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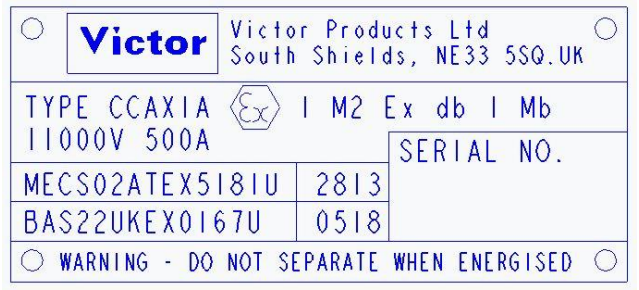
Making Hazardous Environments Work

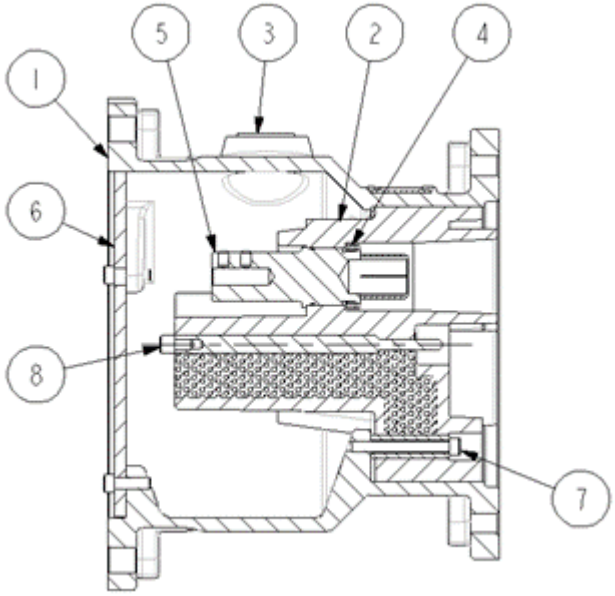
11kV STRAIGHT ADAPTOR – TYPE CCAX1A

ATEX Certificate Number MECS02ATEX5181U I M2 Ex db I Mb
UKEX Certificate Number BAS22UKEX0167U I M2 Ex db I Mb

The certificates carry the group and category marking I M2
Where: I signifies suitability for use in mining, and M2 signifies suitability for use in mines where it must be de-energised in the presence of an explosive atmosphere.

For India only – The adaptor has been designed in accordance with IS/IEC 60079-0:2004 and IS/IEC 60079-1:2007. Test report number ERTL (E)/TES/V051/0079/11-11.





MAIN COMPONENTS

1. Main Body (with filling ports)
2. Typical Main Insulator
3. Certified Stopper Plug
4. Contact Tube Locking Rings
5. Contact Tube
6. Spreader Plate (optional)
7. Insulator Retaining Screws
8. Screw for pilot

INTRODUCTION

The type CCAX1A compound filled adaptor has been designed to accommodate 3 flexible or stranded coil end mains leads and optional pilot/auxiliary leads. Termination of the cable can be made directly into the contact tubes which are either grubscrewed or crimped and capable of accepting conductors up to 185mm2.

The type CCAX1A adaptor can be connected to any half coupler that has an interface flange with identical fastening criteria, however if this adaptor is used with a half coupler of a lower rating in the same system the lowest current rating must be adhered to.

GENERAL

Note - It is the end users responsibility to follow the installation roles protecting other equipment energized via the connectors against the hazards arising from power failures.

Installation, maintenance, and inspection, must be carried out by suitably qualified personnel in accordance with established codes of practice.

This fully assembled unit should have been supplied with both of the FLP flange faces protected. Care should be taken at all times to ensure that these faces, are not damaged during the cable make off or assembly. To enable cable make off this unit may have to be partially dismantled.

