1 **EC TYPE-EXAMINATION CERTIFICATE**

2 Equipment intended for use in Potentially Explosive Atmospheres Directive 94/9/EC

3 Certificate Number: **Sira 08ATEX3212** Issue: **0**

4 Equipment: **CEX and CEA Ranges of Metal Junction Boxes**

5 Applicant: **CE-TEK**

6 Address: Unit 1
Tideswell Business Park
Tideswell
Derbyshire SK17 8NY
UK

7 This equipment and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

8 Sira Certification Service, notified body number 0518 in accordance with Article 9 of Directive 94/9/EC of 23 March 1994, 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 14.2.

9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0: 2006 (inc. corrigendum No. 1)
EN 60079-7: 2007
EN 60079-11: 2007
EN 60079-0: 2009 (used for guidance in respect of marking)
EN 61241-0: 2006
EN 61241-1: 2004 (inc. corrigendum No. 1 & 2)

10 If the sign 'X' is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the schedule to this certificate.

11 This EC type-examination certificate relates only to the design and construction of the specified equipment. If applicable, further requirements of this Directive apply to the manufacture and supply of this equipment.

12 The marking of the equipment shall include the following:

II 1 G D
Ex ia IIC T• Ga (Ta - , °C to + *f* °C)
Ex ta IIIC T „ °C Da IP66

II 2 G D
Ex e IIC T• Gb (Ta - , °C to + *f* °C)
Ex tb IIIC T „ °C Db IP66

- • T5 or T6
- , -20°C, -40°C, -50°C or -55°C
- *f* +40°C, +55°C or +65°C
- „ T85°C or T100°C

As defined in the Description of Equipment

Project Number 51A17846
C. Index 04

C Ellaby
Certification Officer

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13 **DESCRIPTION OF EQUIPMENT**

CEX Stainless Steel or Mild Steel Junction Boxes

Applicable marking

II 1 G D
Ex ia IIC T• Ga (Ta - , °C to + *f* °C)
Ex ta IIIC T „ °C Da IP66

II 2 G D
Ex e IIC T• Gb (Ta - , °C to + *f* °C)
Ex tb IIIC T „ °C Db IP66

- T5 or T6 depending on type of gasket, max. ambient temperature, box size and max. power dissipation.

, -20°C, -40°C or -50°C T6 depending on type of gasket.

f +40°C, +55°C or +65°C depending on box size, max. power dissipation and temperature class/max. surface temperature for dust.

„ T85°C or T100°C depending on type of gasket, max. ambient temperature, box size and max. power dissipation.

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.

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/T85°C)
- Optional neoprene bonded cork on the gland plates only (Suitable for -20°C and T6/T85°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.

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE **Sira 08ATEX3212**
Issue 0

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 + 2.5mm² 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
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

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Using Screw Type Terminals + 2.5mm² 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 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 202060	2000	2000	600	-	-	-	235	117.5

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

Using 1.5 mm² 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
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

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Using 1.5 mm² 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 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

Applicable marking

II 1 G D
Ex ia IIC T• Ga (Ta - **,** °C to + ***f*** °C)
Ex ta IIIC T**„** °C Da IP66

II 2 G D
Ex e IIC T• Gb (Ta - **,** °C to + ***f*** °C)
Ex tb IIIC T**„** °C Db IP66

- T5 or T6 depending on type of gasket, max. ambient temperature, box size and max. power dissipation.

, -20°C, -40°C or -55°C T6 depending on type of gasket.

f +40°C, +55°C or +65°C depending on box size, max. power dissipation and temperature class/max. surface temperature for dust.

„ T85°C or T100°C depending on type of gasket, max. ambient temperature, box size and max. power dissipation.

The CEA Junction Boxes utilise a cast aluminium enclosure (as defined in the Sira report associated with this certificate) that has been certified by a notified body as an ATEX approved component, 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 EN 60079-7 and EN 60079-11 for increased safety terminals and intrinsically safe terminals respectively when fitted in accordance with the conditions of certification.

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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 + 2.5mm² 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

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Using Screw Type Terminals + 2.5mm² 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 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

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

Using 1.5 mm² 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

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Using 1.5 mm² 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 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

14 DESCRIPTIVE DOCUMENTS

14.1 Drawings

Refer to Certificate Annexe.

