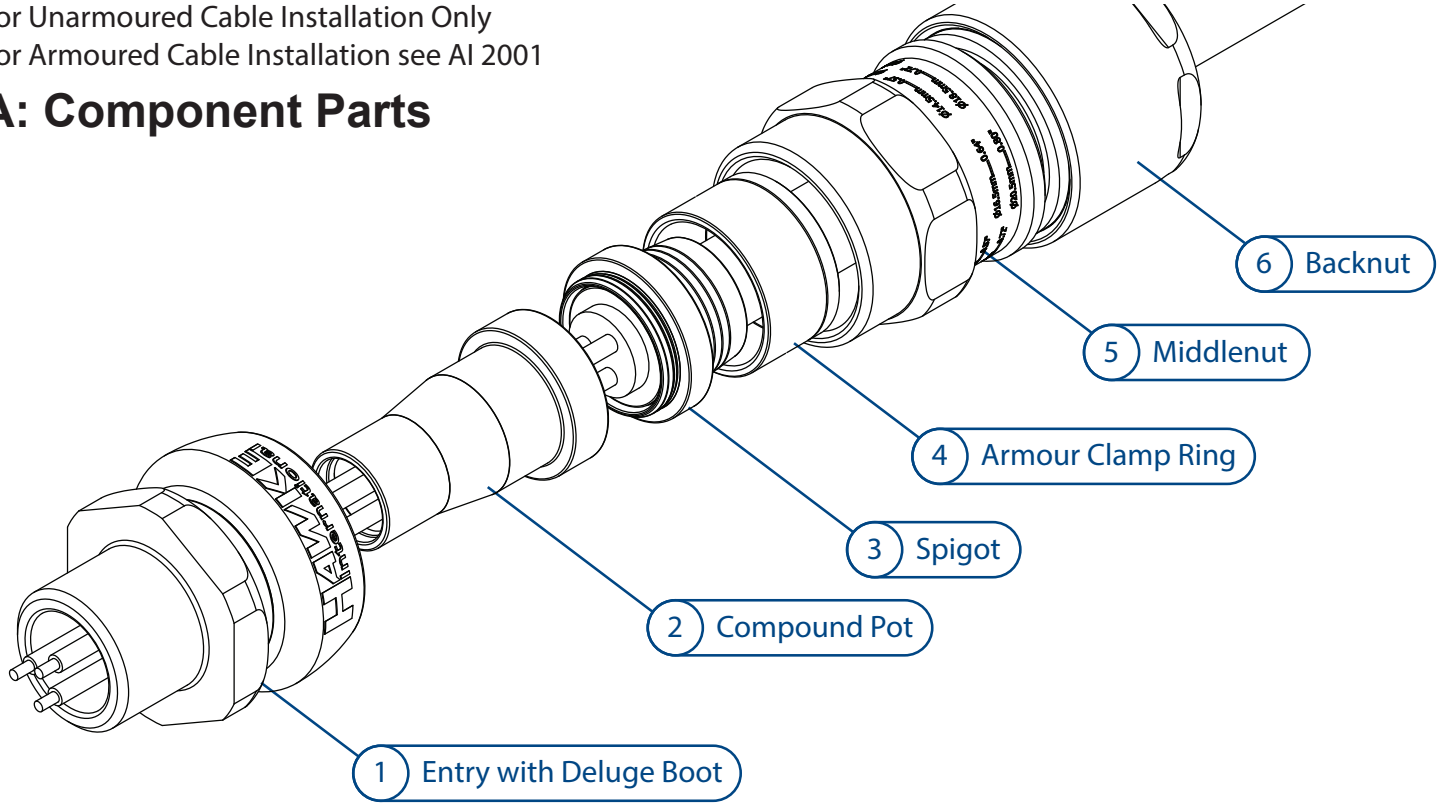
Cable Gland Assembly Instructions
ICG 653 UNIV

