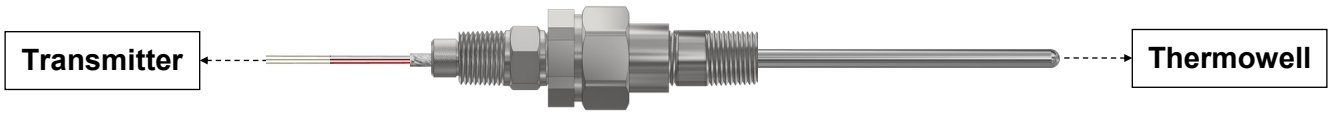
RT14 Direct Mount RTD Assembly

Class I, Division 1, Groups A, B, C, D; Class II, Division 1, Groups E, F, G; Class III; T6…T1

Class I, Zone 1, Groups IIC, IIB plus hydrogen, IIB; Zone 20; T6…T1



Overview

Description:

The RT14 direct mount RTD assembly is a resistance temperature detector designed for use in hazardous locations. The RT14 is a customizable product that is model number configured and made to order.

The RT14 consists of a stainless steel RTD sensor, complete with connection extension fittings that will spring load the sensor into a thermowell or a fixed fitting can be used without a thermowell. The RT14 is designed to be direct mounted to a temperature transmitter.

Features:

- Simple design that is used and accepted across multiple process industries.
- RT14 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 RTD	Tolerance per IEC 60751 (DIN EN 60751)
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: Specifications will depend on model code variants, and the values shown are the full rated model ranges.

C US

Aircom Instrumentation Ltd.
9328 - 37 Avenue NW
Edmonton, AB T6E 5K3
Ph: (780) 434-6916
Sales@AircomInstrumentation.com
www.AircomInstrumentation.com

RT14 RTD Assembly Model Code

RT14 - T1 - T2 - T3 - T4 - T5 - T6 - T7 - T8 - T9

RT14	Direct mount RTD assembly with connection extension fittings

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

T2	Connection Extension	Material	CSA Note
TX	Spring loaded fitting 1/2"x1/2" NPT	Stainless Steel	Thermowell required[2] for hazardous rating
TXUN	**Spring loaded fitting-union-nipple**	Galvanized	
STXUN	Spring loaded fitting-union-nipple	Stainless Steel	Canada only, Thermowell required[2] for hazardous rating
FS	Fixed bushing 1/2"x1/2" NPT	Stainless Steel	CSA process pressure rating ≤ 34.4 MPa @ +20°C (5000 psi @ +68°F)
FX	Fixed hex instrument fitting 1/2" NPT	Stainless Steel	CRN process pressure rating ≤ 25.5 MPa @ +20°C (3700 psi @ +68°F)

T3	Connection Extension "A" length (inches)	Connection Extension (T2) Options	CSA Rating
X	Fixed length for T2 options FS, FX, TX	FS, FX, TX	-50°C to +50°C (-50°F to +122°F), T6
3.5	**3" installed length**	TXUN, STXUN	-50°C to +230°C (-58°F to +446°F), T3C
4.5	4" installed length	TXUN, STXUN	-50°C to +230°C (-58°F to +446°F), T3C
8.5	8" installed length	TXUN, STXUN	-50°C to +450°C (-58°F to +842°F), T2
"inches"	Installed length is the fitting length minus approximately 1/2 inch for thread engagement.		

T4	Element Type
A	**100Ω Pt. 385 Class A (Class A tolerance ≤ +300°C (+572°F), Class B tolerance typically applies >+300°C (+572°F))**
B	100Ω Pt. 385 1/10 Class B (1/10 DIN; tolerance typically applies ≤ +300°C (+572°F))
C	100Ω Platinum 392
D	120Ω Nickel 627 0.806Ω/ºC
E	10Ω Copper 427 0.039Ω/ ºC
F	1000Ω Pt. 385 Class A

T5	Number of Elements
S	**Single element**
D	Dual element

Continued on page 3

Aircom Instrumentation Ltd.
9328 - 37 Avenue NW
Edmonton, AB T6E 5K3
Ph: (780) 434-6916
Sales@AircomInstrumentation.com
www.AircomInstrumentation.com

RT14 RTD Assembly Model Code

RT14 - T1 - T2 - T3 - T4 - T5 - T6 - T7 - T8 - T9

Continued from page 2

T6	Lead Wire Configuration
2	2 Wire
3	**3 Wire**
4	**4 Wire**

T7	Sensor Probe Construction	
LT	**Low temperature (-50 to +260ºC) (-58°F to +500°F)**	Temperature values are for the RTD temperature sensor probe construction only. The CSA process and ambient temperature assembly ratings are dependant on connection head (T1) and connection extension length (T3).
HT	High temperature (-50 to +482ºC) (-58°F to +899°F)	
ET	Extreme temperature (-50 to +850°C) (-58°F to +1562°F)	
VT	Vibration construction (-50 to +482ºC) (-58°F to +899°F)	
CT	Cryogenic temperature (-200 to +260°C) (-328°F to +500°F)	

T8	Sensor “L” Length (inches)
“inches”	Specify length in inches

T9	Sensor Sheath Diameter
18	1/8” (0.125”)
36	3/16” (0.188”)
14	**1/4” (0.250”)**
38	3/8” (0.375”)

