1 **EU-TYPE EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 14ATEX1107U** Issue: **4**

4 Component: **XDA & XDS Flameproof Temperature Transmitter Housings**

5 Applicant: **Yung Chan Metal Industry Company Limited**

6 Address: No 30 Keji 1st Road
Tainan Technology Industrial Park
Tainan City 709-55
Taiwan

7 This component 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., notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of a component 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 60079-1:2014 EN 60079-31:2014

10 The sign 'U' is placed after the certificate number to indicate that the product assessed is a component and may be subject to further assessment when incorporated into equipment. Any limitations of use are listed in the schedule to this certificate.

11 This EU-Type Examination Certificate relates only to the design and construction of the specified component. If applicable, further requirements of this Directive apply to the manufacture and supply of this component.

12 The marking of the component shall include the following:

II 2G D
Ex db IIC Gb
Ex tb IIIC Db

Project Number 80090431

Signed: J A May

Title: Director of Operations

CSA Group Netherlands B.V.
Utrechtseweg 310,
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The Netherlands

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13 **DESCRIPTION OF COMPONENT**

The product is a temperature transmitter housing manufactured from either stainless steel or aluminium alloy, where the model designation determines which material is used, i.e. XDA = Aluminium Alloy & XDS = Stainless Steel.

The product is considered a component, and as such bears a symbol 'U' after the certificate reference. The Ex component must be re-certified for Apparatus after appropriate evaluation to the applied standards to ensure continued compliance with the flameproof and dust exclusion requirements.

Variation 1 - This variation introduced the following change:

i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2006, EN 60079-1:2004, EN 61241-0:2006 and EN 61241-1:2004, were replaced by EN 60079-0:2012+A11:2013, EN 60079-1:2014 and EN 60079-31:2014. As a result the marking and specific conditions of use were modified to recognise the new standards.

Variation 2 - This variation introduced the following changes:

i. Change label drawing to remove IECEx certificate number.
ii. Add additional IECEx label drawing

Variation 3 - This variation introduced the following changes:

i. Additional marking plate material, Aluminium is to be added along with the existing Stainless Steel and removal of temperature classification.
ii. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2009 was replaced by EN IEC 60079-0:2018.
iii. The documents were updated accordingly to recognise the new standards.
iv. The post code/zip code was corrected from 709 to 709-55.

14 **DESCRIPTIVE DOCUMENTS**

14.1 **Drawings**

Refer to Certificate Annexe.

14.2 **Associated Sira Reports and Certificate History**

Issue	Date	Report number	Comment
0	27 May 2014	R70006501A	The release of the prime certificate.
1	27 April 2017	R70082849A	This Issue covers the following changes: • EC-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, EC-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 EC-Type Examination Certificates may continue to bear the original certificate number issued prior to 20 April 2016.)* • The introduction of Variation 1.

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Issue	Date	Report number	Comment
2	31 October 2019	0942	Transfer of certificate Sira 14ATEX1107U from Sira Certification Service to CSA Group Netherlands B.V.
3	07 July 2020	R80046198A	The introduction of Variation 2.
4	15 November 2021	R80090431A	The introduction of Variation 3

15 **SCHEDULE OF LIMITATIONS**

15.1 Ambient temperature range: -20°C to +40°C.

15.2 Cables for entry into the device must be rated to at least 85°C.

15.3 XDA & XDS considered a component enclosure and must be re-certified as apparatus only after evaluation of weld methods for flameproof collar assembly.

15.4 Temperature rise testing was conducted considering maximum power dissipation within the unit. Equipment, components or connection within the unit must not dissipate more than 10 W. Maximum temperature rise observed during the test was 39.7 K at ambient temperature and with 11.6237 Watts

15.5 IP68 rating was tested at 1m depth (pressure of 0.1 bar) for a duration period of 1 hour.

15.6 Potential Electrostatic Charging Hazard – Under certain extreme circumstances, the non-metallic parts incorporated in the enclosure of this equipment may generate an ignition-capable level of electrostatic charge. Therefore the equipment shall not be installed in a location where the external conditions are conducive to the build-up of electrostatic charge on such surfaces. In addition, the enclosure shall only be cleaned with a damp cloth.

15.7 Refer to drawing number XD0001 for details associated with the threaded cable entry hole provided in the enclosure for the accommodation of a suitably certified cable entry device.

15.8 Oil-filled circuit breakers and contactors shall not be used.

15.9 The content of this Ex Component enclosure may be placed in any arrangement provided that an area of at least 40 % of each cross-sectional area remains free to permit unimpeded gas flow and, therefore, unrestricted development of an explosion. Separate relief areas may be aggregated provided that each area has a minimum dimension in any direction of 12.5 mm.

15.10 The Ex Component enclosure incorporates parts which are required to be welded as specified by the original manufacturer of the enclosure. The complete enclosure, with welded parts and internal arrangement, shall be submitted to an appropriate Notified Body/Certification Body for assessment and testing as necessary for certification as Ex equipment.

Refer to drawing numbers XD0005, XD0006, and XD0007 and the Instruction Manual for details with respect to the welding of parts. Following the required welding procedures, the enclosure shall be pressure tested at a minimum value of 11.25 bar for at least 10 seconds with no damage, permanent deformation or leakage permitted.

15.11 After final assembly the probe travel shall not exceed 6mm. Refer to the instruction manual for details with respect to assembly and re-certification as an Ex Equipment

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.

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17 **CONDITIONS OF MANUFACTURE**

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Certificates.

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

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