IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.:	**IECEx CML 18.0229X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 1	Issue 0 (2019-01-21)
Date of Issue:	2019-11-21		
Applicant:	**Index Enclosures Ltd** Unit 5 Wyvern Way, Ashford, Kent, TN24 8DW **United Kingdom**		
Equipment:	**iTB and iSTB Terminal Boxes**		
Optional accessory:			
Type of Protection:	**Increased Safety "eb", Intrinsically Safe "ia", Dust Ignition "tb"**		
Marking:	Ex ia IIC T* Ga Ex eb IIC T* Gb Ex tb IIIC T* °C Db Ta: -*°C to *°C * see certificate Annexe, Table 3		

Approved for issue on behalf of the IECEx Certification Body: **A Snowdon MIET**

Position: **Certification Officer**

Signature: (for printed version)

Date: November 21, 2019

1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.

Certificate issued by:

Eurofins E&E CML Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom

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Certificate No.: **IECEx CML 18.0229X** Page 2 of 4

Date of issue: 2019-11-21 Issue No: 1

Manufacturer: **Index Enclosures Ltd**
Unit 5 Wyvern Way, Ashford, Kent, TN24 8DW
United Kingdom

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements.This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

STANDARDS :
The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-11:2011 Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
Edition:6.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2015 Explosive atmospheres – Part 7: Equipment protection by increased safety "e"
Edition:5.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:
A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/CML/ExTR18.0298/00 GB/CML/ExTR19.0219/00

Quality Assessment Report:

GB/SIR/QAR12.0012/06

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EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The iTB and iSTB Terminal Boxes are fabricated from painted mild steel or stainless steel.

Refer to Annex for full description and Conditions of Manufacture.

SPECIFIC CONDITIONS OF USE: YES as shown below:
Refer to Annex for Specific Conditions of Use.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
Issue 1

This issue introduces the following change:

1. The addition of an alternative terminal type

Annex:

IECEx CML 18.0229X Iss. 1 Certificate Annex.pdf

Annexe to:	**IECEx CML 18.0229X Issue 1**
Applicant:	**Index Enclosures Ltd.**
Apparatus:	**iTB and iSTB Terminal Boxes**

Description

iTB Range of Terminal Boxes

The iTB range of terminal boxes utilise the Index iTB enclosure, certified under CML 18ATEX3416U and IECEx CML 18.0228U.

Inside the enclosure, a combination of the following terminal types may be fitted with:

- Weidmüller type WDU, WDK and WPE certified under Kema 98ATEX1683U, Kema 01ATEX2186U, Kema 98ATEX1686U and IECEx ULD 05.0008U, and coded Ex e II
- Weidmüller type SAK and EK certified under Kema 97ATEX1798U and IECEx KEM 06.0014U, and coded Ex e II
- Phoenix type UK certified under Kema 98ATEX1651U, Kema 06ATEX0119U, Kema 98ATEX1786U and IECEx KEM 06.0034U and IECEx KEM 0029U, and coded Ex eb IIC
- Phoenix type UT certified under Kema 04ATEX2048U and IECEx KEM 06.0027U, and coded Ex eb IIC
- Phoenix type USLKG certified under Kema 99ATEX4487U, Kema 96ATEX4370U, Kema 97ATEX1622U, and IECEx KEM 06.0035U, and coded Ex eb IIC

The combination of terminals is subject to a maximum dissipated power as listed in Table 1, and the maximum dissipated power is calculated using the method described in EN/IEC 60079-7, Annex E.2:

Table 1: Maximum dissipated power ratings

Minimum Enclosure size (mm)			Max. Dissipated power (W)
Height	Width	Depth	
230	150	130	11.34
300	200	150	15.96
300	300	150	19.14
500	400	150	30.21
600	400	200	35.05
750	500	200	44.38
900	600	200	53.81
1000	800	200	64.27
1200	800	300	73.71
1200	1000	300	79.98

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iSTB Range of Terminal Boxes

The iTB range of terminal boxes utilise the Index iTB enclosure, certified under CML 18ATEX3416U and IECEx CML 18.0228U.

