



EU-TYPE EXAMINATION CERTIFICATE

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

Certificate Number: **Sira 07ATEX1331U** Issue **8**

Component: **8080, 8075, 8066 & 7080 Series Instrument Enclosures & Junction Boxes**

Applicant: **International Metal Engineering Pte Limited**

Address: Blk 13 Toa Payoh Lorong 8
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Singapore 319261

This component and any acceptable variation thereto are 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 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.

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.

The marking of the component shall include the following:

Stainless Steel only



I M2
Ex db I Mb

or

Stainless Steel or Aluminium



II 2 G D
Ex db IIC Gb Ta = -40°C to +85°C
Ex tb IIIC Db IP68



Signed: Michelle Halliwell

Title: Director of Operations

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13 DESCRIPTION OF COMPONENT

The 8080, 8075, 8066 and 7080 Series Instrument Enclosures are cylindrical single compartment enclosures comprising a base and cover with a maximum internal volume of 280 cm³. 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 a number of conduit openings and sizes. See table below: -

Model range	No. of entries	Size of thread entries				
		½" NPT	¾" NPT	M16 x 2 (not a thru hole)	M20 x 1.5	None
8080	3	X	X	X	X	X
8075	3	X	X	X	X	X
8066	3	X	X		X	X
7080	1	X	X		X	X
7080	2 @ 90°	X	X		X	X
7080	2 @ 180°	X	X		X	X
7080	3	X	X		X	X
7080	4	X	X		X	X
8066	3	X	X		X	X

Design Options

8080 Series (Models with an asterisk (*) denote that an adhesive metric label is required when a metric thread is selected)

Model 8080AT, made of cast aluminium with blind cover
Model 8080AM*, made of cast aluminium with blind cover
Model 8080WT, made of cast aluminium with glass window cover
Model 8080WM*, made of cast aluminium with glass window cover
Model 8080TT, made of stainless steel with blind cover
Model 8080TM*, made of stainless steel with blind cover
Model 8080ST, made of stainless steel with glass window cover
Model 8080SM*, made of stainless steel with glass window cover

8075 Series (Models with an asterisk (*) denote that an adhesive metric label is required when a metric thread is selected)

Model 8075AT, made of cast aluminium with blind cover.
Model 8075AM*, made of cast aluminium with blind cover.
Model 8075WT, made of cast aluminium with glass window cover.
Model 8075WM*, made of cast aluminium with glass window cover.
Model 8075TT, made of stainless steel with blind cover.
Model 8075TM*, made of stainless steel with blind cover.
Model 8075ST, made of stainless steel with glass window cover.
Model 8075SM*, made of stainless steel with glass window cover.

8066 Series (Models with an asterisk (*) denote that an adhesive metric label is required when a metric thread is selected)

Model 8066PD*, made of cast aluminium with glass window cover.



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7080 Series (The 7080WT, 7080WM, 7080AT and 7080AM are painted with epoxy paint; the 7080CT, 7080CM, 7080NM and 7080NT are not painted. Models with an asterisk (*) denote that an adhesive metric label is required when a metric thread is selected)

IME Model 7080WM*, made of cast aluminium with glass window cover.
IME Model 7080WT, made of cast aluminium with glass window cover.
IME Model 7080CM*, made of cast aluminium with glass window cover.
IME Model 7080CT, made of cast aluminium with glass window cover.
IME Model 7080AM*, made of cast aluminium with blind cover.
IME Model 7080AT, made of cast aluminium with blind cover.
IME Model 7080NM*, made of cast aluminium with blind cover.
IME Model 7080NT, made of cast aluminium with blind cover.
IME Model 7080TM*, made of stainless steel with blind cover.
IME Model 7080TT, made of stainless steel with blind cover.
IME Model 7080SM*, made of stainless steel with glass window cover.
IME Model 7080ST, made of stainless steel with glass window cover.

8066 Series (Models with an asterisk (*) denote that an adhesive metric label is required when a metric thread is selected)

IME Model 8066PB* - 2.6" Aluminium Unit that has a blind cover.

Variation 1 - This variation introduced the following changes:

- The addition of a new enclosure size to range, 8066PD, the description being modified accordingly.
- The extension of ambient temperature range from $-40^{\circ}\text{C} \leq T_a \leq +60^{\circ}\text{C}$ to $-40^{\circ}\text{C} \leq T_a \leq +85^{\circ}\text{C}$.
- The marking of the products was corrected by the removal of T6, (85°C) and T85°C from the certificate and affected labels.
- Minor modification to two drawings of the 8080 enclosure base.

