

FIREMATE™

INDUSTRIAL CONNECTOR



(AI503 Rev C – 15Jun17)

Images are for illustration purposes only. Product supplied may differ slightly from that shown.

Hawke International
UK Office,
Oxford Street West,
Ashton-under-Lyne,
Lancashire.

Sales: +44 (0) 161 830 6698
Technical: +44 (0) 161 830 6697
Fax: +44 (0) 161 830 6648

Connection Solutions
www.ehawke.com

HAWKE
International


IMPORTANT NOTE

IP rating is for the connector pair only and connection to the Besa Box, or enclosure, using a FireMate Connector seal, or when a cap is fitted.

INLINE CONNECTOR PLUG (CP)

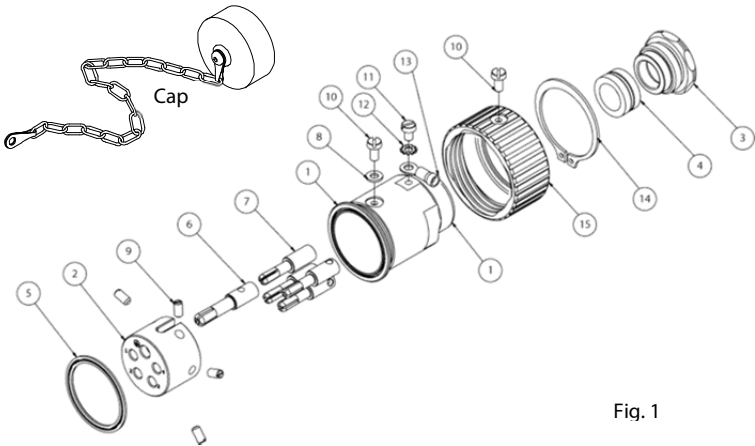


Fig. 1

| Item | Description | Qty |
|------|-----------------------------------|-----|
| 1 | Connector Body | 1 |
| 2 | Bulkhead Ceramic Pin Insert | 1 |
| 3 | Compression Nut | 1 |
| 4 | Cable Seal | 1 |
| 5 | Front Comp Seal | 1 |
| 6 | Earth Pin | 1 |
| 7 | Power Pin | 4 |
| 8 | M4 Copper Washer | 1 |
| 9 | M4 x 8 Conductor Fixing Screw | 5 |
| 10 | M4 x 8 Slotted Cheese Head Screws | 2 |
| 11 | M4 x 6 Slotted Cheese Head Screws | 1 |
| 12 | Serrated Lock Washer | 1 |
| 13 | Ring Type Earth Lug | 1 |
| 14 | Retaining Rings | 1 |
| 15 | Engaging Nut | 1 |
| 16 | Cap (optional) | 1 |

- 1) Once the connector plug has been unpacked, the insert must be removed to allow for assembly. Loosening the screw on the body of the connector as shown below in Fig. 2 until the insert is free to be removed from the connector. **Do not** fully remove the screw. Safely store insert until required.

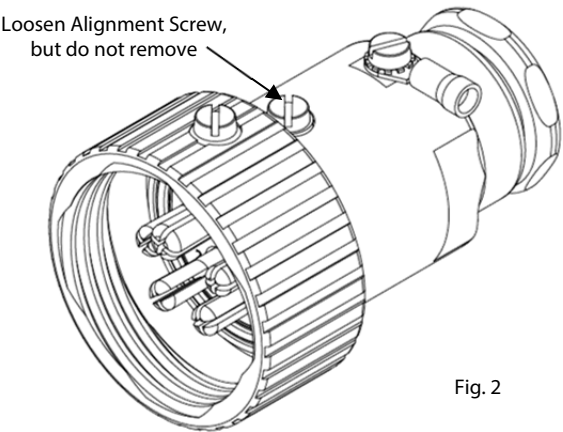


Fig. 2

- 2) Once the connector body is empty, ensuring the rear seal is uncompressed, slide the connector body down the cable.

Seal Range 11.0 to 14.3mm

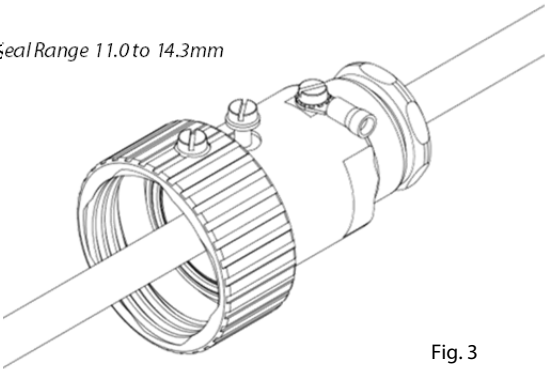


Fig. 3

- 3) Prepare the cable for termination by removing 20mm of the outer jacket, revealing the cores. Prepare the cores by removing 10mm of the insulation and twist to keep stranded conductor together.

