



1 **EC TYPE-EXAMINATION CERTIFICATE**

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

3 Certificate Number: **Sira 99ATEX3171** Issue: **12**

4 Equipment: **SX Range of Junction Boxes**

5 Applicant: **ABTECH Limited**

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 the confidential reports listed in Section 14.2.

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:

IEC 60079-0:2011 EN 60079-7:2007 EN 60079-11:2012 EN 60079-31:2009

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 GD

Ex e IIC Tj Gb or Ex ib IIC Tj Gb

Ex tb IIIC T<sub>k</sub> °C Db

(Ta = -50°C up to +1 °C)

**j** The temperature class may be T6 or T3 depending on the application, see Table in the Certificate Schedule.

**k** The maximum surface temperature for dust may be T85°C or T200°C depending on the application, see Table in the Certificate Schedule.

**l** The maximum ambient temperature may be either +40°C, +55°C, +60°C, +65°C, +80°C or +175°C depending on the application, see t Table in the Certificate Schedule.

Project Number 25164

C Ellaby  
Deputy Certification Manager

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13 DESCRIPTION OF EQUIPMENT

The SX range of Junction Boxes utilises an SX Enclosure to Sira 99ATEX3170U fitted with an arrangement of suitably certified terminals. Before the Junction Box is installed, its total dissipated power for the particular application will be calculated in accordance with EN 60079-7, Annex E, E.2 and will not exceed the values given in the table below:

SX Ref.	Group & Category	Max Power Dissipation (W), Temperature Class, Max. Surface Temp. for Dust & Ta Max.						
		T6 & T85°C				T3 & T200°C		
		+40°C	+55°C	+60°C	+65°C	+80°C <sup>j</sup>	+80°C <sup>k</sup>	+175°C <sup>l</sup>
SX0	II 2 G D	19	3.34	2.23	1.84	2.23	3.34	1.84
SX0.5	II 2 G D	22	3.9	2.8	2.1	2.8	3.9	2.1
SX1	II 2 G D	29	4.97	3.86	2.7	3.86	4.97	2.7
SX1.5	II 2 G D	32	5	4	2.8	4	5	2.8
SX2	II 2 G D	36	5.64	4.23	2.88	4.23	5.64	2.88
SX3	II 2 G D	42	5.9	4.1	3	4.1	5.9	3
SX4	II 2 G D	44	6.1	4.36	3.19	4.36	6.1	3.19
SX5	II 2 G D	50	9.35	6.19	4.2	6.19	9.35	4.2
SX6	II 2 G D	57	10.1	7.97	5.6	7.97	10.1	5.6
SX7	II 2 G D	68	17.14	9.36	6.67	9.36	17.14	6.67
SX8	II 2 G D	119	15.95	15.17	10.74	15.17	15.95	10.74
SX225	II 2 G	359	NA	103	NA	103	NA	NA
SX45	II 2 G D	8	1.65	1.28	1.57	1.28	1.65	1.57
SX64	II 2 G D	10	0.7	0.5	0.3	0.5	0.7	0.3
SX66	II 2 G D	14	2	1.9	1.5	1.9	2	1.5

NA = Not Applicable

Notes **j**, **k** and **l** are related to the limiting temperature of the terminal insulation, refer to Condition of Certification clause 17.4.

Junction Boxes may also be manufactured to sizes not specified in this 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 power rating applied to a junction box of intermediate size is that of the next smallest enclosure. The enclosure joints are sealed by closed cell silicone rubber gaskets and Junction Boxes larger than SX8 have an ingress protection rating of IP54 and are not marked as suitable for use in the presence of combustible dust.

Cable entries may be provided either through gland plates or directly into the box and threaded bosses for cable entries may be provided welded, brazed or soldered into position. Internal and external earthing facilities are provided.

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

- i. The maximum ambient temperature was raised with a corresponding reduction in power dissipation, in addition, the range of temperature options has also been increased as shown in the table above.



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**Variation 2** - This variation introduced the following changes:

- i. The range of Junction Boxes to include a high temperature version that has the certification code EEx e II T3 ( $T_a = -40^{\circ}\text{C}$  to  $+175^{\circ}\text{C}$ ); this version is fitted with silicone rubber gaskets and incorporates Phoenix Type SSK 0525 Ker-Ex ceramic terminals that are covered by certificate number BAS Ex 90C3200U.  
The maximum power dissipation figures apply to the high temperature version (Note - the total dissipated power for the high temperature junction box will be calculated in accordance with EN 50 019:1994, Annex C,C.2 (Later changed to EN 60079-7:2003, Annex E, E.2) and will not exceed the values given in the table above)
- ii. The option to add an 8 mm minimum thickness glass window fitted to the inside wall of the enclosure was approved.
- iii. The option to fit flameproof plugs and sockets, coded EEx de, through the walls of the enclosure on any of the range of junction boxes was endorsed.
- iv. Modification and additions to the conditions of certification were accepted.

