IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx CML 19.0068X

Issue No: 0

Certificate history:
Issue No. 0 (2019-07-25)

Status: **Current**

Date of Issue: **2019-07-25**

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

Equipment: **iTB & iSTB Control Panels**
Optional accessory:

Type of Protection: **Increased Safety, flameproof and Dust**

Marking:
Ex db eb IIC Gb T*

Ex tb IIIC Db T* IP66

* see certificate Annexe

Approved for issue on behalf of the IECEx Certification Body: A C Smith

Position: Technical Operations Director

Signature:
(for printed version)

Date: 2019-07-25

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 the Official IECEx Website.

Certificate issued by:

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

IECEx Certificate of Conformity

Certificate No:	IECEx CML 19.0068X	Issue No: 0
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Manufacturer:	**Index Enclosures Ltd.** Unit 5 Wyvern Way, Ashford, Kent, TN24 8DW **United Kingdom**	

Additional Manufacturing location(s):

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 apparatus 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 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical 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 Report:

GB/CML/ExTR19.0098/00

Quality Assessment Report:

GB/SIR/QAR12.0012/06

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Certificate No: IECEx CML 19.0068X Issue No: 0

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The iTB and iSTB control panels are fabricated from mild steel or stainless steel. The enclosures consist of a body and hinged lid complete with silicone gaskets. On the door of the enclosure a combination of separately certified panel mounted control apparatus can be fitted; inside the enclosure a combination of terminals and/or rail mounted control apparatus may be installed.

Refer to Certificate Annexe for full description.

SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to Certificate Annexe.

Annex:

IECEx CML 19.0068X Certificate Annex.pdf

Annexe to:	IECEx CML 19.0068X Issue 0
Applicant:	Index Enclosures Ltd.
Apparatus:	iTB and iSTB Control Panels

Product Description

iTB Range Control Panels

The iTB Range of Control Panels utilises the Index iTB range of enclosures and terminal boxes, which are separately certified under IECEx CML 18.0229X and IECEx CML 18.0228U respectively.

The enclosures in the iTB range are fabricated from painted mild steel or stainless steel and consist of a body and hinged door up to 1000 mm wide, or doors up to 1000 mm wide closing to a centre bar, to the front of the enclosure, complete with silicone gaskets. Additionally, a hinged door up to 1000 mm wide, or doors up to 1000 mm wide closing to a centre bar, to the rear of the enclosure is permitted. The enclosure meets a degree of protection of IP66 and is available in sizes ranging from 230 x 150 x 130 mm to 2000 x 1000 x 800mm. Enclosures may be manufactured within this range of sizes as long as the maximum height, width or depth do not exceed the maximum specified. The body may be supplied with gland plates on up to four side faces and the lid is secured to the body by two, three or four hinges and from two to five M6 screws or quarter-turn locks, depending on the size of enclosure. There are studs inside the enclosures for the subsequent mounting of components. Internal M6 earth studs are provided on the lid and gland plates. An internal/external M6 or M10 earth stud is provided in the main enclosure body.

On the door of the enclosure a combination of separately certified panel mounted control apparatus of Quintex GmbH manufacture can be fitted; in particular, the door of the enclosure can be fitted with the Quintex GmbH switch module type QX0201, signal lamp with button module type QX0212, ammeter type QX0205, potentiometer module type QX0203, and signal lamp module type QX0202. Inside the enclosure, and as listed in IECEx CML 18.0229X, a combination of terminals and/or rail mounted control apparatus may be installed.

The combination of terminals and apparatus 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

Unit 1, Newport Business Park
New Port Road
Ellesmere Port
CH65 4LZ

T +44 (0) 151 559 1160
E info@cmlex.com

www.cmlex.com

Company Reg No. 8554022 VAT No. GB163023642

iSTB Range Control Panels

The iSTB Range of Control Panels utilises the Index iSTB range of enclosures and terminal boxes, which are separately certified under IECEx CML 18.0229X and IECEx CML 18.0228U respectively.

The enclosures in the iSTB range are fabricated from painted mild steel or stainless steel and consist of a body and bolted cover complete with silicone gaskets. The enclosure meets a degree of protection of lP66 and is available in sizes ranging from 100 x 100 x 80 mm to 2000 x 1200 x 800 mm. The body may be supplied with gland plates on up to four side faces and the cover is secured to the body by four M6 screws. There are studs inside the enclosure for the subsequent mounting of components. Internal M6 earth studs are provided on the lid and gland plates. An internal/external M6 or M10 earth stud is provided in the main enclosure body. Enclosures may be manufactured within this range of sizes as long as the maximum height, width or depth do not exceed the maximum specified.

On the door of the enclosure a combination of separately certified panel mounted control apparatus of Quintex GmbH manufacture can be fitted; in particular, the door of the enclosure can be fitted with the Quintex GmbH switch module type QX0201, signal lamp with button module type QX0212, ammeter type QX0205, potentiometer module type QX0203, and signal lamp module type QX0202. Inside the enclosure, and as listed in IECEx CML 18.0229X, a combination of terminals and/or rail mounted control apparatus may be installed.

