

HAWKE
International

CABLE GLANDS & ACCESSORIES

..... For Harsh & Hazardous Environments





Hawke Cable Glands & Accessories

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The Hawke Technical Section is available in digital format from this link:
www.hubbell.com/hawke/en/technical-section

What is a Cable Gland

A cable gland is, in simple terms, a device designed to attach and secure a cable to a piece of equipment or enclosure.

A cable gland provides strain relief and can include a provision for making a connection to the armour, braid, lead or aluminium sheath of the cable. For unarmoured and braided cables, this strain relief is provided by the seal only. For armoured cables the armour and clamp can also provide the pull out resistance. In hazardous areas, cable glands are also used to maintain the protection concept of the equipment or enclosure into which they are being terminated - in most instances Exe or Exd.

Why specify cable glands?

A poorly installed cable gland, or the incorrect gland chosen for a specific cable/application can become the weak link in the chain, whereas it should preserve the integrity of the overall installation. Whilst the cost of cable glands is insignificant compared to that of other hazardous area equipment, the cost of failure can be catastrophic.



Failure can take many forms and include:

- Water or dust ingress into the equipment
- Cable properties compromised
- Damage to the cable which can lead to explosion risk
- Cables becoming loose from equipment
- Electric shock risk
- Equipment failure
- Failure to meet essential HSE requirements

Why choose Hawke Cable Glands

All Hawke International cable glands meet, and in most cases exceed, the test requirements for products used in potentially hazardous areas. With over 65 years of experience manufacturing cable termination products for the most arduous environments, and a reputation built off safety and reliability, Hawke International cable glands offer the safest, most cost-effective glanding product available today. Plus, our global network of offices and distribution partners offers unrivalled technical support, giving peace of mind to installers and owners alike.

Certifications Explained

Whilst many standards aim to unify the testing and design requirements for Hazardous Area cable glands, national or international codes of practice and standards may differ in their approach and testing requirements. Hawke International aims to ensure all its products are globally certified wherever possible. However, we are not happy simply to pass the tests as dictated by the various standards but will always aim to meet and exceed these requirements with the user in mind, striking a balance between meeting the essential test requirements and offering the safest and simplest product for installers and users in real world applications not mirrored by the tests.

See below for a list of our certifications.



The part code logic table below allows for a quick, easy, colour coded method to configure our cable gland products.

Order Code Example - **453UBM25** (501/453/UNIV - B size - M25 entry thread)

KEY	
Required selection	
Optional selection	
Not required	

Cable Gland Part Code Logic					
Datasheet Name	Gland Type	Gland Size	Male Entry Thread Type/Size	Female Thread Type/Size	Thread Length
Do not include the below reference in the part code	Start part code with the below reference	See gland datasheet for available trade sizes. G size and larger are supplied with a 2mm pitch thread as standard. If 1.5mm pitch is required please add a 1 to the gland size, e.g. G1	See gland datasheet for available entry thread based on gland size Show NPT as Decimal e.g. 3/4" = 0.75	Only applies to conduit glands Show NPT as Decimal e.g. 3/4" = 0.75	Metric Thread Length is 15mm as standard. Metric options are defined as below: No Selection = 15mm B = 20mm C = 22mm D = 25mm E = 30mm* *30mm only available on M50 and larger Always leave blank for NPT
Coldflow Compliant Glands					
501/453/UNIV	453U				
ICG/653/UNIV	653U				
PSG/553/RAC	553R				
Compression Glands					
501/421	421				
501/423	423				
501/453/RAC	453R				
Barrier Glands					
PSG/553/RAC	553R				
ICG/653/UNIV	653U				
Conduit Glands					
CSB/656/N	656N				
SB/474	474				
501/414	414				
NEC Compliant Glands					
701	701				
710	710				
711	711				
153X	153X				
753	753				
Industrial Glands					
114	114				
121	121				
123	123				
150/RAC	150				
151/RAC	151R				
153/RAC	153R				
153/UNIV	153U				
Mining Glands					
453/RAC	453RM				
453/UNIV	453UM				
653/UNIV	653UM				

Accessory kits

Please select accessory kits number by combination of accessories required

Locknut	Sealing Washer	Earth Tag	Serrated Washer	Shroud	Kit Number
					01
					02
					03
					04
					05
					06
					07
					08
					09
					10
					11
					12
					13
					14
					15
					16

Please refer to the colour coded key for required and optional selections for each cable gland type. This table should be used in conjunction with the cable gland data sheet that is available online or in our catalogue.

Material	Special Inner Seal / Lead sheath	Alternative Ring	Barrier Compound Type	Accessories Kitted or Complete With	Kit Number
No Selection = Unplated Brass NP = Fully Nickel Plated NE = Nickel Plated Entry Only SS = Stainless Steel	See cable gland datasheet for availability of these options No Selection = Standard Seal S = Special Inner Seal L = Lead Sheath Option K = Special Inner Seal + Lead Sheath Option	Alternative clamping ring may be required based on the size of the cable armouring. No selection = Standard Ring R = Alternative Ring	No Selection = Liquid Express Resin Q = Putty Style Compound 656 only available with type Q.	Hawke cable glands can be supplied with accessories. This can be in a kit (sealed bag) or separate (one price for all components). K = Kitted with Products C = Supplied "Complete with"	For all accessory configurations when supplied kitted or complete with please see Accessory table below. Select the Kit Number based on accessory combination required.

Accessory kits

Please select accessory kits number by combination of accessories required

Locknut	Sealing Washer	Earth Tag	Serrated Washer	Shroud	Kit Number
					17
					18
					19
					20
					21
					22
					23
					24
					25
					26
					27
					28
					29
					30
					31

Cable Gland Tightening Guide

To help address issues with the overtightening of cable glands and the resultant damage to cables and seals, Hawke International has developed the patented **Inbuilt Tightening Guide**.

Without the need for fiddly measuring systems, the guide provides a permanent visual indication of the gland tightness through installation, inspection and maintenance.

Whilst Hawke International goes to great lengths to ensure products are designed to be as simple to install, inspect and maintain as possible, differing levels of competency, training and understanding can lead to glands being incorrectly installed. With hazardous area products, any poor installation issues can not only lead to expensive equipment failure, but also potential explosion risks and associated risk to life.

How it works

The gland is permanently marked with various lines/numbers indicating the correct tightening level related to the cable diameter. Following the relevant cable gland installation instructions, the back seal should be tightened until a seal is formed on the cable outer sheath and then tightened one further turn.



Follow cable gland installation instructions until final stage - tightening of rear seal



Tighten backnut until a seal is formed onto the cable, then tighten one further turn



The backnut should be level with the marking guide corresponding to its diameter - this can be visually inspected and adjusted as necessary

Note: The cable gland installation instructions have a printed cable OD measure for if the cable OD is not known

Cold Flow Compliant Cable Gland

Cold flow, or creep as it is referred to in material science, is the tendency of any solid material to move or deform over a period of time under the influence of mechanical stresses.

Although temperature and various other environmental factors impact cold flow, materials such as plastics and rubbers will begin to creep at room temperature. Cable gland manufacturers can help to negate the impact of cold flow through the reduction of load stresses on the cable itself.

The polymer sealing element found in most hazardous area cable glands will only form an effective seal on a cable when compressed or displaced through the action of tightening opposing components of a cable gland. This force applied to the seal either compresses or displaces the sealing face of the seal onto the cable inner sheath. In either case, the force applied in tightening the gland is transferred through this sealing element and on to the inner sheath of the cable.

This force can cause cold flow where the cable inner sheath may move away from the seal and create a possible path for gas or flame propagation in the event of an explosion.

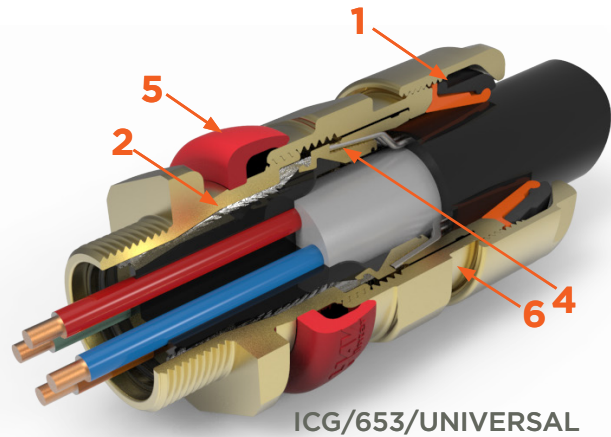
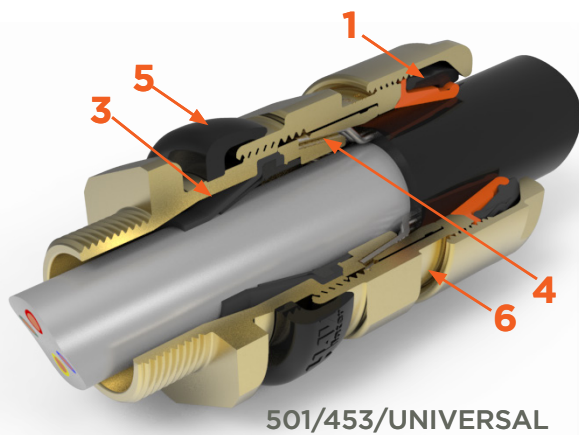


501/453/UNIVERSAL

The only known **independently tested non-barrier gland proven to not cause damage to cables**

and to meet the Essential Safety and Health Requirements when fitted to an actual cable – not a solid stainless steel test mandrel.

Features



1 Unique Rear Sealing System

This arrangement offers IP66, IP67, IP68 (30 metres for 7 days) IP69*, NEMA 4X and Deluge (DTS01) Ingress Protection. The seal is manufactured from a silicone material, has LSFZH properties, is ozone and oil resistant and is suitable for use at both high and low temperatures. The rear sealing system covers the entire range of cable diameters without the need for special seals and the cable acceptance range is stamped on the backnut for ease of inspection. The backnut can be hand tightened, with only one further spanner turn required to ensure IP66, IP67, IP68, IP69 and NEMA 4X.

2 Unique Inspectable Compound Chamber

The revolutionary Hawke compound chamber has been designed with inspectability in mind. With a unique clear non-metallic compound chamber for both IEC and NEC application, the barrier seal can be made using either a QSP quick setting 2-part hand-mixed putty, or a liquid injectable and fast curing resin, allowing for faster installation time than traditional 2-part compounds. The transparent compound chamber allows full visibility of the flameproof seal during installation and inspection making the ExPress barrier resin unparalleled as a global solution.

3 Zero Cable Damage

The unique Hawke diaphragm sealing system does not damage cable which exhibits 'Cold Flow' characteristics. The diaphragm type seal is the only elastomeric seal to comply fully with IEC/EN 60079-14 and is therefore suitable on effectively filled 'cold flow' cables which would otherwise require barrier style cable glands. The Hawke diaphragm seal is also unique in that it is the only flameproof elastomeric seal that can be visually inspected in operation – a real benefit to inspectors.

4 The Original Reversible Armour Clamp (RAC)

The original RAC clamping system was invented by Hawke over 10 years ago and is a well established proven performer in all conditions. Simply by reversing the clamping ring, the cable gland can adjust to accommodate all types of cable armour or braid. Unlike many of our competitors, the correct stamping orientation is marked clearly with the armour size and backed up by the presence of a groove in the component. Hawke's RAC clamping system is also fully inspectable when positioned on the cable.

5 Inspectable Deluge Seal

Hawke's Inspectable deluge seal offers IP66 and IP67 sealing and is certified as 'deluge proof' by ITS in accordance with DTS01. In fact, Hawke's deluge seal is so good that it exceeds the expectations of the offshore industry by not only preventing ingress into the equipment, but also into the cable gland, which prevents corrosion of the cable armour.

6 Cable Tightening Guide

To help address issues with the overtightening of cable glands and the resultant damage to cables and seals, Hawke International has developed the patented INBUILT TIGHTENING GUIDE. Without the need for fiddly measuring systems, the guide provides a permanent visual indication of the gland tightness through installation, inspection and maintenance. The gland is permanently marked with various lines/numbers indicating the correct tightening level related to the cable diameter. The backnut, once tightened to the line corresponding to the cable diameter, ensures there is no cable damage whilst still maintaining IP and pull-out.

**for all glands with a Hawke Deluge Boot*

The only “upgradeable” Exd Gland in the world

The **501/453/UNIVERSAL** cable gland offers installers the unique opportunity to upgrade the diaphragm seal, meant for use on effectively filled cable inner sheath's, to a barrier type gland, whereby a seal is formed around each individual cable core. This offers the user the ability to **purchase just one Exd gland** for both their standard, and barrier gland requirements.

The **ExPress barrier kit** provides the user with everything required to change the patented diaphragm seal found in the **501/453/UNIVERSAL** to the patented compound seal found in the **ICG/653/UNIVERSAL**.

This flexibility is unrivalled and offers unparalleled cost savings, flexibility and peace of mind. See Page 10 for order details.



501/453/UNIVERSAL

ICG/653/UNIVERSAL



MADE IN BRITAIN

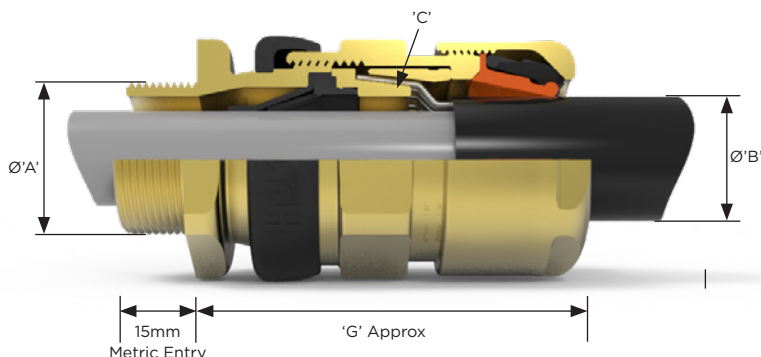


501/453/UNIV

Flameproof, Increased Safety, Dust Protection & Restricted Breathing
 Class - Zones
 Certified ATEX / IECEx / UKEX / c CSA us

Features

- Dual Certified Double Seal Cable Gland
- Elastomeric Exd flameproof seal on cable inner sheath
- Robust Inspectable Clamping arrangement for braid and tape
- Engineered to reduce the effect of coldflow Statement TL2024-02 available on request
- Optional Deluge Boot



The 501/453 Universal Cable Gland is dual certified Exe/Exd, robust and for use with single wire armour 'W', wire braid 'X', steel tape armour 'Z', elastomer and plastic insulated cables. For particular use with cables that exhibit 'Cold Flow' characteristics. This cable gland is the first and only cable gland capable of being upgraded to a barrier type solution in the field. See below for more details. See technical section for installation rules and regulations.

Cable Gland Selection Table

Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details						'G'	Hexagon Dimensions	
	Metric	NPT*	Inner Sheath		Outer Sheath 'B'		Armour / Braid 'C'			Across Flats	Across Corners
			Min.	Max.	Min.	Max.	Orientation 1	Orientation 2			
Os	M20 ²	½"	3.5	8.1	5.5	12.0	0.8 / 1.25	0.0 / 0.8	58.4	24.0	26.5
O	M20 ²	½"	6.5	11.4	9.5	16.0	0.8/1.25	0.0 / 0.8	58.4	24.0	26.5
A	M20	¾" or ½"	8.4	14.3	12.5	20.5	0.8 / 1.25	0.0 / 0.8	59.6	30.0	32.5
B	M25	1" or ¾"	11.1	19.7	16.9	26.0	1.25 / 1.6	0.0 / 0.7	66.4	36.0	39.5
C	M32	1¼" or 1"	17.6	26.5	22.0	33.0	1.6 / 2.0	0.0 / 0.7	71.2	46.0	50.5
C2	M40	1½" or 1¼"	23.1	32.5	28.0	41.0	1.6 / 2.0	0.0 / 0.7	75.2	55.0	60.6
D	M50	2" or 1½"	28.9	44.4 / 42.3 ¹	36.0	52.6	1.8 / 2.5	0.0 / 1.0	98.0	65.0	70.8
E	M63	2½" or 2"	39.9	56.3 / 54.3 ¹	46.0	65.3	1.8 / 2.5	0.0 / 1.0	94.4	80.0	88.0
F	M75	3" or 2½"	50.5	68.2 / 65.3 ¹	57.0	78.0	1.8 / 2.5	0.0 / 1.0	102.0	95.0	104.0
G	M80	3½"	67.0	73.0	75.0	89.5	2.0 / 3.5	0.0 / 1.0	90.6	106.4	115.0
H	M90	3½"	67.0	77.6	75.0	89.5	2.0 / 3.5	0.0 / 1.0	90.6	115.0	130.0
J	M100	4"	77.0	91.6	88.0	104.5	2.5 / 4.0	0.0 / 1.0	90.6	127.0	142.0

All dimensions in millimetres (except * where dimensions are in inches)

Os - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread

G - J size metric entry threads are 2mm pitch as standard, 20mm length of thread G - J size are only available in the 501/453/RAC design style.

¹ Smaller value is applicable when selecting reduced NPT entry option.

² Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner sheath diameter is 10.9mm

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67 IP68 (30 metres for 7 days, special conditions may apply) and IP69 to IEC/EN 60529 and NEMA 4X
Deluge Protection	to DTS01
Enclosure Protection	IK10 to IEC 62262
Operating Temperature	-60°C to +80°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22

Approvals

Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 18ATEX1268X CML 19ATEX4507 (Ex nR)
IECEX Certificate No	CML 18.0131X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1132X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/BO DNV: TAE0000BS
Additional Certifications	CCC: 2020312313000318
	EAC: No EA3C RU C-GB.HA91.B.00264/21
	EQM: 20-11-27224/Q20-11-000979/NB0007
	Inmetro: IEx 14.0272X
	KCs: 17-KA4BO-0138X to 0149X PESO: P450038 SONCAP: LCOGB049552-0500

NEC/CEC

NEC Protection Class	Class I, Zone I, AEx eb IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Class I Div 2 ABCD, Class II Div 2 EFG and Class III Ex db IIC Gb; Ex eb IIC Gb
c CSA us Certificate	1015065
Construction & Test Standards	UL2225, UL1203, UL514B, CSA C22.2 NO. 0-10, CSA C22.2 NO. 174-18, CSA 22.2 60079-0, CSA 22.2 60079-1, CSA 22.2 60079-7 and CSA 22.2 60079-31

Alternative Reversible Armour Clamping Ring Size Selection		
Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

Ordering Information

If brass is required please omit material selection
 Format for ordering is as follows: Alternative Clamping Ring (R), add suffix R to ordering information

Cable Gland Type	Size	Thread	Material	(Optional)
453U	C	M32		R
453U	C	1.25	NP	R

Example Code: 453UCM32R
 Please note all NPT entries should be state as a decimal.
 Please refer to part code logic information page for further details on product options

Barrier Gland Upgrade Kit

The barrier gland upgrade kit comes with everything needed to turn the 501/453/UNIVERSAL into the ICG/653/UNIVERSAL barrier gland.

The kit, available in ExPress injectable self-mixing barrier resin and QSP 2-part hand mix putty both offer a barrier cure time from 30 minutes, are both fully inspectable and offer full visibility through the clear silicone flameproof seal during installation and inspection.



Cable Gland Tightening Guide

Whilst Hawke International goes to great lengths to ensure products are designed to be as simple to install, inspect and maintain as is possible, differing levels of competency, training and understanding can lead to glands being incorrectly installed. With hazardous area products, any poor installation issues can not only lead to expensive equipment failure, but also potential explosion risks and associated risk to life.

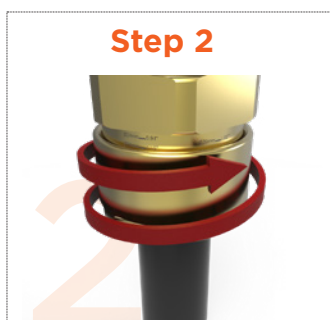
To help address issues with the overtightening of cable glands and the resultant damage to cables and seals, Hawke International has developed the patented **INBUILT TIGHTENING GUIDE**. Without the need for fiddly measuring systems, the guide provides a permanent visual indication of the gland tightness through installation, inspection and maintenance.

How it works

The gland is permanently marked with various lines/numbers indicating the correct tightening level related to the cable diameter. Following the relevant cable gland installation instructions, the back seal should be tightened until a seal is formed on the cable outer sheath and then tightened one further turn.



Step 1
 Follow cable gland installation instructions until final stage - tightening of rear seal



Step 2
 Tighten backnut until a seal is formed onto the cable, then tighten one further turn



Step 3
 The backnut should be level with the marking guide corresponding to its diameter - this can be visually inspected and adjusted as necessary

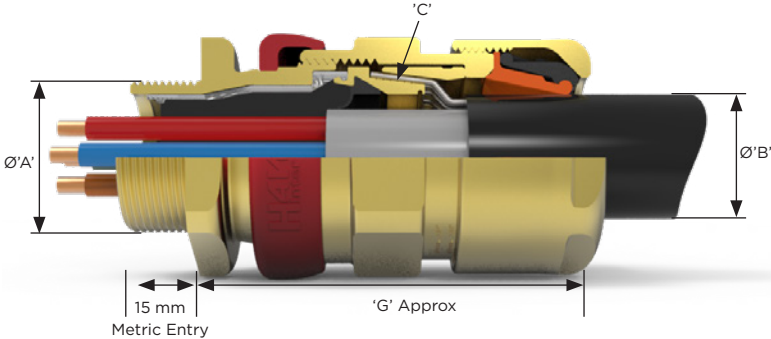


MADE IN BRITAIN



ICG/653/UNIV

Flameproof, Increased Safety, Dust Protection & Restricted Breathing
 Class - Zones - Divisions
 Certified ATEX / IECEx / UKEX



Features

- Inspectable Deluge Seal - Offering IP66, IP67, IP68 & IP69 Ingress Protection
- Transparent Elastomeric Fully Inspectable Compound Pot - compatible with both injectable resin and 2 part compound
- Reversible Armour Clamp - For all types of armour and braid.
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- EMC Compliant with Integral 360 degree bonding

Dual certified Exe/Exd barrier gland, providing a seal around individual cable cores, especially for cables that exhibit "cold flow" characteristics, are not effectively filled, have hygroscopic fillers or contains fibre optic cores. For use with single wire armour 'W', wire braid 'X', steel tape armour 'Z' elastomer and plastic insulated cables. The ICG/653/UNIVERSAL is available with either ExPress liquid barrier resin or QSP 2-part hand mix compound, both with a cure time 30 minutes

Cable Gland Selection Table

Size Ref.	Entry Thread 'A'		Cable Acceptance Details								'G'	Hexagon Dimensions	
	Metric	NPT*	Inner Sheath/Cores				Outer Sheath 'B'		Armour/Braid 'C'			Across Flats	Across Corners
			Max Inner Sheath Dia	Max Over Core Dia	Max No of Cores	Max No of Fibre Optic	Min	Max	Orientation 1	Orientation 2			
Os	M20 ²	½"	8.1**	8	12	48	5.5	12	0.8 / 1.25	0.0 / 0.8	58.4	24	26.5
O	M20 ²	½"	11.7	8.8	12	48	9.5	16	0.8 / 1.25	0.0 / 0.8	58.4	24	26.5
A	M20	¾" or ½"	14	10.8	15	72	12.5	20.5	0.8 / 1.25	0.0 / 0.8	60.6	30	32.5
B	M25	1" or ¾"	19.9	15.9	30	144	16.9	26	1.25 / 1.6	0.0 / 0.7	67.3	36	39.5
C	M32	1¼" or 1"	26.2	21.9	42	-	22	33	1.6 / 2.0	0.0 / 0.7	73.2	46	50.5
C2	M40	1½" or 1¼"	32.3	26.7	60	-	28	41	1.6 / 2.0	0.0 / 0.7	78.3	55	60.6
D	M50	2" or 1½"	44.2	37.7	80	-	36	52.6	1.8 / 2.5	0.0 / 1.0	97.5	65	70.8
E	M63	2½" or 2"	56	49	100	-	46	65.3	1.8 / 2.5	0.0 / 1.0	93.5	80	88
F	M75	3" or 2½"	68	59.8	120	-	57	78	1.8 / 2.5	0.0 / 1.0	104.5	95	104

¹ All dimensions in millimetres (except * where dimensions are in inches). Metric entry threads are 1.5mm pitch as standard, 15mm length of thread.

