



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 06.0086U issue No.:2
Status: Current
Date of Issue: 2012-10-09 Page 1 of 4

Certificate history:
Issue No. 2 (2012-10-9)
Issue No. 1 (2010-7-28)
Issue No. 0 (2006-10-25)

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

Electrical Apparatus: **BPG Range of Enclosures**
Optional accessory:

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

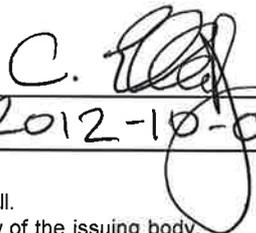
Marking: Ex e IIC Gb Or Ex ib IIC Gb
Ex tb IIIC Db IP6X Ex tb IIIC Db IP6X

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

Position: Deputy Certification Manager

Signature:
(for printed version)

Date:


2012-10-09

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

sira
CERTIFICATION



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Manufacturer: **ABTECH Limited**
Sanderson Street
Lower Don Valley
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United Kingdom

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 : 2011-06 Edition: 6.0 | Explosive atmospheres - Part 11: Equipment protection by intrinsic safety "i" |
| 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/ExTR06.0100/01](#)

[GB/SIR/ExTR12.0245/00](#)

Quality Assessment Report:

[GB/SIR/QAR06.0046/00](#)

[GB/SIR/QAR06.0046/01](#)

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



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The BPG range of enclosures are manufactured in various sizes from glass reinforced polyester, with or without anti-static carbon loading. The enclosures consists of a main body and a detachable or hinged lid. Refer to the Annexe of this certificate for a full description.

CONDITIONS OF CERTIFICATION: NO



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

| | |
|---|--|
| Issue 1 – this Issue introduced the following changes: | |
| 1 | To allow GB/SIR/ExTR06.0100/01 to replace GB/SIR/ExTR06.0100/00 |
| Issue 2 – this Issue introduced the following changes: | |
| 1 | The Description was aligned with certificate no. Sira 99ATEX3172U associated with this enclosure, this included recognising the following changes assessed as part of that certificate. <ul style="list-style-type: none">* The BPG 13.5 enclosure was added to the range.* The option to fit slotted trunking inside the enclosures, this trunking may be sited as required. The instructions were modified to recognise additional restrictions associated with this change and a new Condition of Manufacture was introduced.* The recognition of minor drawing modifications including the introduction of a new company logo; these amendments are administrative or involve changes to the design that do not affect the aspects of the product that are relevant to explosion safety. |
| 2 | Following appropriate re-assessment to demonstrate compliance with the requirements of the latest standards, the documents previously used for assessment were replaced by those currently listed, the markings were updated accordingly. In addition, the enclosure was allowed to be used for intrinsically safe applications and IEC 60079-11:2012 Edition 6 was included in the list of supporting standards. |
| 3 | The Description of Component and Condition of Certification were amended to recognise that closed cell polychloroprene gaskets are no longer used. |
| 4 | The Condition of Certification related to static and the Special Point for Noting were both removed; in addition, a Schedule of Limitations was added and the Conditions of Certification were rationalised to bring them into line with Sira 99ATEX3172U. |

Annexe to: IECEx SIR 06.0086U Issue 2
Applicant: ABTECH Limited
Apparatus: BPG Range of Enclosures



Description of Equipment

The BPG range of enclosures are manufactured from polyester in the following sizes:

| BPG Reference | Length (mm) | Width (mm) | Height (mm) |
|---------------|-------------|------------|-------------|
| 1 | 80 | 75 | 55 |
| 2 | 110 | 75 | 55 |
| 3 | 160 | 75 | 55 |
| 4 | 190 | 75 | 55 |
| 5 | 230 | 75 | 55 |
| 6 | 122 | 120 | 90 |
| 7 | 220 | 120 | 90 |
| 8 | 160 | 160 | 90 |
| 9 | 260 | 160 | 90 |
| 10 | 360 | 160 | 90 |
| 11 | 560 | 160 | 90 |
| 12 | 255 | 250 | 120 |
| 13 | 400 | 250 | 120 |
| 13.5 | 400 | 250 | 160 |
| 14 | 600 | 250 | 120 |
| 15 | 400 | 405 | 120 |

The enclosures may also be manufactured to sizes not specified in the table. This assumes that any given dimension is not larger than the respective dimension of the largest enclosure or smaller than the respective dimension of the smallest enclosure. The enclosure lids may be hinged or detachable and are retained captive screws. All boxes are fitted with closed cell silicone rubber gaskets. Entries may be provided either through the side walls or the rear of the box and external and internal earthing facilities are provided.

Schedule of Limitations

The user/installer shall comply with the following:

- 1 The Enclosures shall not be used outside the temperature range -65°C to $+90^{\circ}\text{C}$.

