| | 446 SS | 1900 | 2000 | 2000 | 2100 | 2100 |
| | Alloy 600 | 2000 | 2100 | 2150 | 2150 | 2150 |
| E | ALL | 1600 | 1600 | 1600 | 1600 | 1600 |
| T | ALL | 662 | 662 | 662 | 662 | 662 |



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MEASURING JUNCTION TYPES

(G) Grounded



(U) Ungrounded



(E) Exposed

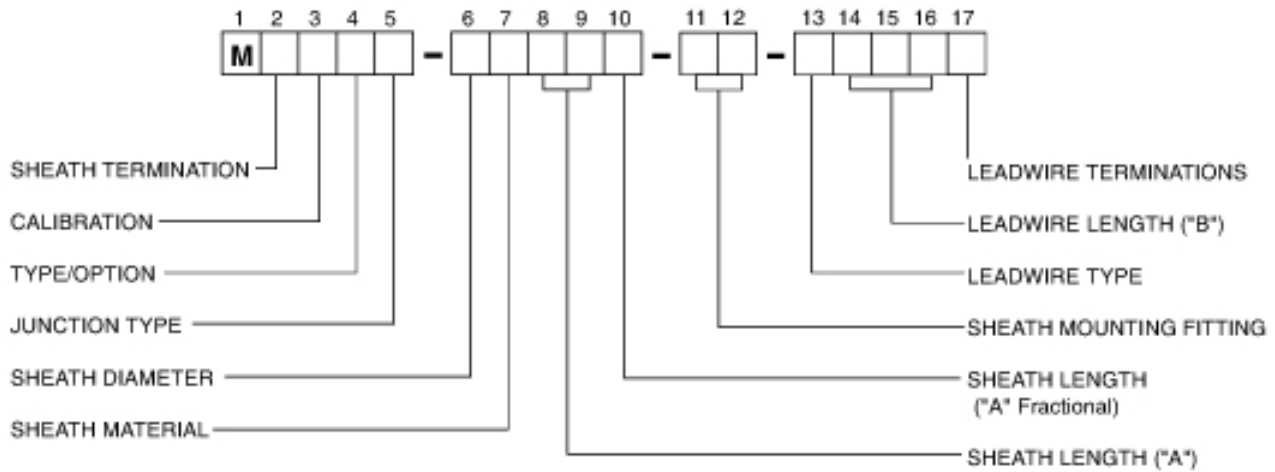


NOTE: All duplex ungrounded and exposed sensors are supplied with two thermocouples isolated from each other as standard. For diameters less than .125 OD, isolated junction must be specified. Consult Sure Controls for availability.

An ungrounded junction is recommended for small diameter thermocouples (.125" OD and under) that are to be used in high temperature applications or that are to undergo temperature calibration.

An ungrounded junction is also recommended if the thermocouple is to be used with a PLC or temperature controller that has non-isolated inputs.

PART NUMBERING EXAMPLES FOR MGO THERMOCOUPLES



MDJ0G-KW12A-00-F060B

MGO - Type "J", Transition Fitting, Grounded, 1/4" Dia. Sheath, 12" Long, 316 SS Material, No Fitting and 5 Ft. of Stranded Fiberglass Wire with SS Overbraid, 2-1/2" Split Leads.



MKE0G-KT24A-2B

MGO - Type "E", Standard Male Plug, Grounded, 1/4" Dia. Sheath, 24" Long, 304 SS Material, Compression Fitting Brass 1/4" NPT.