² Are available with M16 entry thread, which reduces Max Over Core Diameter to 7mm.

**Recommended value to suit integrated Express resin stop. May be increased to 10.0 if QSP compound or alternative Express resin stop method are used.

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67, IP68 (30 metres for 7 days, special instruction apply), IP69 to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	to DTS01
Operating Temperature	-60°C to +80°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22

Approvals

Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 18ATEX1268X CML 19ATEX4507 (Ex nR)
IECEx Certificate No	CML 18.0131X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1132X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/B0 DNV: TAE0000BS
Additional Certifications	CCC: 2020312313000317 EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X KCs: 17-KA4BO-0159X to 0167X PESO: P450038 SONCAP: LCOGB049552-0500

NEC/CEC

NEC Protection Class	Class I Div 1 ABCD Class II Div 2 EFG and Class III Class I, Zone I, AEx db IIC Gb, AEx eb IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Class I Div 1 ABCD Class II Div 2 EFG and Class III Ex db IIC Gb; Ex eb IIC Gb; Ex tb IIIC Db
c CSA us Certificate	1024328
Construction & Test Standards	UL2225, UL1203, UL514B, CSA C22.2 NO. 0-10, CSA C22.2 NO. 174-18, CSA 22.2 60079-0, CSA 22.2 60079-1, CSA 22.2 60079-7 and CSA 22.2 60079-31

Alternative Reversible Armour Clamping Ring Size Selection		
Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

Ordering Information					
Cable Gland Type	Size	Thread	Material	(Optional)	Compound
653U	C	M32		R	
653U	C	1.25	NP	R	Q

If brass is required please omit material selection
 Format for ordering is as follows: Alternative Ring (R), add suffix R to ordering information
 All barrier glands are supplied with Express resin as standard. If QSP (Quick Set Putty) is required please select Q in compound selection
 Example Code: 653UCM32R
 Assembly instructions are supplied with the cable gland
 Please note all NPT entries should be state as a decimal
 Please refer to part code logic information page for further details on product options

ExPress Barrier Resin

Specify your barrier gland with our ExPress injectable resin for faster, easier installation.
 A liquid injectable and fast curing resin, allowing for faster installation time than traditional 2-part compounds.

Utilising a unique clear compound chamber for full visibility of the flameproof seal during installation and inspection, the ExPress barrier resin is unparalleled as a global solution, with a 30 minute gel time and unrivalled ease of use. All barrier glands are now supplied with Express Resin as standard.



Cable Gland Tightening Guide

Whilst Hawke International goes to great lengths to ensure products are designed to be as simple to install, inspect and maintain as is possible, differing levels of competency, training and understanding can lead to glands being incorrectly installed. With hazardous area products, any poor installation issues can not only lead to expensive equipment failure, but also potential explosion risks and associated risk to life.

To help address issues with the overtightening of cable glands and the resultant damage to cables and seals, Hawke International has developed the patented **INBUILT TIGHTENING GUIDE**.

Without the need for fiddly measuring systems, the guide provides a permanent visual indication of the gland tightness through installation, inspection and maintenance.

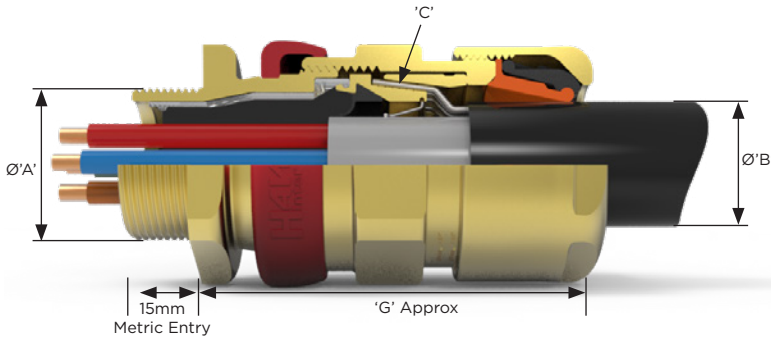


MADE IN BRITAIN



ICG/653/UNIV/L

Flameproof, Increased Safety, Dust Protection, Restricted Breathing Class - Zones - Divisions
 Certified ATEX / IECEx / UKEX For Lead Sheath Cables



Features

- Inspectable Deluge Seal - Offering IP66, IP67, IP68 & IP69 Ingress Protection
- Transparent Elastomeric Fully Inspectable Compound Pot - compatible with both injectable resin and 2 part compound
- Reversible Armour Clamp - For all types of armour and braid
- Electrical Bond on the cables lead inner sheath
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range
- EMC Compliant with Integral 360 degree bonding

Dual certified fully inspectable Exe/Exd barrier gland providing a seal around individual cable cores on lead sheathed cables which are not effectively filled, have hygroscopic fillers or contains fibre optic cores. For use with single wire armour 'W', wire braid 'X', steel tape armour 'Z' elastomer and plastic insulated cables with a lead inner sheath. The ICG/653/UNIVERSAL/L is available with either ExPress liquid barrier resin or QSP 2-part hand mix compound, both with a cure time of 30 minutes

Cable Gland Selection Table

Size Ref.	Entry Thread 'A'		Cable Acceptance Details								'G'	Hexagon Dimensions	
	Metric	NPT*	Inner Sheath/Cores				Outer Sheath 'B'		Armour Braid 'C'			Across Flats	Across Corners
			Max Inner Sheath	Max Over Core Diameter	Max No of Cores	Max No of Fibre Optic	Min	Max	Orientation 1	Orientation 2			
Os	M20 ²	½"	8.0**	8.0	12	48.0	5.5	12.0	0.8/1.25	0.0/0.8	58.4	24.0	26.5
O	M20 ²	½"	10.2	8.8	12	48.0	9.5	16.0	0.8/1.25	0.0/0.8	58.4	24.0	26.5
A	M20	¾" or ½"	12.5	10.8	15	72.0	12.5	20.5	0.8/1.25	0.0/0.8	60.6	30.0	32.5
B	M25	1" or ¾"	18.0	15.9	30	144.0	16.9	26.0	1.25/1.6	0.0/0.7	67.3	36.0	39.5
C	M32	1¼" or 1"	24.3	21.9	42	-	22.0	33.0	1.6/2.0	0.0/0.7	73.2	46.0	50.5
C2	M40	1½" or 1¼"	30.3	26.7	60	-	28.0	41.0	1.6/2.0	0.0/0.7	78.3	55.0	60.6
D	M50	2" or 1½"	41.9	37.7	80	-	36.0	52.6	1.8/2.5	0.0/1.0	97.5	65.0	70.8
E	M63	2½" or 2"	52.9	49.0	100	-	46.0	65.3	1.8/2.5	0.0/1.0	93.5	80.0	88.0
F	M75	3" or 2½"	64.9	59.8	120	-	57.0	78.0	1.8/2.5	0.0/1.0	104.5	95.0	104.0

¹ All dimensions in millimetres (except * where dimensions are in inches). Metric entry threads are 1.5mm pitch as standard, 15mm length of thread.

² Are available with M16 entry thread, which reduces Max Over Core Diameter to 7mm.

**Recommended value to suit integrated Express resin stop. May be increased to 10.0 if QSP compound or alternative Express resin stop method are used.

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67, IP68 (30 metres for 7 days, special instructions apply), IP69 to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	to DTS01
Operating Temperature	-60°C to +80°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22

Approvals

Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 18ATEX1268X CML 19ATEX4507 (Ex nR)
IECEx Certificate No	CML 18.0131X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1132X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/BODNV: TAE0000BS
Additional Certifications	CCC: 2020312313000317
	EAC: No EA3C RU C-GB.HA91.B.00264/21
	EQM: 20-11-27224/Q20-11-000979/NB0007
	Inmetro: IEX 14.0272X
	KCs: 17-KA4BO-0159X to 0167X PESO: P450038 SONCAP: LCOGB049552-0500

NEC/CEC

NEC Protection Class	Class I Div 1 ABCD Class II Div 2 EFG and Class III Class I, Zone I, AEx db IIC Gb, AEx eb IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Class I Div 1 ABCD Class II Div 2 EFG and Class III Ex db IIC Gb; Ex eb IIC Gb; Ex tb IIIC Db
c CSA us Certificate	1024328
Construction & Test Standards	UL2225, UL1203, UL514B, CSA C22.2 NO. 0-10, CSA C22.2 NO. 174-18, CSA 22.2 60079-0, CSA 22.2 60079-1, CSA 22.2 60079-7 and CSA 22.2 60079-31

Alternative Reversible Armour Clamping Ring Size Selection		
Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

Ordering Information

If brass is required please omit material selection
 Format for ordering is as follows:
 Lead sheath must be selected in optional (L), optional Alternative Ring (R), add suffix L, and R if required to ordering information
 All barrier glands are supplied with Express resin as standard. If QSP (Quick Set Putty) is required please select Q in compound selection

Cable Gland Type	Size	Thread	Material	(Optional)	Compound
653U	C	M32		LR	
653U	C	1.25	NP	L	Q

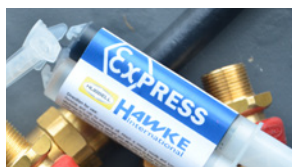
Example Code: 653UCM32LR
 Assembly instructions are supplied with the cable gland
 Please note all NPT entries should be state as a decimal
 Please refer to part code logic information page for further details on product options

ExPress Barrier Resin

Specify your barrier gland with our ExPress injectable resin for faster, easier installation

A liquid injectable and fast curing resin, allowing for faster installation time than traditional 2-part compounds. Utilising a unique clear compound chamber for full visibility of the flameproof seal during installation and inspection, the ExPress barrier resin is unparalleled as a global solution, with a 30 minute gel time and unrivalled ease of use.

All barrier glands are now supplied with Express Resin as standard.



Cable Gland Tightening Guide

Whilst Hawke International goes to great lengths to ensure products are designed to be as simple to install, inspect and maintain as is possible, differing levels of competency, training and understanding can lead to glands being incorrectly installed. With hazardous area products, any poor installation issues can not only lead to expensive equipment failure, but also potential explosion risks and associated risk to life.

To help address issues with the overtightening of cable glands and the resultant damage to cables and seals, Hawke International has developed the patented **INBUILT TIGHTENING GUIDE**. Without the need for fiddly measuring systems, the guide provides a permanent visual indication of the gland tightness through installation, inspection and maintenance.

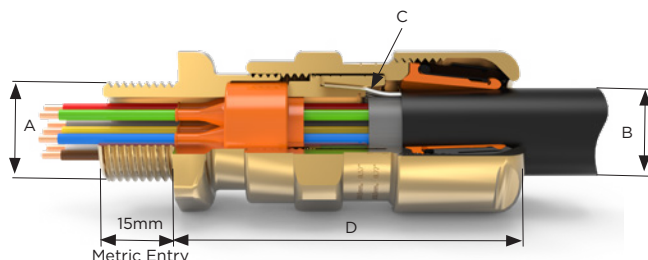


MADE IN BRITAIN



PSG/553/RAC

Flameproof, Increased Safety, Dust Protection, Restricted Breathing Certified ATEX / IECEx / UKEX



Features

- Provides an instant barrier seal around the individual cable conductors
- Accommodates range of conductor diameters in a single seal
- No punch tool required for seal installation
- Seals around heat shrunk drain wires
- Provides armour clamping using one clamping arrangement for both armour and braid types
- Provides cable retention and low smoke and fume, zero halogen seal onto the cables outer sheath
- Environmentally friendly barrier solution
- Suitable for use with unarmoured cable
- EMC Compliant with Integral 360 degree bonding

The PSG/553/RAC dual certified Exe/Exd cable gland offers an instant silicone barrier seal around the individual conductors of a cable. This results in unparalleled speed of installation, and instant inspection. Removes need for curing compound or resin to achieve the Exd barrier seal hence no curing time and instant gland completion.

Cable Gland Selection Table

Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details											Approx Length 'D'		Hexagon Dimensions		
			Conductors				Armour / Braid / Tape 'C'				Outer Sheath 'B'							
	Metric*	NPT	Standard Seal		Alternative Seal (S)		Standard Ring		Min.	Max.	Min.	Max.	Min.	Max.	Across Flats	Across Corners		
			Dia. (mm)	Quantity	Dia. (mm)	Quantity	Orientation 1	Orientation 2										
Os	M16 or M20	½"	1.5	4	1	4	-	-	-	-	0.8 / 1.25	0.0 / 0.8	5.5	12	52	81	24.0	26.5
O	M16 or M20	½"	1.5	4	1	4	-	-	-	-	0.8 / 1.25	0.0 / 0.8	9.5	16	52	81	24.0	26.5
A	M20	½" or ¾"	1.5	4	1	7	-	-	-	-	0.8 / 1.25	0.0 / 0.8	12.5	20.5	53	83	30.0	32.5
B	M25	¾" or 1"	1.5	4	1	12	4.5	6.5	1	5	1.25 / 1.6	0.0 / 0.7	16.9	26.0	59.5	95	36.0	39.5
C	M32	1" or 1 ¼"	1.5	4	7	19	-	-	-	-	1.6 / 2.0	0.0 / 0.7	22.0	33.0	64	98	46.0	50.5

*Metric threadforms are 1.5mm pitch, 15mm long as standard

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67 and IP68 (30 metres for 7 days, special instructions apply) to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	to DTS01
Operating Temperature	-60°C to +100°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22
Approvals	
Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 19ATEX1167X CML 19ATEX4507X (Ex nR)
IECEX Certificate No	CML 19.0045X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1161X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/BO DNV: TAE0000BS
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X PESO: P450038 SONCAP: LCOGB049552-0500

Alternative Reversible Armour Clamping Ring Size Selection

Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2

Ordering Information

If brass is required please omit material selection

Format for ordering is as follows: For Alternative Seal (S), Alternative Ring (R), add suffix S and/or R to ordering information

Cable Gland Type	Size	Thread	Material	(Optional)
553R	C	M32		R
553R	B	1.0	NP	S

Example code: 553RCM32R

Please note all NPT entries should be state as a decimal

Please refer to part code logic information page for further details on product options

Rapid Connection Gland

The range offers rapid termination and disconnection in a cost-effective package, which can reduce ownership expenses by decreasing the time it takes to carry essential inspection, maintenance, and repair & overhaul.



RCG SERIES

More than a Cable Gland

Chalmit®

NEO X

The Next Generation in Hazardous Area LED Lighting



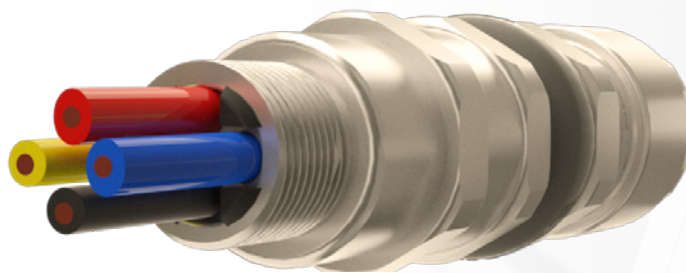
- -55°C to +55°C full ambient range
- Range of outputs from 1500lm up to 4300lm
- Effective and compact alternative to a linear luminaire
- RCG entries and hot swap battery options available
- Exit sign kit option available
- Zone 2 and Industrial coming soon

Low Maintenance Zone 1 Bulkhead

The 501/RCG Range

Introducing the ultimate hybrid of cable gland and connector

The range offers rapid termination and disconnection in a cost-effective package, which can reduce ownership expenses by decreasing the time it takes to carry essential inspection, maintenance, and repair & overhaul.



Over the past 60 years, we've built a reputation for manufacturing the highest quality, safest and easiest to install Cable Glands for Harsh and Hazardous environments.

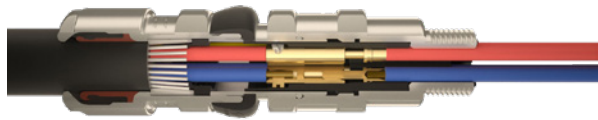
We constantly strive to improve the installation, maintenance, and inspection process for our customers. That's why our Cable Glands include a range of patented features which can't be found anywhere else. In 2019, we launched our biggest set of gland developments in 25 years and, in 2021, we're pushing the boundaries even further with our RCG Cable Gland and Coupler.

More than a Cable Gland



501/RCG

Increased Safety, Dust Protection
Certified ATEX / IECEx / UKEx



Features

- Quick disconnect pin and socket arrangement inside the body of a gland
- Reversible Armour Clamp - For all types of armour and braid
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range
- EMC Compliant with Integral 360 degree bonding

The 501/RCG is certified Exe/Ext, and can be used for quick field connection of cables to equipment where historically hard wiring methods are used. The product offers cost savings when carrying out essential inspection and maintenance activities, including the capability to quickly swap out equipment on-site.

501/RCG Selection Table

Body Size	Seal/Ring Size	Inner Sheath Max	Outer Sheath		Steel Wire Armour/Tape/Braid		Entry Thread	Max Hexagon Dimensions	
			Min	Max	Orientation 1	Orientation 2		Across Flats	Across Corners
4-Pin	Os	8.1	5.5	12	0.8-1.25	0-0.8	M20	24	26.5
	O	11.4	9.5	16	0.8-1.25	0-0.8		24	26.5
	A	14.3	12.5	20.5	0.8-1.25	0-0.8		30	32.5
6-pin	O	11.4	9.5	16	0.8-1.25	0-0.8	M25	24	26.5
	A	14.3	12.5	20.5	0.8-1.25	0-0.8		30	32.5
	B	19.7	16.9	26	1.25-1.6	0-0.7		36	39.5
	B(AR)	19.7	16.9	26	0.9-1.25	0.5-0.9		36	39.5

For Alternative Ring with 6-pin B size add "AR" to end of code string

Technical Data

Ingress Protection	IP66, IP67
Deluge Protection	to DTS01
Voltage Rating	300VAC / 212VDC
Ampage	Dependent on conductor size, see T-Rating Selection Table
Conductor Sizes	0.75mm ² - 6mm ²
Over Insulation Acceptance Diameters	Entry Side: Ø4.75mm Body Side: Ø5.50mm
Operating Temperature	-60°C to +60°C (may be limited by T-Class)

ATEX/IECEx

ATEX/IECEx Protection Class	Ex II 2 GD Ex eb IIC T6/T5 Gb, Ex tb IIIC T80°C/95°C Db Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22
ATEX Certificate No	CML20ATEX3217X
IECEx Certificate No	CML20.0137X
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-7 and IEC/EN 60079-31
Additional Certifications	EAC: RU C-GB.HA91.B.00207/21 Inmetro: IEx 21.0011X UKEx: CML21UKEX3073X

T-Rating Selection Table

Conductor Size	T6 +60°C	T5 +50°C
0.75mm ²	5A	5A
1.5mm ²	5A	5A
2.5mm ²	10A	16A
4mm ²	12A	18A
6mm ²	20A	30A

- Product Amp Rating is dependent on conductor size used in installation. Product comes marked with all T-ratings as standard
- Other conductor sizes between the sizes of 0.75mm² - 6mm² may be used.
- If the conductor size is not stated in the table above, the max ampage is restricted to the closest size rounded down.
E.g. 3mm² conductor size would be limited to 10A if used in a T6 classification.
- If a mixture of conductor sizes is used, the ampage must be restricted to the smallest diameter used.
- This product may not be connected or disconnected under load.

Ordering Information		
Name	501/RCG	Product Type
Number of Pins	4	4 Pins
	6	6 Pins
Body style	E	Entry (Supplied with Energised Cap)
	B	Body (Supplied with Energised Cap)
	G	Entry and Body (Supplied with Transit Caps)
Contact size Selection only required for Body Style E and G	A	0.75mm ² - 1.5mm ²
	B	2.5mm ²
	C	4/6mm ²
	X	N/A for Bodies
Cable OD Selection only required for Body Style B and G	S	OS (4way)
	O	O (4/6way)
	A	A (4/6way)
	B	B (6way)
	X	N/A for Entries Only

Supplied Brass Nickel Plated as standard. Crimp tool for Entry assembly recommended, order part code HTC2

Insert tool for Entry assembly required, order part code RCGT1. For Alternative threaded entries, a 476 thread adaptor may be required

For additional clamping and to meet IEC EN BS 60079-14 10.3, the GMC can be used with the 501/RCG. When purchasing Entry component, the required conductor size must be specified

Order Example: 501/RCG-4-G-B-A



The 501/RCG Cable Gland combines the features of our market-leading Cable Gland range with the plug and play benefits of a connector.

Like a Gland, the RCG:

- Can be installed in long term installations
- Offers easy installation
- Suitable for Exe, Zone 1 certified equipment and rated to IP66/67

Unlike a Gland, however, the RCG Cable Gland also:

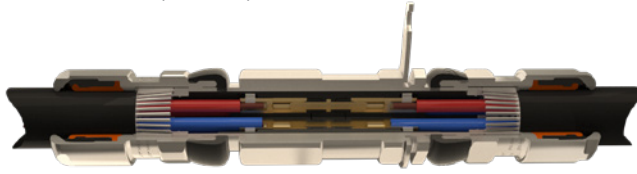
- Can be pre-wired and used with sealed for life equipment or during modular fabrication
- Can be quickly disconnected for replacement and maintenance operations
- Provides an opportunity to reduce the amount of Ex equipment required for an installation



By combining Gland and Connector technology, the RCG offers a rapid connection solution that is much more than a Cable Gland.

501/RCG/COUPLER

Increased Safety, Dust Protection
 Certified ATEX / IECEx / UKEx



Features

- Quick disconnect pin and socket arrangement inside a connection tube
- Reversible Armour Clamp - For all types of armour and braid
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range
- External Earthing Tag supplied as standard
- EMC Compliant with Integral 360 degree bonding

The **501/RCG Coupler** is certified Exe, and is an inline quick connection product suitable for use as a cable extension device or an alternative to a junction box. Suitable for all types of cable, including unarmoured, armoured and braided.

