



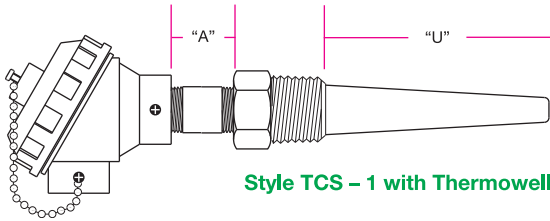
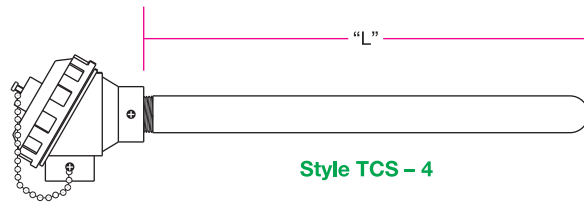
### Industrial Process Thermocouples



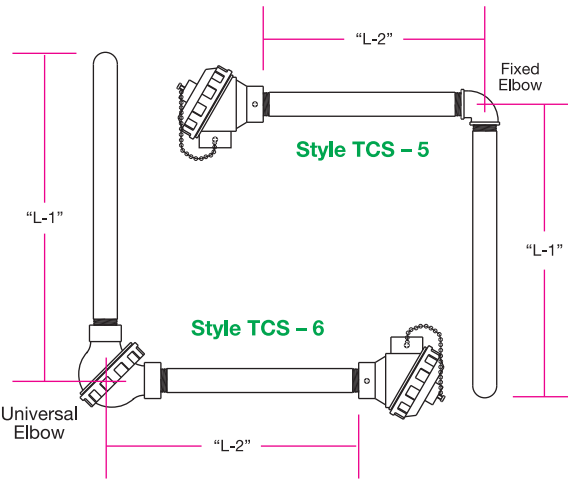
Tempco manufactures many styles of industrial thermocouple assemblies for a wide range of industries, from petrochemical to textile applications, where one or more protection tubes may be necessary to protect the thermocouple.

### Metal Protecting Tube Assemblies

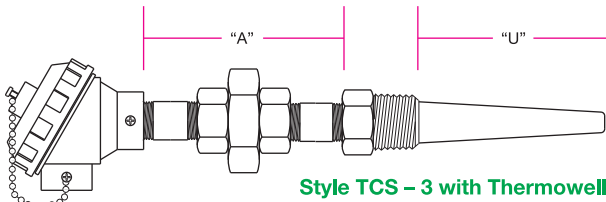
### Thermowell Assemblies



Thermocouple Head, Nipple, Thermowell

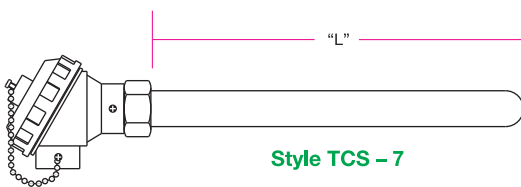


Thermocouple Head, Metal Protecting Tube

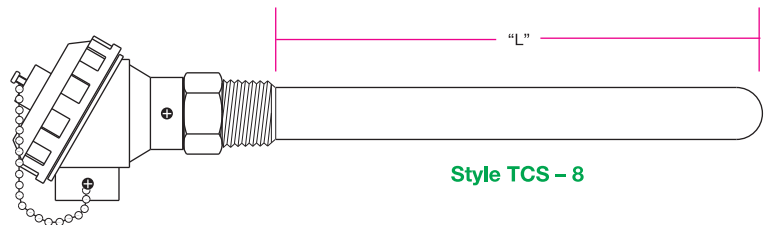


Thermocouple Head, Nipple, Union, Nipple, Thermowell

### Ceramic Tube Assemblies



Thermocouple Head, Fixed Bushing, Ceramic Tube



Thermocouple Head, Ceramic Tube



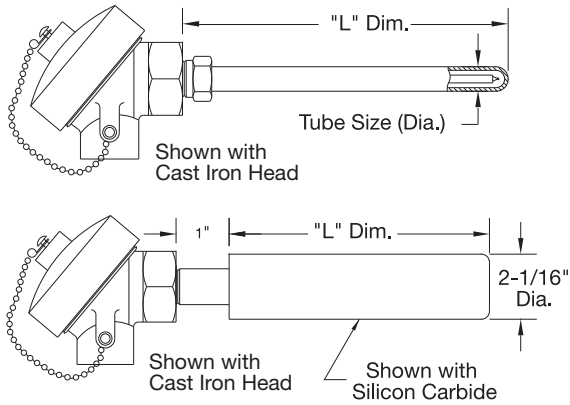
### Ceramic and Silicon Carbide Protection Tube Thermocouple Assemblies

