



## EU-TYPE EXAMINATION CERTIFICATE

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

Certificate Number: **Sira 08ATEX1227X** Issue: **6**

Equipment: **8080 Range of Indicators and Transmitters**

Applicant: **International Metal Engineering Pte Limited**

Address: Blk 13 Toa Payoh Lorong 8  
#06-05 Braddell Tech Park  
Singapore 319261

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

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 equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of 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.

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+AC:2020      EN 60079-1:2014+AC:2018      EN 60079-31:2014

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.

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

The marking of the equipment shall include the following:

|                                                                                     |                      |    |                                                                                     |                              |
|-------------------------------------------------------------------------------------|----------------------|----|-------------------------------------------------------------------------------------|------------------------------|
|  | Stainless Steel only | or |  | Stainless Steel or Aluminium |
|                                                                                     | I M2                 |    |                                                                                     | II 2G D                      |
|                                                                                     | Ex db I Mb           |    |                                                                                     | Ex db IIC T6 Gb              |
|                                                                                     | Ex tb IIIC T85°C Db  |    |                                                                                     | Ex tb IIIC T85°C Db          |
|                                                                                     | IP68                 |    |                                                                                     | IP68                         |
|                                                                                     | Ta = -40°C to +60°C  |    |                                                                                     | Ta = -40°C to +60°C          |

Signed: M Halliwell

Title: Director of Operations



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## SCHEDULE

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#### 13 DESCRIPTION OF EQUIPMENT

The 8080 Range are cylindrical single compartment enclosures comprising a base and cover with a maximum internal volume of 280 cm<sup>3</sup>. The enclosures are manufactured from cast aluminium or stainless steel. Some cast aluminium versions are painted with epoxy paint. The cover may be blank or have a window fitted. Each enclosure may have up to 3 conduit openings, these conduit openings may be a combination of 1/2" NPT, 3/4" NPT, M16 x 2, M20 x 1.5. The enclosures may contain equipment limited to a maximum power dissipation of 2.2W.

The stainless steel version of the 8080 range may also be used in Group I applications.

#### Electrical Rating

| Model No. | Rating                                                                                                             |
|-----------|--------------------------------------------------------------------------------------------------------------------|
| 8080PP    | VOLTAGE DROP 5.54V, 20 mA, 4 – 20 mA DC, POWER SUPPLY : NIL                                                        |
| 8080MK    | VOLTAGE DROP 5V, 20 mA, 4 – 20 mA DC, POWER SUPPLY : NIL                                                           |
| 8080EL    | VOLTAGE DROP 3.5V, 20 mA, DC POWER SUPPLY: NIL                                                                     |
| 8080PR    | RTD PT-100, THERMOCOUPLE J/K INPUT, 78 mA DC<br>POWER SUPPLY: 24 VDC, OUTPUT: TWO RELAY C/O CONTACTS               |
| 8080PR1   | RTD PT-100, THERMOCOUPLE J/K INPUT, 78 mA DC<br>POWER SUPPLY: 24 VDC, OUTPUT: TWO RELAY C/O CONTACTS, 4 – 20 mA DC |
| 8080PR2   | RTD PT-100, THERMOCOUPLE J/K INPUT, 78 mA DC<br>POWER SUPPLY: 24 VDC, OUTPUT: TWO RELAY C/O CONTACTS, 4 – 20 mA DC |
| 8080PR3   | RTD PT-100, THERMOCOUPLE J/K INPUT, 78 mA DC<br>POWER SUPPLY: 24 VDC, OUTPUT: TWO RELAY C/O CONTACTS               |
| 8080MN    | 4-20 mA INPUT, 52 mA DC, POWER SUPPLY: 24 VDC                                                                      |
| 8080RR    | 4-20 mA INPUT, 90 mA DC, POWER SUPPLY: 24 VDC OUTPUT: TWO RELAY C/O CONTACTS                                       |
| 8080PN    | RTD PT-100, THERMOCOUPLE J/K INPUT, mA DC<br>POWER SUPPLY: 24 VDC, OUTPUT: 4 – 20 mA DC                            |
| 8080FR    | 4-20 mA INPUT 72 mA DC, POWER SUPPLY: 24 VDC,<br>OUTPUT: TWO RELAY C/O CONTACTS                                    |
| 8080HT    | RTD/THERMOCOUPLE INPUT, 20mA DC,<br>POWER SUPPLY: 24VDC, OUTPUT: 4-20 mA DC, HART                                  |
| 8080YK    | WIRE TO BOARD PCB, 32V DC, 22mA DC MAX                                                                             |
| 8080SS    | MINI SWITCH MONITOR, 24V DC, 10mA DC,<br>OUTPUT: TWO RELAY C/O CONTACTS                                            |

The equipment enclosure has been tested separately as per IEC 60529 and meets the requirements of an IP68 rating.

