

# Temperature Sensing

## Industrial Thermocouple Assemblies



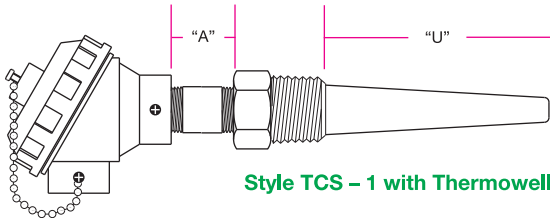
### Industrial Process Thermocouples



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.

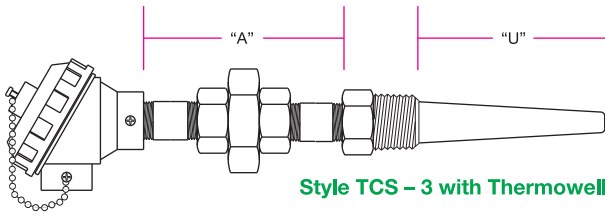
### Metal Protecting Tube Assemblies

### Thermowell Assemblies



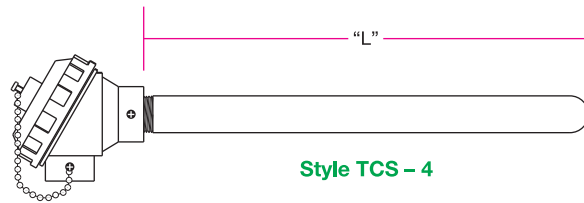
Style TCS - 1 with Thermowell

Thermocouple Head, Nipple, Thermowell

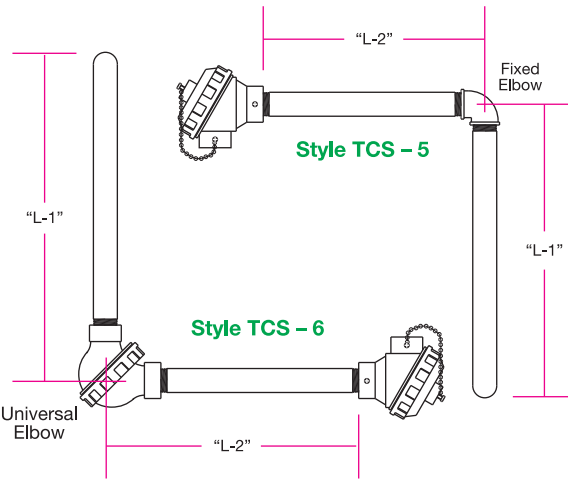


Style TCS - 3 with Thermowell

Thermocouple Head, Nipple, Union, Nipple, Thermowell



Style TCS - 4



Style TCS - 5

Style TCS - 6

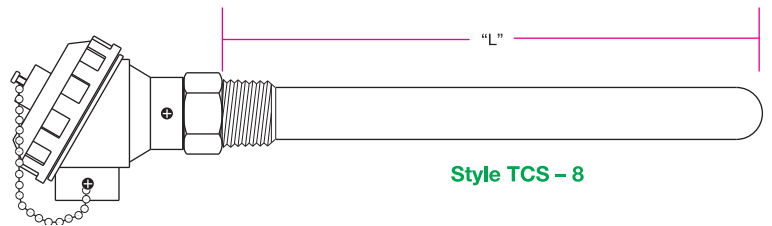
Thermocouple Head, Metal Protecting Tube

