

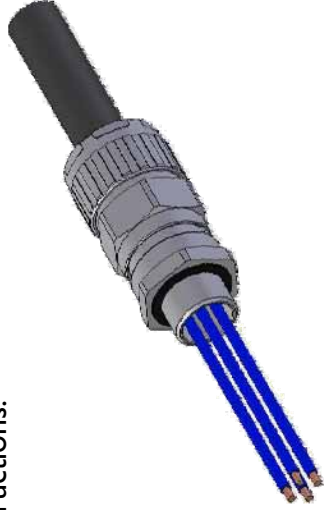
IMPORTANT NOTE

Hawke International does not recommend the use of their ControlEx Connectors in applications where rigid PVC / SWA / PVC power cabling (typically to BS 6346 standards) is used in portable / semi-portable applications.

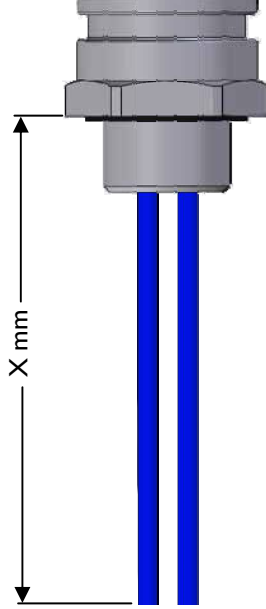
In addition, Hawke recommends that barrier type glands are fitted to flexible power and loose filled control cabling entering the connectors to maintain the Exd protection concept and to reduce the potential for core movements within the cable being transferred to the connector's internal components.

- 1) Remove the CP/CR connector assembly, electrical insert and cable gland (sold separately) from their packaging.

- 2) Terminate the cable into the cable gland in accordance with the manufacturer's instructions.

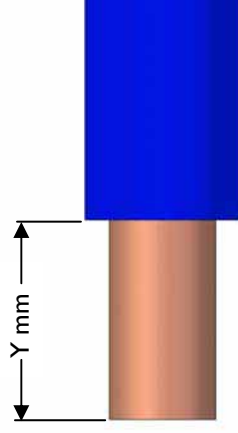


- 3) Cut the conductor's to the length's shown.



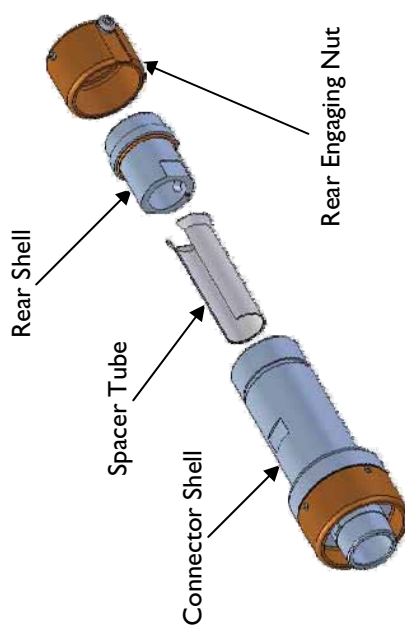
Conductor Cutback Length's (X mm)							
Insert Type	16	25	32	40	50	63	Tolerance
1.5 & 2.5mm ² Solder / Crimp	78	105	108	108	105	105	+5 / -0
6mm ² Crimp	-	90	93	-	-	-	+5 / -0
10 & 16mm ² Crimp	-	-	79	-	-	-	+3 / -0
25 & 35mm ² Crimp	-	-	-	79	-	-	+3 / -0
6mm ² Solder	-	-	108	-	-	-	+5 / -0
10 & 16mm ² Solder	-	-	108	-	-	-	+2 / -0
25 & 35mm ² Solder	-	-	-	108	-	-	+2 / -0

- 4) Strip back the insulation from the conductor's as shown.



Insert Type	Length (Y mm)
1.5mm ² Solder / Crimp	6
2.5mm ² Solder / Crimp	6
6mm ² Solder	7
6mm ² Crimp	8
10mm ² Solder	9
10mm ² Crimp	11
16mm ² Solder	9
16mm ² Crimp	11
25mm ² Solder	9
25mm ² Crimp	11
35mm ² Solder	9
35mm ² Crimp	11

- 5) Unscrew the rear engaging nut from the connector shell. Then remove the rear shell and spacer tube.