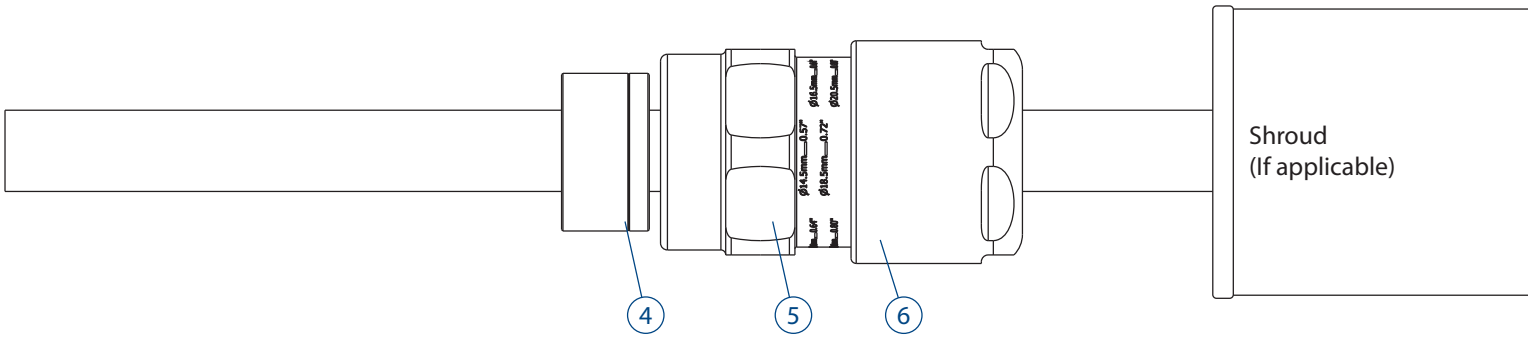
For Unarmoured Cable Installation Only
For Armoured Cable Installation see AI 2001

A: Component Parts



B: Cable Preparation

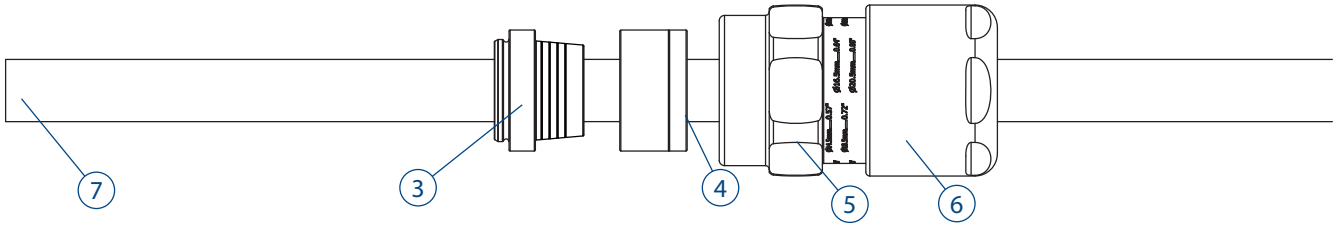
Slide shroud (if included), backnut ⑥, middlenut ⑤ and armour clamp ring ④ onto cable.
Orientation of armour clamping ring is unimportant.
Cut cable length to suit equipment.
For preparation of Drain Wires see separate AI2028.



C: Installing Cable Gland

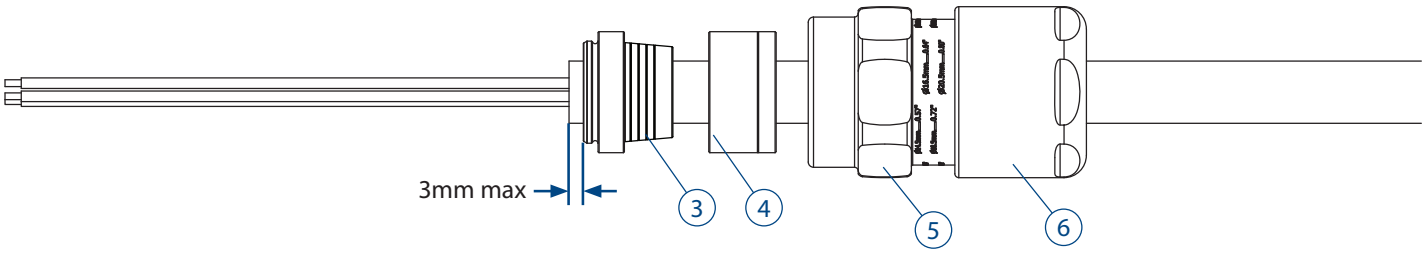
STEP 1: Slide Spigot Over Cable

Check cut end of cable inner sheath for any sharp edges ⑦. If necessary clean up with a knife or apply electrical tape to smooth corners. Slide spigot ③ over cable taking care not to damage rubber resin dam.



