



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 13.0038X issue No.:0 Certificate history:

Status: **Current**

Date of Issue: 2014-01-14 Page 1 of 3

Applicant: **Controls & Enclosure Technik Ltd Trading as CE-TEK**
Unit 1
Tideswell Business Park
Tideswell
Derbyshire SK17 8NY
United Kingdom

Electrical Apparatus: **CEX and CEA Ranges of Metal Junction Boxes**
Optional accessory:

Type of Protection: **Increased Safety, Intrinsically Safe and Dust Protection by Enclosure**


Marking: Ex ia IIC T₁ Ga
Ex e IIC T₁ Gb
Ex tb IIIC T₂°C Db IP66
(Ta -3°C to +4°C)
1 T5 or T6 depending on max. ambient temperature and max. power dissipation.
2 T85°C or T100°C depending on max. ambient temperature and max. power dissipation.
3 CEX: -20°C for EPDM rubber, CR (chloroprene), NBR (nitrile rubber), PU (polyurethane) gaskets or -55°C for silicone rubber gaskets; CEA: As governed by the applicable certificate of the fitted component.
4 CEX: +40°C, +55°C or +65°C depending on box size, max. power dissipation and temperature class/max. surface temperature for dust; CEA: As governed by the applicable certificate of the fitted component.

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

Position: Deputy Certification Manager

Signature:
(for printed version)

Date:


2014-01-14

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 Service
Rake Lane
Eccleston
Chester
CH4 9JN
United Kingdom





IECEx Certificate of Conformity

Certificate No.: IECEx SIR 13.0038X

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Manufacturer: **Controls & Enclosure Technik Ltd Trading as CE-TEK**
Unit 1
Tideswell Business Park
Tideswell
Derbyshire SK17 8NY
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 60079-26 : 2006 Edition: 2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
IEC 60079-31 : 2008 Edition: 1	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/ExTR13.0355/00](#)

Quality Assessment Report:

[GB/SIR/QAR12.0001/01](#)

[GB/SIR/QAR12.0001/02](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The CEX Junction Boxes are manufactured from either stainless steel (minimum thickness 1.5 mm) or mild steel with a corrosion resistant paint coating (minimum thickness 2.0 mm) and may be fitted with any number of suitably certified terminals, either Ex 'e' or Ex 'ia', up to the maximum number permitted by the physical constraints of the box provided the rated maximum dissipated power is not exceeded and that the specific conditions of certification are satisfied. The terminals are fitted onto metal TS32 or TS35 mounting rails, or metal TS15 mounting rails for the smaller types, the rails may be fitted vertically or horizontally.

The CEA Junction Boxes utilise an Ex component approved cast aluminium enclosure, these enclosures are fitted with any number of suitably certified terminals, either Ex 'e' or Ex 'ia', up to the maximum number permitted by the physical constraints of the box provided the rated maximum dissipated power is not exceeded and that the specific conditions of certification are satisfied. The terminals are fitted onto metal TS32 or TS35 mounting rails, or metal TS15 mounting rails for the smaller types, the rails may be fitted vertically or horizontally. The enclosures are capable of providing suitable clearance distances as required by IEC 60079:7:2006 and IEC 60079:11:2011 for increased safety terminals and intrinsically safe terminals respectively when fitted in accordance with the conditions of certification.

Refer to the annexe for additional information

CONDITIONS OF CERTIFICATION: YES as shown below:

1. Under certain extreme circumstances, exposed plastic and unearthed metal parts of the enclosure may store an ignition-capable level of electrostatic charge. Therefore, the user/installer shall implement precautions to prevent the build up of electrostatic charge, e.g. locate the equipment where a charge-generating mechanism (such as wind-blown dust) is unlikely to be present and clean with a damp cloth.

Annexe to: IECEx SIR 13.0038X Issue 0
Applicant: CE-TEK
Apparatus: CEX and CEA Ranges of Metal Junction Boxes



CEX Stainless Steel or Mild Steel Junction Boxes

The CEX Junction Boxes are manufactured from either stainless steel (minimum thickness 1.5 mm) or mild steel with a corrosion resistant paint coating (minimum thickness 2.0 mm) and may be fitted with any number of suitably certified terminals, either Ex 'e' or Ex 'ia', up to the maximum number permitted by the physical constraints of the box provided the rated maximum dissipated power is not exceeded and that the specific conditions of certification are satisfied. The terminals are fitted onto metal TS32 or TS35 mounting rails, or metal TS15 mounting rails for the smaller types, the rails may be fitted vertically or horizontally.

