



EU-TYPE EXAMINATION CERTIFICATE

Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014

EU-Type Examination Certificate Number: **Sira 10ATEX1166X** Issue: **3**

Equipment: **5117 Range of Junction Boxes**

Manufacturer: **International Metal Engineering Pte Limited**

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

This product 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 No. 2813 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in item 16.2.

Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN IEC 60079-0 :2018+AC :2020 EN 60079-1 :2014+AC :2018 EN 60079-31 :2014
EN IEC 60079-31 :2024

Where additional criteria beyond those given here have been used, they are listed in item 18 in the Schedule.

If the sign "X" is placed after the certificate number, it indicates that the product is subject to the "Specific Conditions of Use" listed in item 17 of this certificate.

This EU-Type Examination Certificate relates only to the technical design of the specified product in accordance with the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this product, these are not covered by this certificate.

The marking of the product shall include the following (additional marking is provided in the Schedule as a part of item 15, if applicable):



II 2GD
Ex db IIC T6 Gb
Ex tb IIIC T85°C Db IP68
Ta = -40 °C to +75 °C

Signed: M Halliwell
Title: Senior Director of Operations
Date: 21 April 2026



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SCHEDULE

EU-Type Examination Certificate Number: Sira 10ATEX1166X **Issue:** 3

Description:

The 5117 range of Junction Boxes utilise the 7117 series of empty enclosures, certificate number IECEx SIR 09.0118U populated with up to 12 Phoenix Contact UK3N terminals, each Junction Box may have up to four conduit openings with entry sizes selected from 1/2" NPT, 3/4" NPT, 1" NPT, M20 x 1.5 or M25 x 1.5. The range is defined below:

Reference	Material of construction	Option
5117 ST	Stainless steel	Window cover
5117 SM	Stainless steel	Window cover
5117 TT	Stainless steel	Blind cover
5117 TM	Stainless steel	Blind cover
5117 WT	Aluminium, epoxy coated	Window cover
5117 WM	Aluminium, epoxy coated	Window cover
5117 AT	Aluminium, epoxy coated	Blind cover
5117 AM	Aluminium, epoxy coated	Blind cover

Variation 1 - This variation introduced the following changes:

- It was retrospectively recognised that the ambient temperature range for the Junction Boxes fitted with terminals is -40°C to +75°C, as assessed in report no. R19866A/00.
- As an alternative to populating these Junction Boxes with terminals, they may now be fitted with an indicating device that incorporates an intrinsically safe barrier specified as a TURCK MK1-22N-EX0/24VDC isolating switching amplifier; all the primary components of the indicating device are listed in the conditions of certification. When using this type of Junction Box, the operating parameters of the TURCK MK1-22N-EX0/24VDC isolating switching amplifier shall not exceed the following limits:

Input circuit, (Terminals 1/2, 3/4, 1/3, 2/4):

Type of protection intrinsic safety: (EEx ia) IIC

Maximum values per circuit: $U_o = 9.9\text{ V}$, $I_o = 12\text{ mA}$, $P_o = 30\text{ mW}$

Characteristic line: linear

Effective internal inductance: 0.65 mH

The effective internal capacitance is negligibly small.

Parameter	IIC			IIB		
Maximum permissible external inductance	1 mH	5 mH	10 mH	2 mH	10 mH	20 mH
Maximum permissible external capacitance	1.1 μF	0.79 μF	0.7 μF	5 μF	3.6 μF	3.2 μF

If, for safety reasons, the circuits have to be considered as interconnected, the following values are valid at the terminals 1-4: $U_o = 9.9\text{ V}$, $I_o = 24\text{ mA}$, $P_o = 60\text{ mW}$

Characteristic line: linear

Effective internal inductance: 0.65 mH

The effective internal capacitance is negligibly small.

Parameter	IIC			IIB		
Maximum permissible external inductance	1 mH	5 mH	10 mH	2 mH	10 mH	20 mH
Maximum permissible external capacitance	1.1 μF	0.74 μF	0.64 μF	4.9 μF	3.5 μF	3 μF



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Variation 2 - This variation introduced the following changes:

- i. To remove Indicating Device. This indicates that Variation 1 is fully excluded from the validity of the certificate.
- ii. Following appropriate assessment to demonstrate compliance with the latest standards, EN 60079-0:2009, EN 60079-1:2007 and EN 60079-31:2008, were replaced by EN IEC 60079-0:2018/AC:2020, EN 60079-1:2014/AC:2018 and EN IEC 60079-31:2024.
- iii. Models with enclosures without epoxy coated have been added.

16 **Drawings and documents:**

16.1 **Technical documents:**

Refer to Certificate Annex.

16.2 **Associated reports and certificate history:**

Issue	Date	Report number	Comment
0	23 June 2010	R19866A/00	The release of prime certificate.
1	20 November 2012	R28529A/00	The introduction of Variation 1.
2	15th October 2019	2247	• Transfer of certificate Sira 10ATEX1166X from Sira Certification Service to CSA Group Netherlands B.V.. • 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>
3	21 April 2026	R80281803A	The introduction of Variation 2.

17 **Specific conditions of use** (denoted by "X" after the certificate number):

- 17.1 The power dissipation within the junction box shall be limited to a maximum of 3.5 W.
- 17.2 Use damp cloth for cleaning to avoid electric charging hazard.
- 17.3 The flameproof joints are not intended to be repaired.

18 **Essential health and safety requirements of Annex II** (EHSRs):

The relevant EHSRs that are not addressed by the standards listed in item 9 of this certificate have been identified and conformity of the product demonstrated in the reports listed in item 16.2.

19 **Remarks and additional information:**

The use of this certificate is subject to the regulations applicable to holders of CSA Group Netherlands B.V. certificates.

Compliance of the product with the applicable safety requirements of the relevant industrial standards has not been verified and is not covered by this certificate.

19.1 **Conditions of manufacture:**

None



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