14.2 Associated Sira Reports and Certificate History

Issue	Date	Report no.	Comment
0	17 February 2010	R51A17846A R51A21084A	The release of the prime certificate.

15 SPECIAL CONDITIONS FOR SAFE USE (denoted by X after the certificate number)

None

16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

17 CONDITIONS OF CERTIFICATION

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of Sira Certificates.

17.2 Holders of EC type-examination certificates are required to comply with the production control requirements defined in Article 8 of directive 94/9/EC.

17.3 This certificate does not cover the terminals that may be fitted to the enclosure; it is therefore the manufacturer's responsibility to ensure all terminals are suitable for the application and have been appropriately ATEX certified by a notified body, the terminals shall be used within their stated temperature range and fitted in accordance with any restrictions that are stated in their relevant certificate, this shall take into account the maximum temperature rating of the terminal material, the intended ambient temperature range of the Junction Box and the intended Temperature Class of the Junction Box.

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17.4 Terminals complying with IEC 60947-7-1, IEC 60947-7-2, IEC 60991-1 or IEC 609992-2 as listed in EN 60079-7:2007: Clause 4.2.2.2, shall not be used unless they also comply with other, relevant Conditions Of Manufacture.

17.5 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 EN 60079-7: 2007: Clause 7.1. Where the working voltage exceeds 90 V, this is at 2 x the working voltage + 1000 V for 60 seconds [minimum 1500V], 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.

17.6 For Ex 'e' enclosures, the manufacturer shall ensure all terminals meet the required minimum creepage and clearance distances shown in Table 1 of EN 60079-7: 2007 (IEC 60079-7: 2006) when fitted.

17.7 For Ex 'ia' enclosures, the manufacturer shall ensure that the following creepage and clearances are met:

- 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 50 mm I.S circuits and non I.S circuits.

17.8 When a junction box is manufactured to an intermediate size, not listed in the tables shown 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 x 3, and the maximum power dissipation shall be taken from the next, smaller, standard size.

17.9 The manufacturer shall include in the instruction documents that are provided with this equipment the specific information that is defined in Sira report number R51A17846A. This information shall remain consistent throughout any subsequent revision to these documents. When necessary, the manufacturer shall supply the user/installer with a copy of the certificate that applies to the terminals that are fitted in the Junction Box.

17.10 When marking the CEA 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.

17.11 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.

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Certificate Annexe

Certificate Number: Sira 08ATEX3212

Equipment: CEX and CEA Ranges of Metal Junction Boxes

Applicant: CE-TEK

Issue 0

R51A17846A

Drawing	Sheet	Rev.	Date	Title
CEX-26108-1	1 of 1	01	26 Jan 08	General Arrangement
CEX-26108-2	2 of 2	01	26 Jan 08	General Arrangement
CEX-26108-3	3 of 3	02	26 Jan 08	Dimension Table & Notes
CEX 20020060	1 of 1	-	29 Jan 08	General Arrangement of CEX 20020060
CET309	1 of 1	04	08 Aug 08	Label – Ex e
CET3091	1 of 1	03	08 Aug 08	Label – Ex ia
CET 30911	1 of 1	01	08 Aug 08	Label (typical) – Ex ia - CEX 20020060
CET 30912	1 of 1	01	08 Aug 08	Label (typical) – Ex e - CEX 20020060
CET 2A001	3 of 4	-	12 Jan 10	Gland Entry Positions
CET 2A001	4 of 4	-	12 Jan 10	Gland Entry Positions
CEX 1501	3 of 4	-	12 Jan 10	Gland Entry Positions
CEX 1501	4 of 4	-	12 Jan 10	Gland Entry Positions
CEX 1901	3 of 4	-	12 Jan 10	Gland Entry Positions
CEX 1901	4 of 4	-	12 Jan 10	Gland Entry Positions
CET 1001	3 of 4	-	12 Jan 10	Gland Entry Positions
CET 1001	4 of 4	-	12 Jan 10	Gland Entry Positions
CET 001	3 of 4	-	12 Jan 10	Gland Entry Positions
CET 001	4 of 4	-	12 Jan 10	Gland Entry Positions

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Drawing	Sheet	Rev.	Date	Title
CET-CEA 161109	1 of 1	02	26 Jan 08	General Arrangement & Notes – Type CEA
CET 3110	1 of 1	02	26 Jan 08	Label – Ex e
CET 3111	1 of 1	03	26 Jan 08	Label – Ex ia

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