



## EU-TYPE EXAMINATION CERTIFICATE

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

3 Certificate Number: Sira 09ATEX1023U Issue: 5

4 Component: Series 1080 and 1088 Instrument Housings

5 Applicant: International Metal Engineering Pte Ltd

6 Address: Blk 13 Toa Payoh Lorong 8

#06-05 Braddell Tech Park

Singapore 319261

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

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.

- 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 2GD Ex db IIC Gb Ta = -40°C to 85°C Ex tb IIIC Db IP68

Project Number 80086183

Signed: J A May

Title: Director of Operations

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#### **SCHEDULE**

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#### 13 DESCRIPTION OF COMPONENT

The 1080 Instrument Housings are cylindrical single compartment enclosures comprising a base and cover with a maximum internal volume of 140 cm<sup>3</sup>. The enclosures are manufactured from cast aluminium or stainless steel. Some cast aluminium versions are painted with silver paint or epoxy paint. The cover is blank and fitted with a stainless steel chain which is attached to the cover and base. Each enclosure may have a number of conduit openings and sizes. Both enclosures have passed a 4 times reference pressure test of 53 bar. Therefore a routine pressure test is not required. See table below: -

IME P	IME Part number 1080WW IME Part number 1080SW					
XX	T1 Thread Size	XX	T1	Thread Size	T2 Thread Size	
01	3/4" NPT	1/2" NPT	01	3/4"	NPT	1⁄2" NPT
02	1/2" NPT	1/2" NPT	02	1/2"	NPT	1⁄2" NPT
80	M20 x 1.5	1/2" NPT	08 M2		0 x 1.5	1∕2″ NPT
09	1/2" NPT 3/4" NPT		IME Model Description		Description	
10	3⁄4" NPT M20 x 1.5			1080ST Stainless steel		
11	½" NPT	1080SM	1080SM Stainless steel		l	
12	M20 x 1.5	M20 x 1.5	1080SW Stainless steel			ıl —
33	3/4" NPT	3⁄4" NPT	1080AT		Silver painted	low copper aluminium
36	M20 x 1.5	3⁄4" NPT	1080AM		Silver painted	low copper aluminium
			1080WT		Epoxy painted	d low copper aluminium
			1080WM	1	Epoxy painted	d low copper aluminium
			1080WW	/	Epoxy painted	d low copper aluminium

The 1088 Instrument Housings are similar to the 1080 series with the exception of the internal volume which is 200 cm³ and is not painted. See table below: -

IME P	art number 1088S	Т	IME Part number 1088-008			
XX	T1 Thread Size T2 Thread Size		XX	T1 Thread Size	T2 Thread Size	
01	3/4" NPT	1/2" NPT	01	3⁄4" NPT	1⁄2" NPT	
02	1/2" NPT	1⁄2" NPT	02	1/2" NPT	1⁄2" NPT	
08	M20 x 1.5	1⁄2" NPT	08	M20 x 1.5	½" NPT	
09	1⁄2" NPT	3⁄4" NPT	09	1⁄2" NPT	3⁄4" NPT	
10	3⁄4" NPT	M20 x 1.5	10	3⁄4" NPT	M20 x 1.5	
11	1/2" NPT	M20 x 1.5	11	1/2" NPT	M20 x 1.5	
12	M20 x 1.5	M20 x 1.5	12	M20 x 1.5	M20 x 1.5	
14	M24 x 1.5	1/2" NPT	14	M24 x 1.5	1⁄2" NPT	
15	M24 x 1.5	M24 x 1.5	15	M24 x 1.5	M24 x 1.5	
17	3/4" NPT	M24 x 1.5	17	3⁄4" NPT	M24 x 1.5	
19	1⁄2" NPT	M24 x 1.5	19	1⁄2" NPT	M24 x 1.5	
20	M24 x 1.5	M20 x 1.5	20	M24 x 1.5	M20 x 1.5	
33	3/4" NPT	3⁄4" NPT	33	3⁄4" NPT	3⁄4" NPT	
35	M20 x 1.5	M24 x 1.5	35	M20 x 1.5	M24 x 1.5	
36	M20 x 1.5	3⁄4" NPT	36	M20 x 1.5	3/4" NPT	

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#### **SCHEDULE**

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IME Model	Description
1088ST	1088 stainless steel, electro polished Enclosure

#### Variation 1 - This variation introduced the following change:

 Following appropriate re-assessment to demonstrate compliance with the requirements of the latest EN 60079 series of standards, the documents previously listed in section 9, EN 60079-0:2006 EN EN 61241-0:2004 and EN 61241-1:2004, were replaced by those currently listed reference to IEC 60079-0:2007 was also removed.