The enclosures are capable of providing suitable clearance distances as required by IEC 60079:7:2006 and IEC 60079:11:2011 for increased safety terminals and intrinsically safe terminals respectively when fitted in accordance with the conditions of certification.

Back-straps/mounting lugs are welded to the back of the enclosure to provide fixings and the boxes are manufactured in various sizes that satisfy the requirements of EN 60529:1991 classification IP66 by the use of gaskets fixed to one surface on the lid and gland plates. These gland plates may be full width and length and are not fitted on the smallest sizes. The gaskets are extruded, have a one piece construction and may be made from, depending on the required temperature class and lower ambient temperature range, either:

- Neoprene rubber (Suitable for -20°C and T6/T75°C)
- Optional neoprene bonded cork on the gland plates only (Suitable for -20°C and T6/ T75°C)
- EPDM rubber (Suitable for -40°C and T5/T100°C or T6/T85°C)
- Silicone rubber (Suitable for -50°C and T5/T100°C or T6/T85°C)

Design options

- Alternative, intermediate size Junction Boxes may be manufactured, with any given dimension no larger than the respective dimension of the larger enclosure or smaller than the respective dimension of the smallest enclosure. In these cases the ratio shall be no greater than 4 x 3, and the maximum power dissipation is taken from the smaller standard size.
- Hinges may be fitted to one side of the enclosure optional padlock hasp(s) to other(s).
- Label brackets may be welded to the lid/cover plate, these allow additional labels to be fitted.

The dissipated power in Watts for the enclosure is calculated in accordance with EN 60079-7:2007 Clause 6.7 and Annex E, E.2. The tables below contain the maximum dissipated power ratings for each Junction Box:

Using Screw Type Terminals + 2.5 mm ² Cage Clamp [Screwless] Type Terminals and Above								
Box Reference	Box Size			Max. Power Dissipation (W)				
	Length (A) (mm)	Width (B) (mm)	Depth (C) (mm)	T6/T85°C (Ta +40°C)	T6/T85°C (Ta +55°C) ½ Power	T6/T85°C (Ta +65°C) ¼ Power & Ex ia	T5/T100°C (Ta +55°C)	T5/T100°C (Ta +65°C) ½ Power & Ex ia
CEX 0	110	110	65	3.5	1.75	0.875	3.5	1.75
CEX 1	143	143	93	4.3	2.15	1.075	4.3	2.15
CEX 151590	150	150	90	4.5	2.25	1.125	4.5	2.25
CEX 191910	190	190	100	5.3	2.65	1.325	5.3	2.65
CEX 2A	193	193	186	6.8	3.4	1.7	6.8	3.4
CEX 3	220	165	130	10.39	5.19	2.59	10.39	5.19
CEX 3A	218	168	210	6.9	3.45	1.725	6.9	3.45
CEX 3B	377	218	156	10	5	2.5	10	5
CEX 3C	377	218	210	10.1	5.05	2.525	10.1	5.05
CEX 3H	218	168	130	10.39	5.195	2.5975	10.39	5.195
CEX 3AH	218	168	210	6.9	3.45	1.725	6.9	3.45
CEX 3BH	377	218	156	10	5	2.5	10	5

Annexe to: IECEx SIR 13.0038X Issue 0
Applicant: CE-TEK
Apparatus: CEX and CEA Ranges of Metal Junction Boxes



