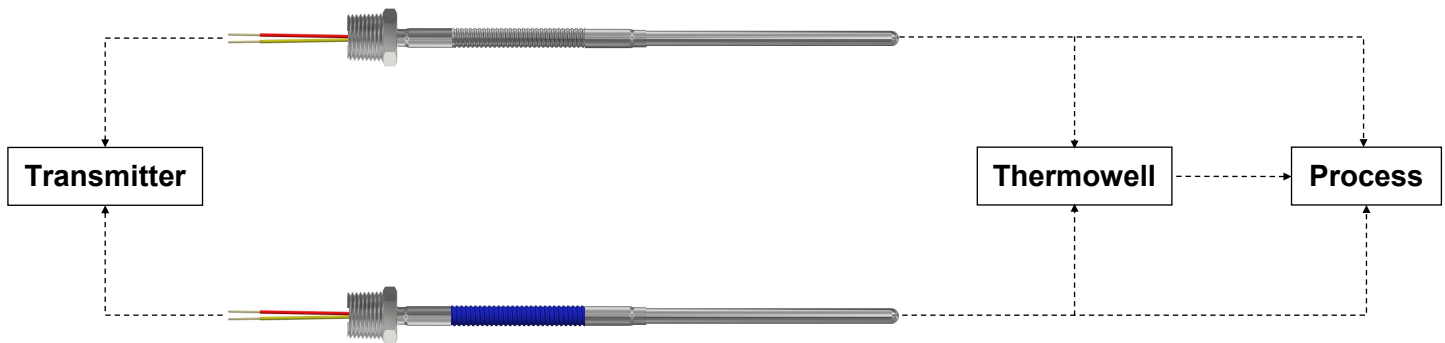


# TC15 Direct Mount Thermocouple Assembly

Class I, Division 2, Groups A, B, C, D; Class I, Zone 2, Group IIC (Note 2); T6...T1



## Overview

### Description:

The TC15 direct mount thermocouple assembly is a thermocouple designed for use in hazardous locations. The TC15 is a customizable product that is model number configured and made to order.

The TC15 consists of a thermocouple sensor probe, complete with a flexible armor that connects to a 1/2" NPT fitting that can be connected to a direct mount temperature transmitter. Connection to a thermowell is optional for the TC15.

### Features:

- Simple design that is used and accepted across multiple process industries.
- TC15 configuration options allow for many different arrangements to be configured for almost any temperature measurement application.

### Application:

- Hazardous location temperature measurement
- Industrial temperature measurement
- Process control
- Outdoor / indoor use

## Specifications

Accuracy TC	Tolerance per ASTM E230
T-Code	T6...T1
Electrical rating	30 Vdc, 1.0 A max
Ambient temperature	-50°C to +50°C (-58°F to +122°F)
Process temperature	-50°C to +450°C (-58°F to +842°F)
CSA Certificate of Compliance	1526478

### Note:

1. Specifications will depend on model code variants, and the values shown are the full rated model ranges.
2. Class I, Zone 2, Group IIC is US only.



# TC15 Thermocouple Assembly Model Code

TC15 - T1 - T2 - T3 - T4 - T5 - T6 - T7 - T8 - T9

## TC15 Direct mount thermocouple assembly with flexible armor

<b>T1</b>	<b>Direct Mount Transmitter</b>
<b>"Code"</b>	<b>Aircom listed direct mount transmitter model code (consult factory)</b>
X	Not required

<b>T2</b>	<b>Flex-Armor Extension</b>	<b>Lead Wire Ratings</b>
AF	Flex armor over fiberglass lead wire	Fiberglass lead wire +485°C (+905°F)
<b>AT</b>	<b>Flex armor over Teflon lead wire</b>	<b>Teflon lead wire +260°C (+500°F)</b>
PT	Poly jacketed flex armor over Teflon lead wire	Teflon lead wire +260°C (+500°F) / Poly jacket +90°C (+194°C)
TT	Teflon jacketed flex armor over Teflon lead wire	Teflon lead wire / jacket +260°C (+500°C)

<b>T3</b>	<b>Flex-Armor Extension "A" length (inches)</b>	<b>CSA Process Temperature Rating</b>
"inches"	Specify length in inches	-50°C to +450°C (-58°F to +842°F), when "A" length is ≥ 8" length <sup>4</sup>

<b>T4</b>	<b>Thermocouple Type</b>		
<b>K</b>	<b>Type K</b>	N	Type N
<b>J</b>	<b>Type J</b>	R	Type R
T	Type T	S	Type S
E	Type E	B	Type B

<b>T5</b>	<b>Sensor Sheath Diameter</b>
18	1/8" OD
36	3/16" OD
<b>14</b>	<b>1/4" OD</b>
38	3/8" OD

Continued on page 3



# TC15 Thermocouple Assembly Model Code

TC15 - T1 - T2 - T3 - T4 - T5 - T6 - T7 - T8 - T9

Continued from page 2

T6	Thermocouple Junction
G	Grounded
<b>U</b>	<b>Ungrounded</b>
E	Exposed

T7	Thermocouple Junction Quantity
<b>S</b>	<b>Single</b>
<b>D</b>	<b>Dual</b>
T	Triple
Q	Quad

T8	Sensor Sheath Material
304	304/304L stainless steel
<b>316</b>	<b>316/316L stainless steel</b>
310	310 stainless steel
600	Inconel 600
HAC	Hastelloy C-276
Other	Consult factory