#### Design Features

- \* Ceramic Insulator to Insulate Wires
- \* Choice of Alumina 3450°F (1900°C), Mullite 3100°F (1700°C), Hexoloy SA (sintered silicon carbide) 3000°F (1650°C) or Silicon Carbide (carbon bonded) 2300°F (1260°C)
- \* With or Without Threaded Process Mounting Bushing
- \* Available with Double Protection Tube

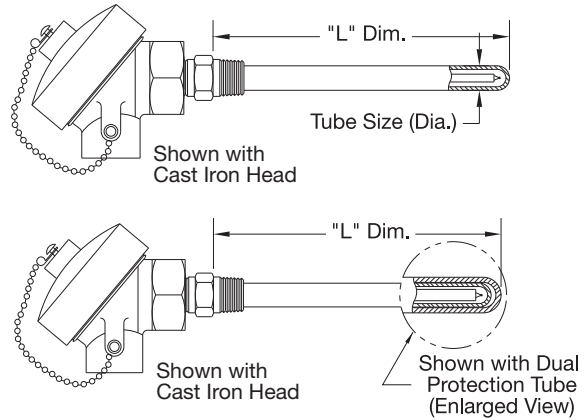
#### Style TCS - 7

Without Threaded Process Connection



#### Style TCS - 8

With Threaded Process Connection



**Ordering Code:** TCS -

#### Style BOX 1

- 7 = Plain
- 8 = w/Pipe Thread Process Connection

#### Sheath Material BOX 2

- A = Alumina
- H = Hexoloy SA (sintered silicone carbide)
- M = Mullite
- S = Silicon Carbide (carbon bonded)
- X = Other (Specify)

#### Tube & Fitting Size BOX 3

(Style TCS - 7 has no process pipe thread)

- 1 = 3/8" OD (1/4" ID) — 1/2" NPT Thread for Style TCS-8 (available in Alumina, Mullite or Hexoloy SA only)
- 2 = 5/8" OD (3/8" ID) — 1/2" NPT Thread for Style TCS-8 (available in Hexoloy SA only)
- 3 = 11/16" OD (7/16" ID) — 3/4" NPT Thread for Style TCS-8 (available in Alumina or Mullite only)
- 4 = 3/4" OD (1/2" ID) — 3/4" NPT Thread for Style TCS-8 (available in Hexoloy SA only)
- 5 = 2-1/16" OD (Style TCS-7) (available in carbon bonded silicone carbide only)
- X = Other (Specify)

#### Calibration Code BOX 4

- J = Type J      R = Type R
- K = Type K      B = Type B
- S = Type S

#### Wire Gauge BOX 5

- A = 24 ga. (Type S, R and B)      D = 8 ga.
- B = 20 ga.      X = Other (Specify)
- C = 14 ga.

#### "L" Dimension BOX 6

Whole inches 12 to 48  
in 6-inch increments  
For lengths over 48 in. consult TEMPCO.

#### Threaded Bushing Material

- BOX 7
- S = Stainless Steel
  - B = Brass
  - Enter 0 for TCS-7

#### Protection Tube BOX 8

- 1 = Single Protection Tube (Std.)
- 2 = Double Protection Tube

#### Connection Head BOX 9

- A = Standard Size Aluminum
- H = Standard Cast Iron
- S = Stainless Steel
- Note: All have 1/2" conduit connection (3/4" available). For overall dimensions see pages 14-98 through 14-100.

#### Special Requirements BOX 10

- 0 = None
- X = Specify

### Ordering Information

Thermocouples are offered with the options listed in the worksheet. 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.