**Variation 3** - This variation introduced the following change:

- i. A minor revision of the information marked on the label was sanctioned.

**Variation 4** - This variation introduced the following change:

- i. The introduction of an alternative assembly that comprises an SX6/200 enclosure fitted with an arrangement of Weidmuller terminals and Raychem BTV trace heating cable that is used as an anti-condensation heater and is self-limiting at  $85^{\circ}\text{C}$ . The terminals are as follows:
  - Three pairs of linked Weidmuller SAKG 32 11 terminal that are rated at 108 A per pair.
  - One pair of Weidmuller SAKG 32 11 terminals for neutral connections.
  - One pair of Weidmuller SAK 2..5 terminals for heater connections
  - A Weidmuller EK 4 earth terminal

All the terminals are suitably certified in accordance with clause 17.10 in the conditions of certification.

**Variation 5** - This variation introduced the following change:

- i. The recognition of a change of issue of a drawing that was amended in variation 2 of Sira 99ATEX3170U.

**Variation 6** - This variation introduced the following change:

- i. The introduction of alternative marking that allows component certified, intrinsically safe terminals, the following, additional marking being applicable, a new condition of Certification is introduced as a result.

EEx ib IIC T6 ( $T_a = -50^{\circ}\text{C}$  to  $+40^{\circ}\text{C}$ )  
EEx ib IIC T6 ( $T_a = -50^{\circ}\text{C}$  to  $+55^{\circ}\text{C}$ )  
EEx ib IIC T6 ( $T_a = -50^{\circ}\text{C}$  to  $+60^{\circ}\text{C}$ )  
EEx ib IIC T6 ( $T_a = -50^{\circ}\text{C}$  to  $+65^{\circ}\text{C}$ )  
EEx ib IIC T3 ( $T_a = -50^{\circ}\text{C}$  to  $+175^{\circ}\text{C}$ )



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**Variation 7** - This variation introduced the following change:

- i. The inclusion of reinforcement, as required, to the inside or outside of the enclosure to withstand possible submersion pressures was allowed.

**Variation 8** - This variation introduced the following changes:

- i. A suitably certified and dimensioned heater was approved to be fitted, this heater is defined as "Any suitably certified and dimensioned heater that is fitted with a thermostat set to a maximum of 25°C".

**Variation 9** - This variation introduced the following changes:

- i. The option to fit slotted trunking inside the Junction Boxes, 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.
- ii. 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.

**Variation 10** - This variation introduced the following changes:

- i. When fitted with silicone gaskets only, the Junction Boxes are permitted to be used up to an increased maximum ambient of 80°C with a Temperature Class of T3, This results in an ambient temperature range of -50°C to +80°C for T3 versions only (Note: with this option windows are not permitted). The details are to be added to the description and the Table showing Power Dissipation above is amended accordingly. A Condition of Certification was amended to reflect this change

**Variation 11** - This variation introduced the following changes:

- i. Following appropriate re-assessment to demonstrate compliance with the requirements of the EN 60079 series of standards, the documents previously listed in section 9, EN 50 014:1997, EN 50 019:1994, EN 50020:2002 and EN 50281-1-1:1998, were replaced by those currently listed. As part of this change, the markings in section 12 were updated accordingly and the 'ia' marking previously included as part of Variation 6 was removed.
- ii. The Description of Equipment and the markings in section 12 were amended to recognise that closed cell polychloroprene and neoprene bonded cork gaskets are no longer used; in addition, the Table and clause 17.4 were clarified.
- iii. It was recognised that a new procedure for selecting terminals has been adopted by the manufacturer; this allows the terminals to be chosen from an Approved Component Document, Sira 12AC087, that is issued and controlled by Sira. A Condition of Certification was removed and clause 17.5 was amended to recognise this change.
- iv. The Certificate History was reviewed and corrected.
- v. The recognition of drawing modifications required for use with other certification associated with these products.
- vi. The Condition of Certification dealing with power dissipation was modified.

## 14 DESCRIPTIVE DOCUMENTS

### 14.1 Drawings

Refer to Certificate Annexe.

