



# 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 BAS 08.0091X

Issue No: 3

Certificate history:

Issue No. 3 (2019-03-26)

Issue No. 2 (2017-02-14)

Issue No. 1 (2010-12-06)

Issue No. 0 (2008-12-11)

Status: **Current**

Page 1 of 5

Date of Issue: **2019-03-26**

Applicant: **Hawke International**  
A Division of Hubbell Limited  
A Member of the Hubbell Group of Companies  
Oxford Street West, Ashton-under-Lyne  
Lancashire  
OL7 0NA  
**United Kingdom**

Equipment: **PL7\*\* Range of Junction Boxes**

Optional accessory:

Type of Protection: **Increased Safety, Dust Protection by Enclosure, Intrinsic Safety**

Marking: **See schedule**

Approved for issue on behalf of the IECEx  
Certification Body:

R S Sinclair

Position:

Technical Manager

Signature:  
(for printed version)

M POWNEY  
Certification  
Manager

Date:

*[Handwritten signature: M Powney]*  
*26/3/19*

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:

**SGS Baseefa Limited**  
**Rockhead Business Park**  
**Staden Lane**  
**Buxton, Derbyshire, SK17 9RZ**  
**United Kingdom**





# IECEx Certificate of Conformity

Certificate No: IECEx BAS 08.0091X Issue No: 3

Date of Issue: 2019-03-26 Page 2 of 5

Manufacturer: **Hawke International**  
A Division of Hubbell Limited  
A Member of the Hubbell Group of Companies  
Oxford Street West, Ashton-under-Lyne  
Lancashire  
OL7 0NA  
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 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 : 2017</b> Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
<b>IEC 60079-11 : 2011</b> Edition:6.0	Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"
<b>IEC 60079-31 : 2013</b> Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
<b>IEC 60079-7 : 2015</b> Edition:5.0	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/BAS/ExTR08.0196/00](#)  
[GB/BAS/ExTR18.0266/00](#)

[GB/BAS/ExTR10.0270/00](#)

[GB/BAS/ExTR16.0383/00](#)

### Quality Assessment Report:

[GB/BAS/QAR06.0061/07](#)



# IECEx Certificate of Conformity

Certificate No: IECEx BAS 08.0091X

Issue No: 3

Date of Issue: 2019-03-26

Page 3 of 5

## Schedule

### EQUIPMENT:

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

The PL7\*\* Range of Junction Boxes consist of the type ZPL7\* range of plastic empty enclosures covered by IECEx BAS 08.0090U Exe II. The junction boxes are fitted with a variety of different terminal arrangements. All the terminals are covered by their own component certificates and are coded Exe II. The terminals are listed on D9160 held on Baseefa General Technical File 0500. The actual terminals fitted to each junction box will be listed in the schedule of the instruction sheet supplied with the junction box.

### Marking:

Ex eb IIC T (see schedule) Gb  
Ex tb IIIC T80°C Db  
Tamb (see schedule)

or

Intrinsic Safety junction boxes:

Ex ib IIC T6 Gb  
Ex ib IIIC T80°C Db  
Tamb (see schedule)

or

Ex ia IIC T6 Ga  
Ex ia IIIC T80°C Da  
Tamb (see schedule)

See annex for full description.

### SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Do not allow dust layers to build up on this product.
2. Unused cable entries must be fitted with stopping plugs as listed on the ZPL7 component certificate IECEx BAS 08.0090U. The operating temperature range and Ingress Protection rating of the enclosure is limited to that of the stopping plug fitted.
3. Only breather/drain devices as specified in the empty enclosure certificate IECEx BAS.08.0090U may be used with these enclosures. The breather/drain devices must be installed in their correct orientation in either the bottom face or bottom face gland plate of the enclosure. The operating temperature range and Ingress Protection rating of the enclosure is limited to that of the breather/drain device fitted.
4. All terminal screws, used and unused, shall be fully tightened down by the end user.
5. No more than one single or multi-stranded lead shall be connected to either side of any terminal unless multiple conductors have been joined in a suitable manner, e.g. two conductors into a single insulated bootlace ferrule, or any method indicated on the terminal certificate.
6. Terminals shall be installed in such a manner that the creepage and clearance distances between the terminal and adjacent components, enclosure walls and covers complying with the requirements of IEC 60079-7 and IEC 60079-11 for the rated voltage of the equipment.
7. Terminal temperatures must not exceed the operating range specified on the component certificate.
8. All terminals, and accessories such as cross-connectors, shall be installed in accordance with the terminal manufactures instructions. Hawke International will supply the relevant terminal manufacturer's instructions with each junction box covered by this certificate.
9. The maximum voltage, current and dissipated power shown on the rating label must not be exceeded.



# IECEx Certificate of Conformity

Certificate No: IECEx BAS 08.0091X

Issue No: 3

Date of Issue: **2019-03-26**

Page 4 of 5

10. When connecting conductors of cross section below the maximum allowed for the particular terminal then the maximum amps per pole must be reduced inline with the maximum amps permitted for a terminal equivalent to the conductor size fitted e.g. If a terminal that can take a 10mm<sup>2</sup> conductor at 40Amps is fitted with a 4mm<sup>2</sup> conductor then the current shall be reduced to a maximum of 22Amps, or the rating marked on the apparatus label, whichever is the lower.

11. When label fixing is by screws complete with Nyloc nuts then the Ingress Protection Rating is IP66.

12. Unused entries may be fitted with alternative stopping plugs and or breather drains to those listed in the schedule. The user is responsible for ensuring that the protection concept, temperature class and relevant IP rating are maintained.





# IECEx Certificate of Conformity

Certificate No: IECEx BAS 08.0091X

Issue No: 3

Date of Issue: 2019-03-26

Page 5 of 5

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

### Variation 3.1

To confirm that the products covered by this certificate have been reviewed against the requirements of IEC 60079-0: 2017: Edition 7 and IEC 60079-7: 2015: Edition 5 in respect to the differences from IEC 60079-0: 2011: Edition 6 and IEC 60079-7: 2006: Edition 4, and that none of these differences in the standards affects this product except the marking with regard to Increased Safety Ex eb.

### Variation 3.2

Include the use of optional high bond tape for securing labels.

### Variation 3.3

Include minor label artwork changes.

ExTR: GB/BAS/ExTR18.0266/00

File Reference: 18/0484

### Annex:

[IECEx BAS 08.0091X-3 Annex 3.pdf](#)

### Description:

The PL7\*\* Range of Junction Boxes consist of the type ZPL7\* range of plastic empty enclosures covered by IECEx BAS 08.0090U Ex eb IIC and Ex tb IIC. The junction boxes are fitted with a variety of different terminal arrangements. All the terminals are covered by their own component certificates and are coded Ex e II or Ex eb IIC. The terminals are listed on D9160 held on Baseefa General Technical File 0500. The actual terminals fitted to each junction box will be listed in the schedule of the instruction sheet supplied with the junction box.

The terminals must be used within their relevant temperature range, voltage and current limitations, and fitted in accordance with IEC 60079-7 with regard to creepage and clearance distances by Hawke International. Details on drawing C2542 describe partitioning arrangements which allow for the termination of intrinsically safe (I.S.) circuits and non I.S. circuits within the same junction box. When I.S. circuits are present an additional label is fitted to the outside of the junction box stating 'INTRINSICALLY SAFE CIRCUITS ENCLOSED'.