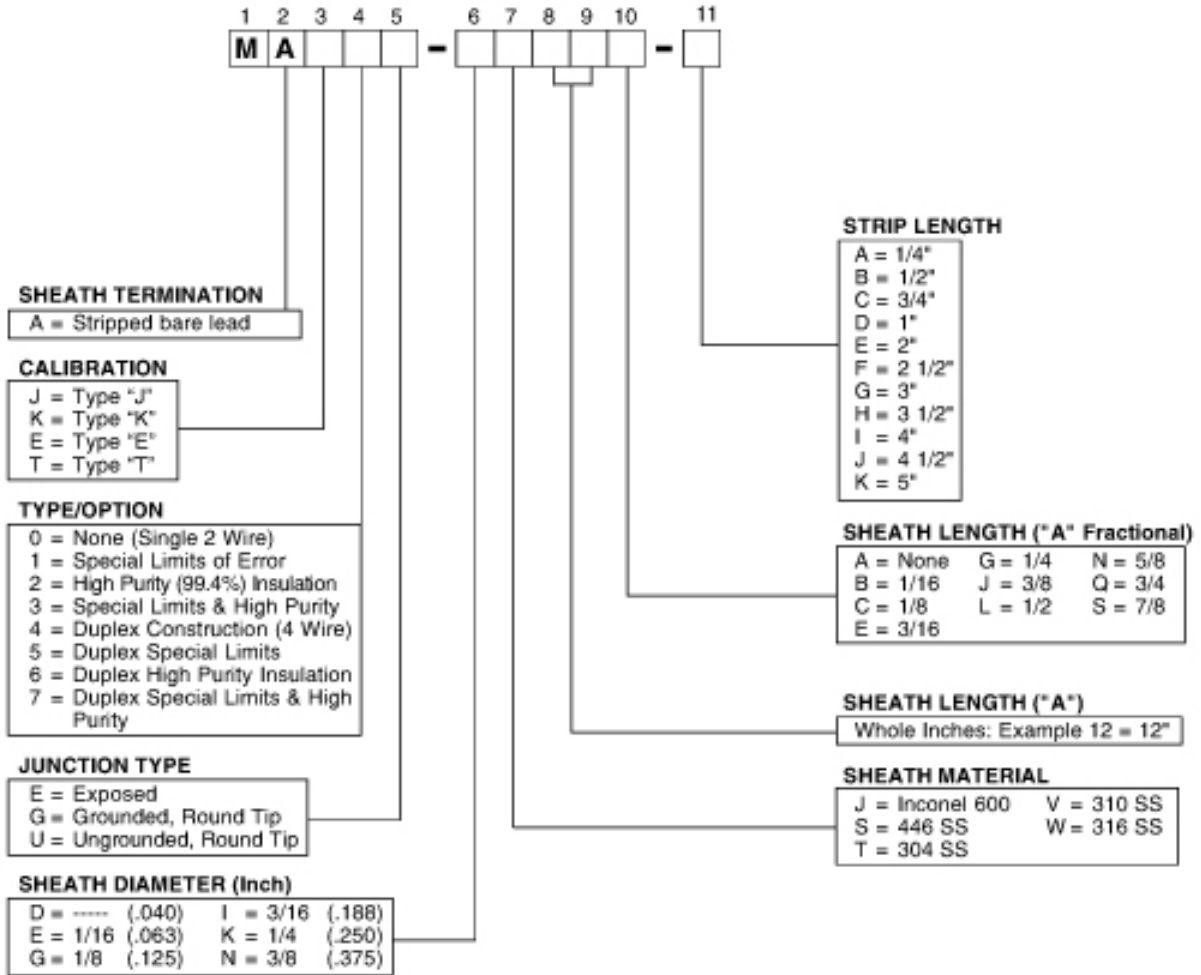


MTJ0G-KJ06L-56

MGO - Type "J", Snap-Cover, Cast Aluminum, Grounded, 1/4" Dia. Sheath, 6-1/2" Long, Inconel 600 Material, Spring Loaded 1/2 NPT Stainless Steel Hex Nipple Mounting Provision.



THERMOCOUPLE ELEMENTS

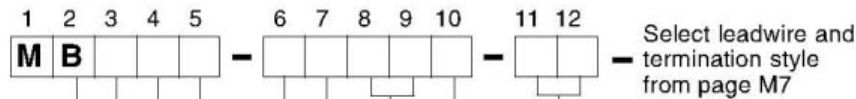
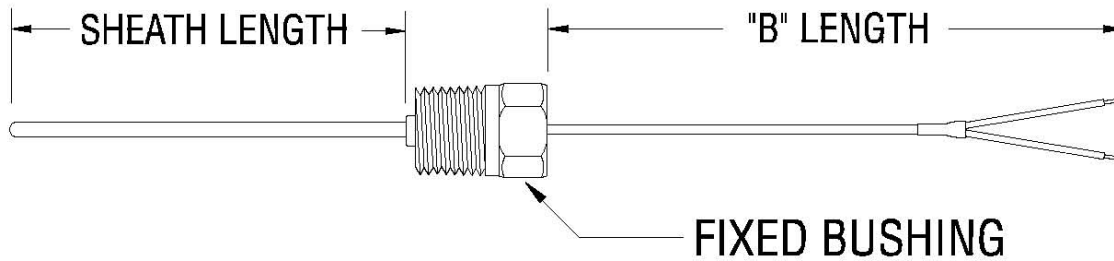


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LEADWIRE STYLE THERMOCOUPLES

STYLE B



SHEATH TERMINATION

B = Sheath Style*

CALIBRATION

J = Type "J"
K = Type "K"
E = Type "E"
T = Type "T"

TYPE/OPTION

0 = None (Single 2 Wire)
1 = Special Limits of Error
2 = High Purity (99.4%) Insulation
3 = Special Limits & High Purity
4 = Duplex Construction (4 Wire)
5 = Duplex Special Limits
6 = Duplex High Purity Insulation
7 = Duplex Special Limits & High Purity

JUNCTION TYPE

E = Exposed
G = Grounded, Round Tip
U = Ungrounded, Round Tip

SHEATH DIAMETER (Inch)

D = ----- (.040) I = 3/16 (.188)
E = 1/16 (.063) K = 1/4 (.250)
G = 1/8 (.125) N = 3/8 (.375)

SHEATH MATERIAL

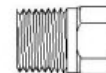
J = Inconel 600 V = 310 SS
S = 446 SS W = 316 SS
T = 304 SS

SHEATH LENGTH ("A")

Whole Inches: Example 12 = 12"

