



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

Certificate No.: IECEx SIR 17.0027X

Issue No: 1

Certificate history:

Status: **Current**

Issue No. 1 (2018-04-27)

Issue No. 0 (2017-10-03)

Date of Issue: **2018-04-27**

Page 1 of 4

Applicant: **Raychem RPG (P) Ltd**  
Ceat Mahal, Annexe 463  
Dr. Annie Besant Road  
Worli, Mumbai 400030  
Maharashtra  
India

Equipment: **SJB and Ex E-AJB Ranges of Metal Junction Boxes**

Optional accessory:

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

Marking:  
Refer to the Annexe

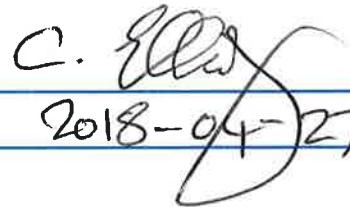
Approved for issue on behalf of the IECEx  
Certification Body:

C Ellaby

Position:

Deputy Certification Manager

Signature:  
(for printed version)

  
2018-04-27

Date:

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**  
CSA Group  
Unit 6, Hawarden Industrial Park  
Hawarden, Deeside, CH5 3US  
United Kingdom

**sira**  
CERTIFICATION





# IECEX Certificate of Conformity

Certificate No: IECEX SIR 17.0027X Issue No: 1  
Date of Issue: 2018-04-27 Page 2 of 4  
Manufacturer: **Raychem RPG (P) Ltd**  
Ceat Mahal, Annexe 463  
Dr. Annie Besant Road  
Worli, Mumbai 400030  
Maharashtra  
India

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:

<b>IEC 60079-0 : 2011</b> Edition:6.0	Explosive atmospheres - Part 0: General requirements
<b>IEC 60079-11 : 2011</b> Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-26 : 2006</b> Edition:2	Explosive atmospheres - Part 26: Equipment with equipment protection level (EPL) Ga
<b>IEC 60079-31 : 2008</b> Edition:1	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'
<b>IEC 60079-7 : 2006-07</b> 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/ExTR17.0056/00](#)      [GB/SIR/ExTR18.0067/00](#)

#### Quality Assessment Report:

[US/UL/QAR13.0005/04](#)



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## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

The SJB 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, 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.

Refer to the Annexe for Ex E-AJB Junction boxes and for additional information

### SPECIFIC CONDITIONS OF USE: 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.



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## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

**This issue, Issue 1, recognises the following change; refer to the certificate annex to view a comprehensive history:**

1. Intrinsic Safety marking, along with IEC 60079-11:2011 Ed 6 and IEC 60079-26:2006 Ed 2, were added to the certificate after the Quality Assurance Report was updated.

### Annex:

[IECEX SIR 17.0027X Issue 1 Annexe.pdf](#)

**Annexe to:** IECEx SIR 17.0027X Issue 1  
**Applicant:** Raychem RPG (P) Ltd  
**Apparatus:** SJB and EX E-AJB Ranges of Metal Junction Boxes



**Marking:**

Ex ia IIC T1 Ga  
 Ex e IIC T1 Gb  
 Ex tb III C 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 SJB: -20°C for EPDM rubber, CR (chloroprene), NBR (nitrile rubber), PU (polyurethane) gaskets or -55°C for silicone rubber gaskets; Ex E-AJB: As governed by the applicable certificate of the fitted component.
- 4 SJB: +40°C, +55°C or +65°C depending on box size, max. power dissipation and temperature class/max. surface temperature for dust; Ex E-AJB: As governed by the applicable certificate of the fitted component.

