1 **TYPE EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

3 Certificate Number: **Sira 14ATEX4112X** Issue: **7**

4 Equipment: **AST4300, AST43LP Pressure Transducers**

5 Applicant: **TE Sensores S de RL de CV,**
a TE Connectivity Company

6 Address: Av. Obrero Mundial #9
Parque Industrial Dynatech
Hermosillo Sonora 83174
Mexico

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Netherlands B.V., certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of Category 3 equipment intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN IEC 60079-0:2018 EN 60079-7:2015

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to Specific Conditions of Use identified in the schedule to this certificate.

11 This Type Examination Certificate relates only to the design of the specified equipment, and not to specific items of equipment subsequently manufactured. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

II 3G
Ex ec IIC T4 Gc
Ta = -40°C to + 80°C

Signed: M Halliwell

Title: Director of Operations

PRODUCTS
RvA C 652

SCHEDULE

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13 **DESCRIPTION OF EQUIPMENT**

Model AST43xx Series Pressure Transducers utilize a mechanical diaphragm to convert a mechanical pressure measurement into an electrical signal.
The subject pressure transducers enclosure consists of 3 parts welded to each other:

i. the process connection fitting (media header) made from 17-4PH stainless steel or 316L stainless steel or Inconel or Hastelloy
ii. the housing tube made of 304 stainless steel and
iii. ½ MNPT conduit adapter stainless steel made filled with epoxy Stycast 2850FT/Cat 9

All models are provided with a 1/2" NPT, metal conduit fitting and up to 10 feet of cable for field wiring connections.

Models certified for Ex nA IIC	Ratings
AST4300*******(4)(L/M/N/P)****-** (4-20 mA)	input rated 28 Vdc max
AST43LP*******(4)(L/M/N/P)****-** (4-20 mA)	input rated 28 Vdc max
AST4300*******(1/M)(L/M/N/P)****-** (ratiometric output 0.5-4.5 V and 0.25-4.75 V)	input rated 5.5 Vdc max
AST43LP*******(1/M)(L/M/N/P)****-** (ratiometric output 0.5-4.5 V and 0.25-4.75 V)	input rated 5.5 Vdc max
AST4300*******(A/B/F)(L/M/N/P)****-** (5, 10 and 20 mV/V)	input rated 15 Vdc max
AST43LP*******(A/B/F)(L/M/N/P)****-** (output rated 5, 10 and 20 mV/V)	input rated 15 Vdc max
AST4300*******(2/3/5/6/8/9/G/J/P)(L/M/N/P)****-** (output rated 0-5 V, 1-5 V, 0-10 V, 1-6 V, 0.5-5.5 V, 0.25-5 V, 1-10 V, 0.1-5.1 V, 0.5-4.5 V)	input rated 28 Vdc max
AST43LP*******(2/3/5/6/8/9/G/J/P)(L/M/N/P)****-** (output rated 0-5 V, 1-5 V, 0-10 V, 1-6 V, 0.5-5.5 V, 0.25-5 V, 1-10 V, 0.1-5.1 V, 0.5-4.5 V)	input rated 28 Vdc max

Variation 1 - This variation introduced the following changes:

i. It was recognised that the Applicant's name has been changed from American Sensor Technology to Measurement Specialities Inc.
ii. The certificate template was corrected

Variation 2 - This variation introduced the following changes:

i. Assessment to confirm compliance with the latest technical knowledge, EN 60079-0:2012 and EN 60079-15:2010 were replaced by EN IEC 60079-0:2018 and EN 60079-7:2015 for "nA" protection method, as a result the markings were updated accordingly.
ii. Minor drawings amendments, none of which affects compliance with the standards listed. It was recognised that the Applicant's name has been changed from American Sensor Technology to Measurement Specialities Inc.

Variation 3 - This variation introduced the following change:

i. Minor drawings amendments, none of which affects compliance with the standards listed.

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Variation 4 - This variation introduced the following change:

i. Minor label drawing amendments, none of which affects compliance with the standards listed.

Variation 5 - This variation introduced the following change:

i. To recognise thew change of Company Name and Address:

From	To
Measurement Specialties Inc. A TE Connectivity Company 6801 Kaiser Dr. Freemont California 94555 United States of America	TE Sensores S de RL de CV A TE Connectivity Company Av. Obrero Mundial #9 Parque Industrial Dynatech Hermosillo Sonora 83174 Mexico

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	27 October 2014	R70006508B	The release of the prime certificate.
1	09 October 2018	R70179065A	This Issue covers the following changes: • The introduction of Variation 1 • Type Examination Certificate in accordance with 94/9/EC updated to EU-Type Examination Certificate in accordance with Directive 2014/34/EU. *(In accordance with Article 41 of Directive 2014/34/EU, Type Examination Certificates referring to 94/9/EC that were in existence prior to the date of application of 2014/34/EU (20 April 2016) may be referenced as if they were issued in accordance with Directive 2014/34/EU. Variations to such Type Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)*
2	25 March 2019	R70204978A	The introduction of Variation 2.
3	15 October 2019	1778	Transfer of certificate Sira 14ATEX4112X from Sira Certification Service to CSA Group Netherlands B.V..
4	02 November 2020	N/A	The certificate was re-issued to correct the order of Issue for reports R70204978A and 1778.
5	06 October 2021	R80073002A	The introduction of Variation 3.

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Issue	Date	Report number	Comment
6	03 October 2022	R80132246A	This Issue covers the following changes: • The certificate template was corrected. • The Applicant's address was amended to correct a typographical error. • The report number for Issue 1 was corrected from R70179426A to R70179065A. • The introduction of Variation 4.
7	10 May 2023	R80162238A	The introduction of Variation 6.

15 **SPECIFIC CONDITIONS OF USE** (denoted by X after the certificate number)

15.1 Models AST4300 and AST43LP Pressure Transducers are not earthed and a charge-generating mechanism may be present when in contact with non-metallic charge generating materials, the device shall be grounded before use.

15.2 The enclosure is manufactured from light metal. In rare cases, ignition sources due to impact and friction sparks could occur. This shall be considered during installation, particularly if the equipment is installed in a zone 2 location.

15.3 The product label indicates that the process temperature range is -40°C to +125°C, taking this into account, the user/installer shall take precautions that ensure that the operating service temperature of the overall pressure transducer assembly is between -40°C to 92°C.

16 **ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II** (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 **CONDITIONS OF MANUFACTURE**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Group Netherlands B.V. certificates.

17.2 Holders of Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

17.3 The equipment, at the conclusion of manufacture and before shipment, shall withstand for one minute, without breakdown, the application of the 500 Vac potential between extra low potential live parts and exposed non current carrying metal parts or ground terminal.