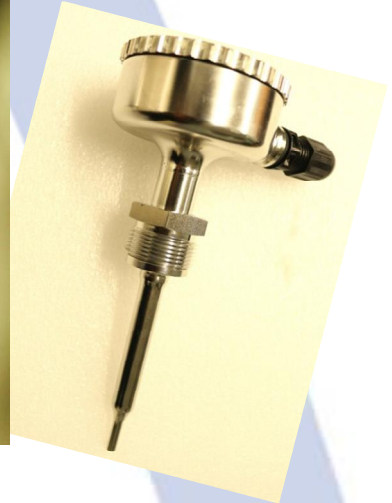


AZCO Temperature Probes

IECEX Approved



FEATURES :

- Zone 20 ,21,22 Hazardous Area Approval
- Variety of RTDs & Thermocouples Available
- Replaceable Sensor Inserts
- EHEDG certification for seals on the horizon
- Suitable for In-head & Remote transmitters
- Wide range of options for easy installation

Overview and Specifications

Overview:

Azco Holdings manufacture Sanitary Stainless Steel Temperature Probes for the dairy and food industries, pharmaceutical, chemical and industrial process control. With a new robust tip and seal design, the probes are now rated for use in Hazardous areas.

Probes are available with RTD or Thermocouple sensors in a variety of stock lengths and can also be made to custom sizes to suit requirements. All probes can be supplied with any of the common process connections.

The probes have earned the reputation of being among the most reliable and accurate on the market. All of the designs feature a replaceable sensor insert so that should a sensor fail, the sensor can be replaced while the probe remains insitu.



Standard housing Probe



Extended Housing Probe



Standard housing w/ Triclover



Standard housing w/ rugged tip

Specifications

| | |
|---------------------------|--|
| Housing | : 316 Stainless Steel |
| Protection | : Endorsed IP66/IP68 (Note 1) |
| Probe | : 316 Stainless Steel, Length as ordered |
| Sensor | : RTD, Type K or T Thermocouple, Alternative Thermocouple available : Replaceable insert type |
| RTD Configuration | : Pt100 (385), Class A, 2-wire, 3-wire & 4-wire |
| Range | : -10°C to +215°C (RTD) , -10°C to +260°C (Thermocouple) |
| Response | : < 3 seconds (Both RTD and Thermocouples) |
| (63.2% of ultimate value) | : < 1.5 seconds (Fast Response) |
| Transmitter | : In-Head Style or Din Rail Remote Mounted (ordered separately) |

Note 1: To achieve full IP66/IP68 ingress protection

(A) Use two complete turns of thread seal tape on cable gland

(B) Tighten cap until seal touches housing and then add 25 degrees of rotation

Note 2: Tighten connector screws max 0.6 Nm

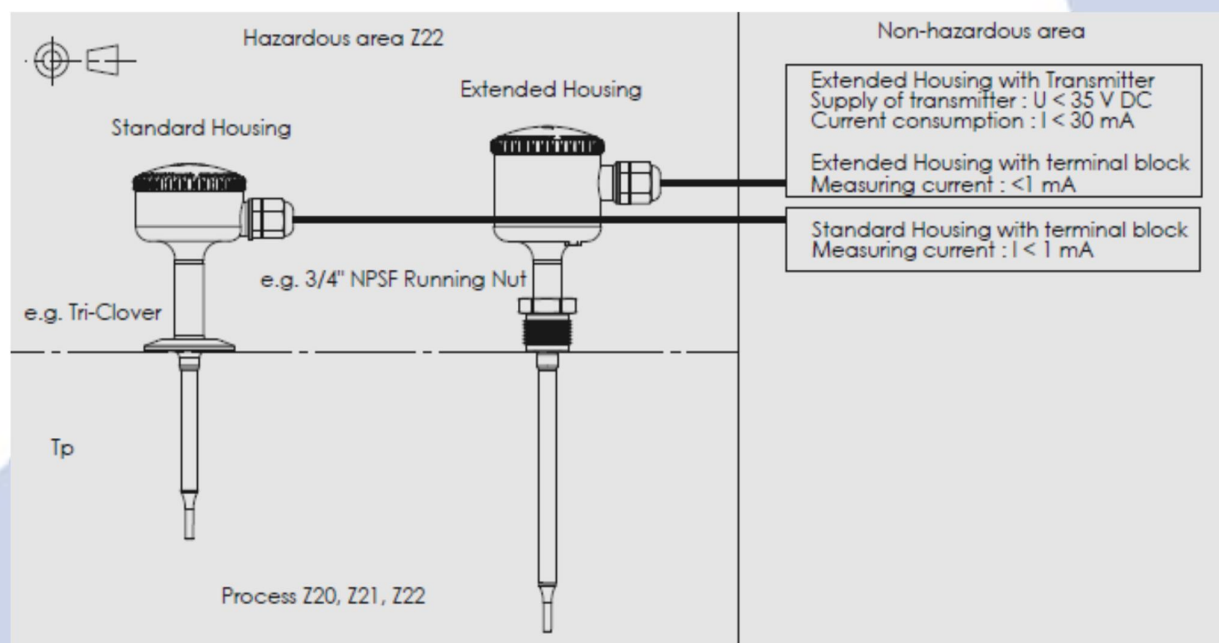
Note 3: Light Application of Heatsink paste to the sensor tip on replacement