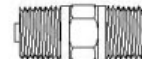
SHEATH MOUNTING FITTINGS (One of the following fittings must be used with this style MGO assembly)

Fixed Bushings



6A 316 Stainless Steel 1/8 NPT
6B 316 Stainless Steel 1/4 NPT
6D 316 Stainless Steel 1/2 NPT
6E 316 Stainless Steel 3/4 NPT
7A Brass 1/8 NPT
7B Brass 1/4 NPT
7D Brass 1/2 NPT

Hex Nipples



45 Steel, brazed on 1/2 NPT
46 Stainless Steel (316SS) 1/8 NPT
47 Stainless Steel (316SS) 1/4 NPT
48 Stainless Steel (316SS) 1/2 NPT
55 Steel, spring loaded 1/2 NPT
56 Stainless Steel, spring loaded 1/2NPT
57 Stainless Steel, self contained spring loaded 1/2 NPT (1/4" sheath only)
60 Stainless Steel (316) 3/4 NPT
61 Stainless Steel (316) 1 NPT

SHEATH LENGTH ("A" Fractional)

A = None G = 1/4 N = 5/8
B = 1/16 J = 3/8 Q = 3/4
C = 1/8 L = 1/2 S = 7/8
E = 3/16

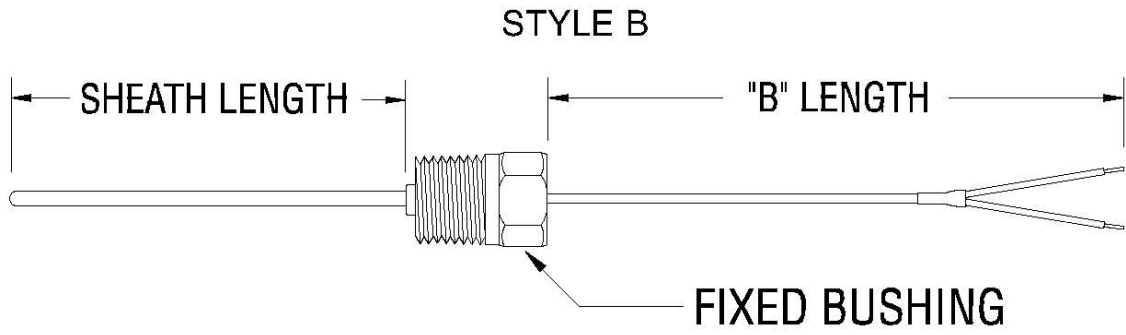
*Note: For Replaceable elements (MC) for Thermowells see the Thermowell Section



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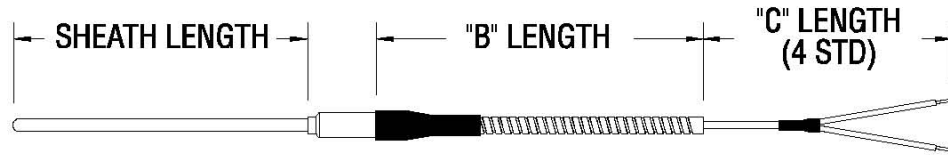
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LEADWIRE STYLE THERMOCOUPLES (CONTINUED)

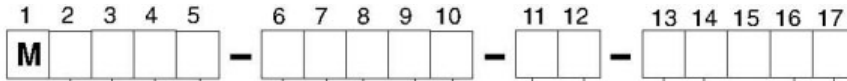
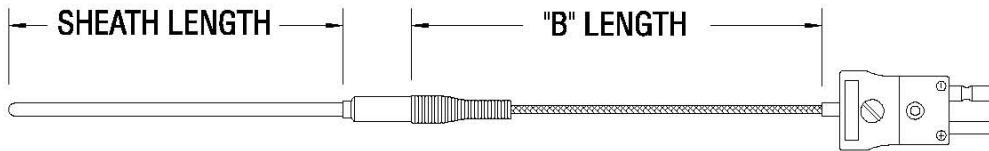


LEADWIRE STYLE THERMOCOUPLES

STYLE D & E



STYLE F & G



SHEATH TERMINATION

- D = Transition Fitting (200°C)
- E = Hi-Temp Transition Fitting (900°C)
- F = Transition w/Relief Spring (200°C)
- G = Hi-Temp Transition w/Relief Spring (900°C)

CALIBRATION

- J = Type "J"
- K = Type "K"
- E = Type "E"
- T = Type "T"

TYPE/OPTION

- 0 = None (Single 2 Wire)
- 1 = Special Limits of Error
- 2 = High Purity (99.4%) Insulation
- 3 = Special Limits & High Purity
- 4 = Duplex Construction (4 Wire)
- 5 = Duplex Special Limits
- 6 = Duplex High Purity Insulation
- 7 = Duplex Special Limits & High Purity

JUNCTION TYPE

- E = Exposed
- G = Grounded, Round Tip
- U = Ungrounded, Round Tip

SHEATH DIAMETER (Inch)

