EU Type Examination Certificate CML 18ATEX3417X Issue 2

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

2 Equipment **iTB and iSTB Terminal Boxes**

3 Manufacturer **Index Enclosures Ltd.**

4 Address **Unit 5 Wyvern Way,**
Ashford, Kent, TN24 8DW
United Kingdom

5 The equipment is specified in the description of this certificate and the documents to which it refers.

6 CML B.V., Chamber of Commerce No 6738671, Koopvaardijweg 32, 4906CV Oosterhout The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment 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 12.

7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.

8 This EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 apply to the manufacture of the equipment or component and are separately certified.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018	EN 60079-7:2015
EN 60079-31:2014	EN 60079-11:2012

10 The equipment shall be marked with the following:

Ex II 2 G	Ex II 1 G	Ex II 2 D
Ex eb IIC T* Gb	Ex ia IIC T* Ga	Ex tb IIIC T*°C Db IP66
Ta=-*°C to +*°C		
*See table 3		

11 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 (PA66 insulation) certified under Kema 97ATEX1798U and IECEx KEM 06.0014U, and coded Ex e II.
- Weidmüller type SAKK 4 certified under TUV 18ATEX 8208 U and IECEx TUR 18.0018U, coded Ex eb IIC.
- 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

iSTB Range of Terminal Boxes

The iSTB range of terminal boxes utilise the Index iSTB 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 (PA66 insulation) certified under Kema 97ATEX1798U and IECEx KEM 06.0014U, and coded Ex e II.
- Weidmüller type SAKK 4 certified under TUV 18ATEX 8208 U and IECEx TUR 18.0018U, coded Ex eb IIC.
- 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 SAKK 4 range	-50°C to +40°C	-50°C to +55°C	-50°C to +95°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.

Variation 1

This variation introduces the following modification:

i. The addition of an alternative terminal type.

Variation 2

This variation introduces the following modification:

i. To assess and permit the replacement of terminal type Weidmüller type SAK 2.5 with Weidmüller terminal type SAKK 4.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	21 Jan 2019	R12177A/00	Issue of prime certificate
1	21 Nov 2019	R12684A/00	Introduction of Variation 1
2	18 Feb 2022	R14835A/00	Introduction of Variation 2

Note: Drawings that describe the equipment or component are listed in the Annex.

13 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 EN 60079-7, clause 6.1.
ii. The maximum dissipated power in watts for each Terminal Box shall be calculated in accordance with EN 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 CML 18ATEX3416U.
viii. No other wire sizes or types than the ones specified in instructions must be used. The terminal blocks must either be mounted next to another block of the same type and size or with an end plate.
ix. When the Terminal Boxes are equipped with the Weidmuller Interface GmbH & Co type SAKK 4 terminals, the following apply:
    - the wire cross-section shall not be less than 2.5 mm²
    - their maximum rated current shall not exceed 20A.
    - no other wire sizes or types than the ones specified in instructions must be used. The terminal blocks must either be mounted next to another block of the same type and size or with an end plate.
    - If smaller conductor cross sections than the rated conductor cross sections are used, then the corresponding lower current shall be stated in the instructions of the equipment.

14 Specific Conditions of Use (Special Conditions)

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.

Certificate Annex

Certificate Number	**CML 18ATEX3417X**
Equipment	**iTB and iSTB Terminal Boxes**
Manufacturer	**Index Enclosures Ltd.**

The following documents describe the equipment or component defined in this certificate:

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
iEL00008	1 to 2	4	21 Jan 2019	Approved Terminals
iEL00009	1 of 2	1	21 Jan 2019	Approved Terminal Accessories
iEL00010	1 of 1	1	21 Jan 2019	Power Tables
iEL00013	1 of 1	8	21 Jan 2019	Certification Label Ex eb iTB & iSTB (ATEX)
iEL00013	1 of 1	7	21 Jan 2019	Certification Label Ex eb iTB & iSTB (ATEX&IECEX, lists limitations on terminal types for IECEx certificate)
iEL00014	1 of 1	5	21 Jan 2019	Certification Label Ex ia iTB & iSTB (ATEX)
iEL00014	1 of 1	6	21 Jan 2019	Certification Label Ex ia iTB & iSTB (ATEX&IECEX, lists limitations on terminal types for IECEx certificate)
iEL00015	1 of 1	4	21 Jan 2019	iTB/iSTB Terminal Fitting Methods
iEL00016	1 to 2	2	21 Jan 2019	Approved Glands Type CMP
iEL00018	1 to 3	0	21 Jan 2019	Approved Type CMP Stopping Plugs (747)
iEL00019	1 of 1	1	21 Jan 2019	Approved Type CMP Adaptors
iEL00020	1 of 1	1	21 Jan 2019	Approved Type CMP Reducers
iEL00024	1 of 1	0	21 Jan 2019	iTB Enclosure Range Quarter Turn Lock GA
iEL00025	1 of 1	0	21 Jan 2019	Quarter Turn Lock

Issue 1

Drawing No.	Sheets	Rev	Approved date	Title
iEL00008	1 to 3	5	21 Nov 2019	Approved Terminals
iEL00013	1 of 1	11	21 Nov 2019	Certification Label Ex e iTB & iSTB (ATEX&IECEX, lists limitations on terminal types for IECEx certificate)
iEL00013	1 of 1	12	21 Nov 2019	Certification Label Ex e iTB & iSTB (ATEX)
iEL00014	1 of 1	6	21 Nov 2019	Certification Label Ex ia iTB & iSTB (ATEX)
iEL00014	1 of 1	7	21 Nov 2019	Certification Label Ex ia iTB & iSTB (ATEX&IECEX, lists limitations on terminal types for IECEx certificate)

Certificate Annex

Certificate Number **CML 18ATEX3417X**

Equipment **iTB and iSTB Terminal Boxes**

Manufacturer **Index Enclosures Ltd.**

Issue 2

Drawing No.	Sheets	Rev	Approved date	Title
iEL00008	1 to 3	6	18 Feb 2022	Approved Terminals
iEL00013	1 of 1	12	18 Feb 2022	Certification Label Ex e iTB & iSTB (ATEX&IECEX, lists limitations on terminal types for IECEx certificate)
iEL00013	1 of 1	13	18 Feb 2022	Certification Label Ex e iTB & iSTB (ATEX)
iEL00014	1 of 1	7	18 Feb 2022	Certification Label Ex ia iTB & iSTB (ATEX)
iEL00014	1 of 1	8	18 Feb 2022	Certification Label Ex ia iTB & iSTB (ATEX&IECEX, lists limitations on terminal types for IECEx certificate)