501/RCG Coupler Selection Table

Body Size	Seal/Ring Size	Inner Sheath Max	Outer Sheath		Steel Wire Armour/Tape/Braid		Max Hexagon Dimensions	
			Min	Max	Orientation 1	Orientation 2	Across Flats	Across Corners
4-Pin	Os	8.1	5.5	12	0.8-1.25	0-0.8	24	26.5
	O	11.4	9.5	16	0.8-1.25	0-0.8	24	26.5
	A	14.3	12.5	20.5	0.8-1.25	0-0.8	30	32.5
6-pin	O	11.4	9.5	16	0.8-1.25	0-0.8	24	26.5
	A	14.3	12.5	20.5	0.8-1.25	0-0.8	30	32.5
	B	19.7	16.9	26	1.25-1.6	0-0.7	36	39.5
	B (AR)	19.7	16.9	26	0.9-1.25	0.5-0.9	36	39.5

Technical Data

Ingress Protection	IP66, IP67
Deluge Protection	to DTS01
Voltage Rating	300VAC / 212VDC
Ampage	Dependent on conductor size, see T-Rating Selection Table
Conductor Sizes	0.75mm ² - 6mm ²
Over Insulation Acceptance Diameter	Ø5.50mm
Operating Temperature	-60°C to +60°C (may be limited by T-Class)

ATEX/IECEx

ATEX/IECEx Protection Class	Ex II 2 GD Ex eb IIC T6/T5 Gb, Ex tb IIIC T80°C/95°C Db Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22
ATEX Certificate No	CML20ATEX3217X
IECEx Certificate No	CML20.0137X
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-7 and IEC/EN 60079-31
Additional Certifications	EAC: RU C-GB.HA91.B.00207/21 Inmetro: IEx 21.0011X UKEx: CML21UKEX3073X

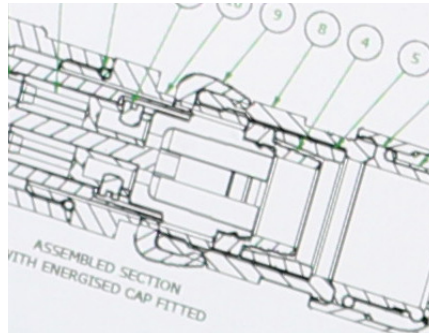
T-Rating Selection Table

Conductor Size	T6 +60°C	T5 +50°C
0.75mm ²	5A	5A
1.5mm ²	5A	5A
2.5mm ²	10A	10A
4mm ²	12A	18A
6mm ²	20A	30A (4pin) 25A (6pin)

- Product Amp Rating is dependent on conductor size used in installation. Product comes marked with all T-ratings as standard
- Other conductor sizes between the sizes of 0.75mm² - 6mm² may be used.
- If the conductor size is not stated in the table above, the max ampage is restricted to the closest size rounded down.
E.g. 3mm² conductor size would be limited to 10A if used in a T6 classification.
- If a mixture of conductor sizes is used, the ampage must be restricted to the smallest diameter used.
- This product may not be connected or disconnected under load.

Ordering Information		
Name	501/RCG	
Number of cores	4	4 pins
	6	6 pins
Body style	C	Coupler
Cable OD	S	OS (4way)
	O	O (4/6way)
	A	A (4/6way)
	B	B (6way)
Supplied Brass Nickel Plated as standard For additional clamping and to meet IEC EN BS 60079-14 10.3, the GMC can be used with the 501/RCG A flange mount can be purchased as a separate line item, for details contact Hawke Technical		

Order Example: 501/RCG-4-C-A



The RCG coupler allows an installer to extend an existing piece of cable without the need to use a junction box, or a more permanent splice kit.

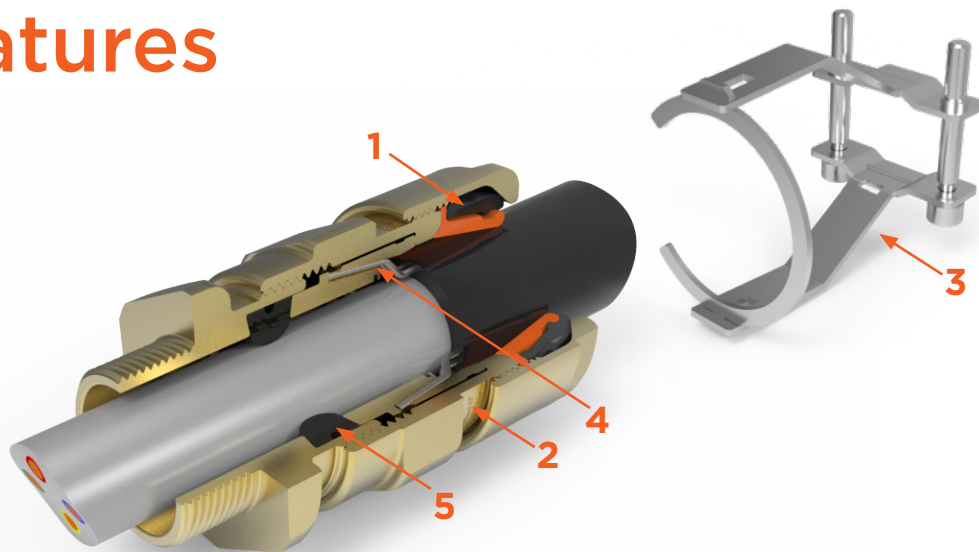
It combines two RCG cable glands and a simple termination system to make upgrading installations fast and easy while incorporating plug and play technology for future use.

The drive for improvements in performance and efficiency has led to better performing and, in most cases, smaller equipment such as lighting, gas detectors and more. We've seen this particularly in the lighting industry with the benefits of LEDs. No longer constrained by a fixed lamp size, luminaire design has become smaller to make the most of the LED technology it houses.

The RCG Coupler can bridge this gap between new and existing technology/ installations on any facilities such as Rigs and FPSOs.



Features



1 Unique Rear Sealing System

This arrangement offers IP66, IP67, IP68 (30 metres for 7 days), NEMA 4X and Deluge (DTS01) Ingress Protection. The seal is manufactured from a silicone material, has LSFZH properties, is ozone and oil resistant and is suitable for use at both high and low temperatures. The Rear Sealing System covers the entire range of cable diameters without the need for special seals and the cable acceptance range is stamped on the backnut for ease of inspection. The backnut can be hand tightened, with only one further spanner turn required to ensure IP66, IP67, IP68 and NEMA 4X.

2 Cable Tightening Guide

To help address issues with the overtightening of cable glands and the resultant damage to cables and seals, Hawke International has developed the patented INBUILT TIGHTENING GUIDE. Removing the need for fiddly measuring systems, the guide provides a permanent visual indication of the gland tightness through installation, inspection and maintenance. The gland is permanently marked with various lines/numbers indicating the correct tightening level related to the cable diameter. The backnut, once tightened to the line corresponding to the cable diameter, ensures there is no cable damage whilst still maintaining IP and pull-out.

3 100% Pull-Out Clamp (optional)

All Hawke Cable glands can be fitted with the optional 100% pull-out clamp. This cost effective solution removes the need to separately clamp/cleat cable, by taking care of this requirement as part of the gland assembly. Unlike other manufacturers, who utilise the rear ingress protection seal to offer pull-out resistance, the Hawke pull-out clamp keeps these 2 functions separate, ensuring neither is compromised and both components act independently.

4 The Original Reversible Armour Clamp (RAC)

The original RAC clamping system was invented by Hawke over 10 years ago and is a well established proven performer in all conditions. Simply by reversing the clamping ring, the cable gland can adjust to accommodate all types of cable armour or braid. Unlike many of our competitors, the correct stamping orientation is marked clearly with the armour size and backed up by the presence of a groove in the component. Hawke's RAC clamping system is also fully Inspectable when positioned on the cable.

5 Thermoset (TSE) Compression Seal

Cross-linked (vulcanised) during the moulding process with the application of heat and pressure. Once formed, they will not 'melt' and will exhibit optimum sealing properties over a wide range of temperatures as well as recovery from deformation (compression set).

Compression Glands

A compression gland utilises a polymer sealing element to seal on the inner sheath, outer sheath, or both inner and outer sheath's. It is used to protect against water and dust ingress, secure the cable to equipment and in some cases, provide explosion protection in the event of an ignition.





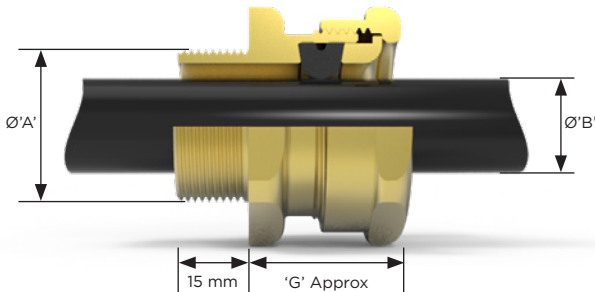
MADE IN BRITAIN

501/421

Flameproof, Increased Safety, Dust Protection and Restricted Breathing
 Class - Zones
 Certified ATEX / IECEx / UKEX / c CSA us



International Approvals



Features

- Elastomeric Exd flameproof and Exe Increased Safety seal on cable outer sheath
- Rounded Cable entry to prevent cable damage

The 501/421 dual certified Exe/Exd cable gland is intended for use on non-armoured elastomer and plastic insulated cables. This cable gland may be used with braided cables where the braid and outer sheath pass into the enclosure. The braid must then be suitably terminated inside the enclosure. For Exd applications, the cable must be suitable in compliance with BS EN 60079-14.

Cable Gland Selection Table									
Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details				'G'	Hexagon Dimensions	
	Metric	NPT*	Outer Sheath 'B'					Across Flats	Across Corners
			Standard Seal		Alternative Seal (S)				
			Min.	Max.	Min.	Max.			
2K	M16	-	3.2	8.0	-	-	23.5	19.0	21.2
Os	M20 ²	½"	3.2	8.0	-	-	23.8	24.0	26.5
O	M20 ²	½"	6.5	11.9	-	-	23.8	24.0	26.5
A	M20	¾" or ½"	10.0	14.3	9.0	13.4	24.8	30.0	32.5
B	M25	1" or ¾"	13.0	20.2	9.5	15.4	25.8	36.0	39.5
C	M32	1¼" or 1"	19.5	26.5	15.5	21.2	29.2	46.0	50.5
C2	M40	1½" or 1¼"	25.0	32.5	22	28	30.5	55.0	60.6
D	M50	2" or 1½"	31.5	44.4 / 42.3 ¹	27.5	34.8	40.4	65.0	70.8
E	M63	2½" or 2"	42.5	56.3 / 54.3 ¹	39	46.5	38.2	80.0	88.0
F	M75	3" or 2½"	54.5	68.2 / 65.3 ¹	49.5	58.3	40.5	95.0	104.0
G	M80	3½"	67.0	73.0	-	-	41	106.4	115.0
H	M90	4"	67.0	77.6	-	-	41.0	115.0	130.0
J	M100	4"	77.0	91.6	-	-	41.0	127.0	142.0

All dimensions in millimetres (except * where dimensions are in inches)
 Os - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread
 G - J size metric entry threads are 2mm pitch as standard, 20mm length of thread

¹ Smaller value is applicable when selecting reduced NPT entry option.

² Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable outer sheath diameter is 10.9mm.

Technical Data	
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67 and IP68 (30 metres for 7 days, special instructions apply) to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	Deluge Protection to DTS01
Operating Temperature	-60°C to +100°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22
Approvals	
Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 19ATEX1167X CML 19ATEX4507X (Ex nR)
IECEX Certificate No	CML 19.0045X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1161X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type B), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/BO DNV: TAE0000BS
Additional Certifications	CCC: 2020312313000315 EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X KCs: KTL 17-KA4BO-0120X to 0128X India: PESO P450038 SONCAP: LCOGB049552-0500
NEC / CEC	
NEC Protection Class	Class I, Zone I, AEx eb IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Class I, Div.2 Groups ABCD; Class II Div.2, Groups EFG; Class III Ex db IIC Gb; Ex eb IIC Gb
c CSA us Certificate Number	CSA1015065
Construction & Test Standards	UL 60079-0, UL 60079-7, UL 60079-31, CSA 22.2 No: 60079-0, CSA 22.2 No: 60079-1, CSA 22.2 No: 60079-7, CSA 22.2 No: 60079-31, UL514B; UL1203; UL 2225

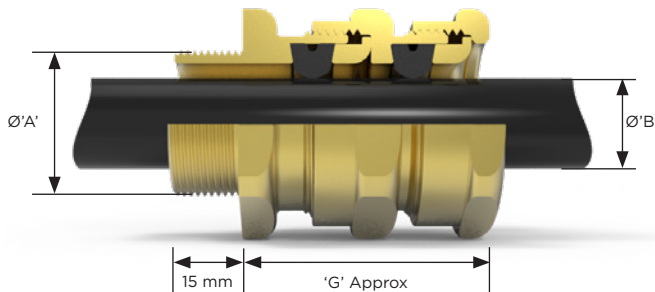
Ordering Information				
Format for ordering is as follows: Alternative Seal (S), add suffix S to ordering information				
Cable Gland Type	Size	Thread	Material	(Optional)
501/421	C	M32	Brass	S
501/421	C	1/4" NPT	Brass	S

Order Example: 501/421 C M32 Brass S



501/423

Flameproof, Increased Safety, Dust Protection
 Class - Zones
 Certified ATEX / IECEx / UKEX / c CSA us



Features

- Two Independent Elastomeric Exd flameproof seals on cable outer sheath - The double seals provide superior cable retention over standard unarmoured Cable Glands
- Rounded Cable entry to prevent cable damage

The 501/423 dual certified Exe/Exd cable gland incorporates two independent seals and is intended for use on non-armoured elastomer and plastic insulated cables. This cable gland may be used with braided cables where the braid and outer sheath pass into the enclosure. For Exd application the cable must be suitable inline with 60079-14. The braid must then be suitably terminated inside the enclosure. The two seals provide superior cable retention over standard unarmoured cable glands.
 See technical section for installation rules and regulations.

Cable Gland Selection Table

Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details				'G'	Hexagon Dimensions	
	Metric	NPT*	Outer Sheath 'B'					Across Flats	Across Corners
			Standard Seal		Alternative Seal (S)				
			Min.	Max.	Min.	Max.			
Os	M20 ²	½"	3.2	8.0	-	-	40.0	24.0	26.5
O	M20 ²	½"	6.5	11.9	-	-	40.0	24.0	26.5
A	M20	¾" or ½"	10.0	14.3	9.0	13.4	40.4	30.0	32.5
B	M25	1" or ¾"	13.0	20.2	9.5	15.4	44.3	36.0	39.5
C	M32	1¼" or 1"	19.5	26.5	15.5	21.2	47.2	46.0	50.5
C2	M40	1½" or 1¼"	25.0	32.5	22.0	28.0	49.5	55.0	60.6
D	M50	2" or 1½"	31.5	44.4 / 42.3 ¹	27.5	34.8	72.5	65.0	70.8
E	M63	2½" or 2"	42.5	56.3 / 54.3 ¹	39.0	46.5	64.8	80.0	88.0
F	M75	3" or 2½"	54.5	68.2 / 65.3 ¹	49.5	58.3	68.0	95.0	104.0
G	M80	3½"	67.0	73.0	-	-	68.0	106.4	115.0
H	M90	3½"	67.0	77.6	-	-	68.0	115.0	130.0
J	M100	4"	77.0	91.6	-	-	68.0	127.0	142.2

All dimensions in millimetres (except * where dimensions are in inches)
 Os - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread
 G - J size metric entry threads are 2mm pitch as standard, 20mm length of thread

¹ Smaller value is applicable when selecting reduced NPT entry option.

² Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable outer sheath diameter is 10.9mm

Technical Data	
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67 and IP68 (30 metres for 7 days, special instructions apply) to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	Deluge Protection to DTS01
Operating Temperature	-60°C to +100°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22
Approvals	
Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 19ATEX1167X CML 19ATEX4507X (Ex nR)
IECEX Certificate No	CML 19.0045X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1161X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type B), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/B0 DNV: TAE0000BS
Additional Certifications	CCC: 2020312313000319 CNEx: CNEx17 2858X EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X India: PESO P450038 SONCAP: LCOGB049552-0500
NEC / CEC	
NEC Protection Class	Class I, Zone I, AEx eb IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Class I, Div.2 Groups ABCD; Class II Div.2, Groups EFG; Class III Ex db IIC Gb; Ex eb IIC Gb
c CSA us Certificate Number	CSA1015065
Construction & Test Standards	UL 60079-0, UL 60079-7, UL 60079-31, CSA 22.2 No: 60079-0, CSA 22.2 No: 60079-1, CSA 22.2 No: 60079-7, CSA 22.2 No: 60079-31, UL514B; UL1203; UL 2225

Ordering Information

If brass is required please omit material selection
 Format for ordering is as follows: Alternative Seal (S), add suffix S to ordering information

Cable Gland Type	Size	Thread	Material	(Optional)
423	C	M32		S
423	C	1.25	NP	S

Order Example: 423CM32S
 Please note all NPT entries should be state as a decimal
 Please refer to part code logic information page for further details on product options

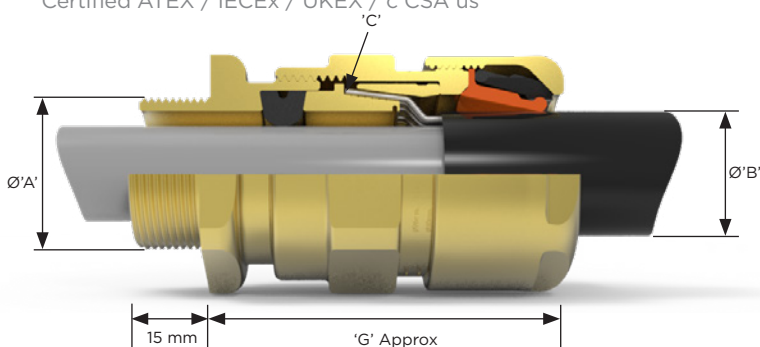


MADE IN BRITAIN



501/453/RAC

Flameproof, Increased Safety, Dust Protection and Restricted Breathing
 Class - Zones
 Certified ATEX / IECEx / UKEX / c CSA us



Features

- Elastomeric Exd flameproof seal on cable inner sheath
- Reversible Armour Clamp - For all types of armour and braid
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range
- EMC Compliant with Integral 360 degree bonding

The 501/453/RAC Cable Gland is dual certified Exe/Exd, robust and for use with single wire armour 'W', wire braid 'X', steel tape armour 'Z', elastomer and plastic insulated cables. The gland provides an elastomeric seal on the cable inner sheath, and a low smoke, zero halogen IP and retention seal onto the cable outer sheath. See technical section for installation rules and regulations

Cable Gland Selection Table

Size Ref.	Entry Thread 'A'		Cable Acceptance Details								Hexagon Dimensions		
	Metric	NPT*	Inner Sheath				Outer Sheath 'B'		Armour/Braid 'C'		'G'	Across Flats	Across Corners
			Standard Seal		Alternative Seal (S)		Min	Max	Orientation 1	Orientation 2			
			Min	Max	Min	Max							
Os	M20 ²	½"	3.2	8.0	-	-	5.5	12.0	0.8 / 1.25	0.0 / 0.8	52.0	24.0	26.5
O	M20 ²	½"	6.5	11.9	-	-	9.5	16.0	0.8 / 1.25	0.0 / 0.8	52.0	24.0	26.5
A	M20	¾" or ½"	10.0	14.3	9.0	13.4	12.5	20.5	0.8 / 1.25	0.0 / 0.8	53.0	30.0	32.5
B	M25	1" or ¾"	13.0	20.2	9.5	15.4	16.9	26.0	1.25 / 1.6	0.0 / 0.7	59.5	36.0	39.5
C	M32	1¼" or 1"	19.5	26.5	15.5	21.2	22.0	33.0	1.6 / 2.0	0.0 / 0.7	64.0	46.0	50.5
C2	M40	1½" or 1¼"	25.0	32.5	22.0	28.0	28.0	41.0	1.6 / 2.0	0.0 / 0.7	68.3	55.0	60.6
D	M50	2" or 1½"	31.5	44.4 / 42.3 ¹	27.5	34.8	36.0	52.6	1.8 / 2.5	0.0 / 1.0	79.0	65.0	70.8
E	M63	2½" or 2"	42.5	56.3 / 54.3 ¹	39.0	46.5	46.0	65.3	1.8 / 2.5	0.0 / 1.0	78.4	80.0	88.0
F	M75	3" or 2½"	54.5	68.2 / 65.3 ¹	49.5	58.3	57.0	78.0	1.8 / 2.5	0.0 / 1.0	83.7	95.0	104.0
G	M80	3½"	67.0	73.0	-	-	75.0	89.5	2.0 / 3.5	0.0 / 1.0	95.6	106.4	115.0
H	M90	3½"	67.0	77.6	-	-	75.0	89.5	2.0 / 3.5	0.0 / 1.0	95.6	115.0	130.0
J	M100	4"	77.0	91.6	-	-	88.0	104.5	2.5 / 4.0	0.0 / 1.0	95.6	127.0	142.0

All dimensions in millimetres (except * where dimensions are in inches)
 Os - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread
 G - J size metric entry threads are 2mm pitch as standard, 20mm length of thread

¹ Smaller value is applicable when selecting reduced NPT entry option.
² Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner sheath diameter is 10.9mm
 Brass NPT entries are nickel plated as standard.

Technical Data	
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67 and IP68 (30 metres for 7 days, special instructions apply) to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	Deluge Protection to DTS01
Operating Temperature	-60°C to +100°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22
Approvals	
Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 19ATEX1167X CML 19ATEX4507X (Ex nR)
IECEX Certificate No	CML 19.0045X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1161X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type B), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/B0 DNV: TAE0000BS
Additional Certifications	CCC: 2020312313000319 CNEx: CNEx17 2858X EAC: No EA3C RU C-GB.HA91.B.00264/21 EGM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X India: PESO P450038 SONCAP: LCOGB049552-0500
NEC / CEC	
NEC Protection Class	Class I, Zone I, AEx eb IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Class I, Div.2 Groups ABCD; Class II Div.2, Groups EFG; Class III Ex db IIC Gb; Ex eb IIC Gb
c CSA us Certificate Number	CSA1015065
Construction & Test Standards	UL 60079-0, UL 60079-7, UL 60079-31, CSA 22.2 No: 60079-0, CSA 22.2 No: 60079-1, CSA 22.2 No: 60079-7, CSA 22.2 No: 60079-31, UL514B; UL1203; UL 2225

Alternative Reversible Armour Clamping Ring Size Selection		
Size Ref	Steel Wire Armour / Braid / Tape	
	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

Ordering Information				
If brass is required please omit material selection				
Format for ordering is as follows: Alternative Seal (S), Alternative Ring (R), add suffix S and/or R to ordering information				
Cable Gland Type	Size	Thread	Material	(Optional)
453R	C	M32		R
453R	C	1.25	NP	S

Order Example: 453RCM32R
 Please note all NPT entries should be state as a decimal
 Please refer to part code logic information page for further details on product options

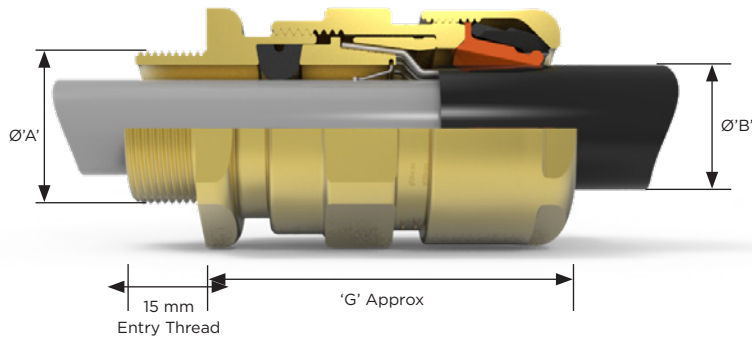


MADE IN BRITAIN



501/453/RAC/L

Flameproof, Increased Safety, Dust Protection and Restricted Breathing Class - Zones Certified ATEX / IECEx / UKEX / c CSA us For Lead Sheath Cables



Features

- Elastomeric Exd flameproof seal on cable inner sheath
- Electrical Bond on the cables lead inner sheath
- Reversible Armour Clamp - For all types of armour and braid
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range
- EMC Compliant with Integral 360 degree bonding

The 501/453/RAC Cable Gland is dual certified Exe/Exd, robust and for use with single wire armour 'W', wire braid 'X', steel tape armour 'Z', elastomer and plastic insulated cables. The gland provides an elastomeric seal on the cable inner sheath, and a low smoke, zero halogen IP and retention seal onto the cable outer sheath. See technical section for installation rules and regulations.