T9	Sensor "L" Length (inches)
"inches"	Specify length in inches

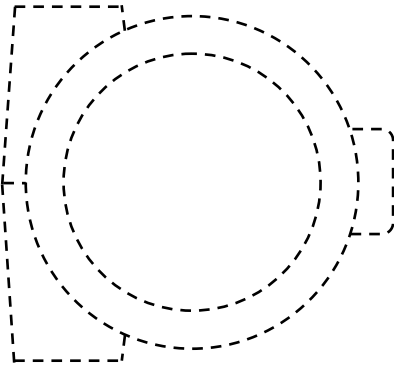
NOTES:

1. Part number example: TC15-X-AT-36-K-14-U-S-316-12
2. Reference page 4 for part outline and 5 for part dimensions
3. Bold text indicates most common part selections
4. The sensor temperature rating is based on the length not directly in contact with the process at its maximum temperature

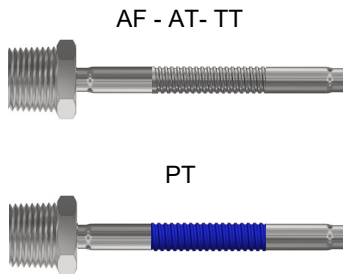


# TC15 Thermocouple Assembly Outline

## Direct Mount Transmitter



## Flex-Armor Extension



## Sensor Probe (OD)

18  
(0.125")



36  
(0.188")



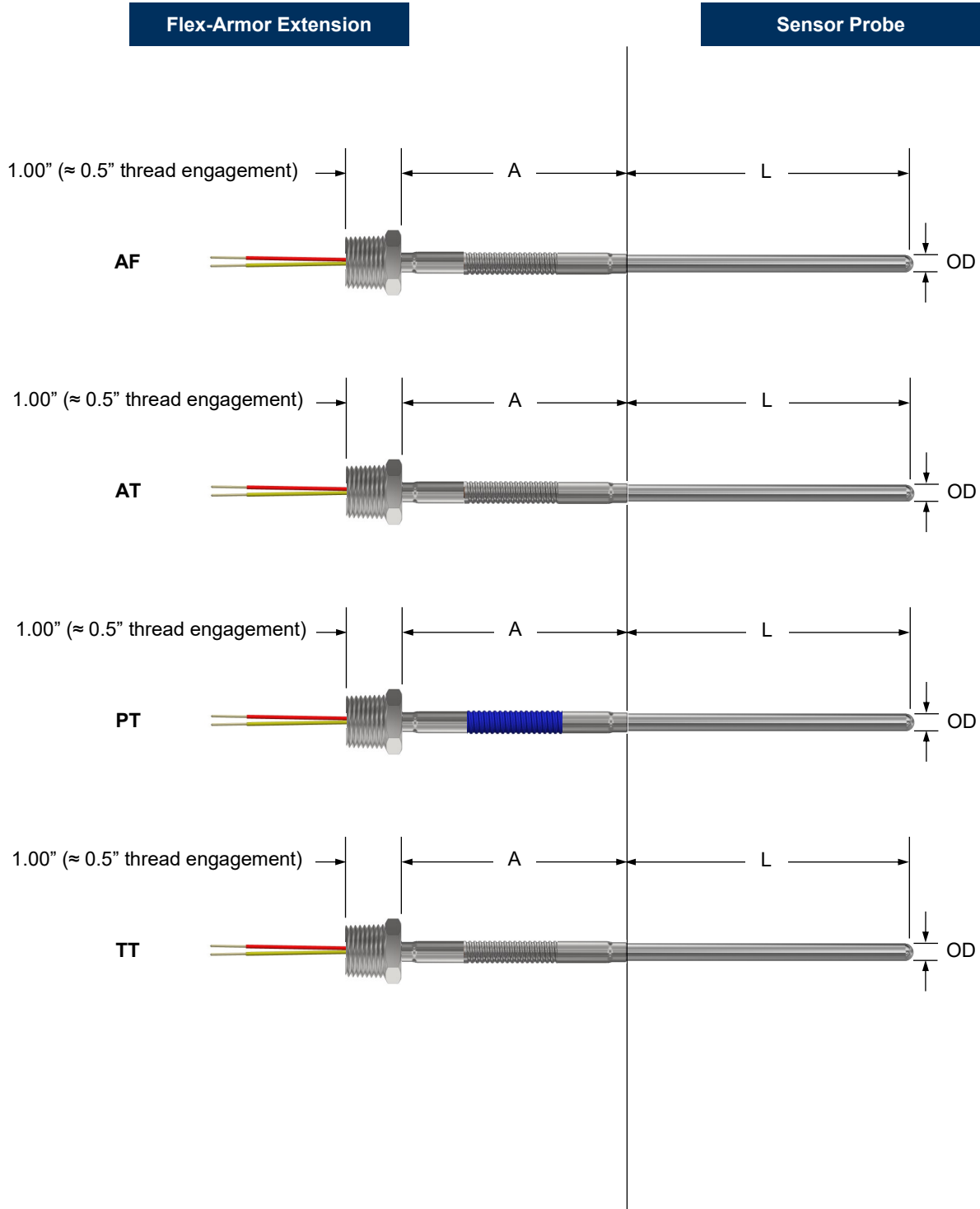
14  
(0.250")



38  
(0.375")



# TC15 Thermocouple Assembly Dimensions



**NOTE:**

1. Assemblies are supplied with 6" to 8" of lead wire