The combination of terminals and apparatus 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 Range of Control Panels may consist of the following Ex components:-

Item Description	Manufacturer Info	Ex Markings	Ex Certificate(s)
Push Button QX0201	Quintex GmbH	Ex de IIC Gb Ex tD A21 IP66	IECEx EPS 11.0011U
Signal Lamp QX0202	Quintex GmbH	Ex de IIC Gb Ex tD A21 IP66	IECEx EPS 11.0012U
Potentiometer QX0203	Quintex GmbH	Ex de IIC Gb Ex tD A21 IP66	IECEx EPS 11.0013U
Ammeter QX0205	Quintex GmbH	Ex e IIC Gb Ex tD A21 IP66	IECEx EPS 11.0014U
Illuminated Push Button QX02012	Quintex GmbH	Ex de IIC Gb Ex tD A21 IP66	IECEx KEM 06.0015U
iTB and iSTB range of enclosures	Index Enclosures Ltd.	Ex eb IIC Gb Ex tb IIIC Db IP66 Ts: -50°C to +135°C	IECEx CML 18.0228U

The iTB and iSTB Range of Control Panels comprise the following Ex Equipment:-

Item Description	Manufacturer Info	Ex Markings	Ex Certificate(s)
iTB and iSTB range of terminal boxes	Index Enclosures Ltd.	Ex eb IIC T* Gb Ex tb IIIC T*°C Db IP66	IECEx CML18.0229X

Specific Conditions of Use

i. The Control Panels comprise previously certified parts; the user and/or installer shall install and commission the equipment taking into account any restrictions or specific conditions of use that are applicable to the previously certified devices/parts that are fitted to the equipment.

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.

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Ellesmere Port
CH65 4LZ
T +44 (0) 151 559 1160
E info@cmlex.com
www.cmlex.com
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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.
iv. It is the user's responsibility to ensure that the equipment is connected to earth appropriately; refer to the User Manual of the equipment.
v. The equipment utilises previously certified devices/parts with type of protection "d", "e"; repair of the flameproof joints must be made in compliance with the structural specifications provided by the original equipment manufacturer (OEM). Repairs must not be made on the basis of the values specified in IEC 60079-1, Table 3.
vi. A routine electric strength test shall be conducted in accordance with EN/IEC 60079-7, clause 6.1.

Conditions of Manufacture

i. When the Control Panels 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 Control Panels 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 control panels and the equipment fitted to them; in addition, the manufacturer shall provide the user/installer with an appropriate copy of the certificate and instructions for each certified device/part that is fitted to the equipment that is subject of this certificate.
v. The enclosure types and manufacture used in the construction of these control panels is limited to the type and manufacture covered by IECEx CML 18.0228U; in addition, the combination and type of terminals that can be used with the control panels is limited to the combinations and type of terminals covered by IECEx CML 18.0229X.
vi. The equipment incorporates separately certified devices/parts; the manufacturer shall ensure that any changes to those parts do not affect the compliance of the certified products that are subject of this certificate.
vii. Depending on the type and number of terminals used, and the apparatus inside the enclosure of the iTB and iSTB panels, a range of Ambient Temperatures are suitable for the equipment; the Ambient Temperature Range of the equipment shall be determined in accordance with the conditions/limitations listed in IECEx CML 18.0229X, and its maximum and minimum limits shall be within -55°C to +60°C.

Components covered by Ex Certificates issued to older editions of Standards

Certificate number	Standards (incl Ed)	Assessment result
IECEx EPS 11.0011U	IEC 60079-0:2007-10	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 60079-1:2007-04	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 60079-7:2006-07	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 61241-0:2004	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 61241-1:2004	Technical differences evaluated and found satisfactory. For detail see ExTR
IECEx EPS 11.0012U	IEC 60079-0:2007-10	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 60079-1:2007-04	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 60079-7:2006-07	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 61241-0:2004	Technical differences evaluated and found

		satisfactory. For detail see ExTR
	IEC 61241-1:2004	Technical differences evaluated and found satisfactory. For detail see ExTR
IECEx EPS 11.0013U	IEC 60079-0:2007-10	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 60079-1:2007-04	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 60079-7:2006-07	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 61241-0:2004	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 61241-1:2004	Technical differences evaluated and found satisfactory. For detail see ExTR
IECEx EPS 11.0014U	IEC 60079-0:2007-10	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 60079-7:2006-07	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 61241-0:2004	Technical differences evaluated and found satisfactory. For detail see ExTR

	IEC 61241-1:2004	Technical differences evaluated and found satisfactory. For detail see ExTR
IECEx EPS 11.0015U	IEC 60079-0:2007-10	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 60079-1:2007-04	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 60079-7:2006-07	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 61241-0:2004	Technical differences evaluated and found satisfactory. For detail see ExTR
	IEC 61241-1:2004	Technical differences evaluated and found satisfactory. For detail see ExTR
IECEx CML 18.0228U	IEC 60079-0:2017	Current edition
	IEC 60079-7:2015	Current edition
	IEC 60079-31:2014	Current edition