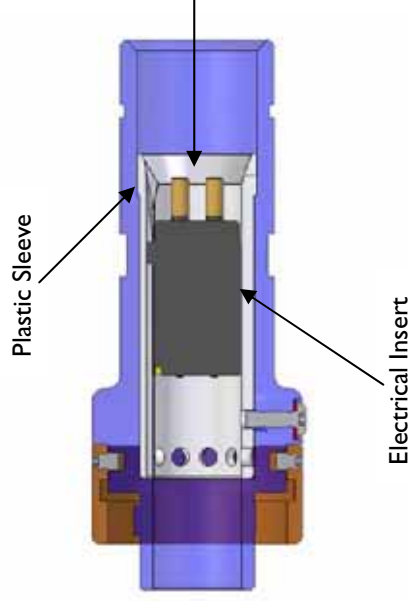


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6) If you purchased a fixed keyway connector, proceed to step 14.

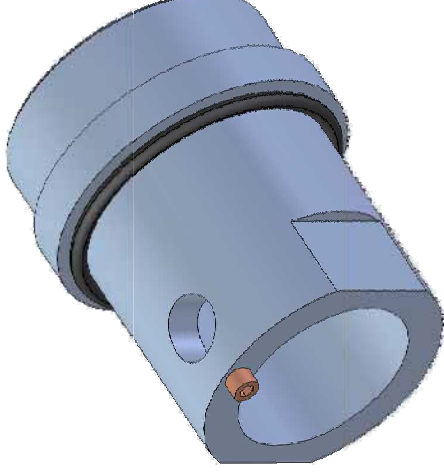
7) Align the electrical insert to the plastic sleeve inside the connector shell and slide down as shown in the sectional view below.



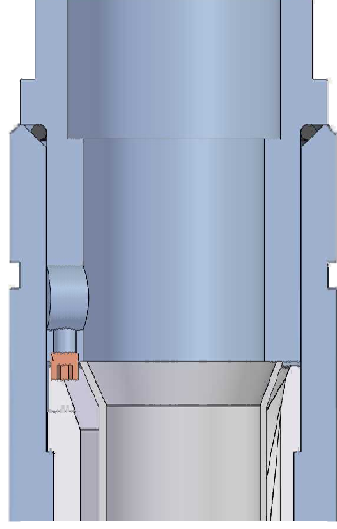
8) Push the spacer tube into the plastic sleeve in the connector, aligning it so that the small slot on the rear of the plastic sleeve is not obscured.



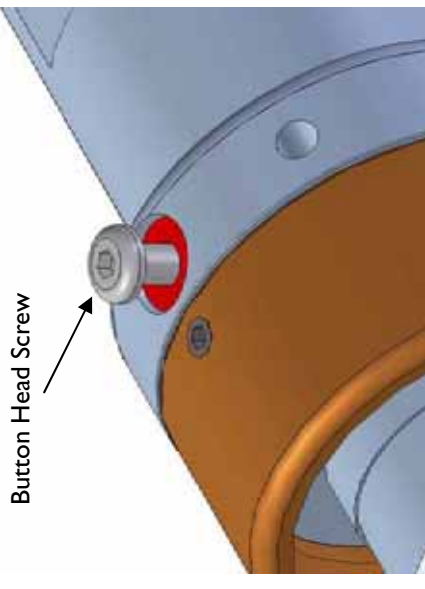
9) Unscrew the grub screw on the rear shell about 2mm. (Do not remove)



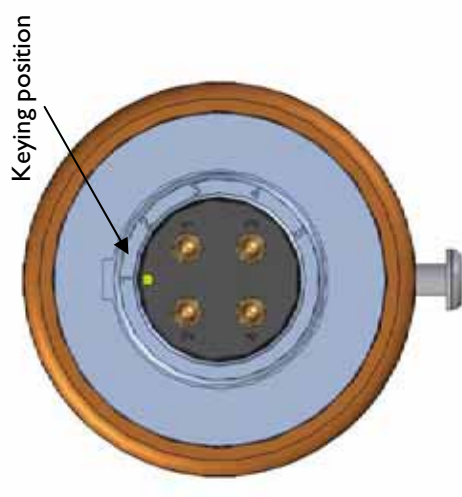
10) Push the rear shell into the connector shell, aligning the grub screw to the slot of the plastic sleeve as shown in sectional view.