**Variation 1** - This variation introduced the following changes:

- The addition of information to the label drawings that shows specific model numbers, corresponding electrical ratings and marking relevant to other approvals. In addition previously omitted information required by the ATEX Directive was instated.
- The arrangement of the internal parts has been clarified.
- The addition of a Condition of Certification that excludes the use of batteries.

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iv. It was recognised that the equipment complies with EN 60079-31:2009 and EN 60079-0:2009.

**Variation 2** - This variation introduced the following change:

- i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2009, EN 60079-1:2007 and EN 60079-31:2009 were replaced by EN 60079-0:2012+A11:2013, EN 60079-1:2014 and EN 60079-31:2014, the markings and conditions were updated accordingly to recognise the new standards.
- ii. Other external thread types (other than metric or NPT) are not permitted as an option for cable glands in field wiring installations in EN 60079-1:2014 Annex C.2.2, therefore a specific condition of use is added to this certificate.

**Variation 3** - This variation introduced the following change:

- i. Remove all references to BSP thread types in the certificate product description and drawings, in relation to cable entry options, resulting in the removal of a condition in the certificate.
- ii. Removal of a Condition of Manufacture regarding the Ex component labelling.
- iii. Correction of a typographical error in the "Assessment Standards" section from EN 60079-0:2012+A1:2013 to EN 60079-0:2012+A11:2013.

**Variation 4** - This variation introduced the following change:

- i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, EN 60079-0:2012+A11:2013 and EN 60079-1:2014 were replaced by EN IEC 60079-0:2018+AC:2020 and EN 60079-1:2014+AC:2018 respectively, and the documents were updated accordingly to recognize the new standards.

**Variation 5** - This variation introduced the following changes:

- i. To allow introduction of new model 8080EL.
- ii. To allow introduction of new model 8080HT.
- iii. To allow introduction of new model 8080YK.
- iv. To allow introduction of new model 8080SS.
- v. To capture administrative changes to the electrical ratings of existing models.

## 14 DESCRIPTIVE DOCUMENTS

### 14.1 Drawings

Refer to Certificate Annexe.

### 14.2 Associated Reports and Certificate History

| Issue | Date             | Report number | Comment                               |
|-------|------------------|---------------|---------------------------------------|
| 0     | 17 February 2009 | R51A18028A    | The release of the prime certificate. |
| 1     | 31 January 2012  | R25925A/00    | The introduction of Variation 1.      |

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| Issue | Date             | Report number | Comment                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
|-------|------------------|---------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 2     | 06 March 2018    | R70133545A    | This Issue covers the following changes: <ul style="list-style-type: none"><li>EC Type-Examination Certificate in accordance with 94/9/EC updated to EU Type-Examination Certificate in accordance with Directive 2014/34/EU. <i>(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.)</i></li><li>The introduction of Variation 2.</li></ul> |
| 3     | 15 October 2019  | 0563          | Transfer of certificate Sira 08ATEX1227X from Sira Certification Service to CSA Group Netherlands B.V..                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |
| 4     | 31 March 2021    | R80054441A    | This Issue covers the following changes: <ul style="list-style-type: none"><li>The introduction of Variation 3.</li><li>A standard referenced in the text of Variation 2 i was amended to correct a typographical error.</li></ul>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| 5     | 27 January 2023  | R80126779A    | The introduction of Variation 4.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |
| 6     | 28 February 2024 | R80197349A    | The introduction of Variation 5.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       |

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

- 15.1 Only the stainless steel version of the 8080 enclosures can be used as Group I equipment.
- 15.2 The enclosure may have a non-conducting coating and when used in Group IIIC applications may generate an ignition-capable level of electrostatic charge under certain extreme conditions. The user shall ensure that the enclosure is only used in fixed installations and is not installed in a location where it may be subjected to external conditions which might cause a build-up of electrostatic charges on non-conducting surfaces. Additionally, the external enclosure should be cleaned only with a damp cloth.

#### 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 EU-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 covered by this certificate incorporates previously certified devices; it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer shall inform CSA of any modifications of the devices that may impinge upon the explosion safety design of the equipment.

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- 17.4 Examine the 8080 enclosures that are made from cast aluminium and fitted with a window assembly, are subjected to a routine overpressure test of 17.2 bar for at least 10 seconds as required by clause 16 of EN 60079-1. There shall be no leakage, permanent deformation or damage.
- 17.5 These enclosures shall not be fitted with batteries or any means for the user to install such devices.

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