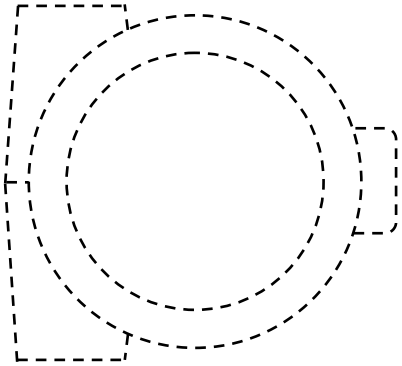
NOTES:
1. Part number example: RT14-X-TXUN-3.5-A-S-3-LT-12-14
2. Must be installed into certified thermowell at Aircom or in the field
3. Reference page 4 for outline and page 5 for dimensions
4. Bold text indicates most common part selections

C US

Aircom Instrumentation Ltd.
9328 - 37 Avenue NW
Edmonton, AB T6E 5K3
Ph: (780) 434-6916
Sales@AircomInstrumentation.com
www.AircomInstrumentation.com

RT14 RTD Assembly Outline

Direct Mount Transmitter

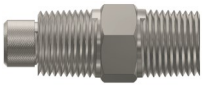


Connection Extension

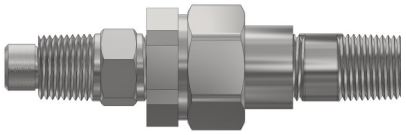
FS

FX

TX



TXUN & STXUN



Sensor Probe (OD)

18
(0.125”)

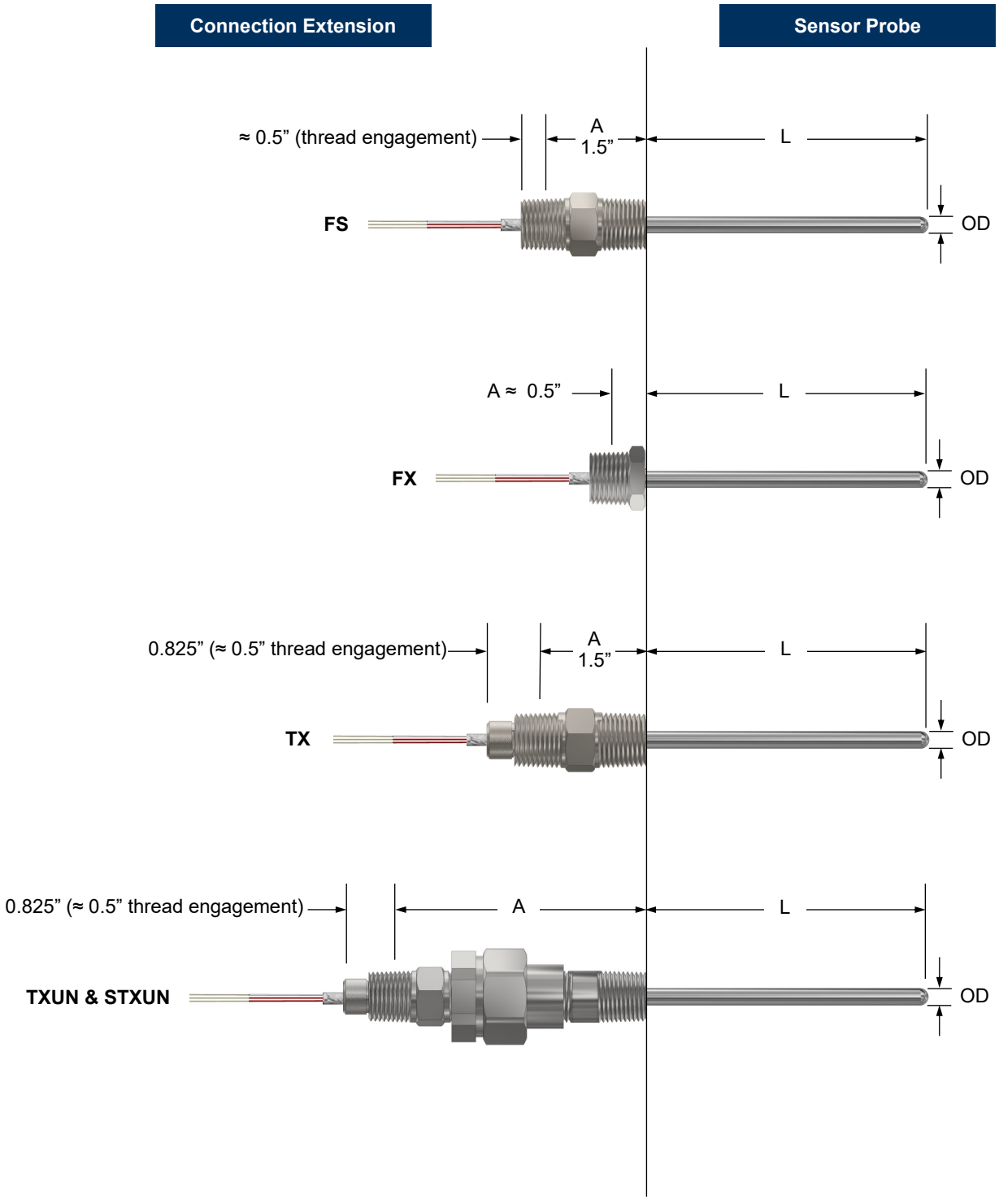
36
(0.188”)

14
(0.250”)

38
(0.375”)

Aircom Instrumentation Ltd.
9328 - 37 Avenue NW
Edmonton, AB T6E 5K3
Ph: (780) 434-6916
Sales@AircomInstrumentation.com
www.AircomInstrumentation.com

RT14 RTD Assembly Dimensions



NOTE:
1. Assemblies are supplied with 6” to 8” of lead wire

Aircom Instrumentation Ltd.
9328 - 37 Avenue NW
Edmonton, AB T6E 5K3
Ph: (780) 434-6916
Sales@AircomInstrumentation.com
www.AircomInstrumentation.com