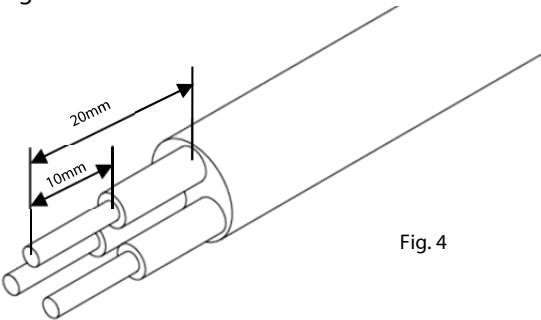


Fig. 4

- 4) Using a flat head terminal screwdriver, loosen the required terminal screw and engage the conductors in the contacts. **Do not** remove pins from insert.

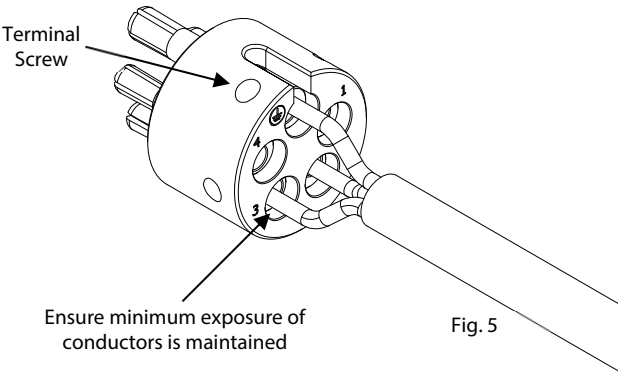


Fig. 5

- 5) Ensure the terminal screw makes contact with the conductor, tighten and repeat for other conductors.
- 6) The alignment screw on the connector body protrudes slightly within the connector housing and acts as a guide when lined up with the insert slot, ensuring the insert is correctly seated when replaced in the connector housing.

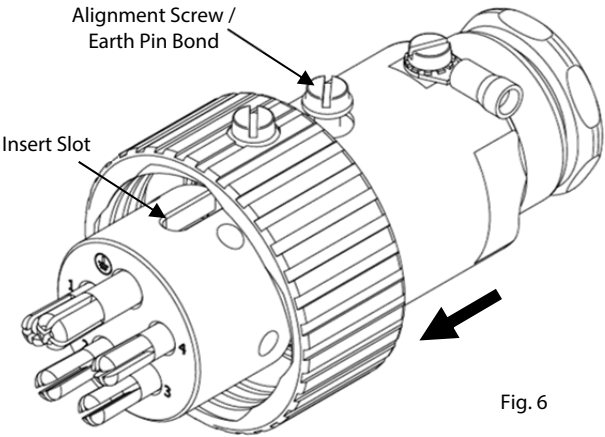


Fig. 6

- 7) Once the insert is flush with the internal mating face, tighten the alignment screw on the connector body to secure the insert, in doing so picking up the earth pin connection.

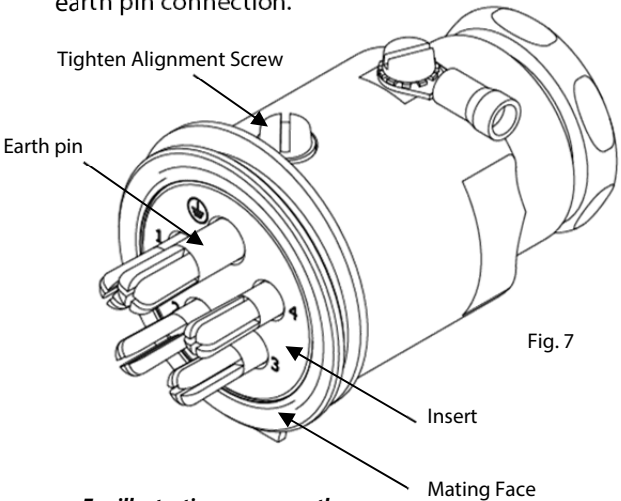


Fig. 7

For illustration purposes, the engaging nut is not shown

- 8) Using a 30mm A/F spanner, hold the connector body in place with a spanner / wrench to prevent rotation and tighten the rear compression nut using a wrench / spanner until seal contact with the outer sheath is made, then continue with one further turn to ensure the seal is maintained.

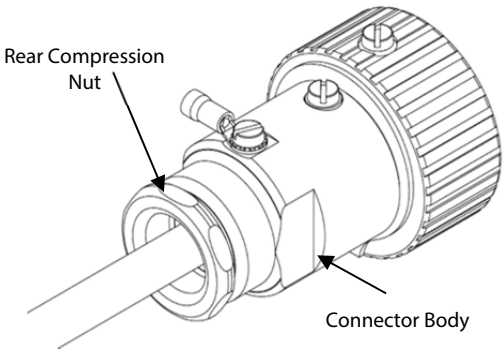


Fig. 8

- 9) Where necessary, ensure that the earth lug is attached to an appropriate earth point.