Using Screw Type Terminals + 2.5 mm ² Cage Clamp [Screwless] Type Terminals and Above								
Box Reference	Box Size			Max. Power Dissipation (W)				
	Length (A) (mm)	Width (B) (mm)	Depth (C) (mm)	T6/T85°C (Ta +40°C)	T6/T85°C (Ta +55°C) ½ Power	T6/T85°C (Ta +65°C) ¼ Power & Ex ia	T5/T100°C (Ta +55°C)	T5/T100°C (Ta +65°C) ½ Power & Ex ia
CEX 3CH	377	218	210	10.1	5.05	2.525	10.1	5.05
CEX 231513	229	152	130	5.8	2.9	1.45	5.8	2.9
CEX 262615	260	265	150	8	4	2	8	4
CEX 262620	260	265	200	9	4.5	2.25	9	4.5
CEX 303015	306	306	150	9.5	4.75	2.375	9.5	4.75
CEX 303020	306	306	200	10.5	5.25	2.625	10.5	5.25
CEX 352615	350	265	150	13.89	6.94	3.47	13.89	6.94
CEX 352620	350	265	200	10.5	5.25	2.625	10.5	5.25
CEX 4	377	377	156	12	6	3	12	6
CEX 4A	377	377	210	13.6	6.8	3.4	13.6	6.8
CEX 453815	458	382	150	13.6	6.8	3.4	13.6	6.8
CEX 453820	458	388	200	15.2	7.6	3.8	15.2	7.6
CEX 484815	480	480	150	16.3	8.15	4.075	16.3	8.15
CEX 484820	480	480	200	18	9	4.5	18	9
CEX 5	527	427	156	16.3	8.15	4.075	16.3	8.15
CEX 5B	530	530	150	25.72	12.86	6.43	25.72	12.86
CEX 5C	527	527	210	20.9	10.45	5.225	20.9	10.45
CEX 553615	550	360	150	14.5	7.25	3.625	14.5	7.25
CEX 553620	550	360	200	16.5	8.25	4.125	16.5	8.25
CEX 765015	762	508	150	23.7	11.85	5.925	23.7	11.85
CEX 765020	762	508	200	25.9	12.95	6.475	25.9	12.95
CEX 6	827	577	156	27.8	13.9	6.95	27.8	13.9
CEX 6A	827	577	210	30.4	15.2	7.6	30.4	15.2
CEX 6B	827	577	300	34.8	17.4	8.7	34.8	17.4
CEX 916120	920	610	200	41.15	20.57	10.28	41.15	20.57
CEX 7	977	677	208	38.8	19.4	9.7	38.8	19.4
CEX 7A	977	677	156	35.8	19.4	9.7	35.8	19.4
CEX 7B	977	677	300	44	22	11	44	22
CEX 8	1177	777	156	46.5	23.25	11.625	46.5	23.25
CEX 8A	1177	777	210	50	25	12.5	50	25
CEX 8B	1190	770	300	56.79	28.39	14.19	56.79	28.39
CEX 20020060	2000	2000	600	-	-	-	235	117.5

The table below contain the maximum dissipated power ratings for each junction box:

Using 1.5 mm ² Cage-Clamp [Screwless] Type Terminals)								
Box Reference	Box Size			Max. Power Dissipation (W)				
	Length (A) (mm)	Width (B) (mm)	Depth (C) (mm)	T6/T85°C (Ta +40°C)	T6/T85°C (Ta +55°C) ½ Power	T6/T85°C (Ta +65°C) ¼ Power & Ex ia	T5/T100°C (Ta +55°C)	T5/T100°C (Ta +65°C) ½ Power & Ex ia
CEX 0	110	110	65	2.4	1.2	0.6	2.4	1.2
CEX 1	143	143	93	2.6	1.3	0.65	2.6	1.3
CEX 151590	150	150	90	3.03	1.517	0.758	3.03	1.517
CEX 191910	190	190	100	3.03	1.517	0.758	3.03	1.517
CEX 2A	193	193	186	3.4	1.7	0.85	3.4	1.7
CEX 3	220	165	130	3.1	1.55	0.775	3.1	1.55
CEX 3A	218	168	210	3.6	1.8	0.9	3.6	1.8
CEX 3B	377	218	156	4.2	2.1	1.05	4.2	2.1

Annexe to: IECEx SIR 13.0038X Issue 0
Applicant: CE-TEK
Apparatus: CEX and CEA Ranges of Metal Junction Boxes