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#### 14.2 Associated Sira Reports and Certificate History

Issue	Date	Report/File no.	Comment
0	24 February 2000	R51X6055C	The release of the prime certificate.
1	10 April 2001	R53A6747A	The introduction of Variation 1.
2	29 August 2001	R53A7998A	The introduction of Variation 2. (Re-issued 1 February 2005 to correct a typographical error.)
3	28 September 2001	NA	The introduction of Variation 3.
4	6 August 2004	NA	The introduction of Variation 4. (Re-issued 18 July 2006 to correct the number of the condition of certification.)
5	23 September 2004	V53V11576A	The introduction of Variation 5.
6	30 March 2005	R53V10438A	The introduction of Variation 6. (Re-issued 18 July 2006 to correct the number of the condition of certification.)
7	16 March 2006	R51V14842A	The introduction of Variation 7.
8	15 August 2006	R51A15308A	The introduction of Variation 8.
9	3 April 2012	R26585A/00	This Issue covers the following changes: <ul style="list-style-type: none"><li>All previously issued certification was rationalised into a single certificate, Issue 9, Issues 0 to 8 referenced above are only intended to reflect the history of the previous certification and have not been issued as documents in this format.</li><li>The introduction of Variation 9.</li></ul>
10	27 April 2012	R27815A/00	The introduction of Variation 10.
11	11 June 2012	R26585A/01	Report R26585A/01 replaced report R26585A/00.
12	24 October 2012	R25164A/00	The introduction of Variation 11.

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

None

#### 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 the reports listed in Section 14.2.

#### 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 When the junction boxes are equipped with terminals by the manufacturer, a routine electric strength test will be carried out only if the components are wired. This test will be carried out according to the following standards:

- industrial control equipment: EN 60947
- measurement, control and laboratory use: EN 61010

17.4 The marking of the ambient temperature range and the power rating on the certification label will be allocated in accordance with the table of values detailed in the Description of Equipment.

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- 17.5 The terminals used in these Junction Boxes will be ATEX approved devices chosen from the Approved Component Document number Sira 12AC087 that is issued by Sira. All terminals will be installed in accordance with their certificate conditions and the relevant codes of practice/wiring regulations paying particular attention to the following:
- The maximum service temperature range.
  - The minimum creepage and clearance distances shall be maintained.
  - The rated voltages and currents may vary if cross-connection facilities are used.
  - The reduction in rating of adjacent terminals shall be observed, where applicable.
- The limiting temperature of the terminal insulation will be at least:
- 100°C for Junction Boxes used in accordance with Note **j** in the table
  - 110°C for Junction Boxes used in accordance with Note **k** in the table
  - 200°C for Junction Boxes used in accordance with Note **l** in the table (175°C high temperature versions)
- 17.6 Suitably certified Ex e equipment such as breathing devices and blanks may be fitted to the enclosure providing the enclosure maintains compliance with BS EN 60529 code IP64 or better.
- 17.7 The glass window will not be fitted in the junction boxes that have a maximum service temperature in excess of 80°C.
- 17.8 The products covered by this certificate incorporate previously certified devices, it is therefore the responsibility of the manufacturer to continually monitor the status of the certification associated with these devices, and the manufacturer will inform Sira of any modifications of the devices that may impinge upon the explosion safety design of their products.
- 17.9 When the Junction Boxes are fitted with Phoenix Type SSK 0525 Ker-Ex Terminals, then a dielectric strength test at 1836 V will be applied between each adjacent terminal and between each terminal and earth in accordance with EN 60079-7 Clause 7.1.
- 17.10 When plugs and sockets are fitted that are certified as Ex de, then the marking of the junction boxes will include the symbol d and the gas group IIA, IIB or IIC as defined by the plug and socket.
- 17.11 This certificate does not cover plugs and sockets that may be fitted to the enclosure. All plugs and sockets fitted will be appropriately designed and certified to the ATEX Directive 94/9/EC for this type of apparatus. In addition, they will:
- be suitable for the intended temperature range of the junction box .
  - have a minimum Ingress Protection of IP54 or IP64 if the boxes are marked with the symbol D indicating that they are suitable for use in the presence of combustible dust
  - have a declared power dissipation rating or contact resistance
  - be installed in accordance with their certificate conditions and the relevant codes of practice/wiring regulations
- When plugs and sockets are fitted the creepage and clearance distances will maintain compliance with EN 60079-7 Table 1 requirements.
- 17.12 When the Junction Boxes are used for intrinsically safe applications, a 3 mm separation distance between the enclosure is required, there will also be a minimum of 6 mm between different intrinsically safe circuits.
- 17.13 When trunking is fitted, it may be sited as required and the minimum creepage and clearance distances will still be met.