Cable Gland Selection Table

Size Ref.	Entry Thread 'A'		Cable Acceptance Details								'G'	Hexagon Dimensions	
	Metric	NPT*	Inner Sheath				Outer Sheath 'B'		Armour/Braid 'C'			Across Flats	Across Corners
			Std Seal (L)	Seal + Bond	Alt Seal (K)	Seal + Bond	Min	Max	Orientation 1	Orientation 2			
O	M20 ²	½"	6.5	10.2	-	-	9.5	16.0	0.8/1.25	0.0/0.8	52.0	24.0	26.5
A	M20	¾" or ½"	-	-	9	12.5	12.5	20.5	0.8/1.25	0.0/0.8	53.0	30.0	32.5
B	M25	1" or ¾"	13.0	18	9.5	15.4	16.9	26.0	1.25/1.6	0.0/0.7	59.5	36.0	39.5
C	M32	1¼" or 1"	19.5	24.3	15.5	21.2	22.0	33.0	1.6/2.0	0.0/0.7	64.0	46.0	50.5
C2	M40	1½" or 1¼"	25.0	30.3	22	28	28.0	41.0	1.6/2.0	0.0/0.7	68.3	55.0	60.6
D	M50	2" or 1½"	31.5	41.9	27.5	34.8	36.0	52.6	1.8/2.5	0.0/1.0	79.0	65.0	70.8
E	M63	2½" or 2"	42.5	52.9	39	46.5	46.0	65.3	1.8/2.5	0.0/1.0	78.4	80.0	88.0
F	M75	3" or 2½"	54.5	64.9/64.3 ¹	49.5	58.3	57.0	78.0	1.8/2.5	0.0/1.0	83.7	95.0	104.0
G	M80	3½"	67.0	70	-	-	75.0	89.5	2.0/3.5	0.0/1.0	95.6	106.4	115.0
H	M90	3½"	67.0	75.0	-	-	75.0	89.5	2.0/3.5	0.0/1.0	95.6	115.0	130.0
J	M100	4"	77.0	89.5	-	-	88.0	104.5	2.5/4.0	0.0/1.0	95.6	127.0	142.0

All dimensions in millimetres (except * where dimensions are in inches).
 Os - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread.
 G - J size metric entry threads are 2mm pitch as standard, 20mm length of thread

¹ Smaller value is applicable when selecting reduced NPT entry option.
² Size O is available with an M16 thread size.
 *Brass NPT entries are nickel plated as standard.

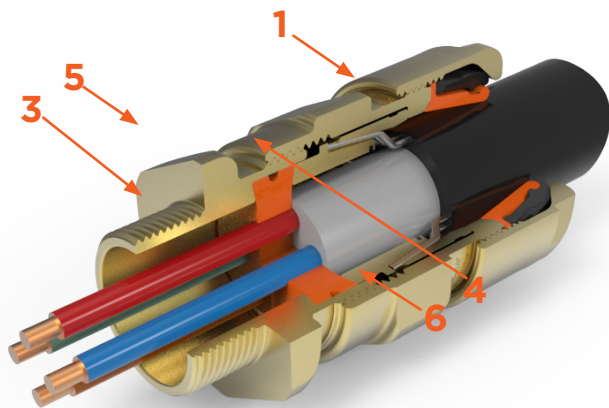
Technical Data	
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67 and IP68 (30 metres for 7 days, special instructions apply) to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	to DTS01
Operating Temperature	-60°C to +100°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22
Approvals	
Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 19ATEX1167X CML 19ATEX4507X (Ex nR)
IECEX Certificate No	CML 19.0045X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1161X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/BO DNV: TAE0000BS
Additional Certifications	CCC: 2020312313000313 EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X KCs: 17-KA4BO-0129X to 0137X PESO: P450038 SONCAP: LCOGB049552-0500
NEC/CEC	
NEC Protection Class	Class I, Zone 1, AEx eb IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Class I Div 2 ABCD, Class II Div 2 EFG and Class III Ex db IIC Gb; Ex eb IIC Gb
c CSA us Certificate	CSA1015065
Construction & Test Standards	UL 60079-0, UL 60079-7, UL 60079-31, CSA 22.2 No: 60079-0, CSA 22.2 No: 60079-1, CSA 22.2 No: 60079-7, CSA 22.2 No: 60079-31, UL514B; UL1203; UL 2225

Alternative Reversible Armour Clamping Ring Size Selection		
Size Ref	Steel Wire Armour / Braid / Tape	
	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

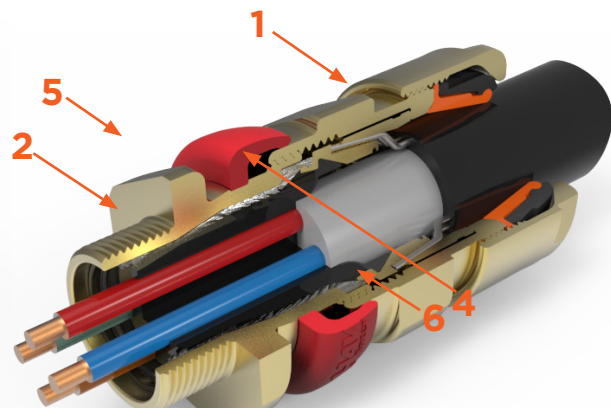
Ordering Information				
If brass is required please omit material selection information. Format for ordering is as follows: Lead sheath must be selected in optional (L) or Alternative Seal (K), Alternative Ring (R), add suffix L or K and R if required				
Cable Gland Type	Size	Thread	Material	(Optional)
453R	C	M32		LR
453R	C	1.25	NP	K

Order Example: 453RCM32LR
 Please note all NPT entries should be state as a decimal
 Please refer to part code logic information page for further details on product options

Features



PSG/553/RAC



ICG/653 UNIVERSAL

1 Unique Rear Sealing System

This arrangement offers IP66, IP67, IP68 (30 metres for 7 days) IP69 (for all glands with a deluge boot), NEMA 4X and Deluge (DTS01) Ingress Protection. The seal is manufactured from a silicone material, has LSFZH properties, is ozone and oil resistant and is suitable for use at both high and low temperatures. The Rear Sealing System covers the entire range of cable diameters without the need for special seals and the cable acceptance range is stamped on the backnut for ease of inspection. The backnut can be hand tightened, with only one further spanner turn required to ensure IP66, IP67, IP68 and NEMA 4X.

2 Unique Inspectable Compound Chamber

The revolutionary Hawke compound chamber has been designed with inspectability in mind. With a unique clear non-metallic compound chamber for both IEC and NEC applications, the barrier seal can be made using either a QSP quick setting 2-part hand-mixed putty, or a liquid injectable and fast curing resin, allowing for faster installation time than traditional 2-part compounds. The transparent compound chamber allows full visibility of the flameproof seal during installation and inspection making the ExPress barrier resin unparalleled as a global solution.

3 The Original Reversible Armour Clamp

The original RAC clamping system was invented by Hawke over 10 years ago and is a well established proven performer in all conditions. Simply by reversing the clamping ring, the cable gland can adjust to accommodate all types of cable armour or braid. Unlike many of our competitors, the correct stamping orientation is marked clearly with the armour size and backed up by the presence of a groove in the component. Hawke's RAC clamping system is also fully Inspectable when positioned on the cable.

4 Cable Tightening Guide

To help address issues with the overtightening of cable glands and the resultant damage to cables and seals, Hawke International has developed the patented INBUILT TIGHTENING GUIDE. Removing the need for fiddly measuring systems, the guide provides a permanent visual indication of the gland tightness through installation, inspection and maintenance. The gland is permanently marked with various lines/numbers indicating the correct tightening level related to the cable diameter. The backnut, once tightened to the line corresponding to the cable diameter, ensures there is no cable damage whilst still maintaining IP and pull-out.

5 Inspectable Deluge Seal

Hawke's Inspectable deluge seal offers IP66 and IP67 sealing and is certified as 'deluge proof' by ITS in accordance with DTS01. Indeed, Hawke's deluge seal is so good that it exceeds the expectations of the offshore industry by not only preventing ingress into the equipment, but also into the cable gland, which prevents corrosion of the cable armour.

6 Compound Free, Instant Barrier Seal

The PSG553 RAC (Punched Seal Gland) provides market leading installation and inspection time. Simply pass the individual cores through the punched seal and tighten. Fully inspectable and no waiting time - irrespective of temperature, location or installation position.

Barrier Glands

A barrier gland is a cable gland that provides a seal around the individual cores of a cable to maintain the flameproof integrity of Exd equipment.

These glands meet the requirements of IEC 60079-1 and employ a compound seal, or other sealing method, around each core to prevent the migration of an explosion from within a piece of flameproof equipment to the outside atmosphere.

Hawke International has a comprehensive, and **UNIQUE** range of barrier glands offering numerous features and benefits not to be found from other manufacturers.

3 Seal Options - ALL FULLY INSPECTABLE!

Hawke International is the *only* cable gland manufacturer to offer 3 solutions to Exd barrier glanding:

- **QSP 2-part Hand Mix Putty**

Simple to use with a cure time from 30 minutes. Particularly useful where termination space is limited or cables are running horizontally to the installation area. Can be inspected and repaired if necessary, allowing for the very highest level of safety.

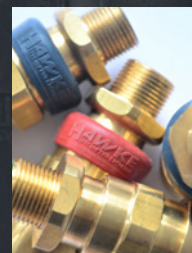
- **ExPress Barrier Resin**

A liquid injectable and fast curing resin, allowing for faster installation time than traditional 2-part compounds. Utilising a unique clear compound chamber for full visibility of the flameproof seal during installation and inspection, the ExPress barrier resin is unparalleled as a global solution, with a 30 minute gel time and unrivalled ease of use.

- **Instant Barrier Seal**

No resin. No mixing. No cure time.

The PSG553 RAC (Punched Seal Gland) provides market leading installation and inspection time. Simply pass the individual cores through the punched seal and tighten. Fully inspectable and no waiting time - irrespective of temperature, location or installation position.





The First Globally Certified, Fully Inspectable, Elastomeric Compound Pot

Why a silicone compound pot?

At Hawke, we prioritise complete inspectability of all seals and explosion protection features within our products. The search for inspectability pushed us toward the unique transparent silicone compound pot in which the compound is visible both as it is being installed and once installation is complete.

How does it work?

A traditional metallic compound pot uses a flamepath to dissipate the energy of an ignition. The flamepath is a tightly controlled clearance between the pot and the gland housing. If this clearance is too **large** there is a risk of ignition. If this clearance is too **small** the pot won't fit into the gland. Any scratches or damage renders the gland useless. Our silicone pot works by being compressed when installed so the flamepath gap is always zero.

How was the silicone compound pot tested and certified?

The compound pot and resin have been certified in accordance with ATEX/IECEX 60079 and UL2225. They have been through rigorous testing processes including and not limited to chemical exposure, hydrostatic pressure, thermal ageing and explosion testing.

What are the benefits of the silicone compound pot over a brass compound pot?

- When terminating the barrier gland the resin is visible to the installer, so the process is much more controlled and visible. Any issues such as voids or underfilling can be immediately addressed before the compound cures.
- The resin is visible through the compound pot and as such can be inspected without the product being destroyed. Traditional metallic compound pots must be cut off to inspect, discarded and then remade with a new gland.
- If the flamepath surface of a metallic pot is damaged, or in glands where the entry is used to form the flameproof seal, the whole assembly must be cut off the cable and replaced. If damage occurs to the silicone compound pot, it can be replaced.



100% visibility.

Inspect installed glands with zero destruction.

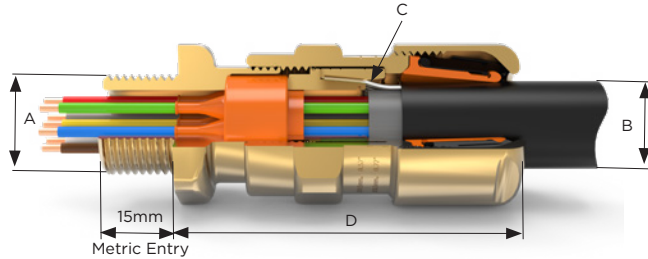
The Difference is Clear.





PSG 553 RAC

Flameproof, Increased Safety, Dust Protection, Restricted Breathing
Certified ATEX / IECEx / UKEX



Features

- Provides instant barrier seal around individual cable conductors
- Accommodates range of conductor diameters in a single seal
- No punch tool required for seal installation
- Seals around heat shrunk drain wires
- Provides armour clamping using one clamping arrangement for both armour and braid types
- Provides a cable retention and low smoke and fume, zero halogen seal onto the cables outer sheath
- Environmentally friendly barrier solution
- Suitable for use with unarmoured cable
- EMC Compliant with Integral 360 degree bonding

The PSG/553/RAC dual certified Exe/Exd cable gland offers an instant silicone barrier seal around the individual conductors of a cable. This results in unparalleled speed of installation, and instant inspection. Removes need for curing compound or resin to achieve the Exd barrier seal hence no curing time and instant gland completion.

Cable Gland Selection Table

Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details											Approx Length 'D'		Hexagon Dimensions		
			Conductors				Armour / Braid / Tape 'C'			Outer Sheath 'B'								
	Metric*	NPT	Standard Seal		Alternative Seal (S)		Standard Ring		Min.	Max.	Min.	Max.	Across Flats	Across Corners				
			Dia. (mm)	Quantity	Dia. (mm)	Quantity	Orientation 1	Orientation 2										
Os	M16 or M20	½"	1.5	4	1	4	-	-	-	-	0.8 / 1.25	0.0 / 0.8	5.5	12	52	81	24.0	26.5
O	M16 or M20	½"	1.5	4	1	4	-	-	-	-	0.8 / 1.25	0.0 / 0.8	9.5	16	52	81	24.0	26.5
A	M20	½" or ¾"	1.5	4	1	7	-	-	-	-	0.8 / 1.25	0.0 / 0.8	12.5	20.5	53	83	30.0	32.5
B	M25	¾" or 1"	1.5	4	1	12	4.5	6.5	1	5	1.25 / 1.6	0.0 / 0.7	16.9	26.0	59.5	95	36.0	39.5
C	M32	1" or 1 ¼"	1.5	4	7	19	-	-	-	-	1.6 / 2.0	0.0 / 0.7	22.0	33.0	64	98	46.0	50.5

*Metric threadforms are 1.5mm pitch, 15mm long as standard

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67 and IP68 (30 metres for 7 days, special instructions apply) to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	to DTS01
Operating Temperature	-60°C to +100°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22
Approvals	
Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 19ATEX1167X CML 19ATEX4507X (Ex nR)
IECEx Certificate No	CML 19.0045X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1161X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/B0 DNV: TAE0000BS
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X PESO: P450038 SONCAP: LCOGB049552-0500

Alternative Reversible Armour Clamping Ring Size Selection

Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2

Ordering Information

If brass is required please omit material selection

Format for ordering is as follows: For Alternative Seal (S), Alternative Ring (R), add suffix S and/or R to ordering information

Cable Gland Type	Size	Thread	Material	(Optional)
553R	C	M32		R
553R	B	1.0	NP	S

Example code: 553RCM32R

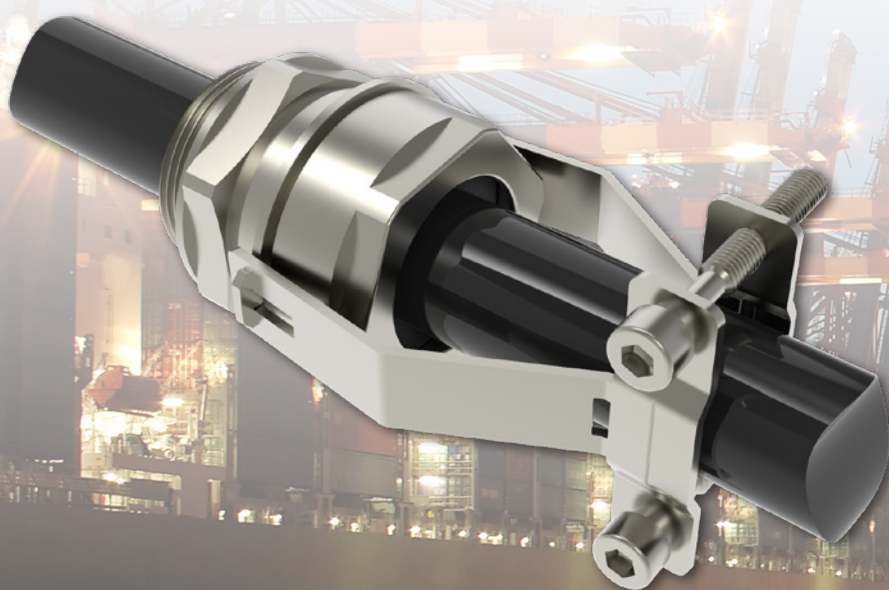
Please note all NPT entries should be state as a decimal

Please refer to part code logic information page for further details on product options

HAWKE
International

GMC

GLAND MOUNTED CLAMP



Cost effective damage prevention

Hawke's Gland Mounted Clamp (GMC) can be used with any Hawke cable glands which form a seal on the outer seal of a cable to provide additional cable support and pullout resistance.

Installing a gland mounted clamp is a cost effective solution to prevent potential costly damage to cables and glands.

- Can be fitted to old or new Hawke cable gland designs
- 3 part design allowing retrospective fitting
- Supplied with unarmoured and armoured options

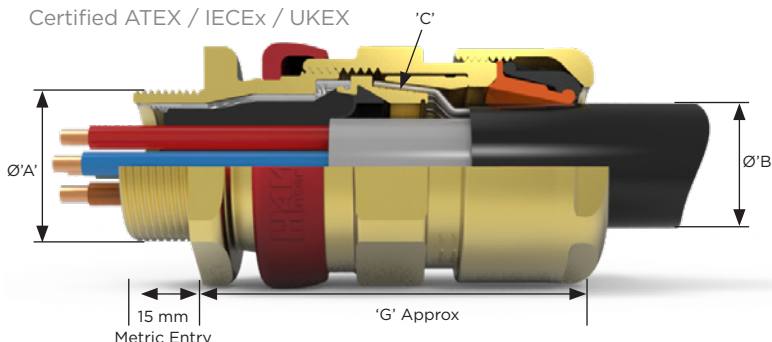


MADE IN BRITAIN



ICG/653/UNIV

Flameproof, Increased Safety, Dust Protection and Restricted Breathing
Class - Zones - Divisions
Certified ATEX / IECEx / UKEX



Features

- Inspectable Deluge Seal - Offering IP66, IP67, IP68 & IP69 Ingress Protection
- Transparent Elastomeric Fully Inspectable Compound Pot - compatible with both injectable resin and 2 part compound
- Reversible Armour Clamp - For all types of armour and braid.
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range.
- EMC Compliant with integral 360 degree bonding

Dual certified Exe/Exd barrier gland, providing seal around individual cable cores, especially for cables that exhibit "cold flow" characteristics, are not effectively filled, have hygroscopic fillers or contains fibre optic cores. For use with single wire armour 'W', wire braid 'X', steel tape armour 'Z' elastomer and plastic insulated cables. The ICG/653/UNIVERSAL is available with either ExPress liquid barrier resin or QSP 2-part hand mix compound, both with a cure time 30 minutes

Cable Gland Selection Table

Size Ref.	Entry Thread 'A'		Cable Acceptance Details								'G'	Hexagon Dimensions	
	Metric	NPT*	Inner Sheath/Cores				Outer Sheath 'B'		Armour/Braid 'C'			Across Flats	Across Corners
			Max Inner Sheath Dia	Max Over Core Dia	Max No of Cores	Max No of Fibre Optic	Min	Max	Orientation 1	Orientation 2			
Os	M20 ²	½"	8.1**	8	12	48	5.5	12	0.8 / 1.25	0.0 / 0.8	58.4	24	26.5
O	M20 ²	½"	11.7	8.8	12	48	9.5	16	0.8 / 1.25	0.0 / 0.8	58.4	24	26.5
A	M20	¾" or ½"	14	10.8	15	72	12.5	20.5	0.8 / 1.25	0.0 / 0.8	60.6	30	32.5
B	M25	1" or ¾"	19.9	15.9	30	144	16.9	26	1.25 / 1.6	0.0 / 0.7	67.3	36	39.5
C	M32	1¼" or 1"	26.2	21.9	42	-	22	33	1.6 / 2.0	0.0 / 0.7	73.2	46	50.5
C2	M40	1½" or 1¼"	32.3	26.7	60	-	28	41	1.6 / 2.0	0.0 / 0.7	78.3	55	60.6
D	M50	2" or 1½"	44.2	37.7	80	-	36	52.6	1.8 / 2.5	0.0 / 1.0	97.5	65	70.8
E	M63	2½" or 2"	56	49	100	-	46	65.3	1.8 / 2.5	0.0 / 1.0	93.5	80	88
F	M75	3" or 2½"	68	59.8	120	-	57	78	1.8 / 2.5	0.0 / 1.0	104.5	95	104

¹ All dimensions in millimetres (except * where dimensions are in inches). Metric entry threads are 1.5mm pitch as standard, 15mm length of thread.
² Are available with M16 entry thread, which reduces Max Over Core Diameter to 7mm.

**Recommended value to suit integrated Express resin stop. May be increased to 10.0 if QSP compound or alternative Express resin stop method are used.