## Variation 2 - This variation introduced the following changes:

- i. Following appropriate assessment to demonstrate compliance with the latest technical knowledge, IEC 60079-0:2011 Ed.6, 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 were updated accordingly to recognise the new standards, and a Schedule of Limitations was added.
- 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 two Schedule of Limitations in the certificate.
- ii. Replace current external label with an internal label.
- 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+A1:2013 is replaced by EN IEC 60079-0:2018.
- ii. Amendment to the markings and schedule of limitations to update/address electrostatic assessment for build-up of electrostatic charge for Group III.
- iii. Notified body number change from XXXX/nnnn to 2813 on label drawings.

# 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 February 2009	R51A16938A	The release of the prime certificate.
1	02 October 2012 R28321A/00		The introduction of Variation 1.

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#### **SCHEDULE**

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Issue	Date	Report number	Comment
2	06 March 2018	R70133545A	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
			<ul><li>20 April 2016.)</li><li>The introduction of Variation 2.</li></ul>
3	15 October 2019	0565	Transfer of certificate Sira 09ATEX1023U from Sira Certification Service to CSA Group Netherlands B.V
4	31 March 2021	R80054441A	<ul> <li>This Issue covers the following changes:</li> <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	17 September 2021	R80086184A	The introduction of Variation 4

## 15 SCHEDULE OF LIMITATIONS

15.1 Warning: potential electrostatic charging hazard - see instructions.

# 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 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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# **Certificate Annexe**

Certificate Number: Sira 09ATEX1023U

Component: Series 1080 and 1088 Instrument Housings

Applicant: International Metal Engineering Pte Ltd



# Issue 0

Drawing No.	Sheets	Rev.	Date (Sira stamp)	Description
8080-006	1 of 1	1	12 Feb 09	M4 x 10 SS Set screw
8080-007	1 of 1	1	12 Feb 09	Stainless steel rivet
1080-021	1 of 1	2	12 Feb 09	M4 x 10 SS screw
1080-022	1 of 1	2	12 Feb 09	Ball chain with eyelets
1080-023	1 of 1	1	12 Feb 09	M4 x 6 SS Earth green screw
1080-026	1 of 1	2	12 Feb 09	'O' Ring for housing
1088-008-xx	1 of 1	4	12 Feb 09	1088 Stainless steel housing
1088ST-xx	1 of 1	0	12 Feb 09	1088ST Stainless steel head assembly
1080Ax-xx	1 of 1	0	12 Feb 09	1080Ax Aluminium thermocouple head assembly
1080Sx-xx	1 of 1	3	12 Feb 09	1080Sx Aluminium thermocouple head assembly
1080Wx-xx	1 of 1	0	12 Feb 09	1080Wx Aluminium thermocouple head assembly
1080SW-xx	1 of 1	2	12 Feb 09	1080SW Aluminium thermocouple head with external
				thread assembly
1080WW-xx	1 of 1	2	12 Feb 09	1080WW Aluminium thermocouple head with external
				thread assembly
1080-086	1 of 1	1	12 Feb 09	1080ST Cover
1080-102-xx	1 of 1	2	12 Feb 09	1080AT Cover
1080-004-xx-xx	1 of 1	3	12 Feb 09	1080 Aluminium housing
1080-005-xx	1 of 1	1	12 Feb 09	1080WW Aluminium housing
1080-009-xx	1 of 1	3	12 Feb 09	1080 Stainless steel housing
1080-010-xx	1 of 1	1	12 Feb 09	1080SW Stainless steel housing
1080-032	1 of 1	0	12 Feb 09	Lower half tag for 1080ST cover
1080-033	1 of 1	0	12 Feb 09	Lower half tag for 1080WT cover
1080-034	1 of 1	0	12 Feb 09	Lower half tag for 1080SM cover
1080-037	1 of 1	0	12 Feb 09	Lower half tag for 1080WM cover
1080-038	1 of 1	0	12 Feb 09	Lower half tag for 1080AM cover
1080-041	1 of 1	2	12 Feb 09	Lower half tag for 1080SW cover
1080-042	1 of 1	2	12 Feb 09	Lower half tag for 1080WW cover
1080-047	1 of 1	0	12 Feb 09	Lower half tag for 1080AT cover
1088-040	1 of 1	0	12 Feb 09	Lower half tag for 1088ST cover

Issue 1 - No new drawings were introduced.