The maximum power dissipation within each Ex eb / Ex tb junction box is as follows:

BOX TYPE	Maximum Power Dissipation (Watts)																		Max. Cable Length per Terminal (M)
	T <sub>rating</sub>	T <sub>dust</sub>	T <sub>amb</sub>	T <sub>rating</sub>	T <sub>dust</sub>	T <sub>amb</sub>	T <sub>rating</sub>	T <sub>dust</sub>	T <sub>amb</sub>	T <sub>rating</sub>	T <sub>dust</sub>	T <sub>amb</sub>	T <sub>rating</sub>	T <sub>dust</sub>	T <sub>amb</sub>	T <sub>rating</sub>	T <sub>dust</sub>	T <sub>amb</sub>	
	T6	80°C	-??°C* to +40°C	T6	80°C	-??°C* to +55°C	T6	80°C	-??°C* to +65°C	T5	95°C	-??°C* to +40°C	T5	95°C	-??°C* to +55°C	T5	95°C	-??°C* to +65°C	
PL712		3.35			2.15			1.2			4.6			3.35			2.4		0.142
PL722		5.32			3.23			1.9			7.3			5.32			3.9		0.226

\* Ambient temperature:

- 20 °C with integral moulded-in earth continuity plate
- 60 °C without integral moulded-in earth continuity plate

The maximum number of terminals which may be fitted into each junction box is calculate using the following formula:

$$\text{Power} = I^2 \times N (R_t + R_c) \text{ Watts}$$

Where:

- I = Actual current through the conductor up to the maximum permitted certified current of the terminal when fitted in a junction box (Amps).
- N = Number of terminals
- R<sub>t</sub> = Terminal resistance (Ohms at 20°C)
- R<sub>c</sub> = Resistance of one conductor (Ohms at 20°C) when using a maximum diagonal cable length listed in the above table.

Earth facilities and cable entries are described on the component certificate for the empty enclosures IECEx BAS 08.0090U. A suitable certified internal rail mounted earth terminal may be used if the integral moulded-in earth continuity plate is fitted, but shall be used if this plate option is not fitted. If a 'clean earth' is required a rail mounted power terminal may be used.

When required a component certified breather, drain or breather-drain or stopping plug may be fitted to the junction box as specified on the component certificate IECEx BAS 08.0090U.

The certification marking may be on a label that is screwed, riveted, screws complete with Nyloc nuts, high bond tape secured, or on a self-adhesive backed label. Alternatively, the marking may be laser etched on the lid.

### Junction boxes used for Intrinsically Safe applications:

When required, the Ex eb / Ex tb marked junction box may be used for intrinsically safe (I.S.) applications. It shall be fitted with an additional external label stating 'Intrinsically Safe Circuits Enclosed'. The I.S. terminals may be blue in colour to suit the application.

When required, junction boxes containing Ex e terminals may be used for both Ex e circuits and intrinsically safe (I.S.) circuits provided the relevant barrier or air gap is included and an additional external label stating 'Intrinsically Safe and Non- Intrinsically Safe circuits enclosed'. The I.S. terminals may be blue in colour to suit the application.

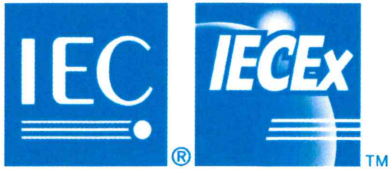
For commercial purposes to suit the application, the junction boxes may be marked with Intrinsically Safety (I.S.) Ex i coding. The manufacturer may opt to show both Ex eb / Ex tb and Ex i coding or just show Ex i coding on the certification label.

Marking options:

- a) When only Ex eb / Ex tb coding is marked on the certification label with the addition of a traffolyte label stating 'Intrinsically Safe circuits enclosed' or 'Intrinsically Safe and Non- Intrinsically Safe circuits enclosed', then the manufacturer shall show the ratings as the standard Ex e wattage, current and voltage ratings.
- b) When both Ex eb / Ex tb and Ex i coding is marked on the certification label, then the manufacturer shall show the ratings as the standard Ex e wattage, current and voltage ratings.
- c) When only Ex i coding is marked on the junction box, then the manufacturer shall show the ratings as the reduced I.S. wattage, current and voltage ratings in-line with IEC 60079-11.