Using 1.5 mm ² Cage-Clamp [Screwless] Type Terminals)								
Box Reference	Box Size			Max. Power Dissipation (W)				
	Length (A) (mm)	Width (B) (mm)	Depth (C) (mm)	T6/T85°C (Ta +40°C)	T6/T85°C (Ta +55°C) ½ Power	T6/T85°C (Ta +65°C) ¼ Power & Ex ia	T5/T100°C (Ta +55°C)	T5/T100°C (Ta +65°C) ½ Power & Ex ia
CEX 3C	377	218	210	4.6	2.3	1.15	4.6	2.3
CEX 3H	218	168	130	3.1	1.55	0.775	3.1	1.55
CEX 3AH	218	168	210	3.6	1.8	0.9	3.6	1.8
CEX 3BH	377	218	156	4.2	2.1	1.05	4.2	2.1
CEX 3CH	377	218	210	4.6	2.3	1.15	4.6	2.3
CEX 231513	229	152	130	3.1	1.55	0.775	3.1	1.55
CEX 262615	260	265	150	4	2	1	4	2
CEX 262620	260	265	200	4.2	2.1	1.05	4.2	2.1
CEX 303015	306	306	150	4.6	2.32	1.16	4.6	2.32
CEX 303020	306	306	200	4.6	2.32	1.16	4.6	2.32
CEX 352615	350	265	150	4.6	2.32	1.16	4.6	2.32
CEX 352620	350	265	200	4.6	2.32	1.16	4.6	2.32
CEX 4	377	377	156	5.38	2.69	1.345	5.38	2.69
CEX 4A	377	377	210	5.6	2.8	1.4	5.6	2.8
CEX 453815	458	382	150	5.6	2.8	1.4	5.6	2.8
CEX 453820	458	388	200	6.1	3.05	1.525	6.1	3.05
CEX 484815	480	480	150	6.54	3.27	1.635	6.54	3.27
CEX 484820	480	480	200	7	3.5	1.75	7	3.5
CEX 5	527	427	156	6.54	3.27	1.635	6.54	3.27
CEX 5B	530	530	150	7.3	3.65	1.825	7.3	3.65
CEX 5C	527	527	210	7.9	3.95	1.975	7.9	3.95
CEX 553615	550	360	150	6	3	1.5	6	3
CEX 553620	550	360	200	6.54	3.27	1.635	6.54	3.27
CEX 765015	762	508	150	8.8	4.4	2.2	8.8	4.4
CEX 765020	762	508	200	9.4	4.7	2.35	9.4	4.7
CEX 6	827	577	156	10	5	2.5	10	5
CEX 6A	827	577	210	10.9	5.45	2.725	10.9	5.45
CEX 6B	827	577	300	12.2	6.1	3.05	12.2	6.1
CEX 916120	920	610	200	12	6	3	12	6
CEX 7	977	677	208	13.5	6.75	3.375	13.5	6.75
CEX 7A	977	677	156	12.5	6.25	3.125	12.5	6.25
CEX 7B	977	677	300	15	7.5	3.75	15	7.5
CEX 8	1177	777	156	15.8	7.9	3.95	15.8	7.9
CEX 8A	1177	777	210	16.7	8.35	4.175	16.7	8.35
CEX 8B	1190	770	300	18.7	9.35	4.675	18.7	9.35
CEX 20020060	2000	2000	600	-	-	-	70	35

CEA Aluminium Junction Boxes

The CEA Junction Boxes utilise an Ex component approved cast aluminium enclosure, these enclosures are fitted with any number of suitably certified terminals, either Ex 'e' or Ex 'ia', up to the maximum number permitted by the physical constraints of the box provided the rated maximum dissipated power is not exceeded and that the specific conditions of certification are satisfied. The terminals are fitted onto metal TS32 or TS35 mounting rails, or metal TS15 mounting rails for the smaller types, the rails may be fitted vertically or horizontally. The enclosures are capable of providing suitable clearance distances as required by IEC 60079:7:2006 and IEC 60079:11:2011 for increased safety terminals and intrinsically safe terminals respectively when fitted in accordance with the conditions of certification.

Date: 19 December 2013

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Annexe to: IECEx SIR 13.0038X Issue 0
Applicant: CE-TEK
Apparatus: CEX and CEA Ranges of Metal Junction Boxes



Various sizes of component approved enclosures are used; these satisfy the IP requirements that are necessary for the intended application of the Junction Box that they form part of. All the enclosures use an "O" ring, gasket seal on the lid, this is fixed in place by an interference fit. The CEA Junction Boxes are mounted via fixing holes, within the cast enclosure, but outside the sealed/terminal compartment.

Gland entries may be fitted to any of the side walls.

The dissipated power in Watts for the enclosure is to be calculated in accordance with EN 60079-7:2007: Clause 6.7 and Annex E, E.2.

The table below contain the maximum dissipated power ratings for each junction box:

Using Screw Type Terminals + 2.5 mm ² Cage Clamp [Screwless] Type Terminals and Above								
Box Reference	Box Size			Max. Power Dissipation (W)				
	Length (A) (mm)	Width (B) (mm)	Depth (C) (mm)	T6/T85°C (Ta +40°C)	T6/T85°C (Ta +55°C) ½ Power	T6/T85°C (Ta +65°C) ¼ Power & Ex ia	T5/T100°C (Ta +55°C)	T5/T100°C (Ta +65°C) ½ Power & Ex ia
CEA 586436	58	64	34	3	1.5	0.75	3	1.5
CEA 986436	98	64	34	3.1	1.55	0.775	3.1	1.55
CEA 156436	150	64	34	3.4	1.7	0.85	3.4	1.7
CEA 758057	75	80	57	3.3	1.65	0.825	3.3	1.65
CEA 128057	125	80	57	3.5	1.75	0.875	3.5	1.75
CEA 178057	175	80	57	3.8	1.9	0.95	3.8	1.9
CEA 258052	250	80	52	4.1	2.05	1.025	4.1	2.05
CEA 101080	100	100	80	3.7	1.85	0.925	3.7	1.85
CEA 161080	160	100	80	4	2	1	4	2
CEA 201080	200	100	80	4.3	2.15	1.075	4.3	2.15
CEA 231011	230	100	110	4.9	2.45	1.225	4.9	2.45
CEA 121280	122	120	80	4	2	1	4	2
CEA 121290	122	120	90	4.05	2.025	1.0125	4.05	2.025
CEA 221280	220	120	80	4.7	2.35	1.175	4.7	2.35
CEA 221290	220	120	90	4.8	2.4	1.2	4.8	2.4
CEA 361280	360	120	80	5.8	2.9	1.45	5.8	2.9
CEA 141490	140	140	90	4.3	2.15	1.075	4.3	2.15
CEA 201490	200	140	90	4.9	2.45	1.225	4.9	2.45
CEA 161690	160	160	90	4.7	2.35	1.175	4.7	2.35
CEA 261690	260	160	90	5.7	2.85	1.425	5.7	2.85
CEA 361690	360	160	90	6.5	3.25	1.625	6.5	3.25
CEA 561690	560	160	90	8.2	4.1	2.05	8.2	4.1
CEA 181810	180	180	100	5.1	2.55	1.275	5.1	2.55
CEA 281810	280	180	100	6.2	3.1	1.55	6.2	3.1
CEA 202311	200	230	110	6.1	3.05	1.525	6.1	3.05
CEA 202318	200	230	180	7.2	3.6	1.8	7.2	3.6
CEA 332311	330	230	110	7.7	3.85	1.925	7.7	3.85
CEA 332318	330	230	180	9.1	4.55	2.275	9.1	4.55
CEA 402311	400	230	110	8.8	4.4	2.2	8.8	4.4
CEA 602311	600	230	110	11	5.5	2.75	11	5.5
CEA 403111	400	310	110	10	5	2.5	10	5
CEA 403118	400	310	180	11.8	5.9	2.95	11.8	5.9
CEA 603111	600	310	110	13	6.5	3.25	13	6.5
CEA 613118	600	310	180	15.4	7.7	3.85	15.4	7.7
CEA 606020	600	600	200	24.5	12.25	6.125	24.5	12.25

Annexe to: IECEx SIR 13.0038X Issue 0
Applicant: CE-TEK
Apparatus: CEX and CEA Ranges of Metal Junction Boxes



The table below contain the maximum dissipated power ratings for each junction box:

Using 1.5 mm ² Cage-Clamp [Screwless] Type Terminals)								
Box Reference	Box Size			Max. Power Dissipation (W)				
	Length (A) (mm)	Width (B) (mm)	Depth (C) (mm)	T6/T85°C (Ta +40°C)	T6/T85°C (Ta +55°C) ½ Power	T6/T85°C (Ta +65°C) ¼ Power & Ex ia	T5/T100°C (Ta +55°C)	T5/T100°C (Ta +65°C) ½ Power & Ex ia
CEA 586436	58	64	34	2	1	0.5	2	1
CEA 986436	98	64	34	2.1	1.05	0.525	2.1	1.05
CEA 156436	150	64	34	2.2	1.1	0.55	2.2	1.1
CEA 758057	75	80	57	2.15	1.075	0.5375	2.15	1.075
CEA 128057	125	80	57	2.3	1.15	0.575	2.3	1.15
CEA 178057	175	80	57	2.4	1.2	0.6	2.4	1.2
CEA 258052	250	80	52	2.6	1.3	0.65	2.6	1.3
CEA 101080	100	100	80	2.35	1.175	0.5875	2.35	1.175
CEA 161080	160	100	80	2.6	1.3	0.65	2.6	1.3
CEA 201080	200	100	80	2.7	1.35	0.675	2.7	1.35
CEA 231011	230	100	110	2.9	1.45	0.725	2.9	1.45
CEA 121280	122	120	80	2.5	1.25	0.625	2.5	1.25
CEA 121290	122	120	90	2.55	1.275	0.6375	2.55	1.275
CEA 221280	220	120	80	2.8	1.4	0.7	2.8	1.4
CEA 221290	220	120	90	2.9	1.45	0.725	2.9	1.45
CEA 361280	360	120	80	3.05	1.525	0.7625	3.05	1.525
CEA 141490	140	140	90	2.8	1.4	0.7	2.8	1.4
CEA 201490	200	140	90	2.9	1.45	0.725	2.9	1.45
CEA 161690	160	160	90	2.85	1.425	0.7125	2.85	1.425
CEA 261690	260	160	90	3	1.5	0.75	3	1.5
CEA 361690	360	160	90	3.4	1.7	0.85	3.4	1.7
CEA 561690	560	160	90	4	2	1	4	2
CEA 181810	180	180	100	2.95	1.475	0.7375	2.95	1.475
CEA 281810	280	180	100	3.3	1.65	0.825	3.3	1.65
CEA 202311	200	230	110	3.2	1.6	0.8	3.2	1.6
CEA 202318	200	230	180	3.7	1.85	0.925	3.7	1.85
CEA 332311	330	230	110	3.8	1.9	0.95	3.8	1.9
CEA 332318	330	230	180	4.3	2.15	1.075	4.3	2.15
CEA 402311	400	230	110	4.05	2.025	1.0125	4.05	2.025
CEA 602311	600	230	110	4.9	2.45	1.225	4.9	2.45
CEA 403111	400	310	110	4.7	2.35	1.175	4.7	2.35
CEA 403118	400	310	180	5	2.5	1.25	5	2.5
CEA 603111	600	310	110	5.5	2.75	1.375	5.5	2.75
CEA 613118	600	310	180	6.2	3.1	1.55	6.2	3.1
CEA 606020	600	600	200	9	4.5	2.25	9	4.5