Variation 2 - This variation introduced the following change:

- The existing range was extended to include the IME Model 8066PB - 2.6" Aluminium Unit that has a blind cover.

Variation 3 - 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 61241-0:2006 and EN 61241-1:2004, were replaced by those currently listed, the markings in section 12 were updated accordingly.

Variation 4 - This variation introduced the following changes:

- 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.
- 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.

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Variation 5 - This variation introduced the following changes:

- i. The existing range was extended to include IME Model 7080TF* Junction Box, made of stainless steel with blind cover. Marked suitable for concept of protections Ex db I Mb, or Ex db IIC Gb and Ex tb IIIC Db. The design is based upon model 7080TT* (stainless steel model with blind cover) with the following design differences only:
 - Absence of the four external blind holes and their associated internal lugs on the interior of the cover they are machined into. Used to locate hammer driven rivets to mount certification labels.
 - A reduction in height of the four, internal mounting lugs within the enclosure main body for internal circuitry.(* denotes that an adhesive metric label is required when a metric thread is selected)

Variation 6 - This variation introduced the following changes:

- 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 7 - This variation introduced the following changes:

- i. Amendment to the electrostatic assessment for the build-up of electrostatic charge for Group III enclosures with an external non-metallic coating. Resulting in a condition being added to the Schedule of Limitations and the addition of the electrostatic charge warning to model numbers 7080WT, 7080WM, 7080AT, 7080AM, 8066PD, 8066PB, 8075WT, 8075WM, 8075AT, 8075AM, 8080WT, 8080WM, 8080AT and 8080AM.
- ii. The recognition of minor drawing modifications. These amendments are administrative or involve changes to the design that do not affect the aspects of the product that are relevant to explosion safety.
- iii. Following appropriate assessment to demonstrate compliance with the latest standards, EN 60079-0:2012+A11:2013, is replaced by EN IEC 60079-0:2018. Resulting in five conditions being added to the Schedule of Limitation.

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Reports and Certificate History

Issue	Date	Report number	Comment
0	17 April 2008	R51A16897A	The release of the prime certificate.
1	16 February 2009	R51L18979A	The introduction of Variation 1.
2	08 September 2009	R51L20409A	The introduction of Variation 2.
3	02 October 2012	R28321A/00	The introduction of Variation 3.

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Issue	Date	Report number	Comment
4	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. <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> • The introduction of Variation 4.
5	28 August 2018	R70190075A	This Issue covers the following changes: • The introduction of Variation 5. • A Condition of Manufacture that has been applied previously was inadvertently overlooked in Issue 4; it has therefore been retrospectively reinstated. This change is purely administrative and requires no technical input, refer to section 1.11 in report R70133545A.
6	15 October 2019	0368	Transfer of certificate Sira 07ATEX1331U from Sira Certification Service to CSA Group Netherlands B.V..
7	31 March 2021	R80054441A	This Issue covers the following changes: • The introduction of Variation 6. • A standard referenced in the text of Variation 4 i was amended to correct a typographical error.
8	14 October 2022	R80137486A	The introduction of Variation 7.

15 SCHEDULE OF LIMITATIONS

- 15.1 Refer to the manufacturer's instruction sheet for conduit/cable entry locations and sizes.
- 15.2 Oil-filled circuit breakers and contactors shall not be used in the enclosure.
- 15.3 The ambient range of the enclosure is -40°C to +85°C.
- 15.4 For Group I applications, the content of the Ex Component enclosure equipment may be placed in any arrangement, provided that an area of at least 20% of each cross-sectional area remains free to permit an 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.
- 15.5 For Group IIC applications, the content of the Ex Component enclosure equipment may be placed in any arrangement, provided that an area of at least 40% of each cross-sectional area remains free to permit an 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.
- 15.6 The enclosures of model numbers 7080WT, 7080WM, 7080AT, 7080AM, 8066PD, 8066PB, 8075WT, 8075WM, 8075AT, 8075AM, 8080WT, 8080WM, 8080AT and 8080AM may have a non-conducting coating and when used in Group IIIC applications may generate an ignition-capable level of electrostatic charge

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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, cleaning of the external enclosure should be done 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 8080, 8075, 8066 and 7080 Series Instrument Enclosures and Junction Boxes, which are made from cast aluminium and fitted with a window assembly, shall be subjected to a routine overpressure test of 17.2 bar for at least 10 seconds as required by clause 16 of EN 60079-1:2014. There shall be no leakage, permanent deformation or damage as a result of the test.

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