PREPARING THE ADAPTOR

1a) Before commencing work ensure that the immediate area is free from any objects that may cause damage to any FLP faces.
1b) Using suitable spanners, remove the cable ties, hexagon head screws, nuts and, if fitted, the cardboard protection plates from both flanges.
1c) Using a tubular key remove the 3 contact tube locking rings(4) that hold the contact tubes(5) into the insulator.
1d) The insulator(2) can be removed by unscrewing the three insulator retaining screws(7) using a socket wrench and carefully withdrawing the insulator from the adaptor body(1). If the insulator is fitted with auxiliary tubes, these may be left in the insulator for cable termination at the final assembly stage.

CABLE PREPARATION AND FITTING TO CONTACT TUBES

2a) IMPORTANT:- If using the spreader plate all cables should be inserted into their relevant holes prior to termination into their respective contact tubes. The main purpose of the spreader plate is to prevent the resin from flowing from the rear flange when filling is done through the filling ports.
2b) Remove 30mm of insulation from the 3 coil end leads
2c) The coil end leads can now be attached to the contact tubes either by crimping or clamping by use of the 4 grubscrews. The crimp should be made between the 2 radial bands – see table 1. Contact tubes with grubscrews should be positioned with the grubscrews facing outwards to allow final tightening up in insulator.
2d) If the central pilot system is to be used, remove 12mm of insulation from the pilot core cable. If the unit is supplied with the auxiliary tubes fitted, remove 10mm of insulation from the appropriate cable cores and crimp into the supplied bullet connectors.

TABLE 1

Conductor Size	Stranded Copper	
	Indentor Die	Nest Die
16mm^2	Up 35-70 CP1-U10AD-1	UN70C
25mm^2	"	"
35mm^2	"	"
50mm^{2+}	Up 75-300 CP1-U10AD-	UN150C
70mm^2	"	"
95mm^2	"	"
120mm^2	"	"
150mm^2	"	"
185mm^2	"	UN185C

ASSEMBLY

3a) From the rear of the adaptor, insert all cables through the main body.
3b) If the centre pilot is to be used this should be first terminated to the central screw.
3c) Insert the 3 mains contact tubes into the rear ensuring that a flat on a tube lines up with a flat in the insulator bore and retain contact tubes with the locking rings.
3d) If fitted, push the auxiliary cable terminations into their respective tubes.
3e) The insulator assembly can now be located into the adaptor body and fastened into position using the retaining screws.
3f) If using the retaining plate, slide along the cables into the rear of the adaptor body and fasten into position.
3g) IMPORTANT:- Before filling ensure that the insulator is flush or below the FLP face of the Adaptor body using a straight edge – if not, retighten the retaining screws.

3h) Perform pre-insulation test on adaptor and mating unit to ensure correct orientation of connections.

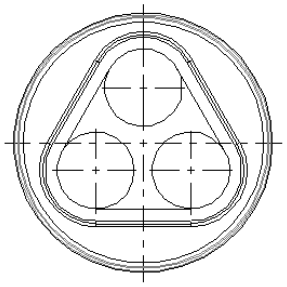
FILLING PROCEDURE – BODY WITH FILLING PORTS

4a) IMPORTANT:- This unit must not be used without the fitment of certified stopper plugs.
4b) Check adaptor to ensure correct make off then position adaptor level with filling ports at the top.
4c) Using the **MECS approved Victor Products Limited polyurethane resin C18-1** thoroughly mixing the resin to the mixing instructions and fill to the bottom of the FLP filler port screw thread. If topping up is required, this should be done within 10 minutes of the main fill and fit approved stopper plugs(3).
4d) Allow 2 hours before moving or commencing high voltage testing.

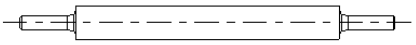
FILLING PROCEDURE – BODY WITHOUT FILLING PORTS

5a) Turn adaptor onto front face.
5b) Using the **MECS approved Victor Products Limited polyurethane resin C18-1** thoroughly mixing the resin to the mixing instructions and fill to within 3mm uppermost flange. It is important that the resin does not protrude beyond the flange. If topping up is required, this should be done within 10 minutes of the main fill.
5c) Allow 2 hours before moving or commencing high voltage testing.