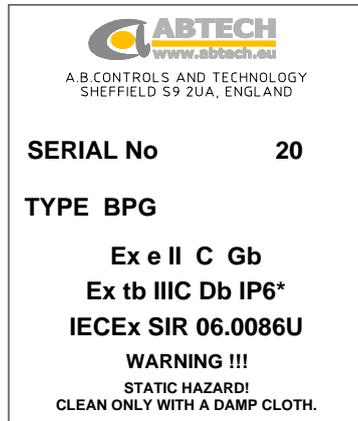
Conditions of Manufacture

The manufacturer shall comply with the following:

- 1 If the Enclosures are supplied with blanking plugs, reducers, adapters and breather drains, then the manufacturer shall ensure that:
 - The device does not adversely affect the minimum IP rating of the enclosure.
 - There are no special conditions of for safe use (conditions of certification) associated with the device that will impinge upon the use and installation of the Enclosure, e.g. "These components shall not be used for applications where there is a 'high' risk of mechanical damage".
 - The coding reflects the "worst case" item fitted.
- 2 The manufacturer shall take all reasonable steps to ensure that the following items used in the construction of the Enclosure are used within the minimum and maximum service temperature stated in the condition for safe use, in addition, the manufacturer shall provide the user/installer with a copy of the certificate associated with any blanking plugs, reducers, adapters and breather drains:

Item: Solid silicone rubber gasket
Blanking plugs, reducers, adapters and breather drains
- 3 When trunking is fitted, it may be sited as required and the minimum creepage and clearance distances shall still be met.

INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS FOR ABTECH 'BPG' Range Enclosures – IECEx SIR 06.0086U



Marking

The marking shown is for a component certified enclosure. The user must submit the completed unit for type examination if it is to be used in a hazardous area.

The Ex e marking may be replaced by Ex ia or Ex ib. Enclosures marked Ex ia or Ex ib may only be used for terminating intrinsically safe circuits.

The standard IP rating is IP66 but may show IP67 or IP68.

When the box is black it is anti-static and the 'STATIC HAZARD' warning will be missing.

Static hazard

Glass reinforced polyester resin has a surface resistance greater than 10E9 Ohms. They can present a hazard from static electricity. CLEAN ONLY WITH A DAMP CLOTH

Carbon loaded glass reinforced polyester, coloured black and identified by the suffix 'C', (e.g. BPGC9), have a surface resistance between 10E6 and 10E9 Ohms. They do not present a hazard from static electricity.

Installation

These instructions assume that the required cable entries have been pre-drilled. Cable entries may be threaded. All cable entry devices must be appropriately certified to the latest standards and match the certification of the box. i.e. ATEX certified devices are required for ATEX certified enclosures and IECEx certified devices are required for IECEx certified enclosures. If trunking is fitted, non-metallic slotted trunking may be used for T6 rated applications. If the box is rated other than T6 then metallic slotted trunking must be used.

- 1) Using the mounting dimensions data provided, either in the product catalogue data sheets or on the drawings supplied, (as part of the project documentation), mark out the positions for the mounting holes on the surface where installation is required.
- 2) Drill the mounting holes for M4 fixing studs (for size BPG1 to BPG5) or for M6 fixing studs (for size BPG6 to BPG15) as applicable.
- 3) Tap thread into mounting holes if required.
- 4) Place a mounting screw through one mounting hole in the box so that the thread of the screw protrudes from the back of the box. Lift the enclosure into position using such assistance as may be necessary to avoid injury and:-
 - a) If clearance mounting holes are used, insert the protruding thread through the appropriate clearance hole and secure with a nut on the other side of the mounting surface.

Or

- b) If threaded holes are used, locate the end of the mounting screw over the thread hole and, using an appropriate screwdriver tighten the screw.
- 5) Rotate the box to line up the remaining mountings and repeat (4) above until all mounting screws have been fitted.
- 6) Where slotted trunking has been supplied (solid trunking is not permitted) ensure that it is suitable for the proposed T classification of the final certified product. Where the T6 is the proposed rating and no

1/2

windows are fitted any polymeric or metallic slotted trunking may be used. For other T classifications and where a window is fitted metallic slotted trunking must be used. Trunking may be mounted in any orientation in the box, vertically, horizontally or diagonally.

- 7) Secure the lid by closing the lid and tightening the lid fixing screws.

Earthing/Grounding

The enclosure may be provided with an external earth/ground connection. If such a connection is provided it must be connected to the appropriate earth bonding circuit before electrical power is connected to the contents of the enclosure.

Operation

1. The lid must be secured using all of the lid screws provided in order to maintain the IP rating.
2. No attempt must be made to remove the enclosure lid whilst electrical power is connected to the contents of the enclosure.
3. If the enclosure is fitted with an external earth/ground facility it must be connected to the earth bonding circuit at all times when power is connected to the enclosure contents.

Maintenance

Routine maintenance is likely to be a requirement of local Health and Safety legislation. The laws of the applicable country must be considered and maintenance checks carried out accordingly

Additional periodic checks that are advisable to ensure the efficiency of ABTECH range enclosures are:-

| <u>Activity</u> | <u>Frequency</u> |
|---|-----------------------------------|
| 1 Check that the lid seal is in place and not damaged | Each time the enclosure is opened |
| 2 Check that all lid fixing screws are in place and secured | Each time the enclosure is closed |
| 3 Check that the mounting bolts are tight and free of corrosion | Annually |
| 4 Check the security of all cable glands | Annually |
| 5 Check enclosure for damage | Annually |

Chemical attack

The ABTECH BPG range of enclosures are manufactured using the following materials:-

glass reinforced polyester resin, (with or without carbon loading),

Polychloroprene or Silicone rubber,

316 stainless steel

Brass

Consideration should be given to the environment in which these enclosures are to be used to determine the suitability of these materials to withstand any corrosive agents that may be present.