- | | |
|-----------------|-----------------|
| D = ---- (.040) | I = 3/16 (.188) |
| E = 1/16 (.063) | K = 1/4 (.250) |
| G = 1/8 (.125) | N = 3/8 (.375) |

SHEATH MATERIAL

- | | |
|-----------------|------------|
| J = Inconel 600 | V = 310 SS |
| S = 446 SS | W = 316 SS |
| T = 304 SS | |

SHEATH LENGTH ("A")

Whole Inches: Example 12 = 12"

LEADWIRE TERMINATIONS

- A = None
- B = 2-1/2" Split Leads
- C = 2-1/2" Split Leads w/#8 Spade Lugs
- D = 2-1/2" Split Leads w/#8 Spade Lugs & BX Connector
- E = 2-1/2" Split Leads w/1/4" Push-on Connectors
- J = 2-1/2" Split Leads w/ Insulated Crimp Pins
- K = Standard Male Plug (200°C)
- L = Standard Plug with Mating Jack
- M = Standard Female Jack
- N = Hi-Temp Male Plug (427°C)
- O = Hi-Temp Plug with Mating Jack
- P = Hi-Temp Female Jack
- Q = Miniature Male Plug (200°C)
- R = Miniature Plug Mating Jack
- S = Miniature Female Jack

LEADWIRE LENGTH ("B")

Whole Inches: Example: 048 = 48 Inches

LEADWIRE TYPE

- A = Solid Fiberglass (482°C)
- B = Solid Fiberglass with SS Flex Armor
- C = Solid Fiberglass with SS Overbraid
- D = Stranded Fiberglass
- E = Stranded Fiberglass with SS Flex Armor
- F = Stranded Fiberglass with SS Overbraid
- G = Hi-Temp Fiberglass (704°C)
- H = Hi-Temp Fiberglass with SS Flex Armor
- J = Solid Teflon (200°C)
- K = Solid Teflon with SS Flex Armor
- M = Stranded Teflon
- N = Stranded Teflon with SS Flex Armor
- O = Stranded Teflon with SS Overbraid

SHEATH MOUNTING FITTINGS

Select from pages #M-14 & M-15

SHEATH LENGTH ("A" Fractional)

- | | | | |
|----------|----------|---------|---------|
| A = None | E = 3/16 | L = 1/2 | S = 7/8 |
| B = 1/16 | G = 1/4 | N = 5/8 | |
| C = 1/8 | J = 3/8 | Q = 3/4 | |

NOTE: For Teflon Encapsulated Sheath, add "T" to the end of P/N

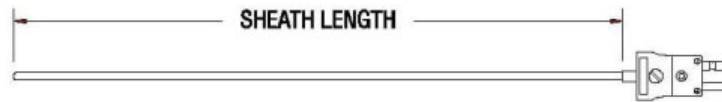


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STANDARD CONNECTOR THERMOCOUPLES

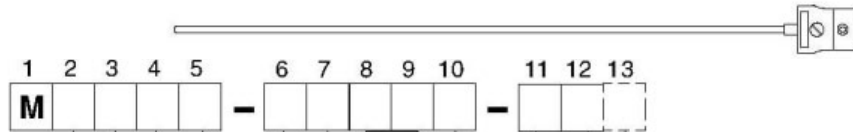
STYLE K



STYLE L



STYLE M



SHEATH TERMINATION

- K = Standard Male Plug (200°C)
- L = Standard Plug with Mating Jack
- M = Standard Female Jack
- N = Hi-Temp Male Plug (427°C)
- O = Hi-Temp Plug with Mating Jack
- P = Hi-Temp Female Jack

CALIBRATION

- J = Type "J"
- K = Type "K"
- E = Type "E"
- T = Type "T"

TYPE/OPTION

- 0 = None (Single 2 Wire)
- 1 = Special Limits of Error
- 2 = High Purity (99.4%) Insulation
- 3 = Special Limits & High Purity
- 4 = Duplex Construction (4 Wire)
- 5 = Duplex Special Limits
- 6 = Duplex High Purity Insulation
- 7 = Duplex Special Limits & High Purity

JUNCTION TYPE

- E = Exposed
- G = Grounded, Round Tip
- U = Ungrounded, Round Tip

SHEATH DIAMETER (Inch)

- | | |
|-----------------|-----------------|
| D = ---- (.040) | I = 3/16 (.188) |
| E = 1/16 (.063) | K = 1/4 (.250) |
| G = 1/8 (.125) | N = 3/8 (.375) |

SPECIAL OPTIONS

- T = Teflon Encapsulated Sheath
- S = Solid Pins on Plug

SHEATH MOUNTING FITTINGS

- Select from pages #M-14 & M-15
- None = 00

SHEATH LENGTH ("A" Fractional)

- | | |
|----------|---------|
| A = None | J = 3/8 |
| B = 1/16 | L = 1/2 |
| C = 1/8 | N = 5/8 |
| E = 3/16 | Q = 3/4 |
| G = 1/4 | S = 7/8 |

SHEATH LENGTH ("A")

Whole Inches: Example: 012 = 12 Inches

NOTE: For Sheath lengths over 99 inches, insert a 3 digit length and delete the fractional code.

