















SECTION A-A

MARKING DETAILS

**DIODE BLANKING COVER**

M.I.P.  
F-89237D  
IP66  
Ex db I Mb  
IECEx ExTC 22.0004X  
S.O. xxxxx-xx  
WARNING  
DO NOT SEPARATE WHEN ENERGIZED

NOTES:

1. MINIMUM WALL THICKNESS 3.0mm UNLESS OTHERWISE SPECIFIED ON THE DRAWING.
2. IN THE CASE OF BLIND HOLES FOR SCREWS, THE REMAINING THICKNESS OF MATERIAL UNDER THE HOLE IS A MINIMUM OF ONE THIRD OF THE SCREW DIAMETER OR 3MM, WHICHEVER IS GREATER.
3. FLANGE THICKNESS AT BOLT HOLE IS 12.0/15.0mm.
4. THE SPECIFICATIONS, DIMENSIONS AND RATINGS COMPLY WITH AS/NZS 1300 ELECTRICAL EQUIPMENT FOR MINES AND QUARRIES.
5. SPECIAL FASTENERS COMPLY WITH ISO 262 WITH A TOLERANCE FIT 6g/6H AND THREAD ENGAGEMENT IS  $\geq$  THE MAJOR DIAMETER AND THE CLEARANCE HOLE IS NOT  $>$  H13 (ISO 286-2).
6. ALL MACHINED FLAMEPATH SURFACES AVERAGE  $R_a$  DOES NOT EXCEED  $6.3\mu\text{m}$  (ISO 468).
7. MATERIAL HIGH TENSILE BRASS C86500 TO AS 1565-1996 WITH A MINIMUM TENSILE STRENGTH 450 MPa AND MINIMUM 10% ELONGATION.
8. MINIMUM PROPERTY CLASS FOR STAINLESS STEEL FASTNERS IS A\*-70.
9. MINIMUM PROPERTY CLASS FOR MILD STEEL FASTNERS IS 4.6.



|      |     |             |                            |  |
|------|-----|-------------|----------------------------|--|
| 7    | 1   | 3592        | PILOT CONTACT PIN          | COPPER-SILVER PL. C14700 TO AS/NZS 1565-1997 |
| 6    | 1   | AX022400    | DIODE                      | COPPER                                       |
| 5    | 1   | 3591        | INSULATOR                  | PTFE   |
| 4    | 1   | 89237       | BLANKING COVER             | HIGH TENSILE BRASS - NOTE 7                  |
| 3    | 1   | 4309        | DIODE INSULATOR            | PTFE   |
| 2    | 2   | AH009788    | 3/16" X No.4 U-DRIVE SCREW | STEEL-ZINC PL.                               |
| 1    | 1   | AX004076    | RATING PLATE               | C26000 CARTRIDGE BRASS 70-30                 |
| ITEM | QTY | PART NUMBER | DESCRIPTION                | MATERIAL                                     |

PART LIST

|  |  |   |  |  |                      |
|--|--|---|--|--|----------------------|
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|  |  | GENERAL TOLERANCE $\pm 0.25$<br>ANGULAR TOLERANCE $\pm 0.5$                   |  | DESCRIPTION<br>300/425A BLANKING COVER WITH DIODE<br>BODY SIZE B |                      |
| DO NOT SCALE DRAWING<br>DIMENSIONS IN MILLIMETERS  |  | MATERIAL<br>REFER NOTES   |  | DRWN<br>JM Zhang   | DATE<br>25/02/2022   |
|  |  | FINISH<br>REFER NOTES   |  | CHECKED<br>MB  | SCALE<br>1 : 1.5     |
|  |  |   |  | A3   | DRAWING No.<br>F-866 |

|     |      |                 |            |          |    |
|-----|------|-----------------|------------|----------|----|
| A   |      | DRAWING CREATED | 06/04/2022 | APPROVED | MA |
| REV | ZONE | DESCRIPTION     | DATE       |          |    |

## **Instructions for Body Size B Bolted Range**

### **Inst. Body Size B - 1**

| Catalogue Number | Description  |
|------------------|--|
| AB364T           | 300 AMP 660 VOLT 4 PIN BOLTED ADAPTER                  |
| AB464T           | 425 AMP 660 VOLT 4 PIN BOLTED ADAPTER                  |
| AB314T           | 300 AMP 1100 VOLT 4 PIN BOLTED ADAPTER                 |
| AB414T           | 425 AMP 1100 VOLT 4 PIN BOLTED ADAPTER                 |
| AA364T           | 300 AMP 660 VOLT 4 PIN BOLTED COUPLER                  |
| AA464T           | 425 AMP 660 VOLT 4 PIN BOLTED COUPLER                  |
| AA314T           | 300 AMP 1100 VOLT 4 PIN BOLTED COUPLER                 |
| AA414T           | 425 AMP 1100 VOLT 4 PIN BOLTED COUPLER                 |
| AA364T2          | 300 AMP 660 VOLT 4 PIN BOLTED COUPLER WITH INT. GLAND  |
| AA464T2          | 425 AMP 660 VOLT 4 PIN BOLTED COUPLER WITH INT. GLAND  |
| AA314T2          | 300 AMP 1100 VOLT 4 PIN BOLTED COUPLER WITH INT. GLAND |
| AA414T2          | 425 AMP 1100 VOLT 4 PIN BOLTED COUPLER WITH INT. GLAND |
| F-89237          | END COVER  |
| F-89237D         | END COVER WITH DIODE                                   |