SAFETY LOCKING FEATURE
Once installation is complete, and before energising, ensure locking screw on the engaging nut is tightened.

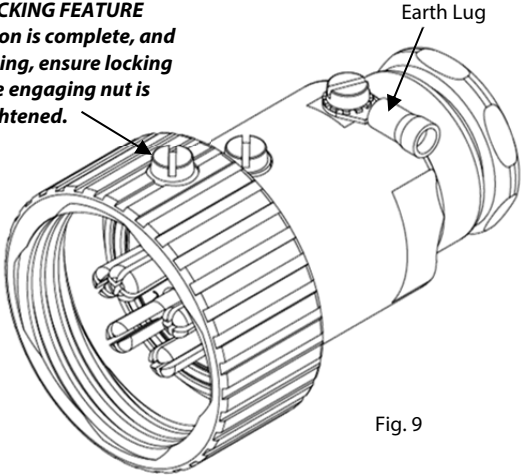


Fig. 9

CONNECTOR RECEPTACLE (CR)

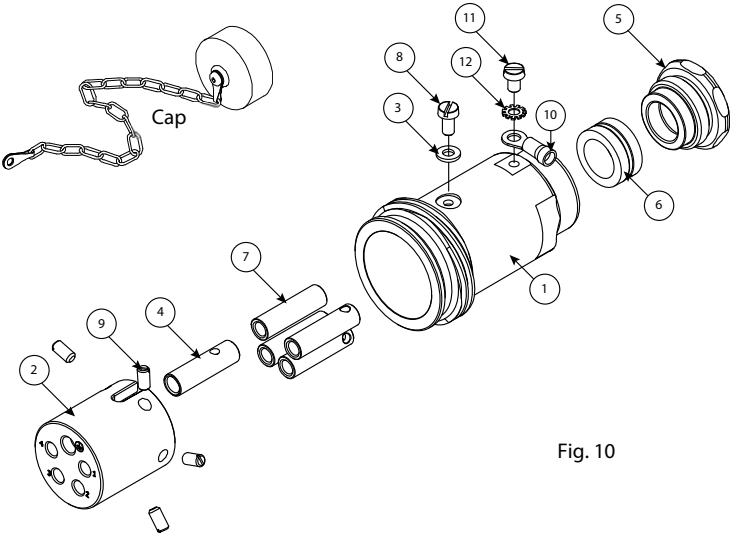


Fig. 10

| Item | Description | Qty |
|------|-----------------------------------|-----|
| 1 | Connector Body | 1 |
| 2 | Bulkhead Ceramic Socket Insert | 1 |
| 3 | M4 Copper Washer | 1 |
| 4 | Earth Socket | 1 |
| 5 | Compression Nut | 1 |
| 6 | Cable Seal | 1 |
| 7 | Power Socket | 4 |
| 8 | M4 x 8 Slotted Cheese Head Screws | 1 |
| 9 | M4 x 8 Conductor Fixing Screw | 5 |
| 10 | Ring Type Earth Lug | 1 |
| 11 | M4 x 6 Slotted Cheese Head Screws | 1 |
| 12 | Serrated Lock Washer | 1 |
| 13 | Cap (optional) | 1 |

- 10) Once the connector receptacle has been unpacked, the insert must be removed to allow for assembly. Loosening the screw on the body of the connector as shown below in Fig. 11 until the insert is free to be removed from the connector. **Do not** fully remove the screw. Safely store insert until required.

Loosen Alignment Screw,
but do not remove

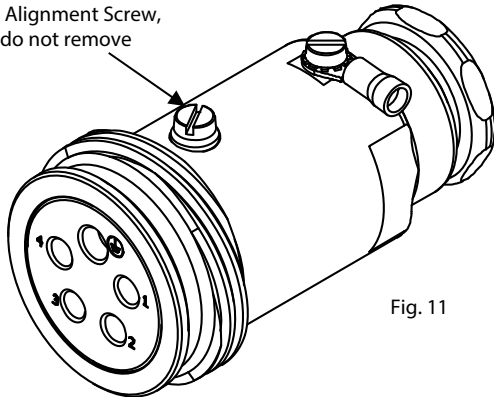


Fig. 11

- 11) Once the connector body is empty, ensuring the rear seal is uncompressed, slide the connector body down the cable.