The marking is as follows:

Ex ib IIC T6 Gb  
Ex ib IIIC T80°C Db  
Tamb (see schedule)  
OR  
Ex ia IIC T6 Ga  
Ex ia IIIC T80°C Da  
Tamb (see schedule)



# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.: **IECEx BAS 08.0091X**

Page 1 of 5

Certificate history:

Status: **Current**

Issue No: 4

Issue 3 (2019-03-26)

Issue 2 (2017-02-14)

Issue 1 (2010-12-06)

Issue 0 (2008-12-11)

Date of Issue: 2020-05-04

Applicant: **Hawke International**  
A Division of Hubbell Limited  
A Member of the Hubbell Group of Companies  
Oxford Street West, Ashton-under-Lyne  
Lancashire  
OL7 0NA  
**United Kingdom**

Equipment: **PL7\*\* Range of Junction Boxes**

Optional accessory:

Type of Protection: **Increased Safety, Dust Protection by Enclosure, Intrinsic Safety**

Marking: **See schedule**

Approved for issue on behalf of the IECEx  
Certification Body:

**R S Sinclair**

Position:

**Technical Manager**

M POWNEY  
Certification  
Manager

Signature:  
(for printed version)

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 [www.iecex.com](http://www.iecex.com) or use of this QR Code.



Certificate issued by:

**SGS Baseefa Limited**  
**Rockhead Business Park**  
**Staden Lane**  
**Buxton, Derbyshire, SK17 9RZ**  
**United Kingdom**







# IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 08.0091X**

Page 2 of 5

Date of issue: 2020-05-04

Issue No: 4

Manufacturer: **Hawke International**  
A Division of Hubbell Limited  
A Member of the Hubbell Group of Companies  
Oxford Street West, Ashton-under-Lyne  
Lancashire  
OL7 0NA  
**United Kingdom**

Additional  
manufacturing  
locations:

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 equipment 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 60079-0:2017** Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:7.0

**IEC 60079-11:2011** Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i"  
Edition:6.0

**IEC 60079-31:2013** Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"  
Edition:2

**IEC 60079-7:2015** Explosive atmospheres – Part 7: Equipment protection by increased safety "e"  
Edition:5.0

This Certificate **does not** indicate compliance with 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 Reports:

[GB/BAS/ExTR08.0196/00](#)  
[GB/BAS/ExTR18.0266/00](#)

[GB/BAS/ExTR10.0270/00](#)  
[GB/BAS/ExTR20.0080/00](#)

[GB/BAS/ExTR16.0383/00](#)

Quality Assessment Report:

[GB/BAS/QAR06.0061/08](#)



# IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 08.0091X**

Page 3 of 5

Date of issue: 2020-05-04

Issue No: 4

## EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

The PL7\*\* Range of Junction Boxes consist of the type ZPL7\* range of plastic empty enclosures covered by IECEx BAS 08.0090U Exe II. The junction boxes are fitted with a variety of different terminal arrangements. All the terminals are covered by their own component certificates and are coded Exe II. The terminals are listed on D9160 held on Baseefa General Technical File 0500. The actual terminals fitted to each junction box will be listed in the schedule of the instruction sheet supplied with the junction box.

## Marking:

Ex eb IIC T (see schedule) Gb  
Ex tb IIIC T80°C Db  
Tamb (see schedule)

or

Intrinsic Safety junction boxes:

Ex ib IIC T6 Gb  
Ex ib IIIC T80°C Db  
Tamb (see schedule)

or

Ex ia IIC T6 Ga  
Ex ia IIIC T80°C Da  
Tamb (see schedule)

## Alternative Marking Option ~ For commercial purposes to suit the end users' application:

The Gas Group code in the marking may be changed from IIC to that of either IIA or IIB on all products.

The Dust Group code in the marking may be changed from IIIC to that of either IIIA or IIIB on all products.

See annex for full description.

## SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Do not allow dust layers to build up on this product.
2. Unused cable entries must be fitted with stopping plugs as listed on the ZPL7 component certificate IECEx BAS 08.0090U. The operating temperature range and Ingress Protection rating of the enclosure is limited to that of the stopping plug fitted.
3. Only breather/drain devices as specified in the empty enclosure certificate IECEx BAS.08.0090U may be used with these enclosures. The breather/drain devices must be installed in their correct orientation in either the bottom face or bottom face gland plate of the enclosure. The operating temperature range and Ingress Protection rating of the enclosure is limited to that of the breather/drain device fitted.
4. All terminal screws, used and unused, shall be fully tightened down by the end user.
5. No more than one single or multi-stranded lead shall be connected to either side of any terminal unless multiple conductors have been joined in a suitable manner, e.g. two conductors into a single insulated bootlace ferrule, or any method indicated on the terminal certificate.
6. Terminals shall be installed in such a manner that the creepage and clearance distances between the terminal and adjacent components, enclosure walls and covers complying with the requirements of IEC 60079-7 and IEC 60079-11 for the rated voltage of the equipment.
7. Terminal temperatures must not exceed the operating range specified on the component certificate.
8. All terminals, and accessories such as cross-connectors, shall be installed in accordance with the terminal manufactures instructions. Hawke International will supply the relevant terminal manufacturer's instructions with each junction box covered by this certificate.
9. The maximum voltage, current and dissipated power shown on the rating label must not be exceeded.



# IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 08.0091X**

Page 4 of 5

Date of issue: 2020-05-04

Issue No: 4

10. When connecting conductors of cross section below the maximum allowed for the particular terminal then the maximum amps per pole must be reduced inline with the maximum amps permitted for a terminal equivalent to the conductor size fitted e.g. If a terminal that can take a 10mm<sup>2</sup> conductor at 40Amps is fitted with a 4mm<sup>2</sup> conductor then the current shall be reduced to a maximum of 22Amps, or the rating marked on the apparatus label, whichever is the lower.

11. When label fixing is by screws complete with Nyloc nuts then the Ingress Protection Rating is IP66.

12. Unused entries may be fitted with alternative stopping plugs and or breather drains to those listed in the schedule. The user is responsible for ensuring that the protection concept, temperature class and relevant IP rating are maintained.



# IECEx Certificate of Conformity

Certificate No.: **IECEx BAS 08.0091X**

Page 5 of 5

Date of issue: 2020-05-04

Issue No: 4

## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above) Variation 4.1

For commercial purposes to suit the end users' application, the manufacturer has requested an optional alternative Gas and Dust Group marking code.

The Gas Group code in the marking may be changed from IIC to that of either IIA or IIB on all products.

The Dust Group code in the marking may be changed from IIIC to that of either IIIA or IIIB on all products.

ExTR: **GB/BAS/ExTR20.0080/00**  
(This report is held on PL6, IECEx BAS 06.0028X)

File Reference: **20/0220**

## Annex:

[IECEx BAS 08.0091X-3 Annex 3.pdf](#)



#### Description:

The PL7\*\* Range of Junction Boxes consist of the type ZPL7\* range of plastic empty enclosures covered by IECEx BAS 08.0090U Ex eb IIC and Ex tb IIC. The junction boxes are fitted with a variety of different terminal arrangements. All the terminals are covered by their own component certificates and are coded Ex e II or Ex eb IIC. The terminals are listed on D9160 held on Baseefa General Technical File 0500. The actual terminals fitted to each junction box will be listed in the schedule of the instruction sheet supplied with the junction box.

The terminals must be used within their relevant temperature range, voltage and current limitations, and fitted in accordance with IEC 60079-7 with regard to creepage and clearance distances by Hawke International. Details on drawing C2542 describe partitioning arrangements which allow for the termination of intrinsically safe (I.S.) circuits and non I.S. circuits within the same junction box. When I.S. circuits are present an additional label is fitted to the outside of the junction box stating 'INTRINSICALLY SAFE CIRCUITS ENCLOSED'.