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- 17.14 The manufacturer will take all reasonable steps to ensure that the power dissipated by the Junction Box does not exceed the maximum value stipulated in the table detailed in the Description of Equipment, in addition, the manufacturer will supply all the relevant information that will enable the user/installer to calculate the dissipated power in Watts for each Junction Box in accordance with EN 60079-7 Annex E, E2.

# Certificate Annexe

Certificate Number: Sira 99ATEX3171  
Equipment: SX Range of Junction Boxes  
Applicant: ABTECH Limited



## Issue 0

Drawing	Sheet	Rev.	Date	Title
ABT 10258	1 of 1	A	21 Dec 99	External label (SX) Maximum Box Size S8
ABT 10302	1 of 1	A	16 Nov 99	SX Manufacturing specification

Issue 1 No new drawings were introduced.

## Issue 2

Drawing	Sheet	Rev.	Date	Description
ABT 11319	1 of 1	A	04 Jul 01	External Label (SX) High Temperature Boxes
ABT 10302	1 of 1	B	05 Aug 01	SX Manufacturing Specification

## Issue 3

Drawing	Sheet	Rev.	Date	Description
ABT 10258	1 of 1	B	20 July 01	External Label (SX) Maximum Box Size S8

## Issue 4

Drawing	Sheet	Rev.	Date	Description
ABT 12713	1 of 1	A	28 Feb 03	SX6 with T6 Anti-Condensation Heater

## Issue 5

Drawing	Sheet	Rev	Date	Description
ABT 10302	1 of 1	C	04 Jul 02	SX Manufacturing Specification

## Issue 6

Drawing	Sheet	Rev.	Date	Description
ABT 14841	1 of 1	-	01 Feb 05	SX Range EEx ia Label
ABT 14844	1 of 1	-	01 Feb 05	SX Range EEx ib Label

## Issue 7

Drawing	Sheet	Rev.	Date (Sira stamp)	Description
ABT 10302	1 of 1	D	16 Mar 06	SX Manufacturing Specification
ABT 10371	1 of 1	B	16 Mar 06	SX Range of Enclosures

## Issue 8

Drawing	Sheet	Rev.	Date (Sira Stamp)	Description
ABT10302	1 of 1	D	11 July 06	Manufacturing Specifications

## Issue 9

Drawing	Sheets	Rev.	Date (Sira Stamp)	Title
ABT 10258	1 of 1	C	29 Mar 12	SX External label – Junction Boxes
ABT 10302	1 of 1	E	02 Apr 12	SX Manufacturing specification
ABT 14841	1 of 1	B	29 Mar 12	SX Range EEx ia Label
ABT 14844	1 of 1	B	30 Mar 12	SX Range EEx ib Label

## Issue 10

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
ABT 10258	1 of 1	D	27 Apr 12	SX External Label – Junction Boxes

Issue 11 (No new drawings were introduced.)

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## Certificate Annexe

Certificate Number: Sira 99ATEX3171  
Equipment: SX Range of Junction Boxes  
Applicant: ABTECH Limited

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### Issue 12

Drawing	Sheets	Rev.	Date (Sira stamp)	Title
ABT 10258	1 of 1	E	30 Sept 12	SX Nameplate – Junction Box External label (SX) Maximum Box Size S8
ABT 10302	1 of 1	F	27 Sept 12	SX Manufacturing Specifications
ABT 12713	1 of 1	C	30 Sept 12	SX6 with T6 Anti-Condensation Heater
ABT 10371	1 of 1	D	27Sept 12	SX Range of Enclosures
ABT 14398	1 of 1	B	27 Sept 12	SX Range large window

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## INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS FOR ABTECH 'SX' RANGE TERMINAL BOXES – SIRA99ATEX3171



### 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 \_\_\_\_\_ WATTS.

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

The T rating is variable depending on ambient temperature range and power dissipation.

Enclosures with windows are limited to a maximum operating temperature of +80°C and a minimum ambient temperature of -40°C.

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.

Alternative markings for temperature ratings as follows.

T6 with Ta range of  $-50^{\circ}\text{C} \leq \text{Ta} \leq +40^{\circ}\text{C}$  and T85°C for dust  
Warning – Cable temperature can reach 85°C

T6 with Ta range of  $-50^{\circ}\text{C} \leq \text{Ta} \leq +55^{\circ}\text{C}$  and T85°C for dust  
Warning – Cable temperature can reach 100°C

T6 with Ta range of  $-50^{\circ}\text{C} \leq \text{Ta} \leq +60^{\circ}\text{C}$  and T85°C for dust  
Warning – Cable temperature can reach 135°C

T6 with Ta range of  $-50^{\circ}\text{C} \leq \text{Ta} \leq +65^{\circ}\text{C}$  and T85°C for dust  
Warning – Cable temperature can reach 135°C