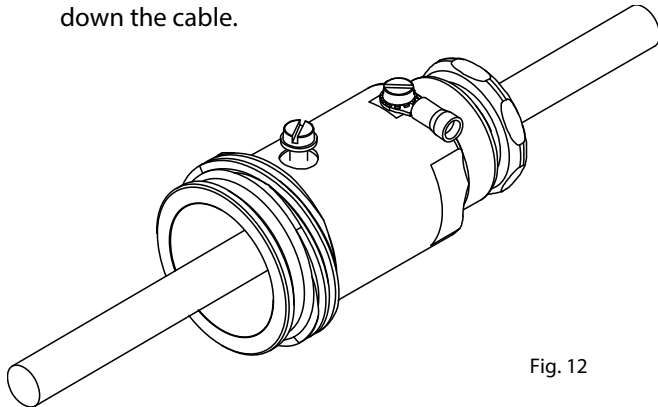


Fig. 12

- 12) Prepare the cable for termination by removing 20mm of the outer jacket, revealing the cores. Prepare the cores by removing 10mm of the insulation and twist to keep stranded conductor together.

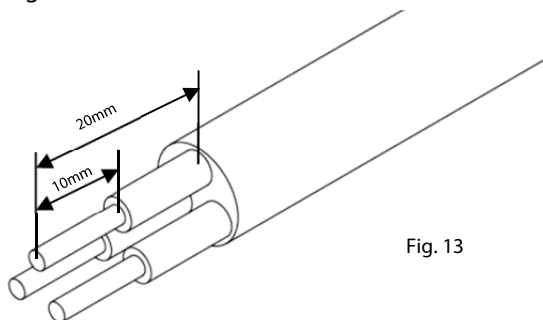


Fig. 13

- 13) Using a flat head terminal screwdriver, loosen the required terminal screw and engage the conductors in the contacts.

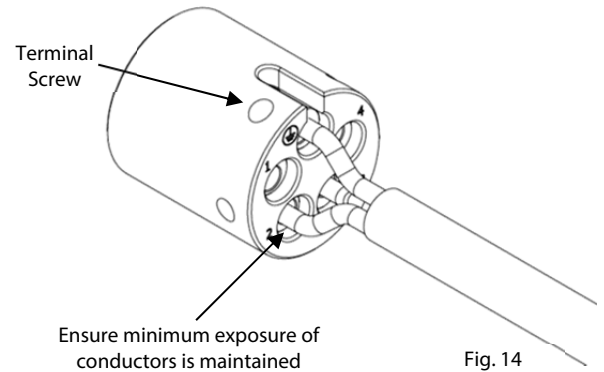


Fig. 14

- 14) Ensure the terminal screw makes contact with the conductor, tighten and repeat for other conductors.

- 15) The alignment screw on the connector body protrudes slightly within the connector housing and acts as a guide when lined up with the insert slot, ensuring the insert is correctly seated when replaced in the connector housing.

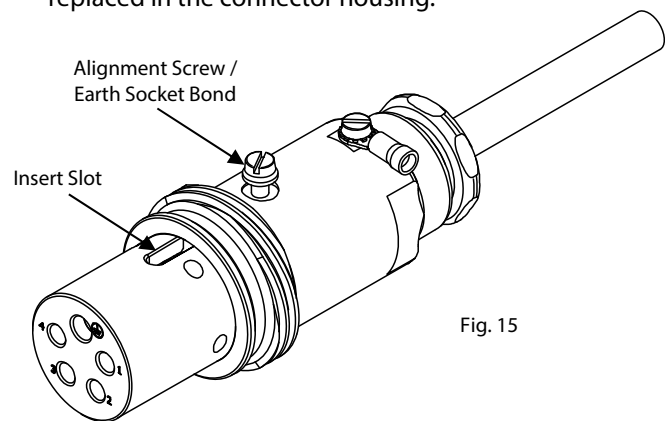


Fig. 15

- 16) Once the insert is flush with the internal mating face, tighten the alignment screw on the connector body to secure the insert.

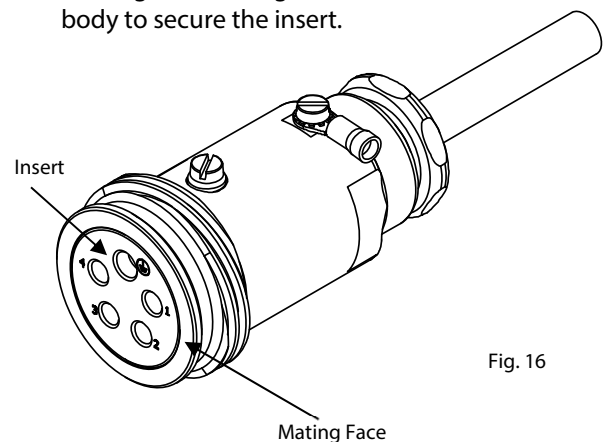


Fig. 16

- 17) Using a 30mm A/F spanner, hold the connector body in place with a spanner / wrench to prevent rotation and tighten the rear compression nut using a wrench / spanner until seal contact with the outer sheath is made, then continue with one further turn to ensure the seal is maintained.