Annexe to: IECEx SIR 13.0038X Issue 0
Applicant: CE-TEK
Apparatus: CEX and CEA Ranges of Metal Junction Boxes



Conditions Of Manufacture

- i. When junction boxes are fitted with terminals that are wired by the manufacturer, a routine electric strength test shall be carried out in accordance with Clause 7.1. of IEC 60079-7:2006. Where the working voltage exceeds 90 V, this is at $2 \times$ the working voltage + 1000 V for 60 seconds but not less than 1500 V, alternatively, the test may be done at 1.2 times that figure for 100 ms. Where the working voltage does not exceed 90 V the test is performed at 500 V for 60 second, or 1.2 times that figure for 100 ms.
- ii. For Ex 'e' enclosures, the manufacturer shall ensure all terminals meet the required minimum creepage and clearance distances shown in Table 1 of IEC 60079-7: 2006 when fitted.
- iii. For Ex 'ia' enclosures, the requirements of IEC 60079-11:2011 shall be met such as the following creepage and clearances:
 - a minimum of 3 mm between the terminals and the metal enclosure;
 - a minimum of 6 mm between different I.S circuits within the enclosure;
 - a minimum of clearance 50 mm I.S circuits and non I.S circuits if reliant upon spacing only.
- iv. When a CEX junction box is manufactured to an intermediate size, not listed in the tables shown in the description of equipment, then any given dimension shall not be larger than the respective dimension of the larger enclosure or smaller than the respective dimension of the smallest enclosure. In addition, the ratio shall be no greater than 4×3 , and the maximum power dissipation shall be taken from the next, smaller, standard size.
- v. The manufacturer shall take all reasonable steps to ensure that the user/installer complies with the special conditions for certification associated with the installed Ex Components. In addition, the manufacturer shall provide the user/installer with an appropriate copy of the certificate for each certified Ex Component that is fitted in the equipment.
- vi. When marking the Junction Boxes, the manufacturer shall:
 - consider the operating temperature range of the component enclosure and shall not apply a temperature that contradicts this range;
 - ensure that the enclosure is suitable for the intended temperature classification of the Junction Box;
 - not apply any marking that indicates that it could be used in an explosive gas or dust atmosphere unless the component enclosure is suitable for that application.
- vii. Gland entries may be fitted to any of the side walls, within the following constraints – a minimum of 5 mm of material is maintained between the cable entry holes. In addition the hole is sized to be no larger than 0.7 mm above the major diameter of the entry thread, and also: (a) the distance between hole centres will clear the across corners dimension of adjacent cable glands/plugs/locknuts (b) the distance from the hole centre to the edge of the enclosure must be sufficient to clear the across corners dimension of the cable glands/plugs/locknuts.
- viii. Where terminal bridging connections are permitted by the terminal component certificate and subsequently used, they can only be fitted one time only and not connected or disconnected during maintenance or repair.