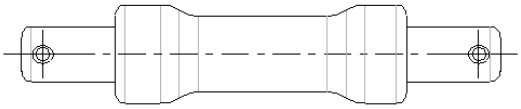
NOTE: ONLY VICTOR PRODUCTS LIMITED RESIN C18-1 SHOULD BE USED WHEN FILLING THE VICTOR PRODUCTS RANGE OF HALF COUPLERS AND ADAPTORS.



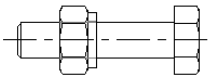
TYPICAL SEALING RING



AUXILLIARY/PILOT PIN
NOTE: PILOT IS INSULATED



PHASE CONTACT PIN



INTER-CONNECTING NUT ASSEMBLY

MAINTENANCE AND INSPECTION

6a) When assembled to an associated half coupler or adaptor with an interface flange with identical fastening criteria the electrical contact is made between each component by the insertion of three 3 contact pins or if fitted the pilot/auxiliary contact pins into their respective contact tubes.
6b) When assembled to a blanking cover, adaptor, or half coupler a rubber sealing ring must be used between the two interface flanges with the flanges secured by using the inter-connecting kit.
6c) After assembly the gap between the two mating faces should be checked using feeler gauges and should not exceed 0.4mm

HEALTH AND SAFETY AT WORK etc. ACT 1974

In the United Kingdom all equipment must be installed, operated and disposed of (as required) within the legislative requirements of the Health and Safety at Work etc. Act 1974. Leaflet No. HSS L1 refers to the Company's obligation and is available on request.
It is the responsibility of the user to select, install, operate and maintain the equipment in accordance with the relevant legislation and appropriate code of practice.

EU Only

Prices and design are subject to alteration without notice. All products are sold subject to our conditions of sale, copies of which are available on request.

We reserve the right to change characteristics of our products. All data is for guidance only

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UK Attestation of Conformity

Victor Products Ltd
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United Kingdom

11kV HALF STRAIGHT ADAPTOR – TYPE CCAX1A

Certification number BAS22UKEX0167U I M2 Ex db I Mb

Victor Products Ltd
Hereby declare our sole responsibility that the product which is the subject of this attestation is in conformity with the following standards or normative documents.

Number and date of standard	UK Legislation
BS EN IEC 60079-0:2018 BS EN 60079-1:2014	Equipment and Protective Systems Intended for use in Potentially Explosive Atmospheres Regulations 2016
EN50082 (1992) EN55015 (1993) EN 60555-2 (1987)	2014/30/EU: Electromagnetic Compatability
UK Approval Body: CSA Group Testing UK Ltd Deeside CH5 3US Notified Body No. 0518	P. Devlin Operations Manager January 2024

SERIAL NUMBER

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Konformitätsbescheinigung

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Erklären in alleiniger Verantwortung, daβ das Product auf das sich diese Bescheinigung bezieht, mit der/den folgenden Norm(en) oder normativen Dokumenten Ubereinstimmt.

Déclarons de notre seule responsabilité, que le produit auquel cette attestation se rapporte, est conforme aux norme(s) ou aux documents normatifs suivants.

Number and date of standard Nr. Sowie Ausgabedatum der Norm No. Ainsi que date d'emission des normes.	**Directive description** Bestimmungen der Richtlinie Prescription de la directive
BS EN IEC 60079-0:2018 BS EN IEC 60079-1:2014	**Equipment and protective systems intended for use in potentially explosive atmospheres.** This Attestation is valid for directive 2014/34/EU. Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen. Diese Bescheinigung gilt für die Richtlinie 2014/34 /EU. Appareils et systèmes de protection destinés a êtré utilisés en atmosphères explosibles. Cette Attestation est valable pour la directive 2014/34 /UE.
EN50082 (1992) EN55015 (1993) EN 60555-2 (1987)	**89/336 EEC: Electromagnetic Compatability** 89/336 EWG: Elektromagnetische Verträglichkeit 89/336 CEE: Compatabilité électromagnétique
Notified Body: CSA Group Netherlands B.V. Notified Body No. 2813	P. Devlin Operations Manager January 2024

SERIAL NUMBER