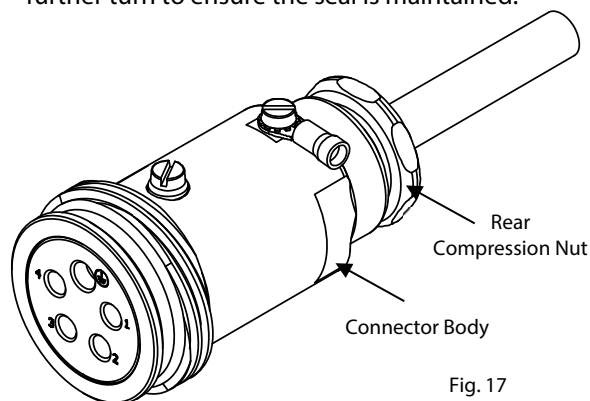


Fig. 17

- 18) Where necessary, ensure that the earth lug is attached to an appropriate earth point.

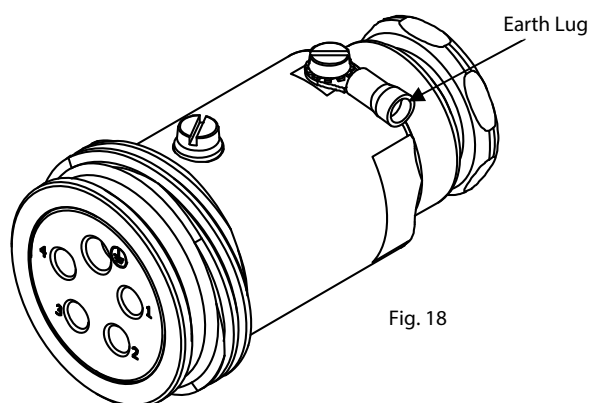


Fig. 18

- 19) If optional cap is supplied, ensure that the cap chain is attached and screw the cap to the connector for IP protection when not in use.
NB: No IP rating without cap installed.

BESA BOX MOUNTED RECEPTACLE (BB)

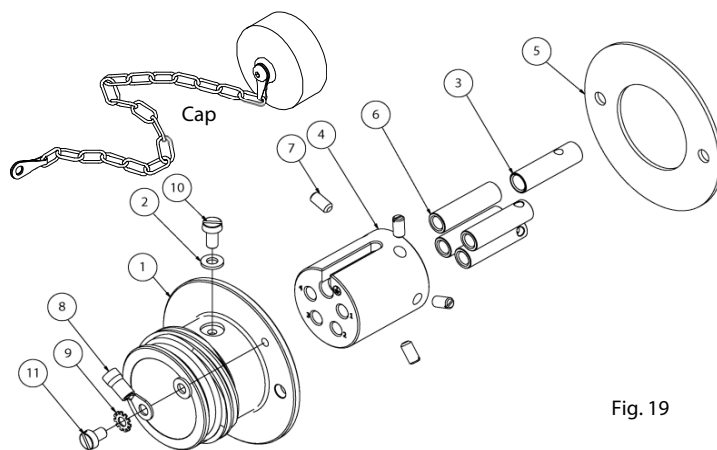


Fig. 19

| Item | Description | Qty |
|------|-----------------------------------|-----|
| 1 | BESA Flanged Bulkhead | 1 |
| 2 | M4 Copper Washer | 2 |
| 3 | Earth Socket | 1 |
| 4 | Connector Ceramic Socket Insert | 1 |
| 5 | Bulkhead Gasket | 1 |
| 6 | Power Socket | 4 |
| 7 | M4 x 8 Conductor Fixing Screw | 5 |
| 8 | Ring Type Earth Lug | 1 |
| 9 | Serrated Lock Washer | 1 |
| 10 | M4 x 8 Slotted Cheese Head Screws | 1 |
| 11 | M4 x 6 Slotted Cheese Head Screws | 1 |
| 12 | Cap (optional) | 1 |

- 20) Once the connector plug has been unpackaged the insert must be removed to allow for assembly. Loosening the screw on the body of the connector as shown in Fig.20 below until the insert is free to be removed from the connector. **Do not** fully remove the screw. Safely store insert until required.

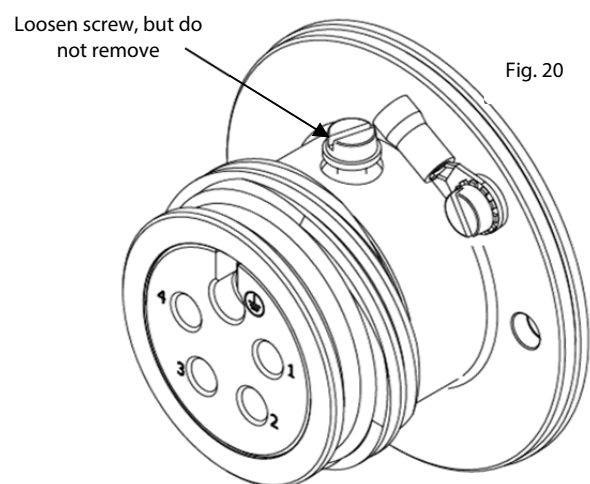


Fig. 20

- 21) Prepare the cable for termination by removing 20mm of the outer jacket revealing the cores. Prepare the cores by removing 10mm of insulation and twist to keep stranded conductors together. At this point ensure that the gasket (supplied with the connector) is in place.

