



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 SIR 15.0002X** issue No.: **0** Certificate history:

Status: **Current**

Date of Issue: **2015-06-03** Page 1 of 3

Applicant: **Index Enclosures Ltd**
Montpelier Business Park
Leacon Road
Ashford
Kent TN23 4FG
United Kingdom


Electrical Apparatus: **iTB and iSTB Terminal Boxes**
Optional accessory:

Type of Protection: **Increased safety, intrinsically safe and dust**

Marking: **Ex ia IIC T* Ga**
Ex e IIC T* Gb
Ex tb IIIC T*°C Db
IP66
*** See Table 3**

Approved for issue on behalf of the IECEx Certification Body: **C Ellaby**

Position: **Deputy Certification Manager**

Signature: 
(for printed version)

Date: 2015-06-03

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](http://www.iecex.com).

Certificate issued by:

sira
CERTIFICATION





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Manufacturer: **iTB and iSTB Terminal Boxes**
Montpelier Business Park
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Ashford
Kent TN23 4FG
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 electrical 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 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-11 : 2011 Edition: 6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
IEC 60079-31 : 2013 Edition: 2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2006-07 Edition: 4	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/SIR/ExTR15.0165/00](#)

Quality Assessment Report:

[GB/SIR/QAR12.0012/03](#)



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Schedule

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, see annexe for a full description.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. 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.
2. 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.
3. 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.

Annexe to: IECEx SIR 15.0002X Annexe Issue 0
Applicant: Index Enclosures Ltd
Apparatus: iTB and iSTB Terminal Boxes



iTB Range

The iTB range of terminal boxes are fabricated from painted mild steel or stainless steel. The enclosures consist of a body and hinged lid complete with silicone gaskets. The body may be supplied with gland plates on up to four side faces. Inside the enclosure are studs for mounting components.

The lid is secured to the body by, depending on the size of enclosure, two, three or four hinges and from two to five, M6 screws and inserts. There is also the option of using quarter turn locks in place of the M6 screws.

The enclosure is provided with internal M6 earth studs on the lid and an internal/external M10 earth stud is provided in the main enclosure body.

The enclosure sizes range from 230 mm x 150 mm x 130 mm to 1200 mm x 1000 mm x 300 mm.

The enclosures have been tested and meet an ingress protection level of at least IP66.

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

- Weidmüller type WDU and WPE certified under IECEx ULD 05.0008U and coded Ex e II
- Weidmüller type SAK and EK certified under IECEx KEM 06.0014U and coded Ex e II
- Phoenix type UK certified under IECEx KEM 06.0034U and IECEx KEM 0029U and coded Ex eb IIC
- Phoenix type UT certified under IECEx KEM 06.0027U and coded Ex eb IIC
- Phoenix type USLKG certified under 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 IEC 60079-7:2006 Annex E.2.:

Table 1: Maximum dissipated power ratings			
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

iSTB Range

The iSTB range of enclosures is fabricated from painted mild steel or stainless steel. The enclosures consist of a body and bolted cover complete with silicone gaskets. The body may be supplied with gland plates on up to four side faces. Inside the enclosure are studs for the subsequent mounting of components.

The cover is secured to the body by four M6 screws and inserts, alternatively.

Annexe to: IECEx SIR 15.0002X Annexe Issue 0

Applicant: Index Enclosures Ltd

Apparatus: iTB and iSTB Terminal Boxes



The enclosure is provided with internal M6 earth studs on the lid and an internal/external M6 earth stud is provided in the main enclosure body.

The enclosure sizes range from 100 mm x 100 mm x 60 mm to 600 mm x 600 mm x 300 mm.

The enclosures have been tested and meet an ingress protection level of at least IP66.

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

- Weidmüller type WDU and WPE certified under IECEx ULD 05.0008U and coded Ex e II
- Weidmüller type SAK and EK certified under IECEx KEM 06.0014U and coded Ex e II
- Phoenix type UK certified under IECEx KEM 06.0034U and IECEx KEM 0029U and coded Ex eb IIC
- Phoenix type UT certified under IECEx KEM 06.0027U and coded Ex eb IIC
- Phoenix type USLKG certified under 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 IEC 60079-7:2006 Annex E.2.:

Table 2: Maximum dissipated power ratings			
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 following ambient temperatures:

Terminal type	Available ambient temperature ranges and temperature classes		
	T6 / T85°C ①②	T5 / T100°C ①②	T4 / 135°C ①②
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 WDU and WPE range	-50°C to +40°C	-50°C to +55°C	-50°C to +60°C

① The marked lower ambient temperature is limited to -40°C for enclosures which use quarter turn locks.

② The marked ambient range is limited to -20°C to +40°C for enclosures which use non-metallic CMP stopping plugs.

Annexe to: IECEx SIR 15.0002X Annexe Issue 0
Applicant: Index Enclosures Ltd
Apparatus: iTB and iSTB Terminal Boxes



Conditions of manufacture

The Manufacturer shall comply with the following:

- 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 60079-7:2006 clause 6.1.
- ii. The maximum dissipated power in watts for each Terminal Box shall be calculated in accordance with IEC 60079-7:2006, 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 SIR.12.0083U.