The enclosures are capable of providing suitable clearance distances as required by IEC 60079-7:2006 for increased safety terminals and IEC 60079-11:2011 when fitted with intrinsically safe terminals and 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 -55°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:

Box Reference	Using Screw Type Terminals + 2.5 mm <sup>2</sup> Cage Clamp			[Screwless] Type Terminals and Above				
	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
SJB 0	110	110	65	3.5	1.75	0.875	3.5	1.75
SJB 1	143	143	93	4.3	2.15	1.075	4.3	2.15
SJB 151590	150	150	90	4.5	2.25	1.125	4.5	2.25
SJB 191910	190	190	100	5.3	2.65	1.325	5.3	2.65

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**Annexe to:** IECEx SIR 17.0027X Issue 1

**Applicant:** Raychem RPG (P) Ltd

**Apparatus:** SJB and EX E-AJB Ranges of Metal Junction Boxes



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
SJB 2A	193	193	186	6.8	3.4	1.7	6.8	3.4
SJB 3	220	165	130	10.39	5.19	2.59	10.39	5.19
SJB 3A	218	168	210	6.9	3.45	1.725	6.9	3.45
SJB 3B	377	218	156	10	5	2.5	10	5
SJB 3C	377	218	210	10.1	5.05	2.525	10.1	5.05
SJB 3H	218	168	130	10.39	5.195	2.5975	10.39	5.195
SJB 3AH	218	168	210	6.9	3.45	1.725	6.9	3.45
SJB 3BH	377	218	156	10	5	2.5	10	5
SJB 3CH	377	218	210	10.1	5.05	2.525	10.1	5.05
SJB 231513	229	152	130	5.8	2.9	1.45	5.8	2.9
SJB 262615	260	265	150	8	4	2	8	4
SJB 262620	260	265	200	9	4.5	2.25	9	4.5
SJB 303015	306	306	150	9.5	4.75	2.375	9.5	4.75
SJB 303020	306	306	200	10.5	5.25	2.625	10.5	5.25
SJB 352615	350	265	150	13.89	6.94	3.47	13.89	6.94
SJB 352620	350	265	200	10.5	5.25	2.625	10.5	5.25
SJB 4	377	377	156	12	6	3	12	6
SJB 4A	377	377	210	13.6	6.8	3.4	13.6	6.8
SJB 453815	458	382	150	13.6	6.8	3.4	13.6	6.8
SJB 453820	458	388	200	15.2	7.6	3.8	15.2	7.6
SJB 484815	480	480	150	16.3	8.15	4.075	16.3	8.15
SJB 484820	480	480	200	18	9	4.5	18	9
SJB 5	527	427	156	16.3	8.15	4.075	16.3	8.15
SJB 5B	530	530	150	25.72	12.86	6.43	25.72	12.86
SJB 5C	527	527	210	20.9	10.45	5.225	20.9	10.45
SJB 553615	550	360	150	14.5	7.25	3.625	14.5	7.25
SJB 553620	550	360	200	16.5	8.25	4.125	16.5	8.25
SJB 765015	762	508	150	23.7	11.85	5.925	23.7	11.85
SJB 765020	762	508	200	25.9	12.95	6.475	25.9	12.95
SJB 6	827	577	156	27.8	13.9	6.95	27.8	13.9
SJB 6A	827	577	210	30.4	15.2	7.6	30.4	15.2
SJB 6B	827	577	300	34.8	17.4	8.7	34.8	17.4
SJB 916120	920	610	200	41.15	20.57	10.28	41.15	20.57
SJB 7	977	677	208	38.8	19.4	9.7	38.8	19.4
SJB 7A	977	677	156	35.8	19.4	9.7	35.8	19.4
SJB 7B	977	677	300	44	22	11	44	22
SJB 8	1177	777	156	46.5	23.25	11.625	46.5	23.25
SJB 8A	1177	777	210	50	25	12.5	50	25
SJB 8B	1190	770	300	56.79	28.39	14.19	56.79	28.39
SJB 20020060	2000	2000	600	-	-	-	235	117.5