Example: 144 = 144"

SHEATH MATERIAL

- J = Inconel 600
- S = 446 SS
- T = 304 SS
- V = 310 SS
- W = 316 SS



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MINIATURE CONNECTOR THERMOCOUPLES



SHEATH TERMINATION

- Q = Miniature Male Plug (200°C)
- R = Miniature Plug with Mating Jack
- S = Miniature Female Jack

CALIBRATION

- J = Type "J"
- K = Type "K"
- E = Type "E"
- T = Type "T"

TYPE/OPTION

- 0 = None (Single 2 Wire)
- 1 = Special Limits of Error
- 2 = High Purity (99.4%) Insulation
- 3 = Special Limits & High Purity
- 4 = Duplex Construction (4 Wire)
- 5 = Duplex Special Limits
- 6 = Duplex High Purity Insulation
- 7 = Duplex Special Limits & High Purity

JUNCTION TYPE

- E = Exposed
- G = Grounded, Round Tip
- U = Ungrounded, Round Tip

SHEATH DIAMETER (Inch)

- D = ----- (.040)
- E = 1/16 (.063)
- G = 1/8 (.125)
- I = 3/16 (.188)

SPECIAL OPTIONS

- T = Teflon Encapsulated Sheath

SHEATH MOUNTING FITTINGS

- Select from pages #M-14 & M-15
- None = 00

SHEATH LENGTH ("A" Fractional)

- A = None J = 3/8
- B = 1/16 L = 1/2
- C = 1/8 N = 5/8
- E = 3/16 Q = 3/4
- G = 1/4 S = 7/8

SHEATH LENGTH ("A")

- Whole Inches: Example: 012 = 12 Inches
- NOTE: For Sheath lengths over 99 inches, insert a 3 digit length and delete the fractional code.
- Example: 144 = 144"

SHEATH MATERIAL

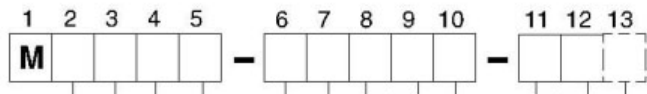
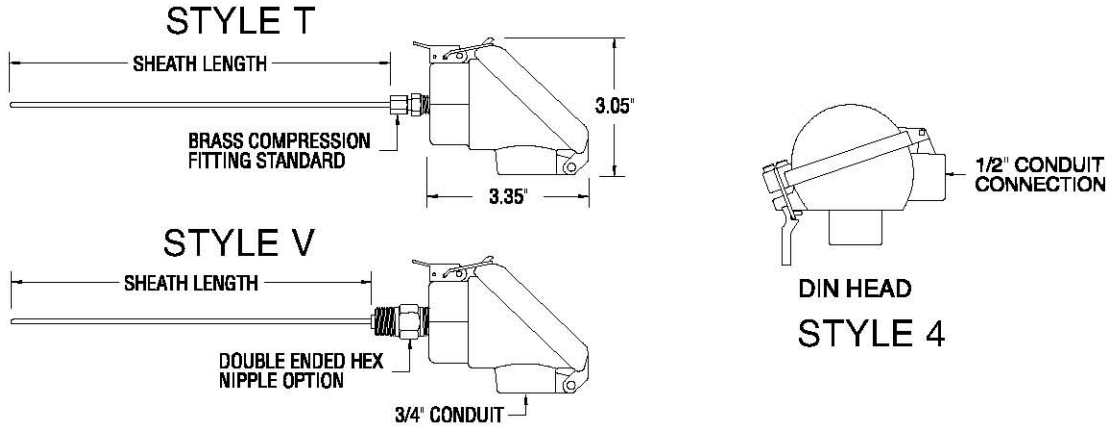
- J = Inconel 600
- S = 446 SS
- T = 304 SS
- V = 310 SS
- W = 316 SS



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SNAP-COVER CONNECTION HEAD THERMOCOUPLES



SHEATH TERMINATION

- T = Cast Aluminum Weatherproof (200°C)
- V = Black Polypropylene Weatherproof (90°C)
- 4 = Din "B" Size Aluminum WP (200°C) (T-304)

CALIBRATION

- J = Type "J"
- K = Type "K"
- E = Type "E"
- T = Type "T"

TYPE/OPTION

- 0 = None (Single 2 Wire)
- 1 = Special Limits of Error
- 2 = High Purity (99.4%) Insulation
- 3 = Special Limits & High Purity
- 4 = Duplex Construction (4 Wire)
- 5 = Duplex Special Limits
- 6 = Duplex High Purity Insulation
- 7 = Duplex Special Limits & High Purity

JUNCTION TYPE

- E = Exposed
- G = Grounded, Round Tip
- U = Ungrounded, Round Tip

SHEATH DIAMETER (Inch)

- G = 1/8 (.125)
- I = 3/16 (.188)
- K = 1/4 (.250)
- N = 3/8 (.375)