### Ceramic Tube Assemblies



Style TCS - 7

Thermocouple Head, Fixed Bushing, Ceramic Tube

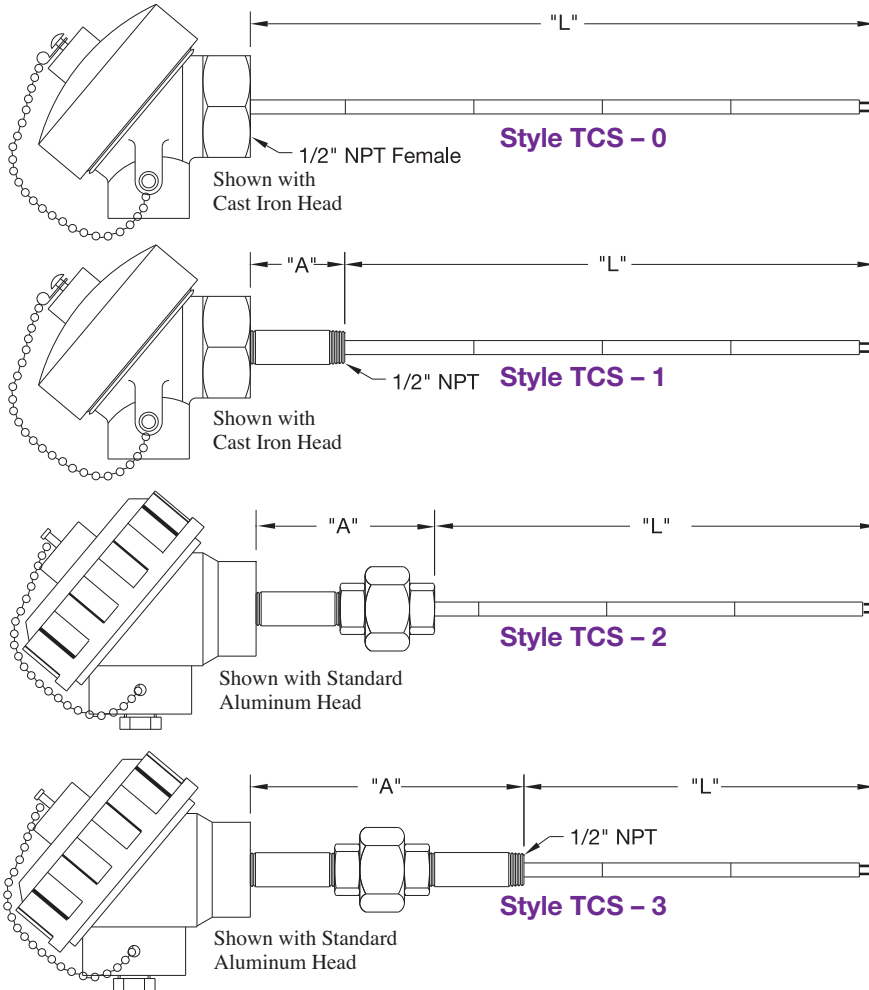


Style TCS - 8

Thermocouple Head, Ceramic Tube



### Thermocouples for Thermowells and Protection Tubes



#### Design Features

- \* Ceramic Insulator to Insulate Wires
- \* Galvanized 1/2" Pipe Nipple & Union
- \* Cast Iron or Aluminum Head
- \* Used with protection tubes and thermowells shown on pages 14-76 through 14-86

#### 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.

**Ordering Code:** **TCS** -

#### Style BOX 1

- 0** = Plain
- 1** = with Nipple
- 2** = with Nipple and Union
- 3** = with Nipple, Union and Nipple

#### Calibration Code BOX 2

- J** = Type J
- K** = Type K
- X** = Other (Specify)

#### Wire Gauge and Insulator Size BOX 3

- B** = 20 ga. (.172" x .118" insulator)
- C** = 14 ga. (.375" x .217" insulator)
- D** = 8 ga. (.437" x .250" insulator)
- X** = Other (Specify)

#### "L" Dimension BOX 4

Whole inches  
**00 to 99**

#### "A" Dimension (TCS -1, TCS -2 & TCS -3 only) BOX 5

**01 to 99 inches or use Codes below for standard length**  
**Enter 00 for TCS - 0 Style**

TCS1	TCS2	TCS3
<b>S1</b> = 1"	<b>S1</b> = 2-1/2"	<b>S1</b> = 3-1/2"
<b>S2</b> = 2-1/2"	<b>S2</b> = 4"	<b>S2</b> = 6-1/2"
<b>S3</b> = 5-1/2"	<b>S3</b> = 7"	<b>S3</b> = 12-1/2"

#### Connection Head BOX 6

**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 7

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

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