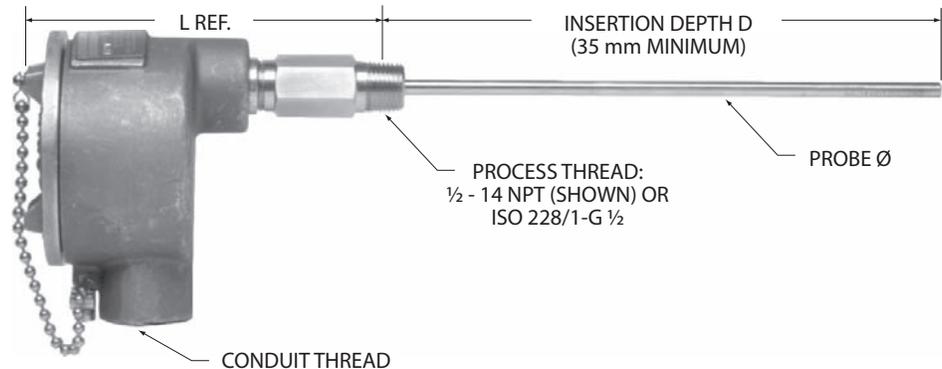


Flameproof Thermocouple Sensors – Metric Dimensioned



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 or MgO filled thermocouple 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.

MgO filled thermocouple: Stainless steel.

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. Ungrounded junction models only on thermocouples.

Connection: Terminal block for wires up to AWG 14.

Time constant: Typical value in moving water.

Tip sensitive:

Single element 1.5 seconds.

Dual element 7 seconds.

All stainless and MgO filled: 10 seconds.

Temperature Transmitters

Minco's Temtran™ thermocouple transmitters provide a 4 to 20 mA signal or HART® Protocol that can be sent over long distances with a simple 2-wire system. See Section 5 for complete temperature transmitter specifications.

Contact Minco if transmitter is required.

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 MgO only (not available in tip-sensitive or 0.236" diameter models).

Thermocouple 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	Single	Dual	Single	Dual	Single	Dual	Single	Dual	Single	Dual	Single	Dual
Number of elements	AS806	AS807	AS816	AS817	AS836	AS837	AS846	AS847	AS866	AS867	AS876	AS877
Tip Sensitive	AS806	AS807	AS816	AS817	AS836	AS837	AS846	AS847	AS866	AS867	AS876	AS877
MgO	AS808	AS809	AS818	AS819	AS838	AS839	AS848	AS849	AS868	AS869	AS878	AS879

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.

Junction types

Thermocouple Junction	Code	
	Single	Dual
Chromel-Constantan	E	EE
Iron-Constantan	J	JJ
Chromel-Alumel	K	KK
Copper-Constantan	T	TT

Specification and order options

AS806	Assembly number from table
4	Fitting from table
EE	Junction type from table
U	Junction Grounding: G = Grounded U = Ungrounded
450	Insertion depth D (in mm): (35-3000 mm)
P	
3	Conduit thread: 3 = 1/2 - 14 NPT 4 = 3/4 - 14 NPT 5 = M20 x 1.5
AS8064EEU450P3 = Sample part number	

Specifications subject to change