T3 with Ta range of  $-50^{\circ}\text{C} \leq \text{Ta} \leq +80^{\circ}\text{C}$  and T200°C for dust  
Warning – Cable temperature can reach 200°C

T3 with Ta range of  $-50^{\circ}\text{C} \leq \text{Ta} \leq +175^{\circ}\text{C}$  and T200°C for dust  
Warning – Cable temperature can reach 200°C

### NOTE

All cable, cable entry devices and terminals used must be suitable for the minimum ambient temperature expected and the maximum operational temperature expected. Where high ambient temperature is expected the cable insulation must be suitable for a minimum of +190°C.

Windows and plugs and sockets are not permitted in boxes so marked.

**Note:** The symbol  is not always present. When it is present the installer must take particular note of these instructions.

### Installation

- 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 either M8 or M9 fixing studs (for size S64 upwards) or for M6 fixing studs for size S45.
- 3) Insert the top two studs leaving 8 to 10mm protruding and lift the enclosure into position using such assistance as may be necessary to avoid injury and hang the top fixing brackets of the box onto the studs. Ensuring that the box is secure, insert and tighten the bottom two studs. Now complete tightening the top two studs.
- 4) Install and secure the cable glands in accordance with the manufacturers instructions.

- 5) Pull the cables into the box leaving trailing leads of a length specified by site practice or the site engineer and secure any cable armour in accordance with site practice.
- 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 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) When laying cables into trunking; No more than 50% of the trunking internal area shall be occupied by conductors, when instrumentation currents of 1A or less are carried. All cabling used must be capable of carrying a minimum of 3A.
- 8) For cables carrying more than 1A - No more than 25% of the trunking internal area shall be occupied by conductors, these shall be de-rated to a maximum of 4A /sq mm. All cabling used must be capable of carrying a minimum of 10% higher current than the rating required
- 9) Terminate the cables in the terminals provided in accordance with the requirements of BS EN 60079-14. Consideration must be given to any use limitations or special conditions detailed on the certificates for the terminals fitted.
- 10) Secure the lid by closing the lid and tightening the lid fixing screws and ensure that all gland plate securing screws are tightened.
- 11) For additional security a padlock may be fitted to all box sizes larger than and including size S0.

NOTE: If the terminals provided with the enclosure are changed either in type or in quantity the terminal box certification may become invalid. Advice from ABTECH is recommended before any changes are made.

#### Earthing/Grounding

- 12) All S range enclosures are provided with an internal and external earthing/grounding facility. This must be connected to the appropriate earth bonding circuit before electrical power is connected to the contents of the enclosure.
- 13) An earth connection between the lid and the box is provided. Care must be taken to ensure this is not damaged during installation or maintenance.

#### Operation

- 14) The lid must be secured using all the lid screws provided in order to maintain the IP rating.
- 15) No attempt must be made to remove the enclosure lid whilst electrical power is connected to the contents of the enclosure.
- 16) The earthing/grounding facility must be connected to the earth bonding circuit at all times when electrical power is connected to the enclosure.

#### Maintenance

- 17) 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.
- 18) Additional checks that are advisable to ensure the efficiency of ABTECH 'S' range enclosures are:-

<b>Activity</b>		<b>Frequency</b>
1	Check that the lid seal is not damaged and is in place	Each time the enclosure is opened
2	Check that all lid fixing screws are in place and secured	Each time the enclosure is opened
3	Check that all gland plate fixing screws are in place and secured	Each time the enclosure is opened
4	Check that the lid earth strap is not frayed or damaged and is secure at both ends	Each time the enclosure is opened
5	Check lid earth strap continuity (hot work permit may be required)	Every 3 years
6	Check that the mounting bolts are tight and free of corrosion	Every 3 years
7	Check the security of all cable glands	Every 3 years
8	Check the enclosure for damage	Every 3 years
9	Check that all screw clamp terminals are secure	As manufacturers recommendation

### Chemical attack

The ABTECH S range enclosures are available in mild steel or 316 stainless steel. The following additional material are also used :-

Neoprene or silicone rubber,  
Brass.

If the enclosure is of mild steel it may be zinc plated prior to painting. The standard paint finish is epoxy polyester grey hammer.

Stainless steel enclosures are not painted except to customer specifications.

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

S range enclosures do not present a hazard from static electricity.

### Vibration

SX 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.

### Protection From Foreseeable Faults

Circuits connected in the enclosure must be externally protected using suitable circuit interruption devices to prevent overloading. Provided the enclosure is correctly installed, there should be no foreseeable faults.