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

**Date:** 27 April 2018

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**Annexe to:** IECEx SIR 17.0027X Issue 1  
**Applicant:** Raychem RPG (P) Ltd  
**Apparatus:** SJB and EX E-AJB Ranges of Metal Junction Boxes



Using 1.5 mm <sup>2</sup> 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
SJB 0	110	110	65	2.4	1.2	0.6	2.4	1.2
SJB 1	143	143	93	2.6	1.3	0.65	2.6	1.3
SJB 151590	150	150	90	3.03	1.517	0.758	3.03	1.517
SJB 191910	190	190	100	3.03	1.517	0.758	3.03	1.517
SJB 2A	193	193	186	3.4	1.7	0.85	3.4	1.7
SJB 3	220	165	130	3.1	1.55	0.775	3.1	1.55
SJB 3A	218	168	210	3.6	1.8	0.9	3.6	1.8
SJB 3B	377	218	156	4.2	2.1	1.05	4.2	2.1
SJB 3C	377	218	210	4.6	2.3	1.15	4.6	2.3
SJB 3H	218	168	130	3.1	1.55	0.775	3.1	1.55
SJB 3AH	218	168	210	3.6	1.8	0.9	3.6	1.8
SJB 3BH	377	218	156	4.2	2.1	1.05	4.2	2.1
SJB 3CH	377	218	210	4.6	2.3	1.15	4.6	2.3
SJB 231513	229	152	130	3.1	1.55	0.775	3.1	1.55
SJB 262615	260	265	150	4	2	1	4	2
SJB 262620	260	265	200	4.2	2.1	1.05	4.2	2.1
SJB 303015	306	306	150	4.6	2.32	1.16	4.6	2.32
SJB 303020	306	306	200	4.6	2.32	1.16	4.6	2.32
SJB 352615	350	265	150	4.6	2.32	1.16	4.6	2.32
SJB 352620	350	265	200	4.6	2.32	1.16	4.6	2.32
SJB 4	377	377	156	5.38	2.69	1.345	5.38	2.69
SJB 4A	377	377	210	5.6	2.8	1.4	5.6	2.8
SJB 453815	458	382	150	5.6	2.8	1.4	5.6	2.8
SJB 453820	458	388	200	6.1	3.05	1.525	6.1	3.05
SJB 484815	480	480	150	6.54	3.27	1.635	6.54	3.27
SJB 484820	480	480	200	7	3.5	1.75	7	3.5
SJB 5	527	427	156	6.54	3.27	1.635	6.54	3.27
SJB 5B	530	530	150	7.3	3.65	1.825	7.3	3.65
SJB 5C	527	527	210	7.9	3.95	1.975	7.9	3.95
SJB 553615	550	360	150	6	3	1.5	6	3
SJB 553620	550	360	200	6.54	3.27	1.635	6.54	3.27
SJB 765015	762	508	150	8.8	4.4	2.2	8.8	4.4
SJB 765020	762	508	200	9.4	4.7	2.35	9.4	4.7
SJB 6	827	577	156	10	5	2.5	10	5
SJB 6A	827	577	210	10.9	5.45	2.725	10.9	5.45
SJB 6B	827	577	300	12.2	6.1	3.05	12.2	6.1
SJB 916120	920	610	200	12	6	3	12	6
SJB 7	977	677	208	13.5	6.75	3.375	13.5	6.75
SJB 7A	977	677	156	12.5	6.25	3.125	12.5	6.25
SJB 7B	977	677	300	15	7.5	3.75	15	7.5
SJB 8	1177	777	156	15.8	7.9	3.95	15.8	7.9
SJB 8A	1177	777	210	16.7	8.35	4.175	16.7	8.35
SJB 8B	1190	770	300	18.7	9.35	4.675	18.7	9.35
SJB 20020060	2000	2000	600	-	-	-	70	35

Date: 27 April 2018

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**Annexe to:** IECEx SIR 17.0027X Issue 1  
**Applicant:** Raychem RPG (P) Ltd  
**Apparatus:** SJB and EX E-AJB Ranges of Metal Junction Boxes



## Ex E-AJB Aluminium Junction Boxes

The EX E-AJB Junction Boxes utilise an Ex component approved cast aluminium enclosure, these enclosures are fitted with any number of suitably certified terminals, 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 for increased safety terminals and IEC 60079-11:2011 for intrinsically safe terminals when fitted in accordance with the conditions of certification.

