



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 12.0114X** issue No.:1
Status: **Current**
Date of Issue: **2014-05-27** Page 1 of 4

Certificate history:
Issue No. 1 (2014-5-27)
Issue No. 0 (2012-10-25)

Applicant: **ABTECH Limited**
Sanderson Street
Lower Don Valley
Sheffield S9 2UA
United Kingdom

Electrical Apparatus: **ZAG Range of Junction Boxes**
Optional accessory:

Type of Protection: **Increased safety, intrinsically safe and dust**

Marking: Ex ia IIC T₁Ga Ex e IIC T₁Gb Ex ib IIC T₁Gb
Ex ta IIIC T₂Da IP6X Ex tb IIIC T₂Db IP6X Ex tb IIIC T₂Db IP6X
Ambient Range -3°C to +4°C
1 The temperature class may be T6, T5, T4 or T3 depending on the application, see Table 2 in the description
2 The maximum surface temperature for dust may be T85°C, T100°C, T135°C or T180°C depending on the application, see Table 1 in the description.
3 The minimum ambient temperature may be either -60°C or -65°C depending upon the use of a glass window. If the equipment is without the window the minimum ambient may be -65°C
4 The maximum ambient temperature may be either +40°C, +55°C, +70°C, +90°C, +105°C, +135°C or +150°C depending on the application see Table 2 in the description.

Approved for issue on behalf of the IECEx
Certification Body:

P J Walsh

Position:

Technical Advisor

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

SIRA Certification Service
Rake Lane
Eccleston
Chester
CH4 9JN
United Kingdom



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Page 2 of 4

Manufacturer: **ABTECH Limited**
Sanderson Street
Lower Don Valley
Sheffield S9 2UA
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/ExTR12.0245/00](#)

[GB/SIR/ExTR13.0296/00](#)

Quality Assessment Report:

[GB/SIR/QAR06.0046/04](#)

[GB/SIR/QAR06.0046/05](#)



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Certificate No.: IECEX SIR 12.0114X

Date of Issue: 2014-05-27

Issue No.: 1

Page 3 of 4

Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The ZAG Range of Junction Boxes are manufactured from aluminium alloy and are fitted with an arrangement of suitably certified terminals. The enclosures, which have the option to fit slotted trunking, are covered by certificate number IECEx SIR 12.0116U and the terminals are defined by Approved Component Document number Sira 12AC087. The total dissipated power for the enclosure is to be calculated in accordance with IEC 60079-7:2003, Annex E, E.2. and shall not exceed the figures given in the Table 1 in the certificate annexe.

CONDITIONS OF CERTIFICATION: YES as shown below:

1. When used in an EPL ta (Da) application the power supply to the equipment is to be rated for a prospective short circuit current of not more than 10 kA.
2. The materials used in the construction of this equipment contain levels of Al, Mg, Ti and Zi that are greater than that allowed for EPL Ga and Gb by clause 8.3 of EN 60079-0, therefore in rare cases, ignition sources due to impact and friction sparks could occur. The equipment shall therefore be protected from such impact and friction when installed.



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Certificate No.: IECEx SIR 12.0114X

Date of Issue: 2014-05-27

Issue No.: 1

Page 4 of 4

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

Issue 1 – this Issue introduced the following changes:	
1.	To assess the enclosures and junction boxes to meet Ex ia and Ex ta concepts for EPL levels Ga and Da and hence additionally assess to EN 60079-26, the marking was amended accordingly

2.	The maximum power dissipation table was modified.
3.	As a result of the assessment, Conditions of Certification were introduced and therefore an 'X' suffix was added to the certificate number.
4.	It was clarified that, when the window is fitted, the maximum surface temperature marking shall not exceed T85°C maximum and the ambient temperature range must be within -60°C to +55°C, this was recognised in a new Condition of Manufacture.

Annex: IECEx SIR 12-0114 Iss 1 Annexe.pdf