11) Unscrew the button head screw about 5mm.



12) Looking on the face of the connector, rotate the rear shell (knurled section) until the coloured dot on the face of the electrical insert is aligned to the required keying position on the connector shell.

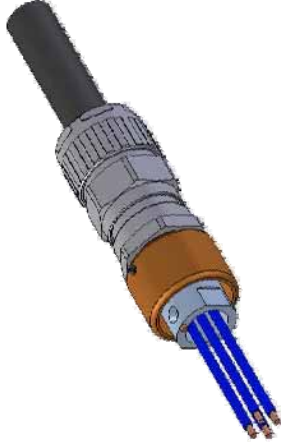


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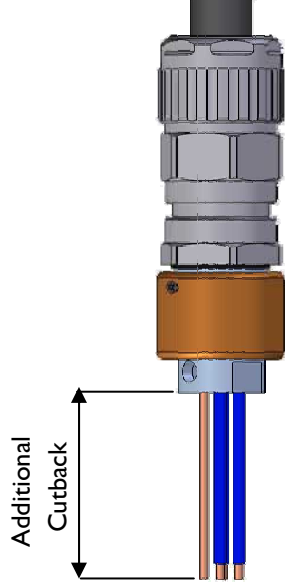
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13) Apply thread locker supplied to the thread of the button head screw and tighten into the connector shell.

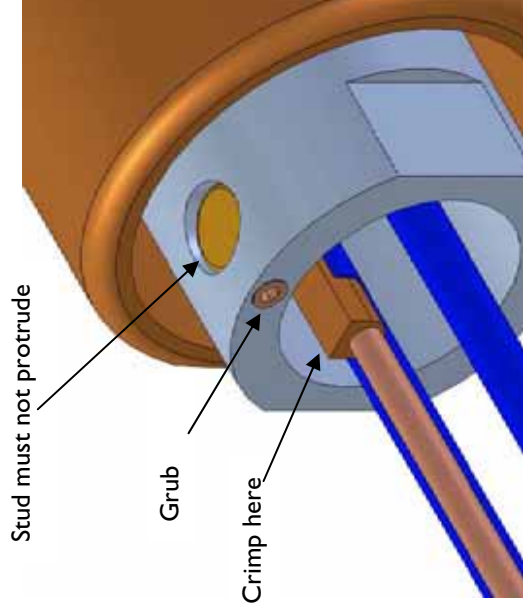
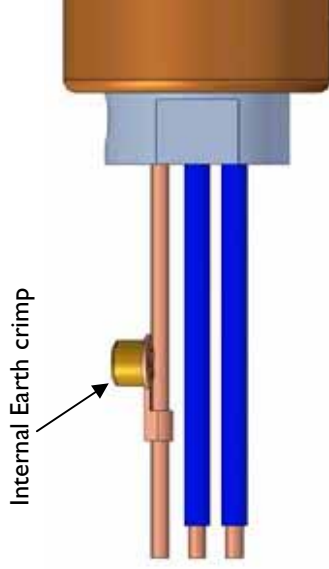
14) Slide the rear engaging nut over the rear shell as shown and screw this onto the entry thread of the cable gland ensuring there is a sealing washer between the gland and rear shell. Use the flats on the rear shell to further tighten.



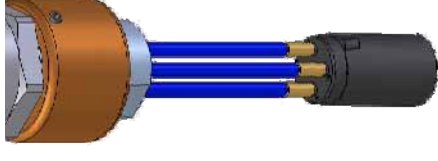
15) Proceed to step 17 if internal earthing is not required. The insulation on the required earth conductor should be further stripped back level with the face of the rear shell.



16) Slide the internal earth crimp (supplied with CP/CR connector insert) over the earth conductor and fit into the hole in the rear shell. Tighten the grub screw on the face of the rear shell to lock the crimp assembly in place. The stud on the earth crimp should not protrude from the outer diameter of the rear shell. Adjust if necessary. Crimp with suitable tool.