#### • **Adapter Installation**

- Confirm thimbles are suitable the conductors
- Ensure there is no visible sign of damage to the adapter
- Ensure the mounting pad complies with the attached sketch
- The special fasteners used on the enclosures to mount the Adaptor to the flameproof enclosure shall be of minimum grade 4.6 (yield stress 240 MPa). Or A\*-70 Stainless Steel (yield stress 450 MPa) or 4.6 Mild Steel (yield stress 240 MPa).
- Prepare the cables to the dimensions given in the Inst. Body Size B-2.
- Crimp or solder the thimbles to the phase and pilot cables

#### • **Coupler Installation**

- Confirm components suitable for application e.g. thimbles and grommets suitable for the conductors and cable
- Slide the gland cap, neoprene cone and plug body along the cable
- Prepare the cables to the dimensions given in the Inst. Body Size B-2.
- Crimp or solder the thimbles to the phase, pilot and earth cores
- Fit the conductors to the appropriate location securing in place with screw through socket where appropriate
- Assemble the coupler, ensuring the interior rotation conforms to AS/NZS1300
- Fit blanking cover (F-89237) if required. Care should be taken not to damage the earth sleeve flamepath
- Slide the neoprene cone into position and bolt the gland cap to the body
  - Refer to Inst. Body Size B-2 for further details on installation and testing of cable fitment
- NOTE: For more information refer to TCG-1 No.2 to No.5 Glands Termination and Maintenance instruction.

#### • **Connection of Protective Earthing Conductors**

- This range of bolted couplers and adaptors has facility for earthing conductors up to 150 mm<sup>2</sup>.
- It is the responsibility of the installer to determine and fit the correct sized earth conductors.

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## • Use

- Isolate power before connecting or disconnecting.

## • Assembly

- Ensure sockets are clean and serviceable.
- Ensure correct pin alignment.
- Insert correct phase and pilot connecting pins
- Bolt together using M12 x 50 special fasteners.

## • Disassembly

- Remove M12 x 50 bolts to separate.
- Remove phase and pilot connecting pins
- Fit blanking cover to flange.

## • Certification Details:

Certified to: IEC 60079-0; IEC 60079-1; AS/NZS 1300:  
Certificate of Conformity: IECEx ExTC 22.0004X  
Type of Protection: Ex db I Mb  
Type (AS/NZS 1300) Type A  
Ingress Protection: IP 66

## • Certification Nameplate Details

| TYPICAL 300/425A BOLTED COUPLER<br>RATING PLATE DETAILS   | TYPICAL 300/425A BOLTED COUPLER (INT<br>GLAND) RATING PLATE DETAILS  | TYPICAL 300/425A BOLTED ADAPTOR<br>RATING PLATE DETAILS   |
|---|--|---|
| M.I.P.<br>AA@#4T<br>@ AMPS 3=300 # VOLTS 6=660<br>4=425 1=1100<br>IP66<br>Ex db I Mb<br>IECEx ExTC 22.0004X<br>TYPE A<br>S.O. xxxxx-xx<br>WARNING<br>DO NOT SEPARATE WHEN ENERGIZED | M.I.P.<br>AA@#4T2<br>@ AMPS 3=300 # VOLTS 6=660<br>4=425 1=1100<br>IP66<br>Ex db I Mb<br>IECEx ExTC 22.0004X<br>TYPE A<br>S.O. xxxxx-xx<br>WARNING<br>DO NOT SEPARATE WHEN ENERGIZED | M.I.P.<br>AB@#4T<br>@ AMPS 3=300 # VOLTS 6=660<br>4=425 1=1100<br>IP66<br>Ex db I Mb<br>IECEx ExTC 22.0004X<br>TYPE A<br>S.O. xxxxx-xx<br>WARNING<br>DO NOT SEPARATE WHEN ENERGIZED |
| TYPICAL 300/425A END COVER<br>RATING PLATE DETAILS  | TYPICAL 300/425A END DIODE COVER<br>RATING PLATE DETAILS   |   |
| M.I.P.<br>F-89237<br>IP66<br>Ex db I Mb<br>IECEx ExTC 22.0004X<br>TYPE A<br>S.O. xxxxx-xx<br>WARNING<br>DO NOT SEPARATE WHEN ENERGIZED  | M.I.P.<br>F-89237D<br>IP66<br>Ex db I Mb<br>IECEx ExTC 22.0004X<br>TYPE A<br>S.O. xxxxx-xx<br>WARNING<br>DO NOT SEPARATE WHEN ENERGIZED  |   |

## • Specific Conditions of Use

- The special fasteners used to assemble the end cover, coupler and adaptor and mount the adaptor to the Ex d enclosure shall be of minimum grade A\*-70 Stainless Steel (yield stress 450 MPa) or 4.6 Mild Steel (yield stress 240 MPa).
- The special fasteners used to assemble the cable gland clamping cap shall be M10 x 40 button head screw and shall be of minimum grade A\*-70 Stainless Steel (yield stress 450 MPa) or 4.6 Mild Steel (yield stress 240 MPa).
- When the adaptor is not joined to a coupler the adaptor shall be blanked by the end blanking cover.
- The flange flamepath used to assemble the adaptor to flameproof enclosures shall be of minimum width 12.5mm and maximum gap 0.4mm and a surface roughness  $R_a$  of 6.3µm or better.

## • Maintenance

- Inspection shall include cleanliness and compliance with certification documentation.
- Check as per AS/NZS2290.1

## • Overhaul and Repair

- To be carried out by suitable workshop.
- It is recommended that the equipment is overhauled at intervals that do not exceed the requirements of AS/NZS2290.1

## • Operating Temperature

- Operating temperature range -20°C to +40°C and average temperature over 24 hours is not to exceed 35°C

**Refer to Inst. Body Size B - 2 for additional detailed instructions**