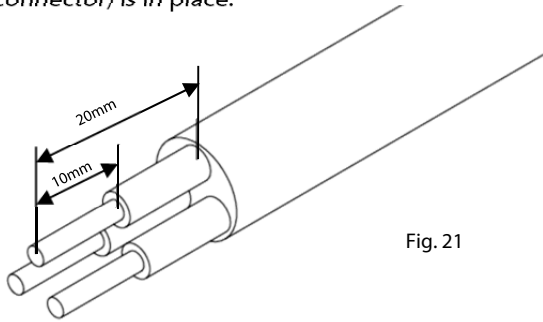


Fig. 21

- 22) Using a flat head terminal screwdriver, loosen the required terminal screw and engage the conductors in the contacts. **Do not** remove pins from insert.

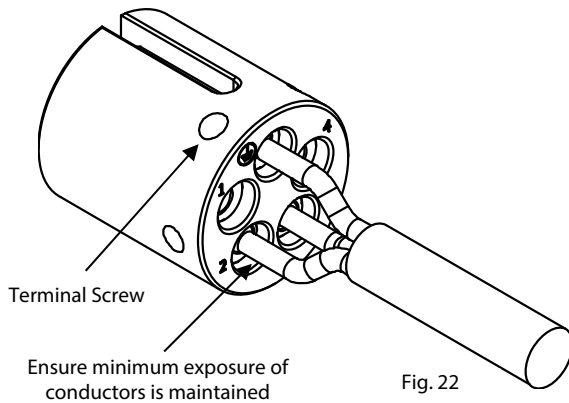


Fig. 22

- 23) Ensure the terminal screw makes contact with the conductor, tighten and repeat for other conductors.
- 24) The alignment screw on the connector body protrudes slightly within the connector housing and acts as a guide when lined up with the insert slot, ensuring the insert is correctly seated when replaced in the connector housing.

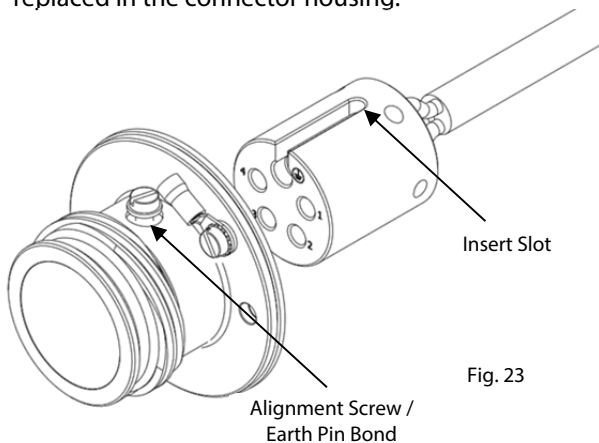


Fig. 23

- 25) Once flush with the mating face, tighten the insert screw on the connector body to secure the insert, in doing so picking up the earth pin connection.

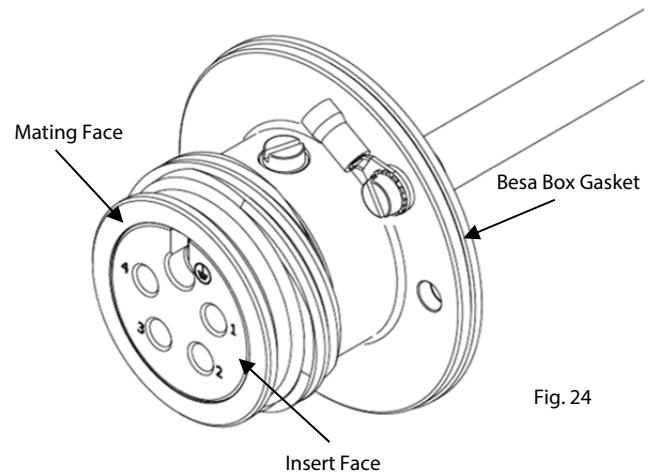


Fig. 24

- 26) Ensuring the Besa gasket is in position, fit the Besa Box Receptacle to the Besa Box with the required screws.
- 27) If applicable, ensure that the cap chain and earth lug are attached and screw the cap to the mating face for IP protection.
- 28) Where necessary ensure that the earth lug is attached to an appropriate earth point.