The maximum power dissipation within each Ex eb / Ex tb junction box is as follows:

BOX TYPE	Maximum Power Dissipation (Watts)															Max. Cable Length per Terminal (M)
	T <sub>rating</sub>	T <sub>dust</sub>	T <sub>amb</sub>	T <sub>rating</sub>	T <sub>dust</sub>	T <sub>amb</sub>	T <sub>rating</sub>	T <sub>dust</sub>	T <sub>amb</sub>	T <sub>rating</sub>	T <sub>dust</sub>	T <sub>amb</sub>	T <sub>rating</sub>	T <sub>dust</sub>	T <sub>amb</sub>	
	T6	80°C	-??°C* to +40°C	T6	80°C	-??°C* to +55°C	T6	80°C	-??°C* to +65°C	T5	95°C	-??°C* to +40°C	T5	95°C	-??°C* to +55°C	
PL712	3.35			2.15			1.2			4.6			3.35		2.4	0.142
PL722	5.32			3.23			1.9			7.3			5.32		3.9	0.226

\* Ambient temperature:

- 20°C with integral moulded-in earth continuity plate
- 60°C without integral moulded-in earth continuity plate

The maximum number of terminals which may be fitted into each junction box is calculate using the following formula:

$$\text{Power} = I^2 \times N (R_t + R_c) \text{ Watts}$$

Where:

- I = Actual current through the conductor up to the maximum permitted certified current of the terminal when fitted in a junction box (Amps).
- N = Number of terminals
- R<sub>t</sub> = Terminal resistance (Ohms at 20°C)
- R<sub>c</sub> = Resistance of one conductor (Ohms at 20°C) when using a maximum diagonal cable length listed in the above table.

Earth facilities and cable entries are described on the component certificate for the empty enclosures IECEx BAS 08.0090U. A suitable certified internal rail mounted earth terminal may be used if the integral moulded-in earth continuity plate is fitted, but shall be used if this plate option is not fitted. If a 'clean earth' is required a rail mounted power terminal may be used.

When required a component certified breather, drain or breather-drain or stopping plug may be fitted to the junction box as specified on the component certificate IECEx BAS 08.0090U.

The certification marking may be on a label that is screwed, riveted, screws complete with Nyloc nuts, high bond tape secured, or on a self-adhesive backed label. Alternatively, the marking may be laser etched on the lid.

#### Junction boxes used for Intrinsically Safe applications:

When required, the Ex eb / Ex tb marked junction box may be used for intrinsically safe (I.S.) applications. It shall be fitted with an additional external label stating 'Intrinsically Safe Circuits Enclosed'. The I.S. terminals may be blue in colour to suit the application.

When required, junction boxes containing Ex e terminals may be used for both Ex e circuits and intrinsically safe (I.S.) circuits provided the relevant barrier or air gap is included and an additional external label stating 'Intrinsically Safe and Non- Intrinsically Safe circuits enclosed'. The I.S. terminals may be blue in colour to suit the application.

For commercial purposes to suit the application, the junction boxes may be marked with Intrinsically Safety (I.S.) Ex i coding. The manufacturer may opt to show both Ex eb / Ex tb and Ex i coding or just show Ex i coding on the certification label.

Marking options:

- a) When only Ex eb / Ex tb coding is marked on the certification label with the addition of a traffolyte label stating 'Intrinsically Safe circuits enclosed' or 'Intrinsically Safe and Non- Intrinsically Safe circuits enclosed', then the manufacturer shall show the ratings as the standard Ex e wattage, current and voltage ratings.
- b) When both Ex eb / Ex tb and Ex i coding is marked on the certification label, then the manufacturer shall show the ratings as the standard Ex e wattage, current and voltage ratings.
- c) When only Ex i coding is marked on the junction box, then the manufacturer shall show the ratings as the reduced I.S. wattage, current and voltage ratings in-line with IEC 60079-11.

The marking is as follows:

Ex ib IIC T6 Gb

Ex ib IIIC T80°C Db

Tamb (see schedule)

OR

Ex ia IIC T6 Ga

Ex ia IIIC T80°C Da

Tamb (see schedule)