## Issue 2

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
1080-032	1 of 1	1	29 Nov 17	Lower half tag for 1080ST cover
1080-033	1 of 1	1	29 Nov 17	Lower half tag for 1080WT cover
1080-034	1 of 1	1	29 Nov 17	Lower half tag for 1080SM cover
1080-037	1 of 1	1	29 Nov 17	Lower half tag for 1080WM cover
1080-038	1 of 1	1	29 Nov 17	Lower half tag for 1080AM cover
1080-041	1 of 1	3	29 Nov 17	Lower half tag for 1080SW cover
1080-042	1 of 1	3	29 Nov 17	Lower half tag for 1080WW cover
1080-047	1 of 1	1	29 Nov 17	Lower half tag for 1080AT cover
1088-040	1 of 1	1	02 Jan 18	Lower half tag for 1088ST cover

**Issue 3** – No new drawings were introduced.

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# **Certificate Annexe**

Certificate Number: Sira 09ATEX1023U



Applicant: International Metal Engineering Pte Ltd



## Issue 4

Drawing	Sheets	Rev.	Date (Stamp)	Title
1080-032	1 to 1	2	25 Jan 21	Adhesive Label For 1080ST
1080-033	1 to 1	2	25 Jan 21	Adhesive Label For 1080WT
1080-047	1 to 1	2	25 Jan 21	Adhesive Label For 1080AT
*1080-058	1 to 1	0	25 Jan 21	Adhesive Label For 1080XX
*1080-057	1 to 1	0	25 Jan 21	Adhesive Label For 1080SW
*1080-703	1 to 1	0	25 Jan 21	Adhesive Label For 1080WM
*1080-704	1 to 1	0	25 Jan 21	Adhesive Label For 1080AM
*1080-706	1 to 1	0	25 Jan 21	Adhesive Label For 1080SM
1088-040	1 to 1	2	25 Jan 21	Adhesive Label For 1088ST
1080-004-XX-XX	1 to 1	4	25 Jan 21	1080 Aluminium Housing
1080-005-XX	1 to 1	2	25 Jan 21	1080WW Aluminium Housing
1080-009-XX	1 to 1	4	25 Jan 21	1080 Stainless Steel Housing
1080-010-XX	1 to 1	2	25 Jan 21	1080SW Stainless Steel Housing
1088-008-XX	1 to 1	5	25 Jan 21	1088 Stainless Steel Housing
1080AX-XX	1 to 1	1	25 Jan 21	1080Ax Aluminium thermocouple head assembly
1080SW-XX	1 to 1	3	25 Jan 21	1080SW Aluminium thermocouple head with external
				thread assembly
1080SX-XX	1 to 1	4	25 Jan 21	1080Sx Aluminium thermocouple head assembly
1080WW-XX	1 to 1	3	25 Jan 21	1080WW Aluminium thermocouple head with external
				thread assembly
1080WX-XX	1 to 1	1	25 Jan 21	1080Wx Aluminium thermocouple head assembly
1088ST-XX	1 to 1	1	25 Jan 21	1088ST Stainless steel head assembly
*1080-500	1 to 1	3	25 Jan 21	1080 Series Instruction Sheet
*1088-500	1 to 1	2	25 Jan 21	1088 Series Instruction Sheet

<sup>\*</sup>These documents are added as a result of this variation.

The below drawings are removed from the certification file as a result of this variation:

Drawing	Sheets	Rev.	Date (Stamp)	Title
1080-041	1 to 1	3	29 Nov 17	Lower half tag for 1080SW cover
1080-042	1 to 1	3	29 Nov 17	Lower half tag for 1080WW cover
1080-034	1 to 1	1	29 Nov 17	Lower half tag for 1080SM cover
1080-037	1 to 1	1	29 Nov 17	Lower half tag for 1080WM cover
1080-038	1 to 1	1	29 Nov 17	Lower half tag for 1080AM cover

## Issue 5.

Drawing	Sheets	Rev.	Date (Stamp)	Title
1080-033	1 of 1	3	17 Aug 2021	Adhesive Label For 1080WT
1080-047	1 of 1	3	17 Aug 2021	Adhesive Label For 1080AT
1080-058	1 of 1	1	17 Aug 2021	Adhesive Label For 1080WW
1080-703	1 of 1	1	17 Aug 2021	Adhesive Label For 1080WM
1080-704	1 of 1	1	17 Aug 2021	Adhesive Label For 1080AM
1080-500	1 of 1	4	17 Aug 2021	Instruction Sheet

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