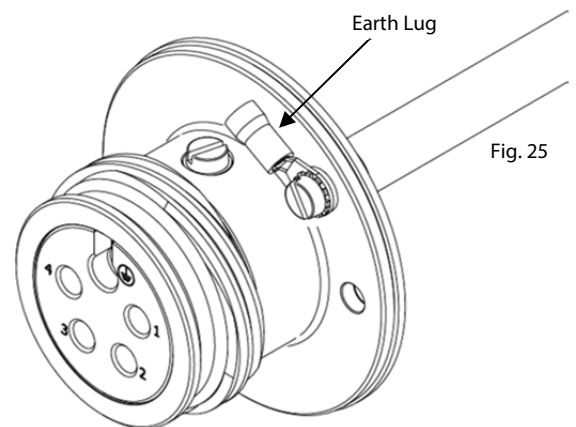


Fig. 25

BULKHEAD RECEPTACLE (BR)

Note: Prior to installation, ensure that earth lug is fitted between BR threaded entry and enclosure.

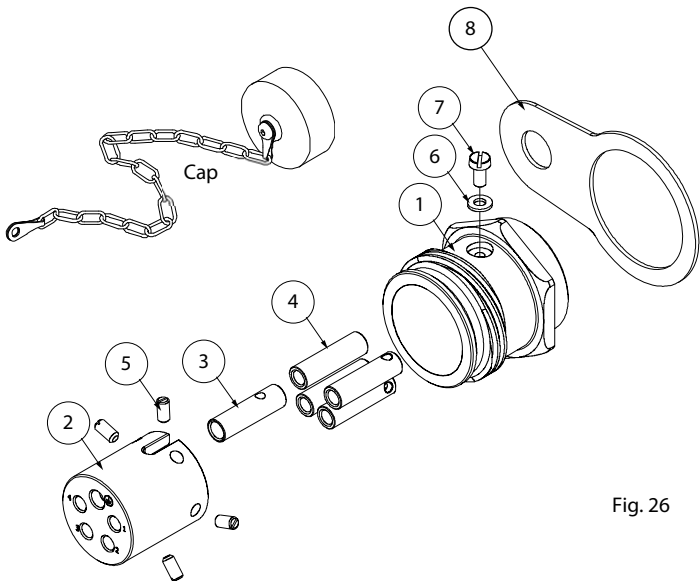


Fig. 26

| Item | Description | Qty |
|------|-----------------------------------|-----|
| 1 | M40 Bulkhead Entry | 1 |
| 2 | Ceramic Socket Insert | 1 |
| 3 | Earth Socket | 1 |
| 4 | Power Socket | 4 |
| 5 | M4 x 8 Conductor Fixing Screw | 5 |
| 6 | M4 Copper Washer | 1 |
| 7 | M4 x 8 Slotted Cheese Head Screws | 1 |
| 8 | Earth Tag | 1 |
| 9 | Cap (optional) | 1 |

NB: An M40 locknut may be required when fitting into a clearance hole along with appropriate sealing and locking device.

29) Once the connector plug has been unpackaged the insert must be removed to allow for assembly. Loosening the screw on the body of the connector as shown in Fig.27 below until the insert is free to be removed from the connector. **Do not** fully remove the screw. Safely store insert until required.

Loosen screw, but do not remove

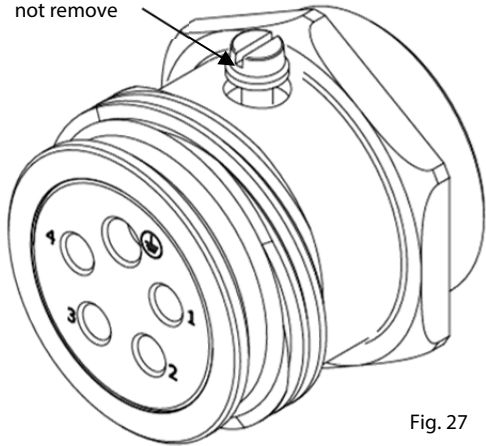


Fig. 27

- 30) Once the insert has been removed, screw the bulkhead receptacle to the enclosure with the cable protruding. Ensure the sealing washer and earth tag provided are in place.
- 31) Prepare the cable for termination by removing 20mm of the outer jacket revealing the cores. Prepare the cores by removing 10mm of the insulation and twist to keep stranded conductor together.

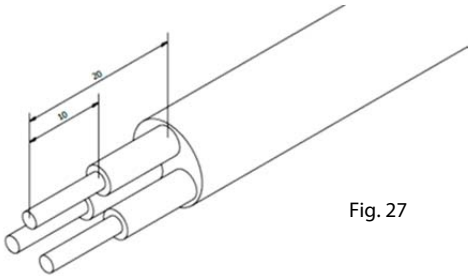


Fig. 27

- 32) Using a flat head terminal screwdriver, loosen the required terminal screw and engage the conductors in the contacts.