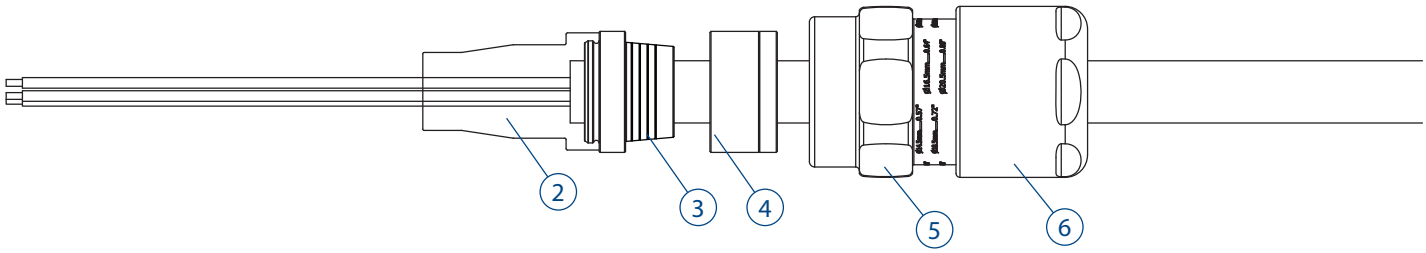
STEP 2: Strip Cable To Expose Cores

Strip core length to suit installation. Position spigot ③ as shown below.



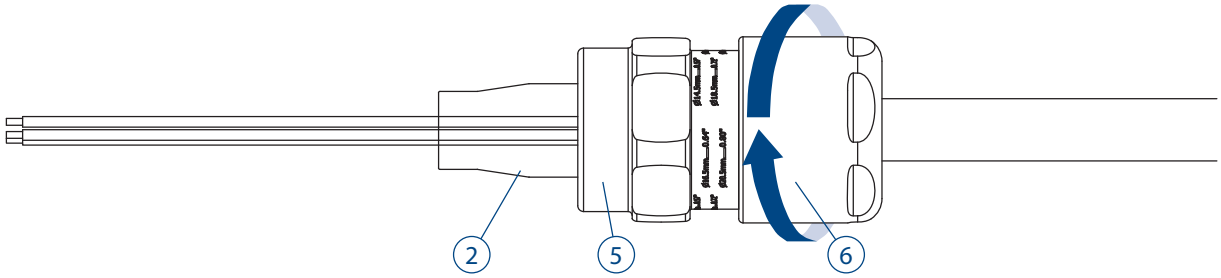
STEP 3: Fit Compound Pot

Clip pot over the spigot ③.



STEP 4: Support Spigot With Middlenut and Backnut

Slide middlenut ⑤ up to spigot ③, so that the armour clamping ring ④ is seated between spigot ③ and middlenut ⑤. Hand tighten the backnut ⑥ so the assembly cannot slide down the cable.



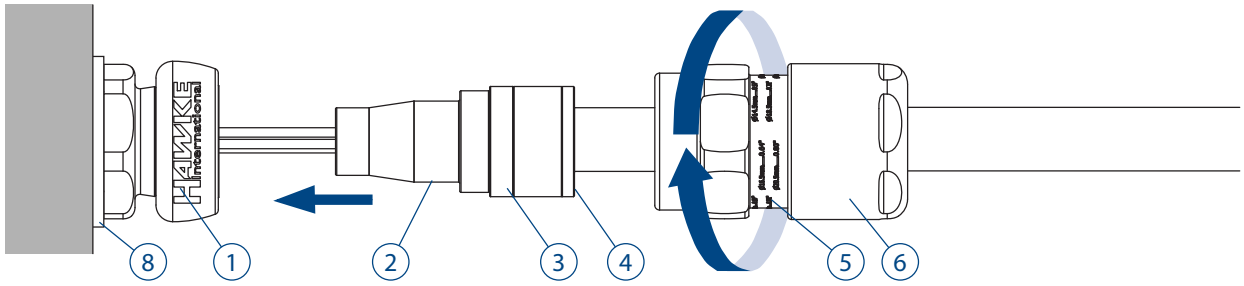
Images for illustration purposes only.
Product supplied may differ from that shown.

STEP 5: Pot gland with compound
Gland assembly is now ready for compound. Refer to the correct instructions depending on compound type. These instructions are supplied with the compound.

