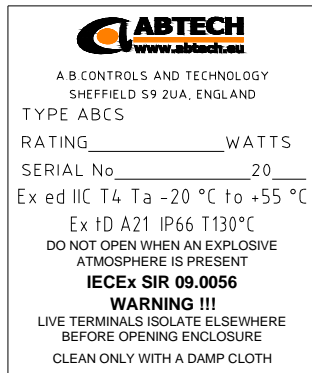


# INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS FOR ABTECH 'ABCS' Range Control Stations – IECEx SIR 09.0056X



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

## 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 mounting holes for M6 fixing studs.
- 3) Tap thread into those mounting holes at user's discretion.
- 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 box into place, using such assistance as may be necessary to avoid personal 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 threaded 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) Install and secure the cable entry devices, cable glands and blanking plugs in accordance with the respective manufacturer's instructions.
- 7) 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.
- 8) Terminate the cables in the terminals provided on the control units and apply a minimum torque of 0.4 Nm, maximum torque 0.7 Nm.
- 9) When intermediate terminal are fitted terminate the cables in accordance with the requirements of IEC 60079-14:2007. Consideration must be given to any use limitations or special conditions detailed on the certificates for those terminals.
- 10) 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 ABCS range control stations are:-

<b>Activity</b>		<b>Frequency</b>
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	Every 3 years
4	Check the security of all cable glands and entry devices	Every 3 years
5	Check the security of all control unit and lens bezels	Every 3 years
6	Check that all screw clamp terminals are secure	As manufacturers recommendations
7	Check enclosure for damage	Every 3 years

### **Chemical attack**

The ABTECH BPG range of enclosures are manufactured using the following materials:-glass reinforced polyester resin, (with or without carbon loading),  
 Thermoplast  
 EPDM rubber  
 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. ABCSC), 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.