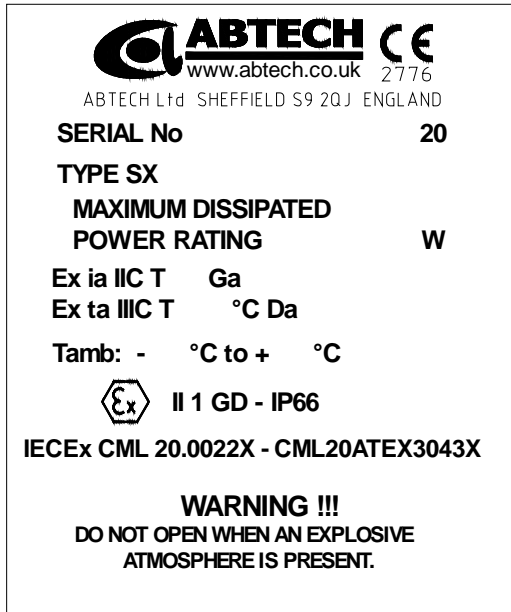


INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS FOR ABTECH 'SX' RANGE TERMINAL BOXES FITTED WITH 3300XL SERIES PROXIMITORS[®] IECEX CML20.0022X & CML 20ATEX3043X



Marking

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 content dependent, marked on the label and identified by Tamb _____. See table below

The T rating included in the marking is content dependent. See table below.

A minimum clearance of 50mm must be maintained between any charge amplifier bank and either any box wall (except the rear face behind the charge amplifier mounting rail/facility) or any part of a terminal bank separately installed in the same enclosure. Adjacent Proximitors, when rail mounted, must be separated using a rail mounted end stop of minimum thickness 7mm.

Permitted Devices	Permitted Tamb range	Gas/vapour Marking	Dust Marking
Bently Nevada 3300XL Proximitors	-55°C to +100°C	Ex ia IIC T4 Ga	Ex ta IIIC T135°C Da
Bently Nevada 3300XL PROXPAC Proximitors	-55°C to +100°C	Ex ia IIC T4 Ga	Ex ta IIIC T135°C Da
Bently Nevada 3300XL Proximitors	-55°C to +85°C	Ex ia IIC T5 Ga	Ex ta IIIC T100°C Da
Bently Nevada 3300XL PROXPAC Proximitors	-55°C to +85°C	Ex ia IIC T5 Ga	Ex ta IIIC T100°C Da
Rosemount 644 Temperature Transmitter	-55°C to +80°C	Ex ia IIC T4 Ga	Ex ta IIIC T135°C Da
Bently Nevada 86517 Accelerometer Interface Module	-55°C to +65°C	Ex ia IIC T4 Ga	Ex ta IIIC T135°C Da
Bently Nevada 3500 Charge Amplifier	-55°C to +70°C	Ex ia IIC T5 Ga	Ex ta IIIC T100°C Da

NOTES

- All cable, cable entry devices and terminals used must be suitable for the minimum ambient temperature expected and the maximum operational temperature expected.
- The certificate for this equipment includes the suffix 'X'. All personnel involved with installation and, or, inspection must take note of the Special Condition shown on the certificate.
- Each device fitted shall be considered as a separate intrinsically safe circuit. The installer shall refer to the device certificate for the entity parameters.
- Installation or repair of this equipment must be carried out in accordance with the applicable code of practice by suitably trained personnel.
- The installer must refer to the Installation Manual provided for the device fitted by its respective manufacturer.
- The user must refer to the Operation Manual provided for that device by its respective manufacturer.
- Where fitted, the charge amplifiers (Proximitors[®]) must be supplied from a voltage limited source conforming to the parameters details in the Annex of certificate IECEx BAS 05.0002.
- Controlled copies of these documents are only available from the device manufacturer.

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 manufacturer's 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 is to be used (solid trunking is not permitted) it must be metallic. 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) 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 certificate for the Proximitors, IECEx BAS 04.0055X, and on the certificate applicable to any additional 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 SX 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

- 1) The lid must be secured using all the lid screws provided in order to maintain the IP rating.
- 2) The earthing/grounding facility must be connected to the earth bonding circuit whenever electrical power is connected to the enclosure.
- 3) No explosion safety operational checks are necessary on the Proximitors.

Maintenance

- 1) 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.
- 2) Additional checks that are advisable to ensure the efficiency of ABTECH 'S' range enclosures are:-

Activity	Frequency
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

- 3) No explosion safety maintenance checks required for the Proximitors. If one should fail it must be replaced with an identical device complying with the certificate IECEx BAS 04.0055X.

Chemical attack

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

Silicone rubber,
Brass.

Stainless steel enclosures are not painted except to customer specifications. The maximum permitted paint finish thickness is 200 microns. (IEC 60079-0 section 7.4.2).

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

SX 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.