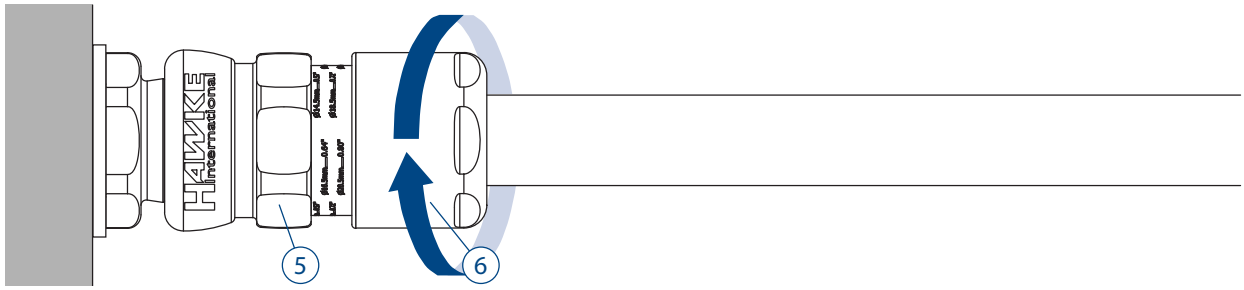
HAWKESEAL
2-Part Epoxy Putty
See AI 2034

ExPRESS
2-Part Pouring Epoxy Resin
See AI 2035

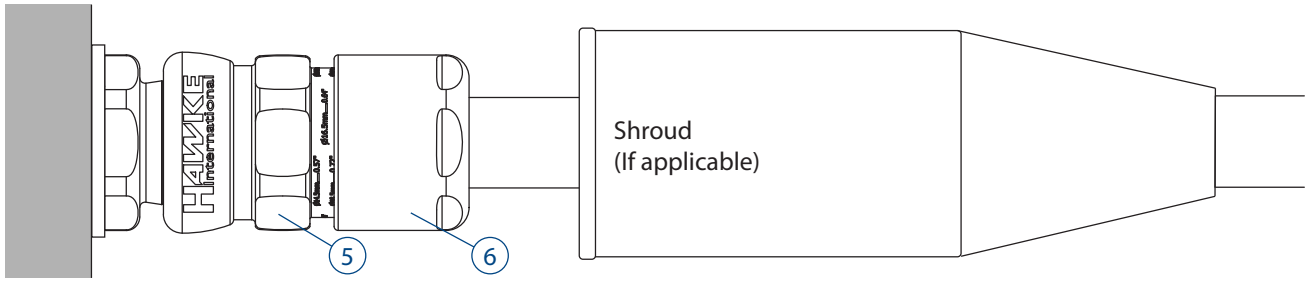
STEP 7: Fit to Enclosure
Now potting the gland is complete, first loosen the backnut ⑥.
Use a wrench to fit entry ① into enclosure. If required, use the appropriate IP washer ⑧.
Slide cable through entry ① until pot ② is seated in the entry.
Hand tighten the middlenut ⑤ to entry and add 1/5 - 1/4 turn with a wrench.



STEP 8: Install Backnut
Tighten the backnut ⑥ until a seal is formed around the cable.
Use a wrench/spanner to grip the middlenut ⑤.
While preventing the middlenut ⑤ turning, use a second wrench to apply one further full turn to the backnut ⑥.



STEP 9: Inspect Backnut
Use the middlenut ⑤ guide as an indication that the backnut ⑥ is in the correct position to suit cable diameter.
A diameter scale below is provided to assist in this process.
Slide shroud over cable gland if applicable.



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Technical Information
ICG 653 UNIV

TECHNICAL DATA

Cable Gland Type: ICG 653 UNIV
Equipment Type: Group II Barrier Cable Glands
Ingress Protection: IP66, IP67, IP68*, IP69, NEMA 4X
*30m for 7 days to EN60529 with thread sealant; 10m for 24hrs no thread sealant, Os-C size only
Operating Temp: -60°C to +80°C

INSTALLATION NOTES

1. All cable glands must be installed by a suitably trained and competent individual.
2. Entry threads are in accordance with Metric BS3643 or NPT B1.20.1
3. Installer must check material compatability with enclosure and environment.
4. To maintain IP66/IP67/IP69, Hawke certified sealing washer or other approved sealing method must be used.
5. Sealing face surface must be smooth and free from damage
6. Wall thicknesses depended on thread length or retention type (locknut etc). Exd must maintain the requirements of IEC/EN 60079-1
7. All entries must be installed perpendicular to the mounting surface.