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67, IP68 (30 metres for 7 days, special instruction apply), IP69 to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	to DTS01
Operating Temperature	-60°C to +80°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22

Approvals

Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 18ATEX1268X CML 19ATEX4507 (Ex nR)
IECEx Certificate No	CML 18.0131X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1132X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/BO DNV: TAE0000BS
Additional Certifications	CCC: 2020312313000317
	EAC: No EA3C RU C-GB.HA91.B.00264/21
	EQM: 20-11-27224/Q20-11-000979/NB0007
	Inmetro: IEx 14.0272X
	KCs: 17-KA4BO-0159X to 0167X
	PESO: P450038
SONCAP: LCOGB049552-0500	

NEC/CEC

NEC Protection Class	Class I Div 1 ABCD Class II Div 2 EFG and Class III Class I, Zone I, AEx db IIC Gb, AEx eb IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Class I Div 1 ABCD Class II Div 2 EFG and Class III Ex db IIC Gb; Ex eb IIC Gb; Ex tb IIIC Db
c CSA us Certificate	1024328
Construction & Test Standards	UL2225, UL1203, UL514B, CSA C22.2 NO. 0-10, CSA C22.2 NO. 174-18, CSA 22.2 60079-0, CSA 22.2 60079-1, CSA 22.2 60079-7 and CSA 22.2 60079-31

Alternative Reversible Armour Clamping Ring Size Selection		
Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

Ordering Information

If brass is required please omit material selection

Format for ordering is as follows: Alternative Ring (R), add suffix R to ordering information

All barrier glands are supplied with Express resin as standard. If QSP (Quick Set Putty) is required please select Q in compound selection

Cable Gland Type	Size	Thread	Material	(Optional)	Compound
653U	C	M32		R	
653U	C	1.25	NP	R	Q

Example Code: 653UCM32R

Assembly instructions are supplied with the cable gland

Please note all NPT entries should be state as a decimal

Please refer to part code logic information page for further details on product options

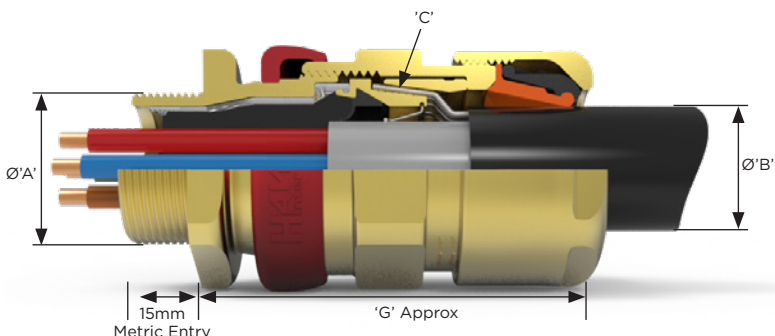


MADE IN BRITAIN



ICG/653/UNIV/L

Flameproof, Increased Safety, Dust Protection, Restricted Breathing Class - Zones - Divisions Certified ATEX / IECEx / UKEX For Lead Sheath Cables



Features

- Inspectable Deluge Seal - Offering IP66, IP67, IP68 & IP69 Ingress Protection
- Transparent Elastomeric Fully Inspectable Compound Pot - compatible with both injectable resin and 2 part compound
- Reversible Armour Clamp - For all types of armour and braid
- Electrical Bond on the cables lead inner sheath
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range
- EMC Compliant with Integral 360 degree bonding

Dual certified fully inspectable Exe/Exd barrier gland providing a seal around individual cable cores on lead sheathed cables which are not effectively filled, have hygroscopic fillers or contains fibre optic cores. For use with single wire armour 'W', wire braid 'X', steel tape armour 'Z' elastomer and plastic insulated cables with a lead inner sheath. The ICG/653/UNIVERSAL/L is available with either ExPress liquid barrier resin or QSP 2-part hand mix compound, both with a cure time of 30 minutes

Cable Gland Selection Table

Size Ref.	Entry Thread 'A'		Cable Acceptance Details								'G'	Hexagon Dimensions	
	Metric	NPT*	Inner Sheath/Cores				Outer Sheath 'B'		Armour Braid 'C'			Across Flats	Across Corners
			Max Inner Sheath	Max Over Core Diameter	Max No of Cores	Max No of Fibre Optic	Min	Max	Orientation 1	Orientation 2			
Os	M20 ²	½"	8.0**	8.0	12	48.0	5.5	12.0	0.8/1.25	0.0/0.8	58.4	24.0	26.5
O	M20 ²	½"	10.2	8.8	12	48.0	9.5	16.0	0.8/1.25	0.0/0.8	58.4	24.0	26.5
A	M20	¾" or ½"	12.5	10.8	15	72.0	12.5	20.5	0.8/1.25	0.0/0.8	60.6	30.0	32.5
B	M25	1" or ¾"	18.0	15.9	30	144.0	16.9	26.0	1.25/1.6	0.0/0.7	67.3	36.0	39.5
C	M32	1¼" or 1"	24.3	21.9	42	-	22.0	33.0	1.6/2.0	0.0/0.7	73.2	46.0	50.5
C2	M40	1½" or 1¼"	30.3	26.7	60	-	28.0	41.0	1.6/2.0	0.0/0.7	78.3	55.0	60.6
D	M50	2" or 1 1½"	41.9	37.7	80	-	36.0	52.6	1.8/2.5	0.0/1.0	97.5	65.0	70.8
E	M63	2½" or 2"	52.9	49.0	100	-	46.0	65.3	1.8/2.5	0.0/1.0	93.5	80.0	88.0
F	M75	3" or 2½"	64.9	59.8	120	-	57.0	78.0	1.8/2.5	0.0/1.0	104.5	95.0	104.0

¹ All dimensions in millimetres (except * where dimensions are in inches). Metric entry threads are 1.5mm pitch as standard, 15mm length of thread.

² Are available with M16 entry thread, which reduces Max Over Core Diameter to 7mm.

**Recommended value to suit integrated Express resin stop. May be increased to 10.0 if QSP compound or alternative Express resin stop method are used.

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67, IP68 (30 metres for 7 days, special instructions apply), IP69 to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	to DTS01
Operating Temperature	-60°C to +80°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22

Approvals

Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 18ATEX1268X CML 19ATEX4507 (Ex nR)
IECEX Certificate No	CML 18.0131X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1132X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/BODNV: TAE0000BS
Additional Certifications	CCC: 2020312313000317 EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X KCs: 17-KA4B0-0159X to 0167X PESO: P450038 SONCAP: LCOGB049552-0500

NEC/CEC

NEC Protection Class	Class I Div 1 ABCD Class II Div 2 EFG and Class III Class I, Zone I, AEx db IIC Gb, AEx eb IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Class I Div 1 ABCD Class II Div 2 EFG and Class III Ex db IIC Gb; Ex eb IIC Gb; Ex tb IIIC Db
c CSA us Certificate	1024328
Construction & Test Standards	UL2225, UL1203, UL514B, CSA C22.2 NO. 0-10, CSA C22.2 NO. 174-18, CSA 22.2 60079-0, CSA 22.2 60079-1, CSA 22.2 60079-7 and CSA 22.2 60079-31

Alternative Reversible Armour Clamping Ring Size Selection		
Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

Ordering Information

If brass is required please omit material selection

Format for ordering is as follows: Lead sheath must be selected in optional (L), optional Alternative Ring (R), add suffix L, and R if required to ordering information. All barrier glands are supplied with Express resin as standard. If QSP (Quick Set Putty) is required please select Q in compound selection

Cable Gland Type	Size	Thread	Material	(Optional)	Compound
653U	C	M32		LR	
653U	C	1.25	NP	L	Q

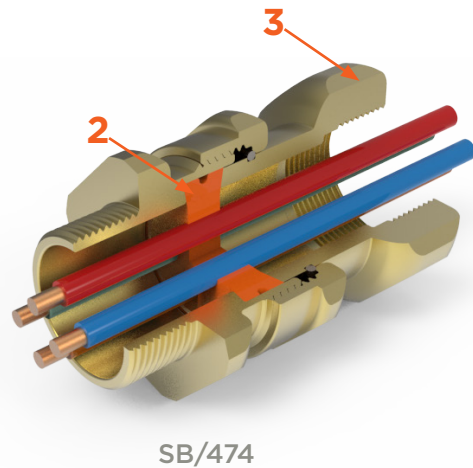
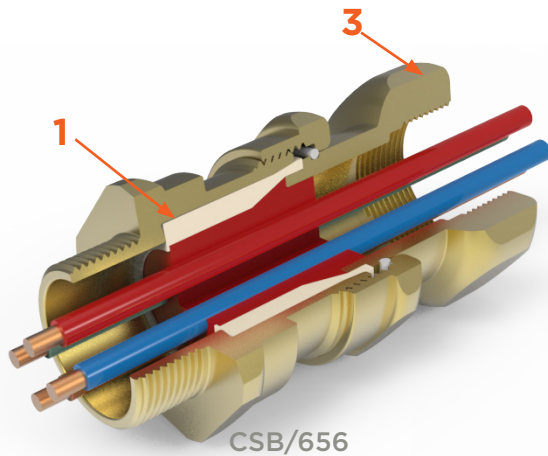
Example Code: 653UCM32LR

Assembly instructions are supplied with the cable gland

Please note all NPT entries should be state as a decimal

Please refer to part code logic information page for further details on product options

Features



1 Unique Inspectable Compound Chamber

The revolutionary Hawke compound chamber has been designed with inspectability in mind. With a unique clear non-metallic compound chamber for both IEC and NEC applications, the barrier seal can be made using either a QSP quick setting 2-part hand-mixed putty, or a liquid injectable and fast curing resin, allowing for faster installation time than traditional 2-part compounds. The transparent compound chamber allows full visibility of the flameproof seal during installation and inspection making the ExPress barrier resin unparalleled as a global solution.

2 No resin. No mixing. No cure time.

The PSG474 (Punched Seal Gland) provides market leading installation and inspection time. Simply pass the individual cores through the punched seal and tighten. Fully inspectable and no waiting time - irrespective of temperature, location or installation position.

3 Female Running Coupler

Provides a female running coupler for cable gland or conduit entry. Seals conductors at entry to enclosure via conduit or enables an existing cable gland to be converted to a barrier type cable gland.

Conduit Cable Glands

Hawke International conduit cable glands offer an opportunity to terminate fixed and flexible conduit in a hazardous area, providing a female running coupler for gland or conduit entry maintaining both Exe and Exd protection concepts along with protecting against ingress of water and dust.

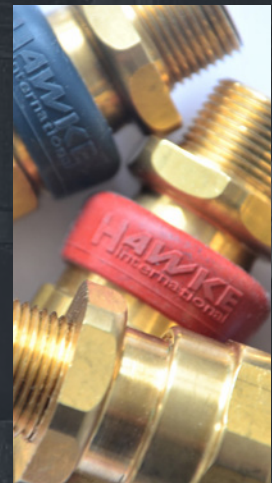
- **QSP 2-part Hand Mix Putty**

Simple to use with a cure time from 30 minutes. Particularly useful where termination space is limited or cables are running horizontally to the installation area. Can be inspected and repaired if necessary, allowing for the very highest level of safety.

- **Instant Barrier Seal**

No resin. No mixing. No cure time.

The PSG474 (Punched Seal Gland) provides market leading installation and inspection time. Simply pass the individual cores through the punched seal and tighten. Fully inspectable and no waiting time – irrespective of temperature, location or installation position.



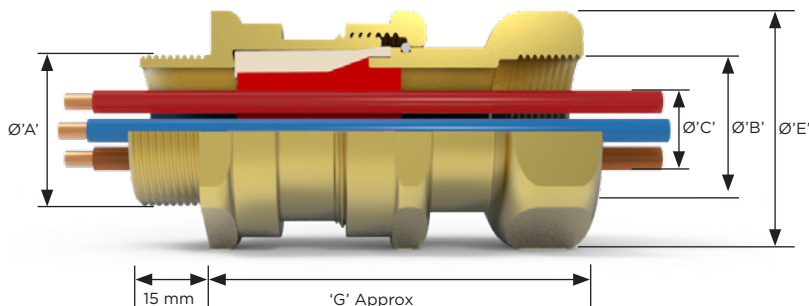


MADE IN BRITAIN



CSB 656N

Flameproof, Increased Safety, Dust Protection and Restricted Breathing
 Certified ATEX / IECEx / UKEX / c CSA us



Features

- Fully inspectable barrier seal provides an Exd seal between the individual cable cores
- Female running coupler for cable gland or conduit entry. Can be used to upgrade standard non-barrier gland into a flameproof Exd barrier gland.

The Dual certified Exe/Exd CSB656N cable gland offers an inspectable barrier seal around the individual cable cores and a female running coupler for conduit or cable gland entry. See technical section for installation rules and regulations.

Cable Gland Selection Table

Size Ref.	Thread Sizes ³				Inner Sheath / Cores			'G'	Hexagon Dimensions ²	
	Male 'A'		Female 'B'		Max Over Cores 'C'	Max Inner Sheath	Max No of Cores		Across Flats	Across Corners
	Metric	NPT*	Metric	NPT*						
A	M20	¾" or ½"	M20	¾" or ½"	11	12.5	16	74.0	30.0	32.5
B	M25	1" or ¾"	M25	1" or ¾"	16.2	18.4	32	65.0	36.0	39.5
C	M32	1¼" or 1"	M32	1¼" or 1"	21.9	24.7	60	80.0	46.0	50.5
C2	M40	1½" or 1¼"	M40	1½" or 1¼"	26.3	29.7	80	83.0	55.0	60.6
D	M50	2" or 1½"	M50	2" or 1½"	37.1	41.7	100	94.0	65.0	70.8
E	M63	2½" or 2"	M63	2½" or 2"	47.8	53.5	120	97.0	80.0	88.0
F	M75	3" or 2½"	M75	3" or 2½"	59	66.2 / 65.3 ¹	160	100.0	95.0	104.0

All dimensions in millimetres (except * where dimensions are in inches). Metric entry threads are 1.5mm pitch as standard, 15mm length of thread.

¹ Smaller value is applicable when selecting reduced NPT entry option.

² Hexagon dimensions as shown may increase to accommodate non-metric female threads

³ Other thread types available upon request

Ordering Information

If brass is required please omit from material selection. Format for ordering is as follows:

Cable Gland Type	Size	Male Thread	Female Thread	Material
656N	C	M32	M32	
656N	C	1.25	1.25	NP

Order Example: 656NCM32M32

Two part sealing compound and assembly instructions are supplied with the cable gland

Please note all NPT entries should be state as a decimal

Please refer to part code logic information page for further details on product options

Technical Data	
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66 to IEC/EN 60529
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	to DTS01
Operating Temperature	-60°C to +80°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22
Approvals	
Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 19ATEX1170X CML 19ATEX4507X (Ex nR)
IECEx Certificate No	CML 19.0048X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1164X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 60079-7, IEC/EN 60079-15 and IEC/EN 60079-31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/BO DNV: TAE0000BS
Additional Certifications	CCC: 2020312313000316 EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X KCs: 17-KA4BO-0150X to 0158X PESO: P450038 SONCAP: LCOGB049552-0500
NEC/CEC	
NEC Protection Class	Class I Div 1 ABCD Class II Div 2 EFG and Class III Class I, Zone 1, AEx db IIC Gb, AEx eb IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Class I Div 1 ABCD Class II Div 2 EFG and Class III Ex db IIC Gb; Ex eb IIC Gb; Ex tb IIIC Db
c CSA us Certificate	1024328
Construction & Test Standards	UL2225, UL1203, UL514B, CSA C22.2 NO. 0-10, CSA C22.2 NO. 174-18, CSA 22.2 60079-0, CSA 22.2 60079-1, CSA 22.2 60079-7 and CSA 22.2 60079-31

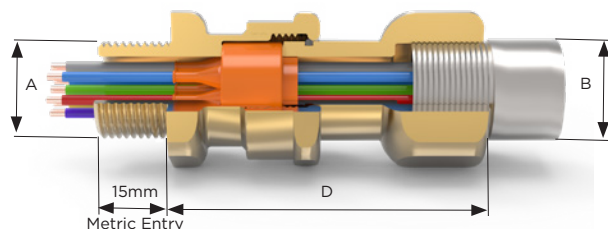


SB/474

Flameproof, Increased Safety, Dust Protection
Certified ATEX/IECEX

Features

- Provides an instant barrier seal around the individual conductors
- Accommodates range of conductor diameters in a single seal
- No punch tool required for seal installation
- Seals around heat shrunk drain wires
- Female running coupler for cable gland or conduit entry
- Can be used to upgrade standard non-barrier cable gland into a flameproof Exd barrier cable gland
- Environmentally friendly barrier solution



The SB474 dual certified Exe/Exd conduit cable gland offers an instant silicone barrier seal around individual conductors. This results in unparalleled speed of installation, and instant inspection. Removes need for curing compound or resin to achieve the Exd barrier seal hence no curing time and instant gland completion.

Cable Gland Selection Table

Size Ref.	Entry Thread Size 'A'		Female Thread Size 'B'		Cable Acceptance Details											
	Metric*	NPT	Metric**	NPT	Conductors								Approx Length 'D'		Hexagon Dimensions***	
					Standard Seal				Alternative Seal (S)				Min.	Max.	Across Flats	Across Corners
					Dia. (mm)		Quantity		Dia. (mm)		Quantity					
Min	Max	Min	Max	Min	Max	Min	Max	Min	Max							
O	M16 or M20	1/2"	M16 or M20	1/2"	1.5	4	1	4	-	-	-	-	54.5	69	24.0	26.5
A	M20	1/2" or 3/4"	M20	1/2" or 3/4"	1.5	4	1	7	-	-	-	-	56.4	69	30.0	32.5
B	M25	3/4" or 1"	M25	3/4" or 1"	1.5	4	1	12	4.5	6.5	1	5	48.2	61	36.0	39.5
C	M32	1" or 1 1/4"	M32	1" or 1 1/4"	1.5	4	7	19	-	-	-	-	61.6	77	46.0	50.5

*Male Metric threadforms are 1.5mm pitch, 15mm long as standard
 **Female Metric threadforms are 1.5mm pitch, 16mm min depth as standard
 ***Hexagon dimensions may increase to accommodate non-metric female threads
 Note - Additional Male-Female Thread Size combinations may be available upon request. Contact Hawke sales teams for further information.

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67 and IP68 (30 metres for 7 days, special instructions apply) to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	to DTS01
Operating Temperature	-60°C to +100°C
Applications	Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22

Approvals

ATEX/IECEX Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc, Ex tb IIIC Db
ATEX Certificate No	CML 19ATEX1167X CML 19ATEX4507X (Ex nR)
IECEX Certificate No	CML 19.0045X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1161X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 60079-0, 1, 7, 15 and 31
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X PESO: P450038

Ordering Information

If brass is required please omit material selection
 Format for ordering is as follows: For Alternative Seal (S), add suffix S to ordering information

Cable Gland Type	Size	Male Thread	Female Thread	Material	Optional
474	C	M32	M32		
474	B	1.0	1.0	NP	S

Order Example: 474CM32M32
 Please note all NPT entries should be state as a decimal
 Please refer to part code logic information page for further details on product options

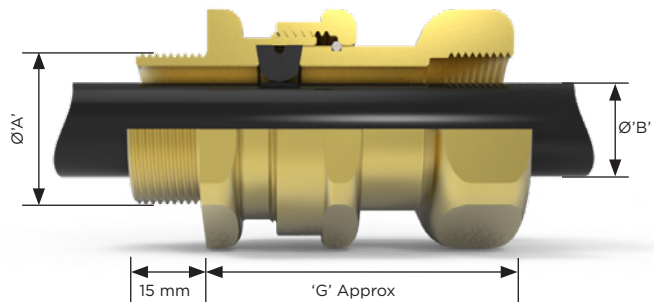
501/414

Flameproof, Increased Safety, Dust Protection and Restricted Breathing
Certified ATEX / IECEx / UKCA / c CSA us



Features

- Elastomeric Exd flameproof seal on cable inner sheath.
- Female running coupler for cable gland or conduit entry.



The Dual certified Exe/Exd 501/414 cable gland offers a female running coupler and a seal onto the cable outer sheath for use with non-armoured elastomer and plastic insulated cables installed in conduit. May also be used with braided cables under certain conditions - See technical section for installation rules and regulations.

Cable Gland Selection Table

Size Ref.	Thread Sizes				Cable Acceptance Details				'G'	Hexagon Dimensions ³	
	Male Entry Thread 'A'		Female Conduit Thread		Outer Sheath 'B'					Across Flats	Across Corners
	Metric	NPT*	Metric	NPT*	Standard Seal		Alternative Seal				
					Min	Max	Min	Max			
Os	M20 ²	½"	M20 ²	½"	3.2	8.0	-	-	54.5	24.0	26.5
O	M20 ²	½"	M20 ²	½"	6.5	11.9	-	-	54.5	24.0	26.5
A	M20	¾" or ½"	M20	¾" or ½"	10.0	14.3	9.0	13.4	56.4	30.0	32.5
B	M25	1" or ¾"	M25	1" or ¾"	13.0	20.2	9.5	15.4	48.2	36.0	39.5
C	M32	1¼" or 1"	M32	1¼" or 1"	19.5	26.5	15.5	21.2	61.6	46.0	50.5
C2	M40	1½" or 1¼"	M40	1½" or 1¼"	25.0	32.5	22.0	28.0	64.6	55.0	60.6
D	M50	2" or 1½"	M50	2" or 1½"	31.5	44.4 / 42.3 ¹	27.5	34.8	83.2	65.0	70.8
E	M63	2½" or 2"	M63	2½" or 2"	42.5	56.3 / 54.3 ¹	39.0	46.5	83.2	80.0	88.0
F	M75	3" or 2½"	M75	3" or 2½"	54.5	68.2 / 65.3 ¹	49.5	58.3	86.4	95.0	104.0

All dimensions in millimetres (except * where dimensions are in inches).

¹ Smaller value is applicable when selecting reduced NPT entry option.

² Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner sheath diameter is 10.9mm

³ Hexagon dimensions as shown may increase to accommodate non-metric female threads

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67 and IP68 (30 metres for 7 days, special instructions apply) to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	to DTS01
Operating Temperature	-60°C to +100°C
Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db

Approvals

ATEX Certificate No	CML 19ATEX1167X CML 19ATEX4507X (Ex nR)
IECEx Certificate No	CML 19.0045X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1161X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type B), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523 / BO
Additional Certifications	CCC: 2020312313000311 EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X PESO: P450038

NEC/CEC

NEC Protection Class	Class I, Zone I, AEx eb IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Class I Div 2 ABCD, Class II Div 2 EFG and Class III Ex db IIC Gb; Ex eb IIC Gb
c CSA us Certificate	1015065
Construction & Test Standards	UL2225, UL1203, UL514B, CSA C22.2 NO. 0-10, CSA C22.2 NO. 174-18, CSA 22.2 60079-0, CSA 22.2 60079-1, CSA 22.2 60079-7 and CSA 22.2 60079-31

Ordering Information

If brass is required please omit material selection

Format for ordering is as follows: Alternative Seal (S), add suffix S to ordering information

Cable Gland Type	Size	Male Thread	Female Thread	Material	(Optional)
414	C	M32	M32		S
414	C	1.25	1.25	NP	S

Order Example: 414CM32M32S

Please note all NPT entries should be state as a decimal

Please refer to part code logic information page for further details on product options



HAZCON
**CONTROL
STATIONS**



- Use in Zones 1/21 & 2/22
- Operating range -50°C to +60°C
- IP66 Ingress Protection
- Globally Certified
- Easy Installation
- Wide range of Push Buttons
- 2 or 3 way Selector Switches
- Emergency Stop Button options

Glass Reinforced Polymer (GRP)
& Stainless Steel Control Stations.

NEC[®] Compliant Cable Glands

The range of Hawke International NEC[®] Compliant cable glands provide a seal around the individual cores of a cable to maintain the flameproof integrity of Exd equipment.

These glands meet the requirements of NEC[®] and employ a compound seal around each core to prevent the migration of an explosion from within a piece of flameproof equipment to the outside atmosphere. Hawke International has a comprehensive, and UNIQUE range of barrier glands offering numerous features and benefits not to be found from other manufacturers.

2 Seal Options - BOTH FULLY INSPECTABLE!

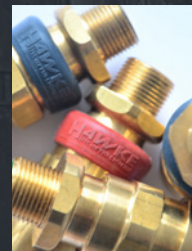
Our NEC[®] Compliant cable glands are available with our quick setting 2-part resin, or an injectable liquid seal - ExPress, both of which offer full inspection of the seal in-situ:

● 2-part Hand Mix Compound

Simple to use with a cure time from 30 minutes. Particularly useful where termination space is limited or cables are running horizontally to the installation area. Can be inspected and repaired if necessary, allowing for the very highest level of safety.