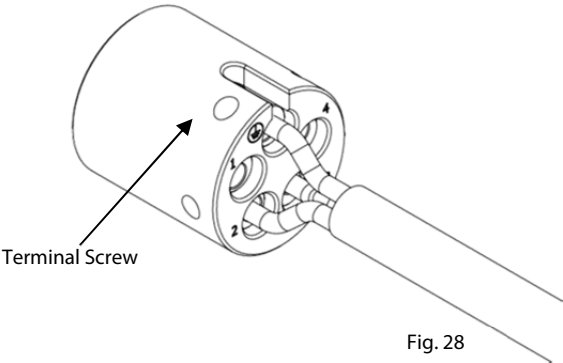


Fig. 28

- 33) Ensure the terminal screw makes contact with the conductor, tighten and repeat for other conductors.
- 34) The alignment screw on the connector body protrudes slightly within the connector housing and acts as a guide when lined up with the insert slot, ensuring the insert is correctly seated when replaced in the connector housing.

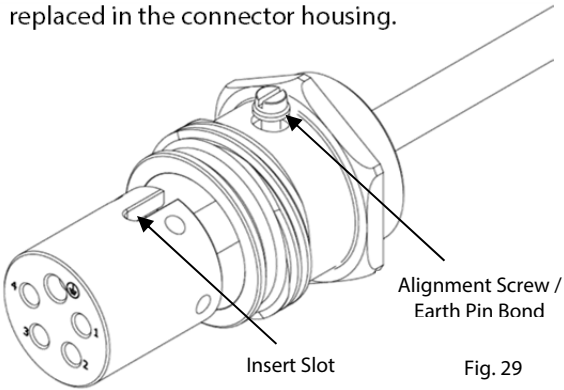
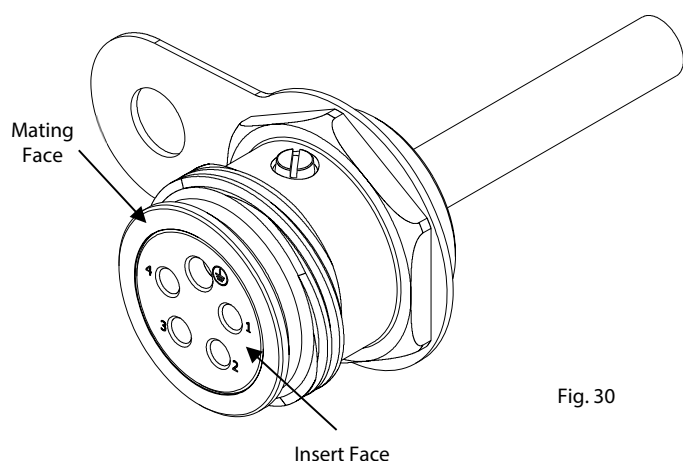
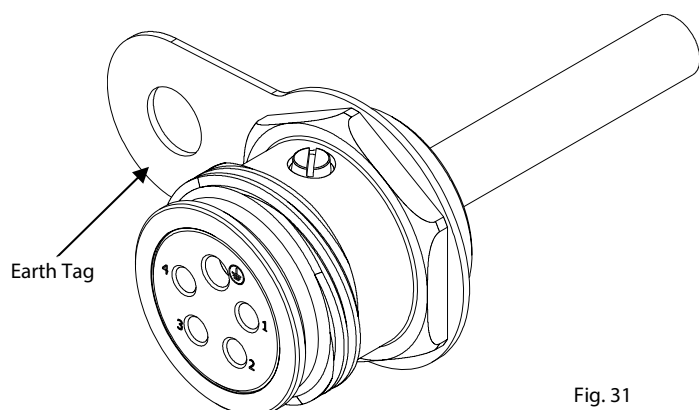


Fig. 29

- 35) Once flush with the mating face, tighten the alignment screw on the connector body to secure the insert.



- 36) If optional cap is supplied, ensure that the cap chain is attached and screw the cap to the mating face for IP protection when not in use.
- 37) Where necessary, ensure that the earth tag is attached to an appropriate earth point.



All connected fire rated equipment must maintain same levels of protection and IP

**EU Certificate of Conformity in accordance with
European Directive 2014/35/EU
Manufacturer: Hawke International
Address: Oxford Street West, Ashton-under-Lyne, OL7 0NA,
United Kingdom**

Equipment: FIREMATE INDUSTRIAL CONNECTOR

On behalf of the above named company, I declare that, on the date the equipment accompanied by this declaration is placed on the market, the equipment conforms with all technical and regulatory requirements of the above listed directives.

Standards used: BS 5839-1:2013, BS EN 50200:2006,
BS 8434-2:2003 + A2:2009, BS EN 61984:2009, BS 5266:2016

**A. Tindall
Technical Manager**