SPECIAL OPTIONS

- G = Ground Screw
- T = Teflon Encapsulated Sheath

SHEATH MOUNTING FITTINGS

Select from pages #M-14 & M-15
None = 00

SHEATH LENGTH ("A" Fractional)

- A = None J = 3/8
- B = 1/16 L = 1/2
- C = 1/8 N = 5/8
- E = 3/16 Q = 3/4
- G = 1/4 S = 7/8

SHEATH LENGTH ("A")

Whole Inches: Example: 012 = 12 Inches
NOTE: For Sheath lengths over 99 inches, insert a 3 digit length and delete the fractional code.
Example: 144 = 144"

SHEATH MATERIAL

- J = Inconel 600
- S = 446 SS
- T = 304 SS
- V = 310 SS
- W = 316 SS

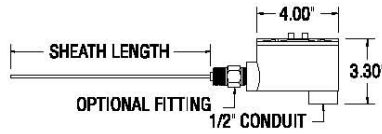


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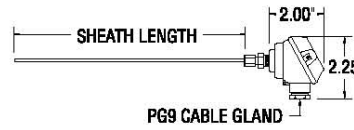
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MISCELLANEOUS COVER CONNECTION HEAD THERMOCOUPLES

STYLE W



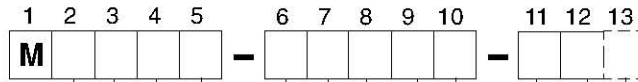
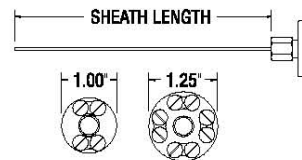
STYLE Y



STYLE X



STYLE Z



SHEATH TERMINATION

- W= Explosion Proof (200°C)*
- X = Miniature Plastic (177°C)
- Y = Miniature Aluminum (200°C)
- Z = Plastic Open Disk (200°C)

CALIBRATION

- J = Type "J"
- K = Type "K"
- E = Type "E"
- T = Type "T"

TYPE/OPTION

- 0 = None (Single 2 Wire)
- 1 = Special Limits of Error
- 2 = High Purity (99.4%) Insulation
- 3 = Special Limits & High Purity
- 4 = Duplex Construction (4 Wire)
- 5 = Duplex Special Limits
- 6 = Duplex High Purity Insulation
- 7 = Duplex Special Limits & High Purity

JUNCTION TYPE

- E = Exposed
- G = Grounded, Round Tip
- U = Ungrounded, Round Tip

* Explosion Proof Head Meets the Following Location Classification:
 Class I, Groups C & D
 Class II, Groups E, F, & G
 Class III, Div. 1 & 2
 NEMA 7, Groups C & D
 NEMA 9, Groups E, F, & G

SPECIAL OPTIONS

- T = Teflon Encapsulated Sheath

SHEATH MOUNTING FITTINGS

- Select from pages #M-14 & M-15
- None = 00

SHEATH LENGTH ("A" Fractional)

- A = None J = 3/8
- B = 1/16 L = 1/2
- C = 1/8 N = 5/8
- E = 3/16 Q = 3/4
- G = 1/4 S = 7/8

SHEATH LENGTH ("A")

- Whole Inches: Example: 012 = 12 Inches
- NOTE: For Sheath lengths over 99 inches, insert a 3 digit length and delete the fractional code.
- Example: 144 = 144"

SHEATH MATERIAL

- J = Inconel 600
- S = 446 SS
- T = 304 SS
- V = 316 SS
- W = 316 SS

SHEATH DIAMETER (Inch)

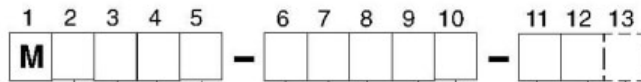
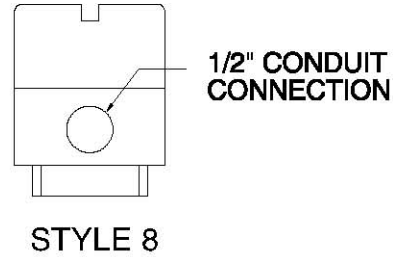
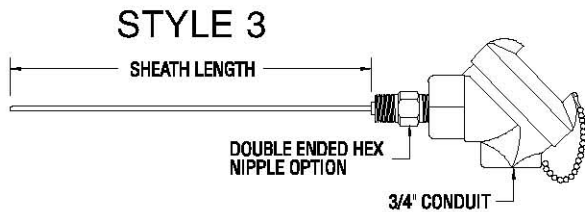
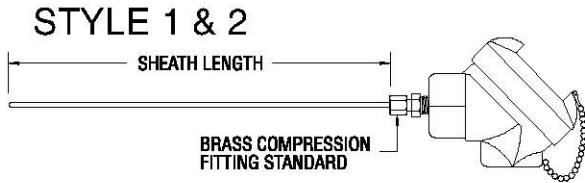
- G = 1/8 (.125)
- I = 3/16 (.188)
- K = 1/4 (.250)
- N = 3/8 (.375)