TORQUE VALUES

All torque values below were generated on metallic mandrels. For cable, it is recommended that the assembly instructions are followed.

Torque Figures N/m									
Gland Size	Os	O	A	B	C	C2	D	E	F
Middlenut Torque	6	6	8	8	10	15	15	28	35
Backnut Torque	12	12	20	30	35	45	56	60	75

ACCESSORIES

Hawke offer the following accessories to enable correct sealing and ground of cable gland.

Shroud: For additional corrosion protection
Locknut: To secure gland into position
Sealing Washer: For additional ingress protection
Earth Tag: For external bonding point
Serrated Washer: To prevent vibration loosening locknuts

SCHEDULE OF LIMITATIONS

1. When the gland is used for increased safety, the entry thread shall be suitably sealed to maintain the ingress protection rating of the associated enclosure.
2. Compound cross section must be minimum 20% of total area over a depth of 20mm

CERTIFICATION DETAILS

ATEX/IECEx/UKEx

Ex db IIC Gb / Ex eb IIC Gb / Ex nR IIC Gc / Ex tb IIIC Db
ATEX: CML18ATEX1268X; CML19ATEX4507 (Ex nR)
IECEx: CML18.0131X UKEx: CML21UKEX1132X

NEC/CEC

Class I Div 1 ABCD, Class II Div 2 EFG and Class III
CLI Zn1 (A)Ex db eb IIC Gb Zn21 (A)Ex tb IIIC Db
CSA: 1024328

Additional Approvals

EAC: No EA3C RU C-GB.HA91.B.00264/21
KCs: 17-KA4BO-0159X to 0167X
CQST: CNEx17 2858X
Inmetro: IEx 14.0272X
PESO: P450038

CABLE GLAND SELECTION TABLE

Size Ref.	Entry Thread Size		Cable Acceptance Details						Max Length	Hexagon Dimensions	
			Inner Sheath	Cores			Outer Sheath				
	Metric	NPT	Max. Dia	Max. Over Cores	ATEX Max. No. of Cores	Max .No. Fibre Optic	Min.	Max.		Across Flats	Across Corners
Os	M16/M20	½"	8.1	8.0	12	48	5.5	12.0	58.4	24.0	26.5
O	M16/M20	½"	11.7	8.8	12	48	9.5	16.0	58.4	24.0	26.5
A	M20	½" - ¾"	14.0	10.8	15	72	12.5	20.5	60.6	30.0	32.5
B	M25	¾" - 1"	19.9	15.9	30	144	16.9	26.0	67.3	36.0	39.5
C	M32	1" - 1¼"	26.2	21.9	42	-	22.0	33.0	73.2	46.0	50.5
C2	M40	1¼" - 1½"	32.3	26.7	60	-	28.0	41.0	78.3	55.0	60.6
D	M50	1½" - 2"	44.2	37.7	80	-	36.0	52.6	97.5	65.0	70.8
E	M63	2" - 2½"	56.0	49.0	100	-	46.0	65.3	93.5	80.0	88.0
F	M75	2½" - 3"	68.0	59.8	120	-	57.0	78.0	104.5	95.0	104.0

EU Declaration of Conformity in accordance with European Directive 2014/34/EU and UK Statutory Instrument 2016/1107

Manufacturer: Hawke International, Oxford Street West, Ashton-under-Lyne, OL7 0NA, United Kingdom
Equipment: ICG/653/UNIV
Provisions of the Directive fulfilled by the Equipment: Group II Category 2GD Ex db eb IIC Gb, Ex nR IIC Gc, Ex tb IIIC Db – IP66 67 68 69
Harmonized Standards used: EN 60079-0:2018, EN60079-1:2014, EN60079-7:2015+A1:2018, EN60079-15:2019, EN60079-31:2014

Notified Body for EU-Type Examination: CML B.V. 2776 Amsterdam, NLD
EU-type Examination Certificate: CML18ATEX1268X, CML19ATEX4507X (Ex nR)
Notified Body for production: 0598

Approved Body for UK-Type Examination: CML B.V. 2503 Chester, UK
UK-type Examination Certificate: CML21UKEX1132X, CML21UKEX4133X (Ex nR)
Approved Body for production: 1180

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.

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Technical Manager

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