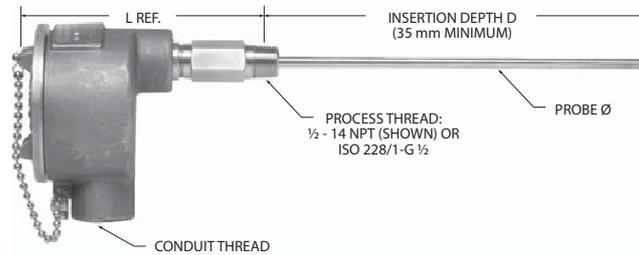


Flameproof RTDs With Transmitters – Metric Dimensioned



ATEX



Overview

Flameproof sensors are designed to contain an explosion as well as prevent the transmission of an explosion to the surrounding atmosphere. These sensors are suitable for use in Zone 1 or Zone 2.

- Approved for use in hazardous locations defined by IEC/EN 60079-0 and IEC/EN 60079-1, ATEX directive 94/9/EC (KEMA 03 ATEX 2389 X), and II 2 G Ex d IIC T6
- Features tip-sensitive, all stainless or MgO filled RTD probe for fast response
- Spring-loaded holder ensures good probe contact
- U.S. or metric threads

Specifications

Temperature range: -50 to 260°C (-58 to 500°F).

Material:

Tip-sensitive probe: Stainless steel with copper alloy tip.

All stainless RTD: Stainless steel.

MgO filled RTD: Inconel.

Fittings: Stainless steel.

Connection head:

CH356: 316L stainless steel IP66, Type 3, 4, and 4X.

CH357: Aluminum alloy IP65, Type 3 and 4.

CH358: Epoxy coated aluminum alloy IP66, Type 3, 4, and 4X.

Pressure rating:

Spring-loaded holder: 50 psi (3.4 bar).

Fluid seal fitting: 100 psi (6.9 bar).

Insulation resistance: 100 megohms min. at 100 VDC, leads to probe case.

Connection: Terminal block for wires to 14 AWG.

Time constant: Typical value in moving water.

Tip sensitive:

Single element 1.5 seconds.

All stainless and MgO filled: 10 seconds.

Temperature Transmitters

Minco's Tempran™ RTD transmitters provide a 4 to 20 mA or HART® Protocol signal that can be sent over long distances with a simple 2-wire system.

Leadwires:

2-lead RTD: TT211, TT520, TT521

3-lead RTD: TT176, TT520, TT521

4-lead RTD: TT520, TT521

Physical: Epoxy potted for moisture resistance.

See Section 5 for complete temperature transmitter specifications.

Hazardous area requirements

Refer to Minco's Application Aid #19 entitled "Specifying Temperature Sensors for Hazardous Areas" for more information on how to classify a hazardous area, methods of protection, and the various standards and agencies (including FM, CSA, CENELEC and ATEX). Application Aid #19 is available at www.minco.com/sensoraid/.

Specify and order products at:
www.minco.com/sensors_config

Specifications subject to change

Fitting options

Fitting	Process Thread	L REF.		Code
		CH356	CH357/CH358	
Fluid Seal	1/2 - 14 NPT	4.3" (108mm)	4.6" (116 mm)	0*
Fluid Seal	G 1/2	4.1" (103 mm)	4.4" (111 mm)	1*
Set screw spring-loaded	1/2 - 14 NPT	5.3" (135 mm)	5.6" (143 mm)	2
Set screw spring-loaded	G 1/2	5.0" (128mm)	5.4" (136 mm)	3
Fixed spring-loaded	1/2 - 14 NPT	4.5" (115 mm)	N/A	4
Welded	1/2 - 14 NPT	4.2"(107 mm)	4.5" (115 mm)	6**
Welded	G 1/2	4.0" (101 mm)	4.3" (109 mm)	7**
Release knob spring-loaded	1/2 - 14 NPT	5.4" (137 mm)	5.7" (145 mm)	8
Release knob spring-loaded	G 1/2	5.2" (132 mm)	5.5" (140 mm)	9

*Not available with CH356 stainless steel connection head. ** 0.250" (6.4mm) for all stainless and MgO only
(not available in tip-sensitive or 0.236" diameter models).

RTD Assembly Numbers

Connection Head	CH356 Stainless		CH357 Aluminum		CH358 Epoxy Coated	
	0.236" (6.0mm)	0.250" (6.4mm)	0.236" (6.0mm)	0.250" (6.4mm)	0.236" (6.0mm)	0.250" (6.4mm)
Probe Diameters						
Number of elements	Single	Single	Single	Single	Single	Single
Tip Sensitive	AS800	AS810	AS830	AS840	AS860	AS870
All Stainless	AS802	AS812	AS832	AS842	AS862	AS872
MgO Platinum	AS804	AS814	AS834	AS844	AS864	AS874

Notes:
 CH356: 316L stainless steel IP66, Type 3, 4, and 4X.
 CH357: Aluminum alloy IP65, Type 3 and 4.
 CH358: Epoxy coated aluminum alloy IP66, Type 3, 4, and 4X.
 Get more information on connection heads on pages 4-2 to 4-3.

Temperature transmitter range codes

Popular ranges below. More range codes on pages 5-20 and at www.minco.com/rangecode/

Code	Range
EO	-50 to 100°C -58 to 212°F
BC	-30 to 30°C -22 to 86°F
S	-17.8 to 37.8°C 0 to 100°F
AC	-17.8 to 93.3°C 0 to 200°F
AN	-17.8 to 148.9°C 0 to 300°F
AG	-17.8 to 260°C 0 to 500°F
AP	-6.7 to 21.1°C 20 to 70°F
A	-6.7 to 48.9°C 20 to 120°F
N	0 to 50°C 32 to 122°F
C	0 to 100°C 32 to 212°F
J	0 to 150°C 32 to 302°F
K	0 to 200°C 32 to 392°F
V	10 to 65.6°C 50 to 150°F
P	37.8 to 179.4°C 100 to 355°F
BH	50 to 150°C 122 to 302°F

Sensing elements

RTD sensing element	Code
Platinum (0.00392 TCR) 100 Ω ±0.5% at 0°C	PA
Platinum (0.00385 TCR) 100 Ω ±0.1% at 0°C (Meets EN60751, Class B)	PD
Platinum (0.00385 TCR) 100 Ω ±0.5% at 0°C	PE

Specification and order options

AS800	Assembly number from table
4	Fitting from table
PD	Sensing element from table
100	Insertion depth D (in mm): (35-3000 mm)
X	Leads per sensing element: Y = 2 leads (n/a for copper) Z = 3 leads X = 4 leads (n/a for dual models)
3	Conduit thread: 3 = 1/2 - 14 NPT 4 = 3/4 - 14 NPT 5 = M20 x 1.5
TT176	Temptran™ model number: TT211: Fixed Range (2-lead RTDs) TT176: Fixed Range (3-lead RTDs) TT520: Programmable (2, 3, & 4-lead RTDs) TT521: HART® Programmable (2, 3, & 4-lead RTDs)
N	Temperature range code from table
1	Calibration: 1 = Nominal calibration 2 = Match calibrated, 0.75% total system accuracy. For other calibration options, contact Minco
AS8004PD100X3TT176N1 = Sample part number	

Specifications subject to change

