INSTALLATION, OPERATION & MAINTENANCE INSTRUCTIONS FOR ABTECH 'SXCS' Range Control Stations CML16ATEX3150 / IECEx CML 16.0067



<u>Marking</u>

The marking shown is for an apparatus certified control station fitted with control units, indicators and/or ammeters.

The Ex db eb marking may be replaced by Ex db eb mb if fitted with a device combination which includes voltmeters, Ex eb if fitted with ammeters only or Ex eb mb if fitted with voltmeters only.

The maximum power dissipation permitted in this control station 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 (°C).

The 'T' rating can be T6, T5 or T4. This rating must be equal or better than the 'T' rating assigned to the hazardous area in which it is installed.

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 M10 fixing studs.
- 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.

NOTE: - All cable glands must be Ex e or Ex d certified and rated IP66 as a minimum to provide adequate resistance against cable pulling and adequate protection against the ingress of dust.

- 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. Ensure that all cable glands are tightened in accordance with the manufacturer's instructions.
- 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. 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 which form part of the control units or into the additional terminals if installed. 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 SXCS0.

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 SXCS range control stations 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, gland plates (where fitted) 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

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 checks that are advisable to ensure the efficiency of ABTECH SXCS range control stations 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	Each time the enclosure is opened
	secure at both ends	
5	Check lid earth strap continuity	Every 3 years
6	Check that the mounting bolts are tight and free of corrosion	Every 3 years
7	Check the security of all control unit and lens bezels	Every 3 years
8	Check the security of all cable glands	Every 3 years
9	Check the enclosure for damage	Every 3 years
10	Check that all screw clamp terminals are secure	As manufacturers recommendation

Chemical attack

The ABTECH SXCS range control stations are available in mild steel or 316 stainless steel. The following additional materials are also used: -

Neoprene or silicone rubber, Copper, 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

SXCS range control stations do not present a hazard from static electricity.

Vibration

SXCS range control stations 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.