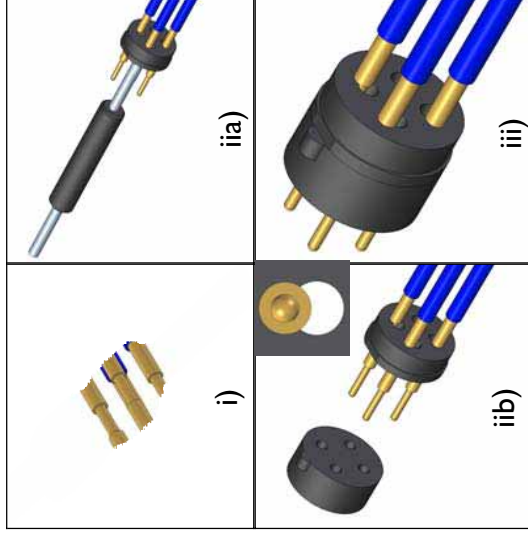
17) a) Solder inserts (1.5 – 35mm²). Tin the conductors and fill the solder cups on the back of the inserts with solder as required. Solder conductors in place and remove any solder spikes/excess from the solder cup.



- b) Crimp Inserts (1.5 – 4mm²).
- i) Crimp the conductors into the contacts using Weidmuller CTX CM 1.6/2.5 crimp tool part number 901849 only. For 0.75 to 1.5mm² conductors use the 1.5 die. For 1.6 to 4mm² use the 2.5 die. If the contacts are to be solder terminated to the conductors, this must be done prior to insertion through the rear contact retainer.
 - ii) Feed the contacts through the required numbered hole on the rear contact retainer and slide the insertion tool over the contacts up to the groove (one end for pin and one for socket). Clip the groove on the contact into position in the rear contact retainer with the tool.
 - iii) Align the flat on the rear contact retainer with the key on the front contact retainer and slide over the contacts into position.

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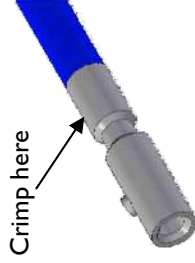
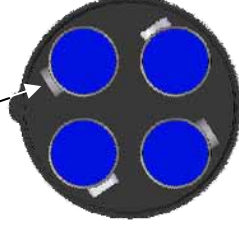


c) Crimp Inserts (6 – 35mm²). Undo the grub screws on the crimp barrels and slide them off the back of the contacts. Slide the conductors into the back of the barrel. Orientate the barrel so that the grub screws are pointing outwards and crimp with a suitable crimp tool. Push the barrels back onto the rear of the contacts and tighten grub screw into the groove on the contact. Back off grub screw half a turn on crimp barrels of 10mm² or larger to allow them to slide up and down the contact slightly. PTO.

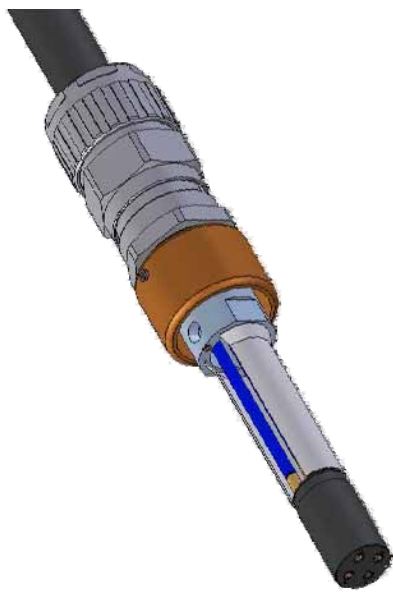
NOTE: IF INTERNAL EARTHING IS NOT BEING USED, THE INTERNAL EARTH CRIMP MUST NOT BE FITTED AND THE GRUB SCREW IN THE REAR SHELL MUST BE REMOVED.