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 EX E-AJB 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:

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
EX E-AJB 586436	58	64	34	3	1.5	0.75	3	1.5
EX E-AJB 986436	98	64	34	3.1	1.55	0.775	3.1	1.55
EX E-AJB 156436	150	64	34	3.4	1.7	0.85	3.4	1.7
EX E-AJB 758057	75	80	57	3.3	1.65	0.825	3.3	1.65
EX E-AJB 128057	125	80	57	3.5	1.75	0.875	3.5	1.75
EX E-AJB 178057	175	80	57	3.8	1.9	0.95	3.8	1.9
EX E-AJB 258052	250	80	52	4.1	2.05	1.025	4.1	2.05
EX E-AJB 101080	100	100	80	3.7	1.85	0.925	3.7	1.85
EX E-AJB 161080	160	100	80	4	2	1	4	2
EX E-AJB 201080	200	100	80	4.3	2.15	1.075	4.3	2.15
EX E-AJB 231011	230	100	110	4.9	2.45	1.225	4.9	2.45
EX E-AJB 121280	122	120	80	4	2	1	4	2
EX E-AJB 121290	122	120	90	4.05	2.025	1.0125	4.05	2.025
EX E-AJB 221280	220	120	80	4.7	2.35	1.175	4.7	2.35
EX E-AJB 221290	220	120	90	4.8	2.4	1.2	4.8	2.4
EX E-AJB 361280	360	120	80	5.8	2.9	1.45	5.8	2.9
EX E-AJB 141490	140	140	90	4.3	2.15	1.075	4.3	2.15
EX E-AJB 201490	200	140	90	4.9	2.45	1.225	4.9	2.45
EX E-AJB 161690	160	160	90	4.7	2.35	1.175	4.7	2.35
EX E-AJB 261690	260	160	90	5.7	2.85	1.425	5.7	2.85
EX E-AJB 361690	360	160	90	6.5	3.25	1.625	6.5	3.25
EX E-AJB 561690	560	160	90	8.2	4.1	2.05	8.2	4.1

Date: 27 April 2018

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**Annexe to:** IECEx SIR 17.0027X Issue 1

