



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: Sira 04ATEX3131X

4 Equipment: GRN8 Junction Box

5 Applicant: A B Controls & Technology Ltd

6 Address: Sanderson Street
Lower Don Valley
Sheffield
S9 2UA
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 confidential report number R53A10153A.

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 50014:1997 (A1 and A2)

EN 50019:2000

EN 50281-1-1:1998 (A1)

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 2 G D
EEx e II T6

M D Shearman
Certification Manager

Project Number 53A10153
Date 21 April 2004
C. Index 04

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Sira Certification Service

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SCHEDULE

EC TYPE-EXAMINATION CERTIFICATE

Sira 04ATEX3131X

13 DESCRIPTION OF EQUIPMENT

The GRN8 junction box is a plastic enclosure comprising a base and lid that is fitted with up to four terminal blocks. Each terminal block comprises a pair of Weco terminal posts covered by PTB 03ATEX1117U, coded EEx e II, that are moulded into a nylon base. The base is fixed to the enclosure with a self tapping screw. The terminals are rated at a maximum voltage of 550 V.

The total dissipated power for the enclosure shall be calculated in accordance with EN 50019:2000, Annex C,C.2 and shall not exceed 10 W.

An internal earth facility is provided. This comprises one or two brass or copper earth bars fixed to pillars in the sides of the enclosure. The connections are made using a proprietary earth rail clamp or by crimp type cable lugs fixed with screws, nuts and washers. Alternatively one of the Weco terminals may be used as an earth terminal.

14 DESCRIPTIVE DOCUMENTS

14.1	Drawing No.	Sheet	Rev.	Date	Description
	ABT13228	1 of 1	A	23 Jul 03	GRN Enclosure
	ABT13909	1 of 1	A	15 Apr 04	GRN 8 Certification label

14.2 Report No. R53A10153A

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

15.1 The GRN8 junction box is suitable only for areas where there is a low risk of impact.

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 Report No. R53A10153A.

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 The manufacturer shall conduct an electric strength test on the junction box only if wiring is included between terminals. The test shall be conducted in accordance with EN 50019:2000 clause 7.1.

17.4 This certificate relies on the following previously certified products. When used as part of the GRN8 junction box, the key attributes listed in the table below shall still be maintained by their original certificate.

Product	Certificate number	Key attributes
Weco terminal post DFB-*-AX, DFG-*-AX, DFG-*-E-AX	PTB 03 ATEX 1117 U	EEx e II
Weidmuller ZB4 earth clamp	DEMKO 03ATEX136028U	EEx e II

Date 21 April 2004

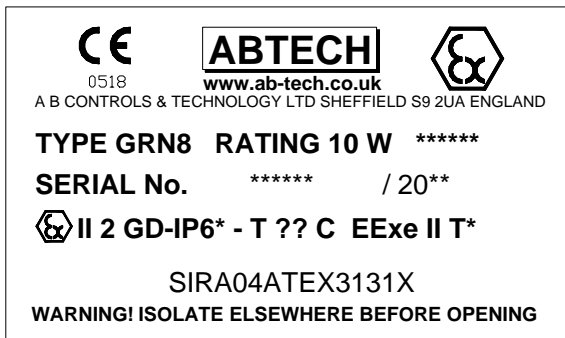
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INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS FOR ABTECH 'GRN8' Enclosure – SIRA04ATEX3131X



Marking

The marking shown is for an apparatus certified terminal box.

The maximum power dissipation permitted in this terminal box is marked on the label and identified by RATING _____ 10 W.

The ambient temperature range for which this product is suitable is marked on the label and identified by Tamb_____.

Installation

These instructions assume that the required cable entries have been pre-drilled. Cable entries may be threaded.

- 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 two mounting holes for M6 fixing studs at 148 +/- 2 mm centres.
- 3) Tap thread into mounting holes if required.
- 4) a) If clearance mounting holes are used, insert one mounting screws through one of the mounting holes and hold in place with a spring washer and nut. Slide the box in place under the screw head and insert the second mounting screw. Secure the second mounting screw with a spring washer and nut and tighten both mounting screws.
b) If threaded mounting holes are used, locate the end of the mounting screw over the threaded hole and, using an appropriate screwdriver, screw it part way in. Slide the box in place under the screw head and locate the second mounting screw. Using an appropriate screwdriver screw the mounting screw all the way in. Now tighten the first mounting screw.
- 5) Install and secure the cable glands in accordance with the manufacturers instructions.
- 6) Pull the cables into the box, leaving trailing leads of length no more than 205 mm and secure any cable armour in accordance with site practice.
- 7) Strip the conductor insulation for a minimum of 8 mm and a maximum of 10 mm. Terminate the conductors in the terminals provided in accordance with the requirements of BS EN 60079-14:1997. No more than two conductors are permitted per terminal post. Conductor insulation must extend to within 2 mm of the terminal post.
- 8) 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:-

Activity	Frequency
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 that all screw clamp terminals are secure	As manufacturers recommendations
6 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),
neoprene 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.

Static hazard

Glass reinforced polyester resin has a surface resistance greater than 10E9 Ohms. They can present a hazard from static electricity and may not be cleaned except with a damp cloth.

Carbon loaded glass reinforced, 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.

Vibration

BPG range terminal boxes are designed for use in areas subject to normal industrial levels of vibration. They are not designed for use in areas subject to intentional or extreme conditions of vibration.