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SCREW-COVER CONNECTION HEAD THERMOCOUPLES



SHEATH TERMINATION

- 1 = Cast Aluminum Weatherproof (200°C)
- 2 = Cast Iron Weatherproof (200°C)
- 3 = Grey Delrin Plastic (135°C)
- 8 = Stainless Steel Weatherproof (200°C)

CALIBRATION

- J = Type "J"
- K = Type "K"
- E = Type "E"
- T = Type "T"

TYPE/OPTION

- 0 = None (Single 2 Wire)
- 1 = Special Limits of Error
- 2 = High Purity (99.4%) Insulation
- 3 = Special Limits & High Purity
- 4 = Duplex Construction (4 Wire)
- 5 = Duplex Special Limits
- 6 = Duplex High Purity Insulation
- 7 = Duplex Special Limits & High Purity

JUNCTION TYPE

- E = Exposed
- G = Grounded, Round Tip
- U = Ungrounded, Round Tip

SHEATH DIAMETER (Inch)

- G = 1/8 (.125)
- I = 3/16 (.188)
- K = 1/4 (.250)
- N = 3/8 (.375)

SPECIAL OPTIONS

- G = Ground Screw
- T = Teflon Encapsulated Sheath

SHEATH MOUNTING FITTINGS

Select from pages #M-14 & M-15
None = 00

SHEATH LENGTH ("A" Fractional)

- A = None J = 3/8
- B = 1/16 L = 1/2
- C = 1/8 N = 5/8
- E = 3/16 Q = 3/4
- G = 1/4 S = 7/8

SHEATH LENGTH ("A")

Whole Inches: Example: 012 = 12 Inches
NOTE: For Sheath lengths over 99 inches, insert a 3 digit length and delete the fractional code.
Example: 144 = 144"

SHEATH MATERIAL

- J = Inconel 600
- S = 446 SS
- T = 304 SS
- V = 310 SS
- W = 316 SS



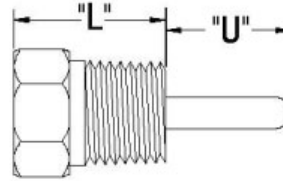
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SHEATH MOUNTING FITTINGS

Fixed Brazed or Welded Bushings

| Code | Description | NPT | "L" |
|------|---------------------|-----|------|
| 6A | 316 Stainless Steel | 1/8 | .80 |
| 6B | 316 Stainless Steel | 1/4 | .81 |
| 6D | 316 Stainless Steel | 1/2 | 1.09 |
| 6E | 316 Stainless Steel | 3/4 | 1.20 |
| 7A | Brass | 1/8 | .80 |
| 7B | Brass | 1/4 | .96 |
| 7D | Brass | 1/2 | 1.20 |



Insert "U" length

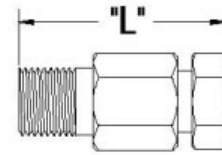
Ex. 6 D04 = 4" "U" length

COMPRESSION FITTINGS

One-time Adjustable*

Available Sizes and "L" Length

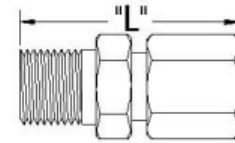
| Code | Description | NPT | 1/16" | 1/8" | 3/16" | 1/4" | 3/8" |
|------|-----------------|-----|-------|------|-------|------|------|
| 1A | Stainless Steel | 1/8 | 1.27 | 1.24 | 1.29 | 1.29 | N/A |
| 1B | Stainless Steel | 1/4 | 1.22 | 1.40 | 1.43 | 1.49 | 1.57 |
| 1D | Stainless Steel | 1/2 | N/A | 1.66 | N/A | 1.76 | 1.82 |
| 2A | Brass | 1/8 | 1.03 | 1.02 | 1.10 | 1.15 | N/A |
| 2B | Brass | 1/4 | 1.22 | 1.40 | 1.18 | 1.24 | 1.28 |
| 2D | Brass | 1/2 | 1.40 | 1.35 | 1.25 | 1.44 | 1.53 |



Re-Adjustable*

Available Sizes and "L" Length

| Code | Description | NPT | 1/16" | 1/8" | 3/16" | 1/4" | 3/8" |
|------|-----------------|-----|-------|------|-------|------|------|
| 3A | Stainless Steel | 1/8 | 1.21 | 1.21 | 1.21 | N/A | N/A |
| 3B | Stainless Steel | 1/4 | N/A | 1.40 | 1.43 | 2.50 | 2.50 |
| 3D | Stainless Steel | 1/2 | N/A | 1.66 | N/A | 1.76 | 1.82 |

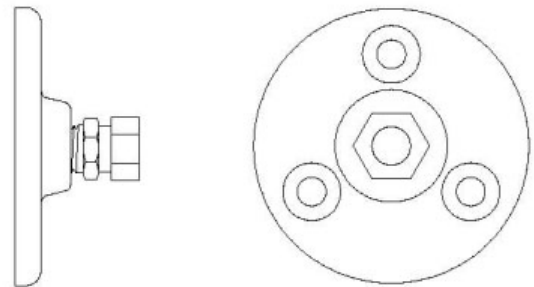


NOTE: All Re-adjustable fittings contain Teflon ferrules standard.
Consult Sales for Neoprene or Lava ferrules

Mounting Flanges*

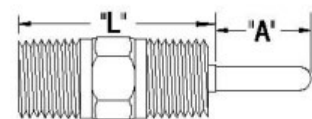
| Code | Description |
|------|---|
| 25 | Flange w/ Brass Compression, Adjustable |
| 26 | Flange w/SS Compression, Adjustable |

* NOT AVAILABLE WITH TEFLON COATED SHEATH!