**Applicant:** Raychem RPG (P) Ltd

**Apparatus:** SJB and EX E-AJB Ranges of Metal Junction Boxes



Using Screw Type Terminals + 2.5 mm <sup>2</sup> 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
EX E-AJB 181810	180	180	100	5.1	2.55	1.275	5.1	2.55
EX E-AJB 281810	280	180	100	6.2	3.1	1.55	6.2	3.1
EX E-AJB 202311	200	230	110	6.1	3.05	1.525	6.1	3.05
EX E-AJB 202318	200	230	180	7.2	3.6	1.8	7.2	3.6
EX E-AJB 332311	330	230	110	7.7	3.85	1.925	7.7	3.85
EX E-AJB 332318	330	230	180	9.1	4.55	2.275	9.1	4.55
EX E-AJB 402311	400	230	110	8.8	4.4	2.2	8.8	4.4
EX E-AJB 602311	600	230	110	11	5.5	2.75	11	5.5
EX E-AJB 403111	400	310	110	10	5	2.5	10	5
EX E-AJB 403118	400	310	180	11.8	5.9	2.95	11.8	5.9
EX E-AJB 603111	600	310	110	13	6.5	3.25	13	6.5
EX E-AJB 613118	600	310	180	15.4	7.7	3.85	15.4	7.7
EX E-AJB 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 mm <sup>2</sup> 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
EX E-AJB 586436	58	64	34	2	1	0.5	2	1
EX E-AJB 986436	98	64	34	2.1	1.05	0.525	2.1	1.05
EX E-AJB 156436	150	64	34	2.2	1.1	0.55	2.2	1.1
EX E-AJB 758057	75	80	57	2.15	1.075	0.5375	2.15	1.075
EX E-AJB 128057	125	80	57	2.3	1.15	0.575	2.3	1.15
EX E-AJB 178057	175	80	57	2.4	1.2	0.6	2.4	1.2
EX E-AJB 258052	250	80	52	2.6	1.3	0.65	2.6	1.3
EX E-AJB 101080	100	100	80	2.35	1.175	0.5875	2.35	1.175
EX E-AJB 161080	160	100	80	2.6	1.3	0.65	2.6	1.3
EX E-AJB 201080	200	100	80	2.7	1.35	0.675	2.7	1.35
EX E-AJB 231011	230	100	110	2.9	1.45	0.725	2.9	1.45
EX E-AJB 121280	122	120	80	2.5	1.25	0.625	2.5	1.25
EX E-AJB 121290	122	120	90	2.55	1.275	0.6375	2.55	1.275
EX E-AJB 221280	220	120	80	2.8	1.4	0.7	2.8	1.4
EX E-AJB 221290	220	120	90	2.9	1.45	0.725	2.9	1.45
EX E-AJB 361280	360	120	80	3.05	1.525	0.7625	3.05	1.525
EX E-AJB 141490	140	140	90	2.8	1.4	0.7	2.8	1.4
EX E-AJB 201490	200	140	90	2.9	1.45	0.725	2.9	1.45
EX E-AJB 161690	160	160	90	2.85	1.425	0.7125	2.85	1.425
EX E-AJB 261690	260	160	90	3	1.5	0.75	3	1.5
EX E-AJB 361690	360	160	90	3.4	1.7	0.85	3.4	1.7
EX E-AJB 561690	560	160	90	4	2	1	4	2
EX E-AJB 181810	180	180	100	2.95	1.475	0.7375	2.95	1.475
EX E-AJB 281810	280	180	100	3.3	1.65	0.825	3.3	1.65
EX E-AJB 202311	200	230	110	3.2	1.6	0.8	3.2	1.6

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**Annexe to:** IECEx SIR 17.0027X Issue 1  
**Applicant:** Raychem RPG (P) Ltd  
**Apparatus:** SJB and EX E-AJB Ranges of Metal Junction Boxes



Using 1.5 mm <sup>2</sup> 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
EX E-AJB 202318	200	230	180	3.7	1.85	0.925	3.7	1.85
EX E-AJB 332311	330	230	110	3.8	1.9	0.95	3.8	1.9
EX E-AJB 332318	330	230	180	4.3	2.15	1.075	4.3	2.15
EX E-AJB 402311	400	230	110	4.05	2.025	1.0125	4.05	2.025
EX E-AJB 602311	600	230	110	4.9	2.45	1.225	4.9	2.45
EX E-AJB 403111	400	310	110	4.7	2.35	1.175	4.7	2.35
EX E-AJB 403118	400	310	180	5	2.5	1.25	5	2.5
EX E-AJB 603111	600	310	110	5.5	2.75	1.375	5.5	2.75
EX E-AJB 613118	600	310	180	6.2	3.1	1.55	6.2	3.1
EX E-AJB 606020	600	600	200	9	4.5	2.25	9	4.5

### 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 x 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 SJB 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 x 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

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- 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.

### **Full Certificate change history:**

**Variation 1** - This variation introduced the following change:

- i. Intrinsic Safety marking, along with IEC 60079-11:2011 Ed 6 and IEC 60079-26:2006 Ed 2, were added to the certificate after the Quality Assurance Report was updated.

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