



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx SIM 15.0005X** Page 1 of 5 Certificate history:
Status: **Current** Issue No: 3 [Issue 2 \(2018-02-06\)](#)
Date of Issue: 2020-05-20 [Issue 1 \(2016-08-11\)](#)
[Issue 0 \(2015-07-27\)](#)
Applicant: **AZCO Holdings LTD**
28 Hobill Avenue
MANUKAU CITY
AUCKLAND 2104
New Zealand
Equipment: **Temperature Probe Enclosure (refer Annex for part number descriptors)**
Optional accessory:
Type of Protection: **Dust ignition protection by enclosure "t"**
Marking: Ex ta/tb III C T128 °C... T180 °C Da/Db IP66/67


Approved for issue on behalf of the IECEx
Certification Body:

Geoffrey Barnier

Position:

Principal Engineer - Certification

Signature:
(for printed version)


20 May 2020

Date:

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Safety in Mines Testing and Research Station (Simtars)
2 Robert Smith Street, REDBANK QLD 4301
Australia

Simtars



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Manufacturer: **AZCO Holdings LTD**
28 Hobill Avenue
MANUKAU CITY
AUCKLAND 2104
New Zealand

Additional
manufacturing
locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2011 Explosive atmospheres - Part 0: General requirements
Edition:6.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

[AU/SIM/ExTR15.0003/00](#)
[AU/SIM/ExTR15.0003/03](#)

[AU/SIM/ExTR15.0003/01](#)

[AU/SIM/ExTR15.0003/02](#)

Quality Assessment Report:

[AU/SIM/QAR15.0001/05](#)



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The AZCO temperature probe is of welded stainless steel construction and consists of a screw on cover and body. The cover is secured to the body when not screwed on using a nylon retainer. The body consists of a main housing and probe tube which are welded to form a single assembly. The housing is available in two options; Option 1 is specified as a standard housing which is short in length and used to house the sensor terminal block only. Option 2 is specified as an Extended housing and is longer in length and used to house either a sensor terminal block or temperature transmitter. The RTD/thermocouple sensors are fitted within the probe tube of variable length from 50 mm to 500 mm depending on client requirements. Electrical access is via separately certified cable glands fitted to an M16 threaded entry within the side wall of the housing.

Refer Annex for the models numbers identified by part number descriptor.

SPECIFIC CONDITIONS OF USE: YES as shown below:

The assigned surface temperature of T128 °C applies to the housing/stem exposed to the external ambient atmosphere when fitted to a process tank/pipe with a maximum internal process tank temperature of 180 °C. The maximum surface temperature of the probe tube exposed to the zone 20 internal process atmosphere is directly proportional to the maximum process temp of 180 °C.

Measures are to be taken when installing the temperature probe to insulate the housing from radiated heat from the process tank/pipe for process temperature above 125 °C.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1:

- Add existing option of "T = Terminal block (for designator 3 = E only)" to part number descriptor table.
- Inclusion of a new part number descriptor option "W = Flat Seal Face" for the process connection.

Issue 2:

- Identification of an internal earthing facility.
- Removal of previously identified requirement for "All supply voltages are to be supplied from a safety extra –low voltage supply" from drawing number AZ300 and additional information within the ExTR Cover.
- Minor drawing changes.

Issue 3:

- Addition of a strengthened version temperature probe.
- Addition of a 4-way averaging probe up to a length of 5 m.
- Revision of part number descriptors to split thermocouple and RTD type sensors.
- Addition of a final suffix to part number descriptors to include different options.



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Additional information:

Cable gland to be separately certified Ex t gland fitted with gland seal at entry.

Annex:

[IECEX SIM 15.0005X-3 AZCO Probe Annex.pdf](#)



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Equipment:

Part Number Descriptor (Thermocouple Devices)

- 1 = Sensor type
 - K = Type K Thermocouple
 - T = Type T Thermocouple
 - W = Alternative Thermocouple
- 2 = Options
 - Clear = none
 - T = Terminal block
 - D = Duplex Sensor
- 3 = Housing type
 - E = Extended
- 4 = Process connection
 - Clear = Running Nut, EHEDG seal
 - T = Triclover
 - R = RJT
 - B = BSP
 - N = NPT
 - M = Metric Coarse
 - A = Running Nut Teflon Seal
 - W = Wingate Seal
- 5 = Connection Size
 - Clear = 3/4" NPSF
 - 1 = 1/2"
 - 2 = 5/8"
 - 3 = 3/4"
 - 4 = 1"
 - 5 = 1 1/2"
 - 6 = 2"
 - 7 = 2 1/2"
 - 8 = 3"
 - 9 = 4"
 - M = Option Min M16 Max M24
- 6 = Insertion depth mm
 - ## = ## mm (maximum 5000 mm)
- 7 = Certification
 - IEC = IECEx
- 8 = Options
 - Clear = None
 - STR = Strengthened
 - TX1 = M-System Transmitter
 - TXX = Approved Transmitter
 - W = Reduced diameter wetted parts (3 mm min, 12 mm max)

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Part Number Descriptor (Resistance Devices)

- 1 = Sensor type
 - R = RTD
 - W = Alternative Thermocouple
- 2 = Options
 - Clear = none
 - F = Fast Response
 - R = Rugged
 - D = Duplex Sensor
- 3 = Housing type
 - S = Standard if no option selected at block 2
 - E = Extended
 - A = Averaging (always uses extended Housing)
- 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
 - W = Wingate Seal
- 6 = Connection Size
 - Clear = 3/4" NPSF
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Manufacturer's documents:

Drawings associated with Issue 0:

Drawing No	Subject	Rev.	Date
AZ001-EX	Standard Housing	0	17/7/2015
AZ002-EX	Cap	0	17/7/2015
AZ004-EX	Cable Gland Socket	0	17/7/2015
AZ005-EX	Stem	0	17/7/2015
AZ006-EX	Tip	0	17/7/2015
AZ030-X-EX	Stem Tube	0	17/7/2015
AZ049-Ex	Extended Housing	0	17/7/2015
AZ400 Engrave	Lid Engraving	0	17/07/2015
AZ350 ASSM-IEC (Sheet 1 of 4)	Standard Housing Assembly	0	17/07/2015
AZ350 ASSM-IEC (Sheet 2 of 4)	Extended Housing Assembly with In-Head Transmitter	0	17/07/2015
AZ350 ASSM-IEC (Sheet 3 of 4)	Extended Housing Assembly with Terminal Block	0	17/07/2015
AZ350 ASSM-IEC (Sheet 4 of 4)	Part Number Designators	0	17/07/2015
AZ300 (Sheets 1 of 2)	Installation Instructions	0	17/07/2015
AZ300 (Sheets 2 of 2)	Part Number Designators	0	17/07/2015

Drawings associated with Issue 1:

Drawing No	Subject	Rev.	Date
AZ005-EX	Stem	1	3/7/2016
AZ300 Sheets 2 of 2	Part Number Designators	1	20/07/2016

Drawings associated with Issue 2:

Drawing No	Subject	Rev.	Date
AZ300 (Sheets 1 of 2)	Installation Instructions	2	23/1/2018

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Drawings associated with Issue 3:

Drawing No	Subject	Rev.	Date
AZ300 (Sheet 1 of 2)	Installation Instructions	3	30/4/2020
AZ300 (Sheet 2 of 2)	Part Number Designators	3	1/5/2020
RA-3-X-IEC	4 Way Averaging Temperature Probe Example of Running Nut Version	0	03/04/2020
RE-3-150-IEC-STR	STR Version Temperature Probe Example of Extended Housing, Running Nut Process Connection	0	03/04/2020

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