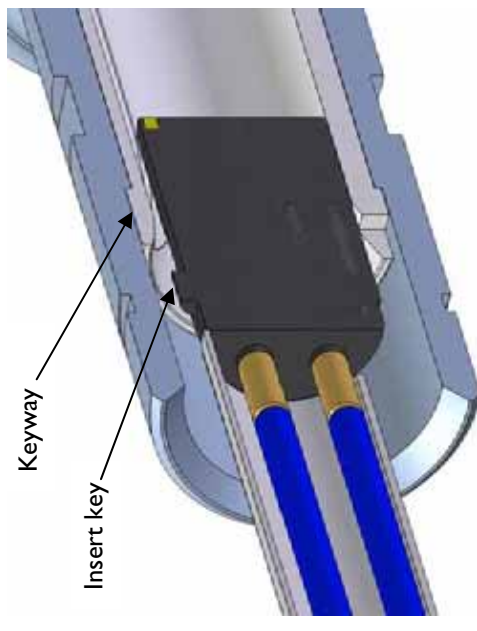
Orientate grub screws



18) Clip spacer tube over conductors. Bend conductors slightly so that there is no or minimal gap between the insert/spacer tube and rear shell. On crimp insert of 10mm² or larger, slide the crimp barrels up and down the contacts to achieve this and then lock them in place by tightening the grub screw's on the crimp barrels.

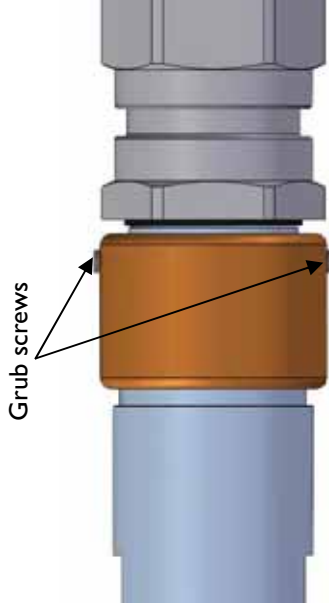


19) Slide insert into the rear of the connector shell, aligning the key on the insert to the keyway of the plastic sleeve inside the connector.

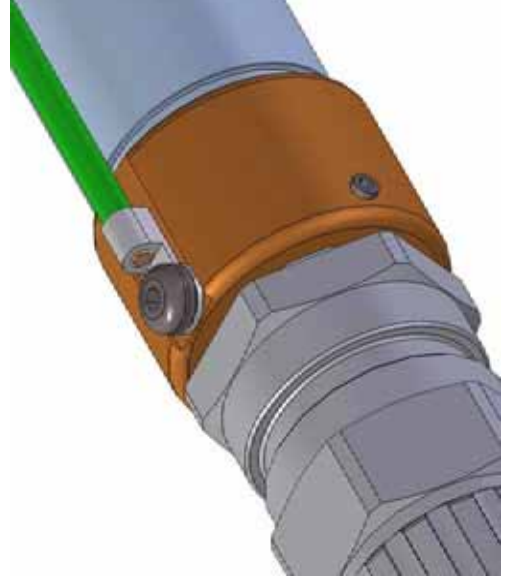


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20) Screw the rear engaging nut onto the thread on the connector shell. Tighten grub screws in rear engaging nut.



21) Terminate the external earth to the ring terminal crimp provided with the insert. Remove the button head screw and spring washer from the rear engaging nut. Attach the crimp to the rear engaging nut as shown.



22) The connector is now ready for use. Please refer to the 'Hook Up' procedure.

HAWKE / ATEX -SIZE-TYPE / Tamb -40°C TO + °C - T*
 MAXIMUM DISSIPATED WATTAGE = *W
 II2GD Ⓢ EExd IIC T** / IP66/67 / HAWKE OL7 ONA UK I 180
 CERTIFICATE NUMBER: Baseef03ATEX0355X
 WARNING: DO NOT SEPARATE WHILE ENERGISED. DO NOT
 OPEN EVEN WHEN ISOLATED WHEN FLAMMABLE ATMOSPHERE
 PRESENT.



*FILL IN AS APPROPRIATE FROM TABLE BELOW

CONNECTOR SIZE	UPPER AMBIENT = 40°C	UPPER AMBIENT = 50°C	UPPER AMBIENT = 65°C
	TEMP CLASS T6 T5	TEMP CLASS T6 T5	TEMP CLASS T6 T5
16	5W 7W	4W 6W	2W 4W
25	8W 11W	6W 10W	3W 6W
32	10.5W 14.5W	8W 12W	4W 8W
40	12W 17W	9W 14W	4W 9W
50	13W 20W	10W 17W	5W 10W
63	17W 29W	13W 24W	6.5W 13W

**T5 = 95 AND T6 = 80

No maintenance or servicing is required on this product.
 Do not exceed maximum dissipated wattage stated in above table.

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