



UNITED KINGDOM CONFORMITY ASSESSMENT

1 UK TYPE EXAMINATION CERTIFICATE

2 Equipment or Protective System Intended for use in Potentially Explosive Atmospheres
UKSI 2016:1107 (as amended) – Schedule 3A, Part 1

3 Certificate Number: **CSAE 21UKEX2189X** Issue: **1**
4 Product: **Models AST4401, AST4400, AST44LP, AST4500, AST4510, AST4520, and AST4530 Series Pressure Transducers**
5 Manufacturer: **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 product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 CSA Group Testing UK Limited, Approved Body number 0518, in accordance with Regulation 42 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended), certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Schedule 1 of the Regulations. 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 has been assured by compliance with:
EN IEC 60079-0:2018 EN 60079-11:2012

Except in respect of those requirements listed at Section 16 of the schedule to this certificate. The above standards may not appear on the UKAS Scope of Accreditation, but have been added through flexible scope of accreditation, which is available on request.

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

11 This UK TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified product. Further requirements of the Regulations apply to the manufacturing process and supply of this product. These are not covered by this certificate.

12 The marking of this product shall be in accordance with Regulation 41 and include the following:

AST 4401

AST4400, AST44LP, AST4500, AST4510, AST4520

AST4530



II 1G
Ex ia IIC T4 Ga
Ta = -40°C to +80°C
-40°C ≤ Process Temp. ≤ +125°C



II 1G
Ex ia IIB T4 Ga
Ta = -40°C to +80°C
-40°C ≤ Process Temp. ≤ +125°C



II 1G
Ex ia IIB T4 Ga
Ta = -0°C to +60°C
0°C ≤ Process Temp. ≤ +60°C

Name: M Halliwell
Title: Director of Operations



SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

CSAE 21UKEX2189X

Issue 1

13 DESCRIPTION OF PRODUCT

Model AST44xx and AST45xx Series Pressure Transducers utilize a mechanical diaphragm to convert a mechanical pressure measurement into an electric signal. The transducers are manufactured as 1-piece stainless steel, sealed assemblies, containing a maximum of 3 PCBs. Depending on the order codes as shown in the table below, user connections can be made using several different types of connectors and can supply 4-20mA current or a range of voltage outputs. Output connections are with cables of lengths up to 1000 ft (for outputs of 4-20 mA) or 150 ft (for all other electrical outputs).

Models for Ex ia IIC and Ex ia IIB	Entity parameter	Entity parameters values per group of gas					
		Ex ia IIC			Ex ia IIB		
		No cable	Up to 1000 ft cable	Up to 150 ft cable	No cable	Up to 1000 ft cable	Up to 150 ft cable
AST4401*****4*****_** (4-20 mA)	Ui Ii Pi Ci Li	14.5 V 93 mA 625 mW 0.391 µF 0	14.5 V 93 mA 625 mW 0.434 µF 155 µH	- - - - -	- - - - -	- - - - -	- - - - -
ASTXXX*****4*****_** Where XXXX = 4400, 44LP, 4500, 4510, 4520, 4530 (4-20 mA)	Ui Ii Pi Ci Li	- - - - -	- - - - -	- - - - -	28 V 93 mA 625 mW 0.391 µF 0	28 V 93 mA 625 mW 0.434 µF 155 µH	- - - - -
AST4401*****1/M*****_** (output rated 0.5-4.5V and 0.25- 4.75V)	Ui Ii Pi Ci Li	14.5 V 93 mA 625 mW 0.643 µF 0	- - - - -	14.5 V 93 mA 625 mW 0.649 µF 23.3 µH	- - - - -	- - - - -	- - - - -
ASTXXX*****1/M*****_** Where XXXX = 4400, 44LP, 4500, 4510, 4520, 4530 (output rated 0.5-4.5 V and 0.25-4.75 V)	Ui Ii Pi Ci Li	- - - - -	- - - - -	- - - - -	28 V 93 mA 625 mW 0.643 µF 0	- - - - -	28 V 93 mA 625 mW 0.649 µF 23.3 µH
AST4401*****A/B/F*****_** (output rated 5, 10 and 20 mV/V)	Ui Ii Pi Ci Li	14.5 V 93 mA 625 mW 0.643 µF 0	- - - - -	14.5 V 93 mA 625 mW 0.649 µF 23.3 µH	- - - - -	- - - - -	- - - - -
ASTXXX*****A/B/F*****_** Where XXXX = 4400, 44LP, 4500, 4510, 4520, 4530 (output rated 5, 10 and 20 mV/V)	Ui Ii Pi Ci Li	- - - - -	- - - - -	- - - - -	28 V 93 mA 625 mW 0.643 µF 0	- - - - -	28 V 93 mA 625 mW 0.649 µF 23.3 µH
AST4401*****3/6/8/9/G/J/P***** - ** (output rated 1-5 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)	Ui Ii Pi Ci Li	14.5 V 93 mA 625 mW 0.643 µF 0	- - - - -	14.5 V 93 mA 625 mW 0.649 µF 23.3 µH	- - - - -	- - - - -	- - - - -
ASTXXX*****3/6/8/9/G/J/P***** - ** Where XXXX = 4400, 44LP, 4500, 4510, 4520, 4530 (output rated 1-5V, 1-6V, 0.5-5.5V, 0.25-5V, 1-10V, 0.1-5.1V, 0.5-4.5V)	Ui Ii Pi Ci Li	- - - - -	- - - - -	- - - - -	28 V 93 mA 625 mW 0.643 µF 0	- - - - -	28 V 93 mA 625 mW 0.649 µF 23.3 µH

SCHEDULE

UK TYPE EXAMINATION CERTIFICATE

**CSAE 21UKEX2189X
Issue 1**

Variation 1 - This variation introduced the following change:

- i. To recognise the 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	10 January 2023	R80144832A	The release of the prime certificate.
1	10 May 2023	R80162238A	The introduction of Variation 1.

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

- 15.1 Since Pressure Transducers models AST4401, AST4400, AST44LP, AST4500, AST4510, AST4520 and AST4530 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 Under certain extreme circumstances, exposed plastic and unearthed metal parts of the enclosure may store an ignition-capable level of electrostatic charge. Therefore, the user/installer shall implement precautions to prevent the build-up of electrostatic charge, e.g. locate the equipment where a charge generating mechanism (such as wind-blown dust) is unlikely to be present and they shall be cleaned with a damp cloth.
- 15.3 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 0 location.

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS (REGULATIONS SCHEDULE 1)

In addition to the Essential Health and Safety Requirements covered by the standards listed in Section 9, all other requirements are demonstrated in the relevant reports.

17 PRODUCTION CONTROL

- 17.1 Holders of this certificate are required to comply with production control requirements defined in Schedule 3A, as applicable, and CSA Group Testing UK Regulations for Certificate Holders