Inside the enclosure, a combination of the following terminal types may be fitted:

- Weidmüller type WDU, WDK and WPE certified under Kema 98ATEX1683U, Kema 01ATEX2186U, Kema 98ATEX1686U and IECEx ULD 05.0008U, and coded Ex e II
- Weidmüller type SAK and EK certified under Kema 97ATEX1798U and IECEx KEM 06.0014U, and coded Ex e II
- Phoenix type UK certified under Kema 98ATEX1651U, Kema 06ATEX0119U, Kema 98ATEX1786U and IECEx KEM 06.0034U and IECEx KEM 0029U, and coded Ex eb IIC
- Phoenix type UT certified under Kema 04ATEX2048U and IECEx KEM 06.0027U, and coded Ex eb IIC
- Phoenix type USLKG certified under Kema 99ATEX4487U, Kema 96ATEX4370U, Kema 97ATEX1622U, and IECEx KEM 06.0035U, and coded Ex eb IIC

The combination of terminals is subject to a maximum dissipated power as listed in Table 2, and the maximum dissipated power is calculated using the method described in EN/IEC 60079-7, Annex E.2.:

Table 2: Maximum dissipated power ratings

Minimum Enclosure size (mm)			Max. Dissipated power (W)
Height	Width	Depth	
100	100	80	3.80
120	120	80	5.14
150	150	90	7.42
190	190	100	10.43
160	380	120	18.04
250	250	120	15.05
250	400	150	21.54
380	380	220	26.11
600	400	220	35.35
600	600	300	43.14

The iTB and iSTB Terminal Box arrangements are suitable for the ambient temperatures as shown in Table 3 below.

Table 3

Terminal Type	**Available ambient temperature ranges & Temperature classes**		
	T6 / T85°C ②③	T5 / T100°C ②③	T4 / 135°C ②③
Phoenix UK 2.5 N only	-50°C to +40°C	-50°C to +55°C	-50°C to +65°C
Phoenix UK range (excl. UK 2.5 N)	-50°C to +40°C	-50°C to +55°C	-50°C to +70°C
Phoenix USLKG range	-50°C to +40°C	-50°C to +55°C	-50°C to +70°C
Phoenix UT range	-50°C to +40°C	-50°C to +55°C	-50°C to +70°C
Weidmüller SAK and EK range (PA 66 insulation)	-50°C to +40°C	N/A	N/A
Weidmüller SAK and EK range (KrG insulation)	-50°C to +40°C	-50°C to +55°C	-50°C to +90°C
Weidmüller SAK and EK range (Wemid insulation)①	-50°C to +40°C	-50°C to +55°C	-50°C to +60°C
Weidmüller WDU, WDK and WPE range	-50°C to +40°C	-50°C to +55°C	-50°C to +60°C
Weidmüller WDU 240 only①	-50°C to +40°C	-50°C to +55°C	-50°C to +70°C

① Not applicable to IECEx certification

② The marked lower ambient temperature is limited to -50°C.

③ The marked ambient range is limited to -20°C to +40°C for enclosures which use non-metallic CMP stopping plugs.

Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

i. When the Terminal Boxes are equipped by the manufacturer with wired terminals, a routine electric strength test shall be conducted in accordance with IEC 60079-7, clause 6.1.
ii. The maximum dissipated power in watts for each Terminal Box shall be calculated in accordance with IEC 60079-7, Annex E, E.2 and shall not exceed the value given in Tables 1 and 2 detailed in the Product Description.
iii. The Terminal Boxes may also be manufactured to sizes not specified in the documentation provided that any given dimension is not larger than the respective dimension of the largest enclosure or smaller than the respective dimension of the smallest enclosure. The marked power rating shall be the power rating of the next smallest size of enclosure.
iv. The manufacturer shall take all reasonable steps to ensure that the user/installer complies with the special conditions for certification associated with the Terminal Boxes, in addition, the manufacturer shall provide the user/installer with an appropriate copy of the certificate for each certified device that is fitted in the box.
v. When installed with CMP Products Type E** cable glands, only the standard seal shall be used.
vi. Covers, cross-connectors and end brackets for terminals shall be installed in accordance with the instructions of the terminal manufacturer.
vii. The Enclosures used in the construction of these Junction Boxes shall be covered by IECEx CML 18.0228U.

Specific Conditions of Use

The following conditions relate to safe installation and/or use of the equipment.

i. The user/installer shall install these Terminal Boxes taking into account any restrictions or special conditions for safe use that are applicable to the previously certified devices that are fitted in the Terminal Boxes.
ii. To maintain the ingress protection of IP66 any cable entry device shall be certified Ex e and shall be suitably rated IP66 and suitable for the environment it is to be used in.
iii. When the Terminal Boxes are installed in a dust explosive environment the user shall ensure that an accumulation of excessive dust layers on the enclosure is prevented.