Approvals and Installation Instructions



IECEx Certificate of Conformity

| Type | Electrical Data | Type of protection | Process Temperature T_p |
|--|--|---|---|
| See ordering info. for part number designator | | | |
| .E....IEC Extended Housing with Transmitter Make M-System, Model 27HU-0 or equivalent | $U < 35 \text{ V DC}$ $I < 30 \text{ mA}$ | IECEx SIM 15.xxxx.x IEC 60079.0 : 2011 IEC 60079.31: 2013 | $-20^\circ\text{C} < T_p < 180^\circ\text{C}$ |
| .TE....IEC Extended Housing with Terminal Block | Measuring Current $< 1 \text{ mA}$ | | |
| .S....IEC Standard Housing with Terminal Block | Measuring Current $< 1 \text{ mA}$ | Ex ta/tb IIIC T96°C Da/Db | |



Installation Instructions for Dust Ignition Protection:

- 1) All supply voltages are to be supplied from safety extra voltage supply only.
- 2) Use only separately certified Ex t cable glands fitted with gland seal at entry. Minimum ingress protection rating IP67.
- 3) For applications where the process connection cannot provide sufficient equipotential bonding use an appropriate metal cable gland (see point 2 above) and an earth clamp to attach an earth conductor.
- 4) For applications using an in-head transmitter where the process temperature is above 125°C the installer must take steps to ensure the internal housing temperature does not exceed the devices operating temperature rating. Consult Azco Holdings Ltd.

Ordering Information & Examples

Ordering Information

Build an Azco Temperature Probe part number by combining the designators in the sequence shown below

1 2 3 4 5 6 – 7 – 8

1 Sensor Type

K = Type K Thermocouple
T = Type T Thermocouple
R = RTD
W = Alternative Thermocouple

2 Options

Clear = none
F = Fast Response*
R = Rugged
D = Duplex Sensor

3 Housing Type

S = Standard
E = Extended

For Designator 3 = E
T = Terminal Block

4 RTD Configuration

Clear = Thermocouple
- 2 = 2 wire
- 3 = 3 wire
- 4 = 4 wire

5 Process Connection

Clear = Running Nut, EHEDG Seal
- T = Triclover
- R = RJT
- B = BSP
- N = NPT
- M = Metric Coarse
- A = Running Nut, Teflon Seal

6 Connection Size

Clear = 3/4" NPSF
1 = 1/2"
2 = 5/8"
3 = 3/4"
4 = 1"
5 = 1.5"
6 = 2"
7 = 2.5"
8 = 3"
9 = 4"
-M Option Min M16 , Max M24

7 Insertion Depth (mm)

50
75
100
150
200
300
500

8 Certification

IEC = IECEx SIM 15.XXXX.X Ex ta/tb IIIC T96°C Da/Db
316 = No Approval

Ordering example P/N: **KE-300-IEC**

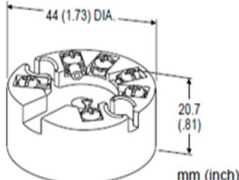
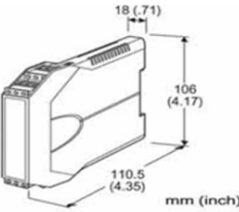

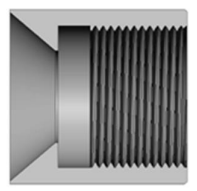

Description Type K, Extended Housing, Running nut, EHEDG Seal, 300mm insertion depth, IECEx Certification

Ordering example P/N: **RS-3-100-316**






Description RTD, Standard Housing, Running nut, EHEDG Seal, 100mm insertion depth, No Approval

*Includes one point calibration and speed of response certificate

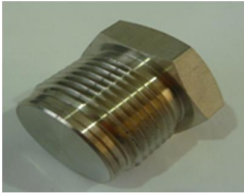

Accessories

| Transmitters | |
|---|--|
| In-Head Universal Input | Part Number |
|  | 27HU-0 |
| Remote Mounted | Part Number |
|  | B3HU-0 |
| Sensor Inserts | Part Number (Replace "X" with probe insertion length in mm) |
|  | R-3-X |
| | RF-3-X |
| | RE-3-X |
| | K-X |
| | R-3-X-D |
| | RF-3-X-D |
| | KD-X |
| Sanitary Sockets | |
| Standard 27mm 3/4" socket | Part Number |
|  | SAN - STD |
| Extended 80mm 3/4" socket | Part Number |
|  | EX-SAN-STD |

Accessories

| Adaptors | |
|---|--|
| RJT to 3/4" sanitary socket | Part Number |
|  | AN-SAN-R25 (1" RJT to 3/4" socket) AN-SAN-R50 (2" RJT to 3/4" socket) AN-SAN-R75 (3" RJT to 3/4" socket) |
| Male RJT to 3/4" sanitary socket | Part Number |
|  | AN-SAN-M38 (1.5" Male RJT to 3/4" socket) AN-SAN-M50 (2" Male RJT to 3/4" socket) |
| Triclover to 3/4" sanitary socket | Part Number |
|  | AN-SAN-T38 (1.5" Triclover to 3/4" socket) AN-SAN-T50 (2" Triclover to 3/4" socket) |
| Sanitary Seal | |
| Food grade teflon seal | Part Number |
|  | AZ009 |
| EHEDG seal | Part Number |
|  | |

Accessories

| Plug for 3/4" sockets | Part Number |
|---|--------------------------|
|  | A2-147 |
| Laser Engraved Tags | Part Number |
|  | AZ1010 (Engraved), AZ100 |

*Custom probes and accessories can be provided to your specifications. Consult Azco

*Consult Azco regarding thermowells and calibration certificates



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