Double Ended Hex Nipples

| Code | Description | NPT | "L" | Compatible with Head Order Codes |
|------|--|-----|------|----------------------------------|
| 45 | Steel, brazed on | 1/2 | 2.10 | T, V, W, 1, 2, 3, 4, 5, 8 |
| 46 | Stainless Steel (316SS) | 1/8 | 1.01 | T, V, X, Y, 1 |
| 47 | Stainless Steel (316SS) | 1/4 | 2.10 | T, V, X, Y, 1 |
| 48 | Stainless Steel (316SS) | 1/2 | 2.10 | T, V, W, 1, 2, 3, 4, 5, 8 |
| 55 | Steel, spring loaded | 1/2 | 2.10 | T, V, 1, 2, 3, 4, 5, 8 |
| 56 | Stainless Steel, spring loaded | 1/2 | 2.10 | T, V, 1, 2, 3, 4, 5, 8 |
| 57 | Stainless Steel, self contained spring loaded (1/4" sheath only) | 1/2 | 2.50 | T, V, W, 1, 2, 3, 4, 5, 8 |
| 60 | Stainless Steel (316SS) | 3/4 | 2.50 | T, V, W, 1, 2, 3, 4, 5, 8 |
| 61 | Stainless Steel (316SS) | 1 | 2.50 | T, V, W, 1, 2, 3, 4, 5, 8 |



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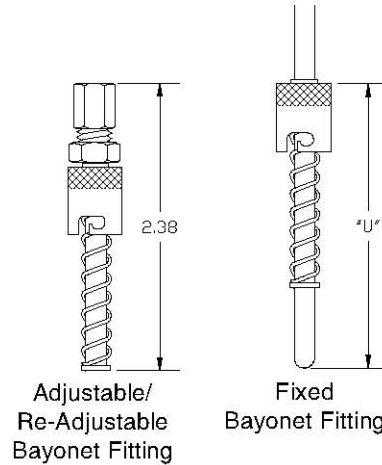
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SHEATH MOUNTING FITTINGS and BEND OPTIONS

Bayonet Fittings

| Code | Description | Available Sheath Sizes |
|------|-------------------------------|------------------------|
| 27 | Adjustable Bayonet Fitting | 1/8 |
| 28 | Re-Adjustable Bayonet Fitting | 1/8 |
| 29 | Fixed Bayonet Fitting | 1/8, 3/16, 1/4 |

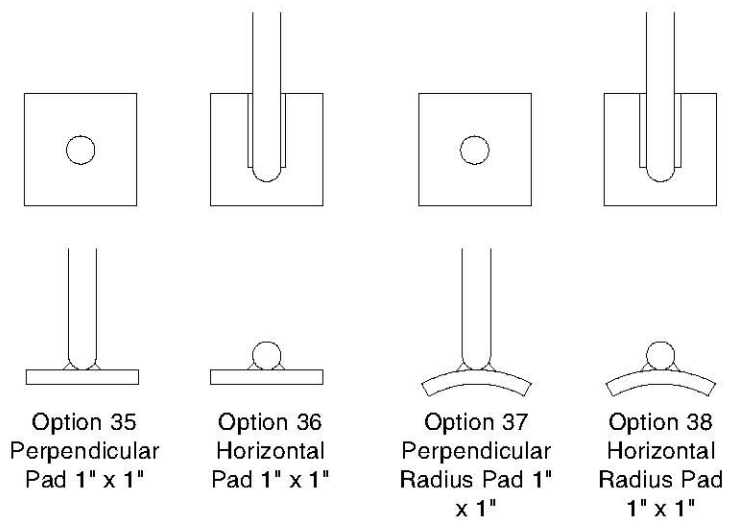
* Insert "U" length
 Ex. 2904 = 4" "U" length



Weld Pads

| Code | Description |
|------|--|
| 35 | Perpendicular Pad, 316 SS, 1" x 1" |
| 36 | Horizontal Pad, 316 SS, 1" x 1" |
| 37* | Perpendicular Radius Pad*, 316 SS, 1" x 1" |
| 38* | Horizontal Radius Pad*, 316 SS, 1" x 1" |

* Specify Radius (Ex. 37(2)=2"R)



Sheath Bends

| Code | Description |
|------|-------------|
| A* | 90° Bend |
| B* | 45° Bend |

* Insert "U" Length
 Ex. A04=4" "U" Length