● ExPress Barrier Resin

A liquid injectable and fast curing resin, allowing for faster installation time than traditional 2-part compounds. Utilising a unique clear compound chamber allowing full visibility of the flameproof seal during installation and inspection, the ExPress barrier resin is unparalleled as a global solution.



The First Globally Certified, Fully Inspectable, Elastomeric Compound Pot

Why a silicone compound pot?

At Hawke, we prioritise complete inspectability of all seals and explosion protection features within our products. The search for inspectability pushed us toward the unique transparent silicone compound pot in which the compound is visible both as it is being installed and once installation is complete.

How does it work?

A traditional metallic compound pot uses a flamepath to dissipate the energy of an ignition. The flamepath is a tightly controlled clearance between the pot and the gland housing. If this clearance is too **large** there is a risk of ignition. If this clearance is too **small** the pot won't fit into the gland. Any scratches or damage renders the gland useless. Our silicone pot works by being compressed when installed so the flamepath gap is always zero.

How was the silicone compound pot tested and certified?

The compound pot and resin have been certified in accordance with ATEX/IECEX 60079 and UL2225. They have been through rigorous testing processes including and not limited to chemical exposure, hydrostatic pressure, thermal ageing and explosion testing.

What are the benefits of the silicone compound pot over a brass compound pot?

- When terminating the barrier gland the resin is visible to the installer, so the process is much more controlled and visible. Any issues such as voids or underfilling can be immediately addressed before the compound cures.
- The resin is visible through the compound pot and as such can be inspected without the product being destroyed. Traditional metallic compound pots must be cut off to inspect, discarded and then remade with a new gland.
- If the flamepath surface of a metallic pot is damaged, or in glands where the entry is used to form the flameproof seal, the whole assembly must be cut off the cable and replaced. If damage occurs to the silicone compound pot, it can be replaced.



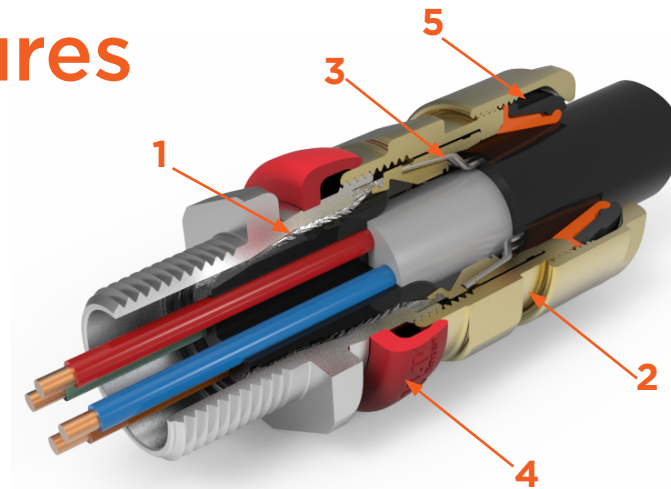
100% visibility.

Inspect installed glands with zero destruction.

The Difference is Clear.



Features



753

1 The World's Only Non-Metallic, Fully Inspectable Flameproof Barrier Seal

The barrier seal can be made using either a QSP quick setting 2-part hand-mixed putty, or a liquid injectable and fast curing resin, allowing for faster installation time than traditional 2-part compounds. The transparent compound chamber allows full visibility of the flameproof seal during installation and inspection making the ExPress barrier resin unparalleled as a global solution.

2 Cable Tightening Guide

To help address issues with the overtightening of cable glands and the resultant damage to cables and seals, Hawke International has developed the patented INBUILT TIGHTENING GUIDE. Without the need for fiddly measuring systems, the guide provides a permanent visual indication of the gland tightness through installation, inspection and maintenance. The gland is permanently marked with various lines/numbers indicating the correct tightening level related to the cable diameter. The backnut, once tightened to the line corresponding to the cable diameter, ensures there is no cable damage whilst still maintaining IP and pull-out.

3 The Original Reversible Armour Clamp (RAC)

The original RAC clamping system was invented by Hawke over 10 years ago and is a well established proven performer in all conditions. Simply by reversing the clamping ring, the cable gland can adjust to accommodate all types of cable armour or braid. Unlike many of our competitors, the correct stamping orientation is marked clearly with the armour size and backed up by the presence of a groove in the component. Hawke's RAC clamping system is also fully inspectable when positioned on the cable.

4 Inspectable Deluge Seal

Hawke's Inspectable deluge seal offers IP66 and IP67 sealing and is certified as 'deluge proof' by ITS in accordance with DTS01. Indeed, Hawke's deluge seal is so good that it exceeds the expectations of the offshore industry by not only preventing ingress into the equipment, but also into the cable gland, which prevents corrosion of the cable armour.

5 Unique Rear Sealing System

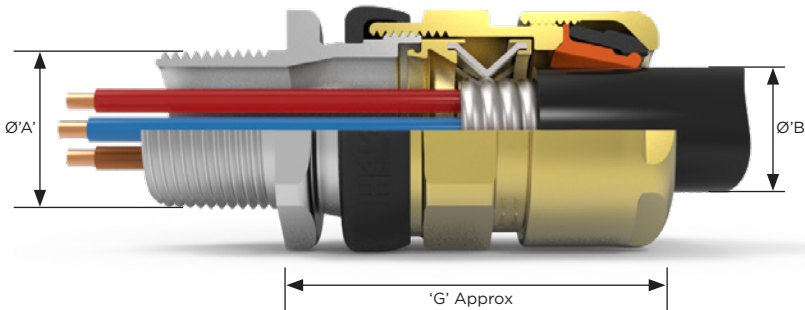
This arrangement offers IP66, IP67, IP68 (30 metres for 7 days), NEMA 4X and Deluge (DTS01) Ingress Protection. The seal is manufactured from a silicone material, has LSFZH properties, is ozone and oil resistant and is suitable for use at both high and low temperatures. The Rear Sealing System covers the entire range of cable diameters with out the need for special seals and the cable acceptance range is stamped on the backnut for ease of inspection. The backnut can be hand tightened, with only one further spanner turn required to ensure IP66, IP67, IP68 and NEMA 4X.



MADE IN BRITAIN

701

Increased Safety Exe for Zones
North American Cable Gland



Features

- Inspectable Deluge Seal - Offering IP66, IP67, IP68 & IP69 Ingress Protection
- Fully inspectable 360deg grounding device which remains in contact with the cable when disassembled for inspection
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range

The NEC® Compliant 701 gland certified Exe for zones is suitable for use with continuous corrugated Aluminum Metal Clad (MC-HL; MC) cable. Features a fully inspectable 360° grounding device which remains in contact with the cable when disassembled for inspection.

Cable Gland Selection Table

Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details				'G'	Hexagon Dimensions	
	Metric	NPT* Standard	Armour Jacket 'E'		Outer Jacket 'B'			Across Flats	Across Corners
			Min	Max	Min	Max			
A	M20	½" or ¾"	0.41"	0.64"	0.49"	0.81"	2.5"	1.18"	1.28"
B	M25	¾" or 1"	0.55"	0.93"	0.67"	1.02"	2.59"	1.42"	1.56"
C	M32	1" or 1¼"	0.85"	1.23"	0.87"	1.30"	2.93"	1.81"	1.99"
C2	M40	1¼" or 1½"	1.17"	1.59"	1.10"	1.61"	3.03"	2.17"	2.39"
D	M50	2" or 1½"	1.37"	1.96"	1.42"	2.07"	3.90"	2.56"	2.79"
E	M63	2½" or 2"	1.81"	2.55"	1.81"	2.57"	3.66"	3.15"	3.46"
F	M75	3" or 2½"	2.37"	2.98"	2.24"	3.07"	3.93"	3.74"	4.09"

Metric entry threads are 1.5mm pitch as standard, 15mm length of thread.
Oversize glands are available for Wet Locations. Please contact Hawke for more details.

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67, IP68*, IP69 to IEC/EN 60529 and Type 4X *30m for 7 days with thread sealant (special conditions apply) 10m for 24hrs no thread sealant; A-C size only
Deluge Protection	to DTS01
Enclosure Protection	IK10 to IEC 62262
Operating Temperature	-50°C to +80°C

NEC/CEC

NEC Protection Class	Class I, Zone I, AEx e IIC Gb; Zone 21, AEx tb IIIC Db
CEC Protection Class	Ex eb IIC Gb; Ex tb IIIC Db
Cable Types	MC, MC-HL, ITC-HL, TECK90, RA90
c UL us Listing Number	E84940
Construction & Test Standards	UL2225, UL514B, CSA C22.2 NO. 18.3-12, CSA C22.2 60079-0, CSA C22.2 60079-1, CSA 22.2 60079-7 and CSA 22.2 60079-31
Marine Approvals	ABS: 19-LD1876514-1-PDA DNV: E-14061
Additional Certifications:	SONCAP: LCOGB049552-0500

Ordering Information

Format for ordering is as follows:
If brass is required please omit material selection

Cable Gland Type	Size	Thread	Material
701	C	1.0	NE
701	C	1.0	NP

Order Example: 701C1.0NE
Please note all NPT entries should be state as a decimal
Please refer to part code logic information page for further details on product options

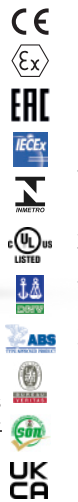
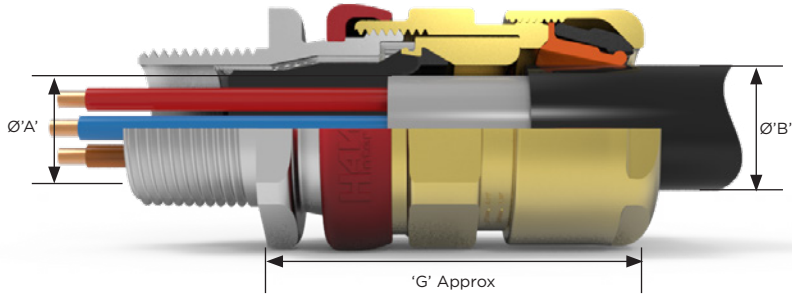
710



Features

- Inspectable Deluge Seal - Offering IP66, IP67, IP68 & IP69 Ingress Protection
- Fully inspectable 360deg grounding device which remains in contact with the cable when disassembled for inspection
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range

North American Explosion proof IECEx, ATEX and UKEX Approved Flameproof, Increased Safety Dual Marked UL & ATEX/IECEX/UKEX as standard



International Approvals

The NEC Compliant 710 dual certified Exe/Exd cable gland is suitable for use with the following cable types: TC, TC-ER, TC-ER-HL, PLTC, PLTC-ER, ITC, ITC-ER, Type P. The gland provides a barrier seal around the individual cores within the cable and prevents entry of the products of an explosion into the cable. The gland features the worlds only NEC compliant transparent elastomeric fully inspectable compound chamber.

Cable Gland Selection Table											
Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details						'G'	Hexagon Dimensions	
	Metric	NPT ¹ Standard	Inner Jacket Cores 'Ø'A'				Outer Jacket 'ØB'			Across Flats	Across Corners
			Max Over Cores 'D'	Min Inner Jacket 'E'	Max Inner Jacket 'E'	Max No of Cores	Min	Max			
Os	M20 ²	½"	0.31"	0.14"	0.32"	12	0.22"	0.47"	2.30"	0.94"	1.04"
O	M20 ²	½"	0.35"	0.26"	0.46"	12	0.37"	0.63"	2.30"	0.94"	1.04"
A	M20	¾" or ½"	0.43"	0.33"	0.55"	15	0.49"	0.81"	2.39"	1.18"	1.28"
B	M25	1" or ¾"	0.63"	0.44"	0.78"	30	0.66"	1.02"	2.65"	1.42"	1.56"
C	M32	1½" or 1"	0.86"	0.69"	1.03"	42	0.87"	1.30"	2.88"	1.81"	1.99"
C2	M40	1½" or 1¼"	1.05"	0.91"	1.27"	60	1.10"	1.61"	3.08"	2.17"	2.39"
D	M50	2" or 1½"	1.48"	1.14"	1.74"	80	1.42"	2.07"	3.84"	2.56"	2.79"
E	M63	2½" or 2"	1.93"	1.57"	2.20"	100	1.81"	2.57"	3.68"	3.15"	3.46"
F	M75	3" or 2½"	2.35"	1.99"	2.68"	120	2.24"	3.07"	4.11"	3.74"	4.09"

1. Os-F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread. 2. Are available with M16 entry thread, which reduces Max Over Core Diameter to 0.275".

Technical Data	
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67, IP68 ¹ , IP69 to IEC/EN 60529 and Type 4X *30m for 7 days with thread sealant (special conditions apply) 10m for 24hrs no thread sealant; Os-C size only
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	to DTS01
Operating Temperature	-50°C to +80°C
Applications	Suitable for use in Division 1, Division 2, Zone 1, Zone 21, Zone 2 and Zone 22
NEC/CEC	
NEC Protection Class	Class I Div 1 ABCD; Class II Div 1 EFG; Class III Class I Div 2 ABCD, Class II Div 2 FG and Class III Div 2 Class I, Zone 1, AEx d IIC; AEx e IIC; Zone 21, AEx tb IIC
CEC Protection Class	Class I Div 1 ABCD; Class II Div 1 EFG; Class III Class I Div 2 ABCD, Class II Div 2 FG and Class III Div 2 Ex db IIC Gb; Ex eb IIC Gb; Ex tb IIC Dc
Cable Types	TC, TC-ER, TC-ER-HL, PLTC, PLTC-ER, ITC, ITC-ER, Type P
c UL us Listing Number	E84940
Construction & Test Standards	UL2225, UL514B, CSA C22.2 NO. 18.3-12 , CSA 22.2 60079-0, CSA 22.2 60079-1, CSA 22.2 60079-7 a nd CSA 22.2 60079-31
Approvals	
Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIC Db
ATEX Certificate No	CML 18ATEX1268X CML 19ATEX4507 (Ex nR)
IECEX Certificate No	CML 18.0131X CML 21.0012X (Ex nR)
UKEX Certificate No	CML 21UKEX1132X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 60079-7, IEC/EN 60079-15 and IEC/EN 60079-31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/BO DNV: TAE0000BS
Additional Certifications	EAC: No EA3C RU C-GH.A91.B.00264/21* EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X PESO: P450038

* Product not marked EAC as standard. Contact Hawke International if required.

Ordering Information

Format for ordering is as follows:
 If brass is required please omit material selection
 All barrier glands are supplied with Express resin as standard. If QSP (Quick Set Putty) is required please select Q in compound selection

Cable Gland Type	Size	Thread	Material	Compound
710	C	1.0	NE	
710	C	1.0	NP	Q

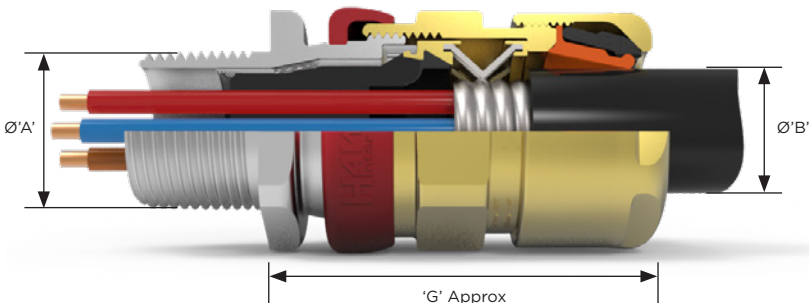
Assembly instructions are supplied with the cable gland

Order Example: 710C1.0NE
 Please note all NPT entries should be state as a decimal Please refer to part code logic information page for further details on product options



711

North American Explosion Proof
ATEX, IECEx and UKEX Approved Flameproof, Increased
Safety and Dust Protection Dual Marked UL & ATEX / IECEx / UKEX
as standard



Features

- Inspectable Deluge Seal - Offering IP66, IP67, IP68 & IP69 Ingress Protection
- Transparent Elastomeric Fully Inspectable Compound Pot - compatible with both injectable resin and 2 part compound
- Fully inspectable 360deg grounding device which remains in contact with the cable when disassembled for inspection
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range

The NEC Compliant 711 dual certified Exe/Exd gland is suitable for use with continuous corrugated Aluminum Metal Clad (ITC-HL, MC, MC-HL, TECK90, RA90) cable and provides a barrier seal around the individual cores within the cable and prevents entry of the products of an explosion into the cable. The gland features the worlds only NEC compliant transparent elastomeric fully inspectable compound chamber.

Cable Gland Selection Table

Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details						'G'	Hexagon Dimensions	
	Metric	NPT* Standard	Inner Jacket/Cores 'Ø A'			Outer Jacket 'Ø B'		Across Flats		Across Corners	
			Max Over Cores	Armour Jacket		Max No of Cores	Min				Max
A	M20	¾" or ½"	0.43"	0.41"	0.64"	15	0.49"	0.81"	2.5"	1.18"	1.28"
B	M25	1" or ¾"	0.63"	0.55"	0.93"	30	0.67"	1.02"	2.59"	1.42"	1.56"
C	M32	1¼" or 1"	0.86"	0.85"	1.23"	42	0.87"	1.30"	2.93"	1.81"	1.99"
C2	M40	1½" or 1¼"	1.05"	1.17"	1.59"	60	1.10"	1.61"	3.03"	2.17"	2.39"
D	M50	2" or 1½"	1.48"	1.37"	1.96"	80	1.42"	2.07"	3.9"	2.56"	2.79"
E	M63	2½" or 2"	1.93"	1.81"	2.55"	100	1.81"	2.57"	3.66"	3.15"	3.46"
F	M75	3" or 2½"	2.35"	2.37"	2.98"	120	2.24"	3.07"	3.93"	3.74"	4.09"

A - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread.

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67, IP68*, IP69 to IEC/EN 60529 and Type 4X *30m for 7 days with thread sealant (special conditions apply) 10m for 24hrs no thread sealant; A-C size only
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	to DTS01
Operating Temperature	-50°C to +80°C
Applications	Suitable for use in Division 1, Division 2, Zone 1, Zone 21, Zone 2 and Zone 22

NEC/CEC

NEC Protection Class	Class I Div 1 ABCD; Class II Div 1 EFG; Class III Class I Div 2 ABCD, Class II Div 2 FG and Class III Div 2 Class I, Zone 1, AEx d IIC; AEx e IIC; Zone 21, AEx tb IIC
CEC Protection Class	Class I Div 1 ABCD; Class II Div 1 EFG; Class III Class I Div 2 ABCD, Class II Div 2 FG and Class III Div 2 Ex db IIC Gb; Ex eb IIC Gb; Ex tb IIC Db
Cable Types	ITC-HL, MC, MC-HL, TECK90, RA90
c UL us Listing Number	E84940
Construction & Test Standards	UL2225, UL514B, CSA C22.2 NO. 18.3-12, CSA 22.2 60079-0, CSA 22.2 60079-1, CSA 22.2 60079-7 and CSA 22.2 60079-31

Other Approvals

Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIC Db
ATEX Certificate No	CML 18ATEX1268X CML 19ATEX4507 (Ex nR)
IECEx Certificate No	CML 18.0131X CML 21.0012X (Ex nR)
UKEx Certificate No	CML 21UKEX1132X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 60079-7, IEC/EN 60079-15 and IEC/EN 60079-31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/BO DNV: TAE0000BS
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00264/21* EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEX 14.0272X PESO: P450038 SONCAP: LCOGB049552-0500

*Product not marked EAC as standard. If required contact Hawke International.

Ordering Information

Format for ordering is as follows:

If brass is required please omit material selection

All barrier glands are supplied with Express resin as standard. If QSP (Quick Set Putty) is required please select Q in compound selection

Cable Gland Type	Size	Thread	Material	Compound
711	C	1.0	NE	
711	C	1.0	NP	Q

Assembly instructions are supplied with the cable gland

Order Example: 711C1.0NE

Please note all NPT entries should be state as a decimal Please refer to part code logic information page for further details on product options

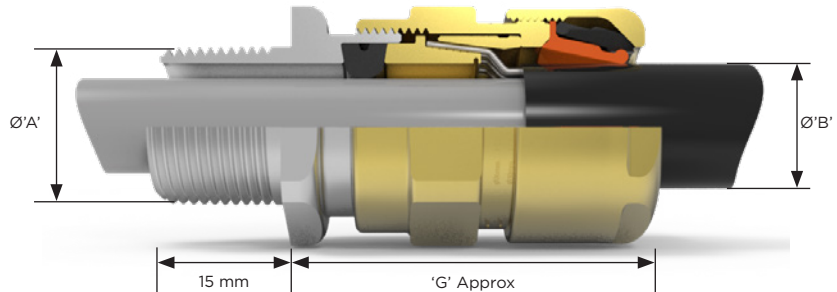
153 X

North American
General Purpose



Features

- Elastomeric seal on cable inner sheath
- Fully Inspectable Armour Clamp
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range



International Approvals

The 153/X Cable Gland is general purpose cable gland for use with wire braid, steel wire armour, elastomer and plastic insulated cables. The gland provides an elastomeric seal on the cable inner sheath, and a low smoke, zero halogen IP and retention seal onto the cable outer sheath.

Cable Gland Selection Table													
Size Ref.	Entry Thread 'A'		Cable Acceptance Details								'G'	Hexagon Dims	
	Metric	NPT* Standard or Option	Standard Seal		Alternative Seal (S)		Outer Jacket 'B'		Armour / Braid 'C'			Across Flats	Across Corners
			Min	Max	Min	Max	Min	Max	Orientation 1	Orientation 2			
Os	M20 ²	½"	0.13"	0.31"	-	-	0.22"	0.47"	0.0315"/0.0492"	0"/0.0315"	2.05"	0.94"	1.04"
O	M20 ²	½"	0.26"	0.47"	-	-	0.41"	0.63"	0.0315"/0.0492"	0"/0.0315"	2.05"	0.94"	1.04"
A	M20	¾" or ½"	0.39"	0.58"	0.35"	0.53"	0.50"	0.81"	0.0315"/0.0492"	0"/0.0315"	2.09"	1.18"	1.28"
B	M25	1" or ¾"	0.51"	0.79"	0.37"	0.61"	0.67"	1.02"	0.0492"/0.063"	0"/0.0276"	2.34"	1.42"	1.56"
C	M32	1¼" or 1"	0.77"	1.04"	0.61"	0.83"	0.98"	1.30"	0.063"/0.0787"	0"/0.0276"	2.52"	1.81"	1.99"
C2	M40	1½" or 1¼"	0.98"	1.28"	0.87"	1.10"	1.30"	1.61"	0.063"/0.0787"	0"/0.0276"	2.69"	2.17"	2.39"
D	M50	2" or 1½"	1.24"	1.75"/1.66" ¹	1.08"	1.37"	1.56"	2.07"	0.0709"/0.0984"	0"/0.0394"	3.11"	2.56"	2.79"
E	M63	2½" or 2"	1.67"	2.22"/2.14" ¹	1.54"	1.83"	2.05"	2.57"	0.0709"/0.0984"	0"/0.0394"	3.09"	3.15"	3.46"
F	M75	3" or 2½"	2.15"	2.69"/2.57" ¹	1.95"	2.3"	2.52"	3.07"	0.0709"/0.0984"	0"/0.0394"	3.30"	3.74"	4.09"
H	M90	3" or 3½"	2.64"	3.06"	-	-	2.96"	3.52"	0.0787"/0.1378"	0"/0.0394"	3.76"	4.53"	5.12"

Os-F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread. For H size glands, a 2mm pitch is supplied as standard, 20mm length of thread (1.5mm pitch with 15mm length of thread can be supplied) please specify when ordering

¹ Smaller value is applicable when selecting reduced NPT entry option.

² Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner jacket diameter is 0.43"

Technical Data	
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Area Classification	UL listed for use Wet Locations
UL Listing	E218332
Construction & Test Standards	IEC/EN 62444 (Anchorage Type B), UL 514B
Ingress Protection	IP66, IP67, IP68 (30 metres for 7 days, special instructions apply) to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	DTS01
Operating Temperature	-50°C to +60°C
Marine Approvals	DNV: TAE0003BT
Additional Certifications	SONCAP: LCOGB049552-0500

Alternative Reversible Armour Clamping Ring Size Selection		
Size Ref	Orientation 1	Orientation 2
B	0.0354" - 0.0492"	0.0197" - 0.0354"
C	0.0472" - 0.063"	0.0236" - 0.0472"
C2	0.0472" - 0.063"	0.0236" - 0.0472"
D	0.0571" - 0.0709"	0.0394" - 0.0571"
E	0.0571" - 0.0709"	0.0394" - 0.0571"
F	0.0571" - 0.0709"	0.0394" - 0.0571"

Ordering Information				
If brass is required please omit material selection				
Format for ordering is as follows: Alternative Seal (S), Alternative Ring (R), add suffix S and/or R to ordering information				
Cable Gland Type	Size	Thread	Material	Optional
153X	C	1.0	NE	S
153X	C	1.0	NP	R

Order Example: 153XC1.ONES

Please note all NPT entries should be state as a decimal

Please refer to part code logic information page for further details on product options

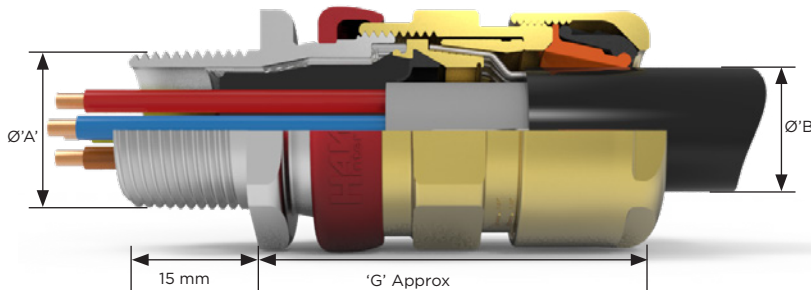


753

North American Explosion proof
IECEX, ATEX and UKEX Approved Flameproof, Increased Safety and Dust Protection
Dual Marked UL & ATEX/IECEX/UKEX as standard

Features

- Inspectable Deluge Seal - Offering IP66, IP67, IP68 & IP69 Ingress Protection
- Transparent Elastomeric Fully Inspectable Compound Pot - compatible with both injectable resin and 2 part compound
- Reversible Armour Clamp - For all types of armour and braid
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range



The NEC® Compliant 753 dual certified Exe/Exd gland is now suitable for use with single wire armour 'W', wire braid 'X', steel tape armour 'Z' and provides a barrier seal to the individual cores within the cable and prevents entry of the products of an explosion into the cable. The gland features the worlds only NEC® compliant transparent elastomeric fully inspectable compound chamber. The 753 is available with either ExPress liquid barrier resin or QSP 2-part hand mix compound, both with a cure time of 30 minutes.

Cable Gland Selection Table

Size Ref.	Entry Thread Size		Cable Acceptance Details							Hexagon Dimensions		
	Metric	NPT* Standard	Inner Jacket Co res 'ØA'			Outer Jacket 'ØB'		Armour / Braid 'ØC'		'G'	Across Flats	Across Corners
			Max Over Cores	Max Inner Jacket	Max No Cores	Min	Max	Orientation 1	Orientation 2			
Os	M20 ²	½"	0.31"	0.32"	12	0.22"	0.47"	0.0315"/0.0492"	0"/0.0315"	2.3"	0.94"	1.04"
O	M20 ²	½"	0.35"	0.46"	12	0.37"	0.63"	0.0315"/0.0492"	0"/0.0315"	2.3"	0.94"	1.04"
A	M20	¾" or ½"	0.43"	0.55"	15	0.49"	0.81"	0.0315"/0.0492"	0"/0.0315"	2.39"	1.18"	1.28"
B	M25	1" or ¾"	0.63"	0.78"	30	0.67"	1.02"	0.0492"/0.063"	0"/0.0276"	2.65"	1.42"	1.56"
C	M32	1¼" or 1"	0.86"	1.03"	42	0.87"	1.30"	0.063"/0.0787"	0"/0.0276"	2.88"	1.81"	1.99"
C2	M40	1½" or 1¼"	1.05"	1.27"	60	1.10"	1.61"	0.063"/0.0787"	0"/0.0276"	3.08"	2.17"	2.39"
D	M50	2" or 1½"	1.48"	1.74"	80	1.42"	2.07"	0.0709"/0.0984"	0"/0.0394"	3.84"	2.56"	2.79"
E	M63	2½" or 2"	1.93"	2.20"	100	1.81"	2.57"	0.0709"/0.0984"	0"/0.0394"	3.68"	3.15"	3.46"
F	M75	3" or 2½"	2.35"	2.68"	120	2.24"	3.07"	0.0709"/0.0984"	0"/0.0394"	4.11"	3.74"	4.09"

- Os-F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread.
- Are available with M16 entry thread, which reduces Max Over Core Diameter to 0.275".
- Oversize glands are available. Please contact Hawke for more details

*Recommended value to suit integrated Express resin stop. May be increased to 0.39" if QSP compound or alternative Express resin stop method are used.

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67, IP68*, IP69 to IEC/EN 60529 and Type 4X *30m for 7 days with thread sealant (special conditions apply) 10m for 24hrs no thread sealant; Os-C size only
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	to DTS01
Operating Temperature	-50°C to +80°C
Applications	Suitable for use in Division 1, Division 2, Zone 1, Zone 21, Zone 2 and Zone 22

NEC/CEC

NEC Protection Class	Class I Div 1 ABCD, Class II Div 1 EFG and Class III Class I Div 2 ABCD, Class II Div 2 FG and Class III Div 2 Class I, Zone I, AEx d IIC; AEx e IIC; Zone 21, AEx tb IIIC
CEC Protection Class	Class I Div 1 ABCD, Class II Div 1 EFG and Class III Class I Div 2 ABCD, Class II Div 2 FG and Class III Div 2 Ex db IIC Gb; Ex eb IIC Gb; Ex tb IIIC Db
Cable Types	TC, TC-ER, TC-ER-HL, PLTC, PLTC-ER, ITC, ITC-ER, Type P Marine shipboard using copper, bronze, aluminium or steel grounding braid
c UL us Listing Number	E84940
Construction & Test Standards	UL2225, UL514B, CSA C22.2 NO. 18.3-12, CSA 22.2 60079-0, CSA 22.2 60079-1, CSA 22.2 60079-7 and CSA 22.2 60079-31

Other Approvals

Protection Class	Ex II 2GD Ex db IIC Gb; Ex eb IIC Gb; Ex nR IIC Gc; Ex tb IIIC Db
ATEX Certificate No	CML 18ATEX1268X CML 19ATEX4507 (Ex nR)
IECEX Certificate No	CML 18.0131X CML 21.0012X (Ex nR)
UKEx Certificate No	CML 21UKEX1132X CML 21UKEX4133X (Ex nR)
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D), IEC/EN 60079-0, 1, 7, 15, 31
Marine Approvals	ABS: 19-LD1876514-1-PDA BV: 43523/BO DNV: TAE0000BS
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00264/21* EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X PESO: P450038 SONCAP: LCOGB049552-0500

*Product not marked EAC as standard. If required contact Hawke International.

Alternative Reversible Armour Clamping Ring Size Selection		
Size Ref	Orientation 1	Orientation 2
B	0.0354" - 0.0492"	0.0197" - 0.0354"
C	0.0472" - 0.063"	0.0236" - 0.0472"
C2	0.0472" - 0.063"	0.0236" - 0.0472"
D	0.0571" - 0.0709"	0.0394" - 0.0571"
E	0.0571" - 0.0709"	0.0394" - 0.0571"
F	0.0571" - 0.0709"	0.0394" - 0.0571"

Ordering Information

If brass is required please omit material selection

Format for ordering is as follows: Alternative Ring (R), add suffix R to ordering information

All barrier glands are supplied with Express resin as standard. If QSP (Quick Set Putty) is required please select Q in compound selection

Cable Gland Type	Size	Thread	Material	Optional
753	C	1.0	NE	
753	C	1.0	NP	R

Example Code: 753C1.0NE

Assembly instructions are supplied with the cable gland

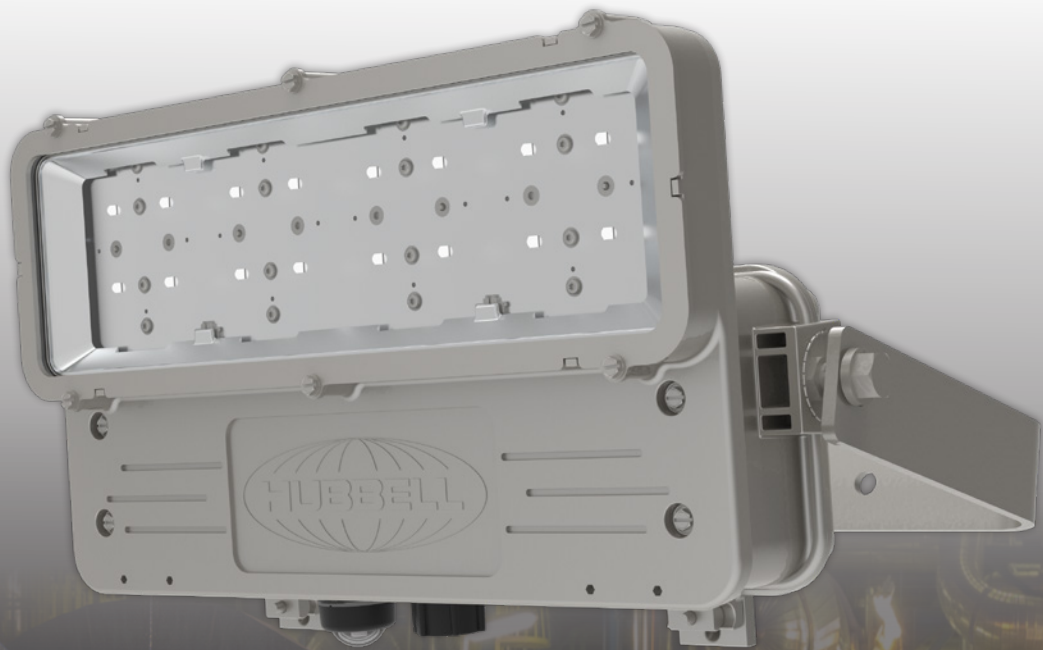
Please note all NPT entries should be state as a decimal

Please refer to part code logic information page for further details on product options



ARRAN X

The Next Generation in Hazardous Area LED Lighting



- **Energy Efficient** and Lightweight 25lbs/11.2kg
- **Easy to Install** with clamshell splice box
- **Intelligent Battery Backup** with built in self test/monitoring
- **Front Access Cover** with screwless mains terminals
- **Spot, Wide and Perimeter optic** options available

Zone 2 and Industrial Floodlight

Industrial Cable Glands

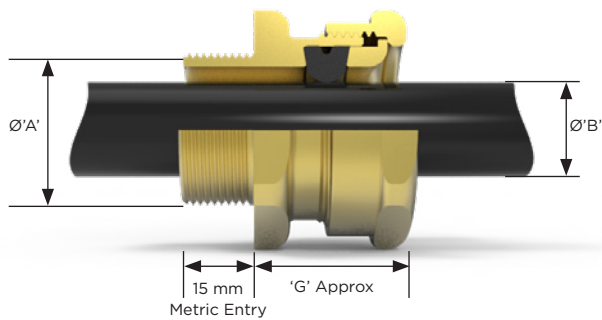
The Hawke International range of Industrial Cable Glands retain many of the patented features found in our hazardous area glands.

Designed for the harshest environments and tested to the latest standards, our range of Industrial Cable Glands are used in a multitude of environments - offshore wind, petrochemical, rail, heavy industry, data centres, pharmaceutical and many, many more.



121

Industrial gland for indoor or outdoor use



Features

- Elastomeric seal on cable inner sheath
- Rounded Cable entry to prevent cable damage

The 121 industrial cable gland is intended for use on non-armoured elastomer and plastic insulated cables in indoor and outdoor applications. This cable gland may be used with braided cables where the braid and outer sheath pass into the enclosure. The braid must then be suitably terminated inside the enclosure.

Cable Gland Selection Table									
Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details				'G'	Hexagon Dimensions	
	Metric	NPT*	Outer Sheath 'B'					Across Flats	Across Corners
			Standard Seal		Alternative Seal (S)				
			Min	Max	Min	Max			
2K	M16	-	3.2	8	-	-	23.5	19.0	21.2
Os	M20 ²	½"	3.2	8	-	-	23.8	24.0	26.5
O	M20 ²	½"	6.5	11.9	-	-	23.8	24.0	26.5
A	M20	¾" or ½"	10	14.3	9	13.4	24.8	30.0	32.5
B	M25	1" or ¾"	13	20.2	9.5	15.4	25.8	36.0	39.5
C	M32	1¼" or 1"	19.5	26.5	15.5	21.2	28.2	46.0	50.5
C2	M40	1½" or 1¼"	25	32.5	22	28.0	29.5	55.0	60.6
D	M50	2" or 1½"	31.5	44.4 / 42.3 ¹	27.5	34.8	40.4	65.0	70.8
E	M63	2½" or 2"	42.5	56.3 / 54.3 ¹	39	46.5	38.2	80.0	88.0
F	M75	3" or 2½"	54.5	68.2 / 65.3 ¹	49.5	58.3	40.5	95.0	104.0
G	M80	3½"	67	73	-	-	41.0	106.4	115.0
H	M90	3½"	67	77.6	-	-	41.0	115.0	130.0
J	M100	4"	75	91.6	-	-	41.0	127.0	142.0
K	M110	5"	75	91.6	-	-	59.0	127.0	142.0
L	M120	5"	88	104.5	-	-	63.0	140.0	150.0

All dimensions in millimetres (except * where dimensions are in inches)
 2K-F size metric entry threads are 1.5mm pitch, 15mm length of thread as standard
 G-L size metric entry threads are 2mm pitch, 20mm length of thread as standard

¹ Smaller value is applicable when selecting reduced NPT entry option.
² Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable outer sheath diameter is 10.9mm

Technical Data	
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Construction & Test Standards	IEC/EN 62444 (Anchorage Type B)
Ingress Protection	IP66 and IP67* to IEC/EN 60529
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	Deluge Protection to DTS01
Operating Temperature	-60°C to +100°C

Ordering Information

If brass is required please omit material selection
 Format for ordering is as follows: Alternative Seal (S), add suffix S to ordering information

Cable Gland Type	Size	Thread	Material	(Optional)
121	C	M32		S
121	C	1.25	NP	S

Order Example: 121CM32S

Please note all NPT entries should be state as a decimal
 Please refer to part code logic information page for further details on product options

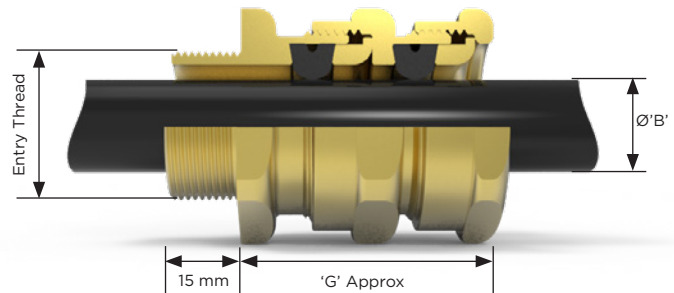
123

Industrial gland for indoor or outdoor use



Features

- Elastomeric seal on cable inner sheath
- Rounded Cable entry to prevent cable damage



The 123 dual seal industrial cable gland incorporates two independent seals and is intended for use on non-armoured elastomer and plastic insulated cables in indoor or outdoor applications. This cable gland may be used with braided cables where the braid and outer sheath pass into the enclosure. The braid must then be suitably terminated inside the enclosure. The two seals provide superior cable retention over standard unarmoured cable glands.

Cable Gland Selection Table									
Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details				'G'	Hexagon Dimensions	
	Metric	NPT* Standard	Outer Sheath 'B'					Across Flats	Across Corners
			Standard Seal		Alternative Seal (S)				
			Min	Max	Min	Max			
Os	M20 ²	½"	3.2	8	-	-	40.0	24.0	26.5
O	M20 ²	½"	6.5	11.9	-	-	40.0	24.0	26.5
A	M20	¾" or ½"	10	14.3	9	13.4	43.0	30.0	32.5
B	M25	1" or ¾"	13	20.2	9.5	15.4	46.6	36.0	39.5
C	M32	1¼" or 1"	19.5	26.5	15.5	21.2	48.8	46.0	50.5
C2	M40	1½" or 1¼"	25	32.5	22	28.0	51.1	55.0	60.6
D	M50	2" or 1½"	31.5	44.4 / 42.3 ¹	27.5	34.8	67.7	65.0	70.8
E	M63	2½" or 2"	42.5	56.3 / 54.3 ¹	39	46.5	65.2	80.0	88.0
F	M75	3" or 2½"	54.5	68.2 / 65.3 ¹	49.5	58.3	67.5	95.0	104.0
G	M80	3½"	67	73	-	-	68.0	106.4	115.0
H	M90	3½"	67.0	77.6	-	-	68.0	115.0	130.0
J	M100	4"	75.0	91.6	-	-	68.0	127.0	142.0

All dimensions in millimetres (except * where dimensions are in inches). Os-F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread. For G size glands and above, a 2mm pitch is supplied as standard, 20mm length of thread (1.5mm pitch with 15mm length of thread can be supplied).

¹ Smaller value is applicable when selecting reduced NPT entry option.

² Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable outer sheath diameter is 10.9mm

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Construction & Test Standards	BS EN 62444 (Anchorage Type B)
Enclosure Protection	IK10 to IEC 62262
Ingress Protection	IP66 and IP67 to IEC/EN 60529
Deluge Protection	Deluge Protection to DTS01
Operating Temperature	-60°C to +100°C

Ordering Information

If brass is required please omit material selection
 Format for ordering is as follows: Alternative Seal (S), add suffix S to ordering information

Cable Gland Type	Size	Thread	Material	(Optional)
123	C	M32		S
123	C	1.25	NP	S

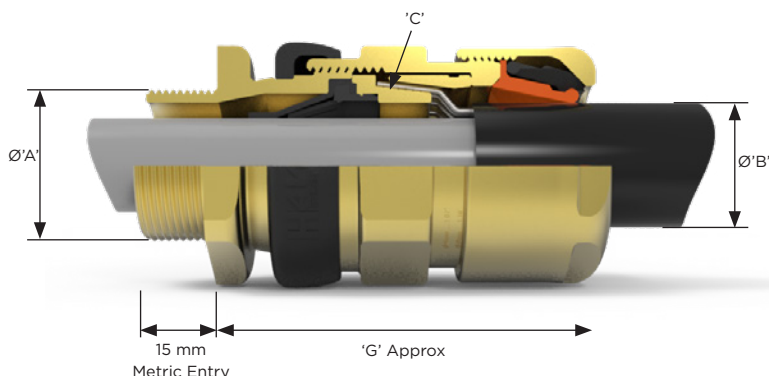
Order Example: 123CM32S

Please note all NPT entries should be state as a decimal
 Please refer to part code logic information page for further details on product options



153/UNIV

Industrial gland for indoor or outdoor use



Features

- Inspectable Deluge Seal - Offering IP66, IP67, IP68 & IP69 Ingress Protection
- Passive diaphragm seal - Suitable for cables exhibiting 'Cold Flow.' Fully inspectable
- Reversible Armour Clamp - For all types of armour and braid
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range
- EMC Compliant with Integral 360° bonding

The industrial 153/Universal Cable Gland is robust and for use with single wire armour 'W', wire braid 'X', steel tape armour 'Z', elastomer and plastic insulated cables. For particular use with cables that exhibit 'Cold Flow' characteristics.

Cable Gland Selection Table

Size Ref.	Entry Thread 'A'		Cable Acceptance Details						'G'	Hexagon Dimensions	
	Metric	NPT*	Inner Sheath		Outer Sheath 'B'		Armour/Braid 'C'			Across Flats	Across Corners
			Min	Max	Min	Max	Orientation 1	Orientation 2			
Os	M20 ²	½"	3.5	8.1	5.5	12	0.8/1.25	0.0/0.8	58.4	24	26.5
O	M20 ²	½"	6.5	11.4	9.5	16	0.8/1.25	0.0/0.8	58.4	24	26.5
A	M20	¾" or ½"	8.4	14.3	12.5	20.5	0.8/1.25	0.0/0.8	59.6	30	32.5
B	M25	1" or ¾"	11.1	19.7	16.9	26	1.25/1.6	0.0/0.7	66.4	36	39.5
C	M32	1¼" or 1"	17.6	26.5	22	33	1.6/2.0	0.0/0.7	71.2	46	50.5
C2	M40	1½" or 1¼"	23.1	32.5	28	41	1.6/2.0	0.0/0.7	75.2	55	60.6
D	M50	2" or 1½"	28.9	44.4/42.3 ¹	36	52.6	1.8/2.5	0.0/1.0	98	65	70.8
E	M63	2½" or 2"	39.9	56.3/54.3 ¹	46	65.3	1.8/2.5	0.0/1.0	94.4	80	88.0
F	M75	3" or 2½"	50.5	68.2/65.3 ¹	57	78	1.8/2.5	0.0/1.0	102	95	104.0
G	M80	3½"	67	73	75	89.5	2.0/3.5	0.0/1.0	90.6	106.4	115.0
H	M90	3½"	67	77.6	75	89.5	2.0/3.5	0.0/1.0	90.6	115	130.0
J	M100	4"	75	91.6	88	104.5	2.5/4.0	0.0/1.0	90.6	127	142.0

All dimensions in millimetres (except * where dimensions are in inches). Os - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread. For G size glands and above, a 2mm pitch is supplied as standard, 20mm length of thread (1.5mm pitch with 15mm length of thread can be supplied) please specify when ordering.

G size and above are available in the 153/RAC design style.

¹ Smaller value is applicable when selecting reduced NPT entry option.

² Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner sheath diameter is 10.9mm

Technical Data	
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D)
Ingress Protection	IP66, IP67, IP69 to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	DTS01
Operating Temperature	-60°C to +80°C

Alternative Reversible Armour Clamping Ring Size Selection

Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

Ordering Information

If brass is required please omit material selection

Format for ordering is as follows: Alternative Ring (R), add suffix R to ordering information

Cable Gland Type	Size	Thread	Material	(Optional)
153U	C	M32		R
153U	C	1.25	NP	R

Example Code: 153UCM32R

Please note all NPT entries should be state as a decimal

Please refer to part code logic information page for further details on product options

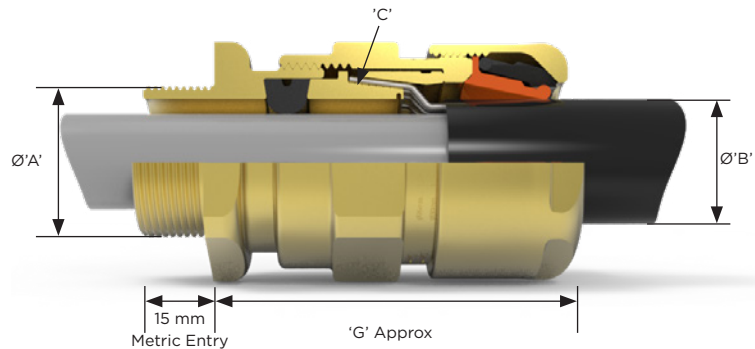
153/RAC



Features

- Elastomeric seal on cable inner sheath
- Fully Inspectable Armour Clamp
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range

Industrial gland for indoor or outdoor use



The 153/RAC Cable Gland is an industrial gland for indoor or outdoor use, robust and for use with single wire armour 'W', wire braid 'X', steel tape armour 'Z', elastomer and plastic insulated cables. The gland provides an elastomeric seal on the cable inner sheath, and a low smoke, zero halogen IP and retention seal onto the cable outer sheath.

Cable Gland Selection Table

Size Ref.	Entry Thread 'A'		Cable Acceptance Details								'G'	Hexagon Dimensions	
	Metric	NPT* Standard	Inner Sheath				Outer Sheath 'B'		Armour/Braid 'C'			Across Flats	Across Corners
			Std Seal	Alt Seal (S)	Min	Max	Orientation 1	Orientation 2					
Os	M20 ²	½"	3.2	8	-	-	5.5	12.0	0.8/1.25	0.0/0.8	52.0	24.0	26.5
O	M20 ²	½"	6.5	11.9	-	-	9.5	16.0	0.8/1.25	0.0/0.8	52.0	24.0	26.5
A	M20	¾" or ½"	10	14.3	9	14.3	12.5	20.5	0.8/1.25	0.0/0.8	53.0	30.0	32.5
B	M25	1" or ¾"	13	20.2	9.5	15.4	16.9	26.0	1.25/1.6	0.0/0.7	69.5	36.0	39.5
C	M32	1¼" or 1"	19.5	26.5	15.5	21.2	22.0	33.0	1.6/2.0	0.0/0.7	64.0	46.0	50.5
C2	M40	1½" or 1¼"	25	32.5	22	28	28.0	41.0	1.6/2.0	0.0/0.7	68.3	55.0	60.6
D	M50	2" or 1½"	31.5	44.4/42.3 ¹	27.5	34.8	36.0	52.6	1.8/2.5	0.0/1.0	79.0	65.0	70.8
E	M63	2½" or 2"	42.5	56.3/54.3 ¹	39	46.5	46.0	65.3	1.8/2.5	0.0/1.0	78.9	80.0	88.0
F	M75	3" or 2½"	54.5	68.2/65.3 ¹	49.5	58.3	57.0	78.0	1.8/2.5	0.0/1.0	83.7	95.0	104.0
G	M80	3½"	67	73	-	-	75.0	89.5	2.0/3.5	0.0/1.0	95.6	106.4	115.0
H	M90	3½"	67	77.6	-	-	75.0	89.5	2.0/3.5	0.0/1.0	95.6	115.0	130.0
J	M100	4"	77	91.6	-	-	88.0	104.5	2.5/4.0	0.0/1.0	95.6	127.0	142.0

All dimensions in millimetres (except * where dimensions are in inches).

Os - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread.

G - J size metric entry threads are 2mm pitch as standard, 20mm length of thread

¹ Smaller value is applicable when selecting reduced NPT entry option.

² Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner sheath diameter is 10.9mm

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D)
Ingress Protection	IP66, IP67 to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	DTS01
Operating Temperature	-60°C to +100°C

Alternative Reversible Armour Clamping Ring Size Selection

Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

Ordering Information

If brass is required please omit material selection

Format for ordering is as follows: Alternative Seal (S), Alternative Ring (R), add suffix S and/or R to ordering information

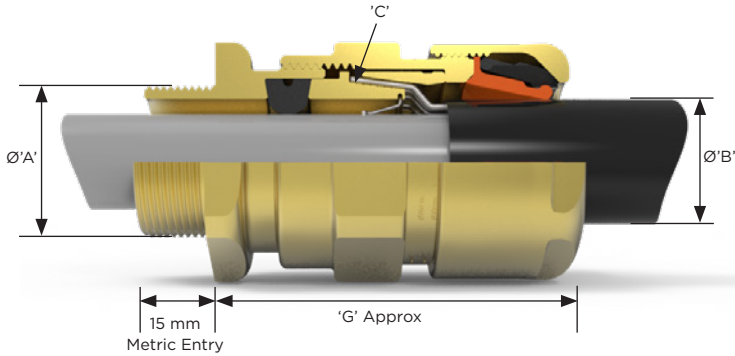
Cable Gland Type	Size	Thread	Material	(Optional)
153R	C	M32		R
153R	C	1.25	NP	S

Order Example: 153RCM32R



153/RAC/L

For Lead Sheath Cables. Industrial gland for indoor or outdoor use



Features

- Elastomeric seal on cable inner sheath
- Electrical Bond on the cables lead inner sheath
- Reversible Armour Clamp - For all types of armour and braid
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range

The 153/RAC/L Cable Gland is an industrial gland for indoor or outdoor use on Lead Sheath Cables. Robust and for use with single wire armour 'W', wire braid 'X', steel tape armour 'Z', elastomer and plastic insulated cables. The gland provides an elastomeric seal on the cable inner sheath, and a low smoke, zero halogen IP and retention seal onto the cable outer sheath.

Cable Gland Selection Table

Size Ref.	Entry Thread 'A'		Cable Acceptance Details								Hexagon Dimensions		
	Metric	NPT*	Inner Sheath				Outer Sheath 'B'		Armour/Braid 'C'		'G'	Across Flats	Across Corners
			Std (L) Seal +Bond		Alt Seal (S)		Min	Max	Orientation 1	Orientation 2			
			Min	Max	Min	Max							
O	M20 ²	½"	6.5	10.2	-	-	9.5	16.0	0.8/1.25	0.0/0.8	52.0	24.0	26.5
A	M20	¾" or ½"	10.0	14.3	9	12.5	12.5	20.5	0.8/1.25	0.0/0.8	53.0	30.0	32.5
B	M25	1" or ¾"	13.0	18	9.5	15.4	16.9	26.0	1.25/1.6	0.0/0.7	69.5	36.0	39.5
C	M32	1¼" or 1"	19.5	24.3	15.5	21.2	22.0	33.0	1.6/2.0	0.0/0.7	64.0	46.0	50.5
C2	M40	1½" or 1¼"	25.0	30.3	22	28	28.0	41.0	1.6/2.0	0.0/0.7	68.3	55.0	60.6
D	M50	2" or 1½"	31.5	41.9 ¹	27.5	34.8	36.0	52.6	1.8/2.5	0.0/1.0	79.0	65.0	70.8
E	M63	2½" or 2"	42.5	52.9	39	46.5	46.0	65.3	1.8/2.5	0.0/1.0	78.9	80.0	88.0
F	M75	3" or 2½"	54.5	64.9/64.3 ¹	49.5	58.3	57.0	78.0	1.8/2.5	0.0/1.0	83.7	95.0	104.0
G	M80	3½"	67.0	70	-	-	75.0	89.5	2.0/3.5	0.0/1.0	95.6	106.4	115.0
H	M90	3½"	67.0	75	-	-	75.0	89.5	2.0/3.5	0.0/1.0	95.6	115.0	130.0
J	M100	4"	75.0	89.5	-	-	88.0	104.5	2.5/4.0	0.0/1.0	95.6	127.0	142.0

All dimensions in millimetres (except * where dimensions are in inches).

Os - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread.

G - J size metric entry threads are 2mm pitch as standard, 20mm length of thread.

¹ Smaller value is applicable when selecting reduced NPT entry option.

² Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner sheath diameter is 10.9mm

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D)
Ingress Protection	IP66, IP67 and to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Deluge Protection	DTS01
Operating Temperature	-60°C to +100°C

Alternative Reversible Armour Clamping Ring Size Selection

Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

Ordering Information

If brass is required please omit material selection

Format for ordering as follows: Lead sheath must be selected in optional (L) or Alternative Seal (K), Alternative Ring (R), add suffix L or K, and R if required

Cable Gland Type	Size	Thread	Material	(Optional)
153R	C	M32		LR
153R	C	1.25	NP	K

Order Example: 153RCM32LR

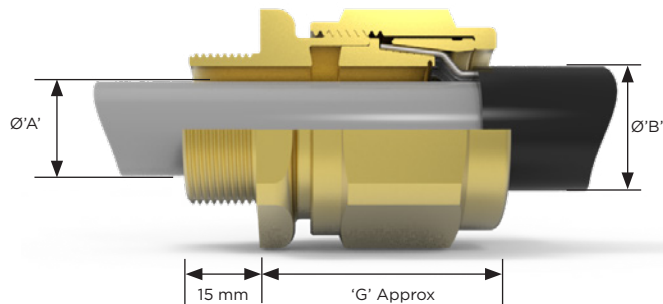
150/RAC

Industrial gland for indoor use



Features

- Reversible Armour Clamp - For all types of armour and braid



The 150/RAC Cable Gland is an industrial gland for indoor or outdoor use, robust and for use with single wire armour, wire braid, steel tape armour, elastomer and plastic insulated cables.

Cable Gland Selection Table									
Size Ref.	Entry Thread 'A'		Cable Acceptance Details				'G'	Hexagon Dimensions	
	Metric	NPT* Standard	Inner Sheath	Outer Sheath 'B'	Armour Braid 'C'			Across Flats	Across Corners
			Max	Max	Orientation 1	Orientation 2			
O	M20 ²	½"	11.9	16.0	0.8 / 1.25	0.0 / 0.8	37.0	24.0	26.5
A	M20	¾" or ½"	14.3	20.5	0.8 / 1.25	0.0 / 0.8	38.2	30.0	32.5
B	M25	1" or ¾"	20.2	26.0	1.25 / 1.6	0.0 / 0.7	42.7	36.0	39.5
C	M32	1¼" or 1"	26.5	33.0	1.6 / 2.0	0.0 / 0.7	46.9	46.0	50.5
C2	M40	1½" or 1¼"	32.5	41.0	1.6 / 2.0	0.0 / 0.7	49.9	55.0	60.6
D	M50	2" or 1½"	44.4 / 42.3 ¹	52.6	1.8 / 1.25	0.0 / 1.0	63.5	65.0	70.8
E	M63	2½" or 2"	56.3 / 54.3 ¹	65.3	1.8 / 2.5	0.0 / 1.0	60.4	80.0	88.0
F	M75	3" or 2½"	68.2 / 65.3 ¹	78.0	1.8 / 2.5	0.0 / 1.0	63.2	95.0	104.0

All dimensions in millimetres (except * where dimensions are in inches). O - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread.

¹ Smaller value is applicable when selecting reduced NPT entry option.

² Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner sheath diameter is 10.9mm

Technical Data	
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Construction & Test Standards	BS EN 62444:2013 (Anchorage Type D), BS 6121: Part 1 Type BW, TX, BY and BZ
Enclosure Protection	IK10 to IEC 62262
Operating Temperature	-60°C to +100°C

Alternative Reversible Armour Clamping Ring Size Selection		
Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

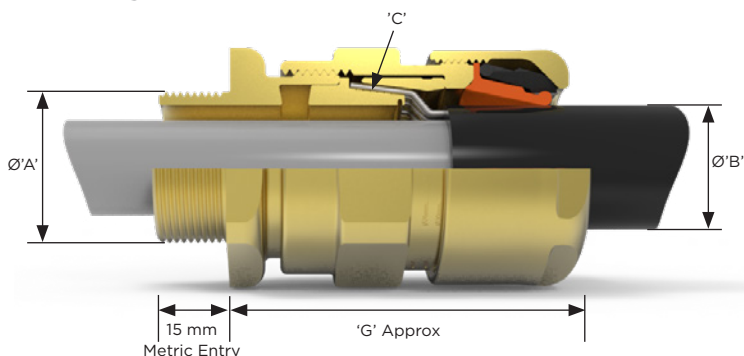
Ordering Information				
If brass is required please omit material selection Format for ordering is as follows: Alternative Ring (R), add suffix R to ordering information				
Cable Gland Type	Size	Thread	Material	(Optional)
150	C	M32		R
150	C	1.25	NP	R

Order Example: 150CM32R



151/RAC

Industrial gland for indoor or outdoor use



Features

- Reversible Armour Clamp - For all types of armour and braid
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range

The 151/RAC Cable Gland is an industrial gland for indoor or outdoor use, robust and for use with single wire armour, wire braid, steel tape armour, elastomer and plastic insulated cables. The gland provides a low smoke, zero halogen IP and retention seal onto the cable outer sheath.

Cable Gland Selection Table										
Size Ref.	Entry Thread Size		Cable Acceptance Details					'G'	Hexagon Dimensions	
	Metric	NPT*	Inner Sheath "ØA'	Outer Sheath 'ØB'		Armour Braid 'C'			Across Flats	Across Corners
				Max	Min	Max	Orientation 1			
Os	M20 ²	½"	8.0	5.5	12.0	0.8 / 1.25	0.0 / 0.8	52.0	24.0	26.5
O	M20 ²	½"	11.9	9.5	16.0	0.8 / 1.25	0.0 / 0.8	53.0	24.0	26.5
A	M20	¾" or ½"	14.3	12.5	20.5	0.8 / 1.25	0.0 / 0.8	53.0	30.0	32.5
B	M25	1" or ¾"	20.2	16.9	26.0	1.25 / 1.6	0.0 / 0.7	69.5	36.0	39.5
C	M32	1¼" or 1"	26.5	22.0	33.0	1.6 / 2.0	0.0 / 0.7	64.0	46.0	50.5
C2	M40	1½" or 1¼"	32.5	28.0	41.0	1.6 / 2.0	0.0 / 0.7	68.3	55.0	60.6
D	M50	2" or 1½"	44.4 / 42.3 ¹	36.0	52.6	1.8 / 2.5	0.0 / 1.0	79.0	65.0	70.8
E	M63	2½" or 2"	56.3 / 54.3 ¹	46.0	65.3	1.8 / 2.5	0.0 / 1.0	78.9	80.0	88.0
F	M75	3" or 2½"	68.2 / 65.3 ¹	57.0	78.0	1.8 / 2.5	0.0 / 1.0	83.7	95.0	104.0
G	M80	3½"	73.0	75.0	89.5	2.0 / 3.5	0.0 / 1.0	95.6	106.4	115.0
H	M90	3½"	77.6	75.0	89.5	2.0 / 3.5	0.0 / 1.0	95.6	115.0	130.0
J	M100	4"	91.6	88.0	104.5	2.5 / 4.0	0.0 / 1.0	95.6	127.0	142.0

All dimensions in millimetres (except * where dimensions are in inches).
 Os - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread.
 G - J size metric entry threads are 2mm pitch as standard, 20mm length of thread.

¹ Smaller value is applicable when selecting reduced NPT entry option.
² Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable outer sheath diameter is 10.9mm

Technical Data	
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D)
Ingress Protection	IP66 to IEC/EN 60529
Enclosure Protection	IK10 to IEC 62262
Operating Temperature	-60°C to +100°C

Alternative Reversible Armour Clamping Ring Size Selection		
Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

Ordering Information				
If brass is required please omit material selection Format for ordering is as follows: Alternative Ring (R), add suffix R to ordering information				
Cable Gland Type	Size	Thread	Material	(Optional)
151R	C	M32		R
151R	C	1.25	NP	R

Order Example: 151RCM32R
 Please note all NPT entries should be state as a decimal
 Please refer to part code logic information page for further details on product options

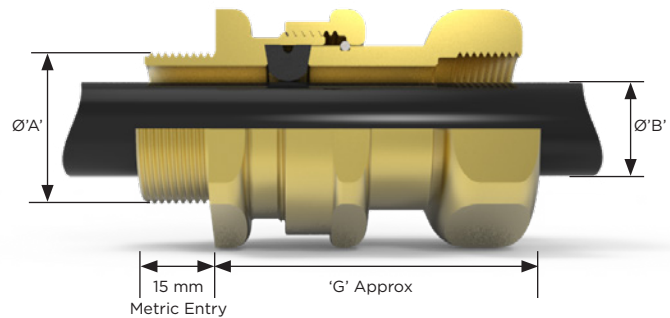
114



Industrial gland for indoor or outdoor use

Features

- Elastomeric seal on cable inner sheath
- Female running coupler for cable gland or conduit entry



The 114 industrial cable gland offers a female running coupler and a seal onto the cable outer sheath for use with non-armoured elastomer and plastic insulated cables installed in conduit. May also be used with braided cables under certain conditions
 - See technical section for installation rules and regulations.

Cable Gland Selection Table											
Size Ref.	Male Entry Thread Size 'A'		Female Entry Thread Size		Cable Acceptance Details				'G'	Hexagon Dimensions	
	Metric	NPT*	Metric	NPT*	Outer Sheath 'B'					Across Flats	Across Corners
					Standard Seal		Alternative Seal (S)				
					Min	Max	Min	Max			
Os	M20	½"	M20	½"	3.2	8	-	-	56.4	24	26.5
O	M20	½"	M20	½"	6.5	11.9	-	-	56.4	24	26.5
A	M20	¾" or ½"	M20	¾" or ½"	10	14.3	9	13.4	56.4	30	32.5
B	M25	1" or ¾"	M25	1" or ¾"	13	20.2	9.5	15.4	48.2	36	39.5
C	M32	1¼" or 1"	M32	1¼" or 1"	19.5	26.5	15.5	21.2	61.6	46	50.5
C2	M40	1½" or 1¼"	M40	1½" or 1¼"	25	32.5	22	28	64.6	55	60.6
D	M50	2" or 1½"	M50	2" or 1½"	31.5	44.4/42.3 ¹	27.5	34.8	83.2	65	70.8
E	M63	2½" or 2"	M63	2½" or 2"	42.5	56.3/54.3 ¹	39	46.5	83.2	80	88
F	M75	3" or 2½"	M75	3" or 2½"	54.5	68.2/65.3 ¹	49.5	58.3	86.4	95	104

All dimensions in millimetres (except * where dimensions are in inches). Metric entry threads are 1.5mm pitch as standard

¹ Smaller value is applicable when selecting reduced NPT entry option. Hexagon dimensions as shown may alter.

Technical Data	
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Construction & Test Standards	IEC/EN 62444 (Anchorage Type B)
Ingress Protection	IP66 and IP67 to IEC/EN 60529
Enclosure Protection	IK10 to IEC 62262
Operating Temperature	-60°C to +100°C

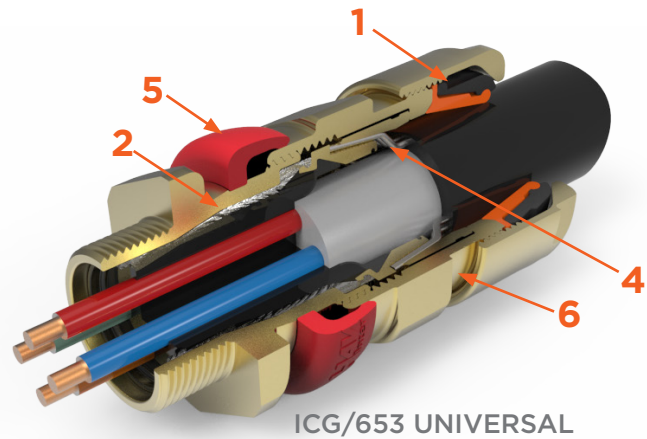
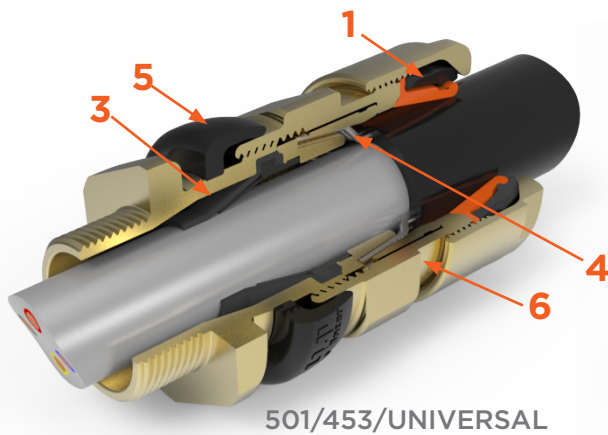
Ordering Information

If brass is required please omit material selection
 Format for ordering is as follows: Alternative Seal (S), add suffix S to ordering information

Cable Gland Type	Size	Male Thread	Female Thread	Material	(Optional)
114	C	M32	M32		S
114	C	1.25	1.25	NP	S

Order Example: 114CM32M32S
 Please note all NPT entries should be state as a decimal
 Please refer to part code logic information page for further details on product options

Features



1 Unique Rear Sealing System

This arrangement offers IP66, IP67, IP68 (30 metres for 7 days), NEMA 4X and Deluge (DTS01) Ingress Protection. The seal is manufactured from a silicone material, has LSFZH properties, is ozone and oil resistant and is suitable for use at both high and low temperatures. The Rear Sealing System covers the entire range of cable diameters without the need for special seals and the cable acceptance range is stamped on the backnut for ease of inspection. The backnut can be hand tightened, with only one further spanner turn required to ensure IP66, IP67, IP68 and NEMA 4X.

2 Unique Inspectable Compound Chamber

The revolutionary Hawke compound chamber has been designed with inspectability in mind. With a unique clear non-metallic compound chamber for both IEC and NEC application, the barrier seal can be made using either a QSP quick setting 2-part hand-mixed putty, or a liquid injectable and fast curing resin, allowing for faster installation time than traditional 2-part compounds. The transparent compound chamber allows full visibility of the flameproof seal during installation and inspection making the ExPress barrier resin unparalleled as a global solution.

3 Zero Cable Damage

The unique Hawke diaphragm sealing system does not damage cable which exhibit 'Cold Flow' characteristics. The diaphragm type seal is the only elastomeric seal to comply fully with IEC/EN 60079-14 and is therefore suitable on effectively filled 'cold flow' cables which would otherwise require barrier style cable glands. The Hawke diaphragm seal is also unique in that it is the only flameproof elastomeric seal that can be visually inspected in operation - a real benefit to inspectors.

4 The Original Reversible Armour Clamp (RAC)

The original RAC clamping system was invented by Hawke over 10 years ago and is a well established proven performer in all conditions. Simply by reversing the clamping ring, the cable gland can adjust to accommodate all types of cable armour or braid. Unlike many of our competitors, the correct stamping orientation is marked clearly with the armour size and backed up by the presence of a groove in the component. Hawke's RAC clamping system is also fully inspectable when positioned on the cable.

5 Inspectable Deluge Seal

Hawke's Inspectable deluge seal offers IP66 and IP67 sealing and is certified as 'deluge proof' by ITS in accordance with DTS01. Indeed, Hawke's deluge seal is so good that it exceeds the expectations of the offshore industry by not only preventing ingress into the equipment, but also into the cable gland, which prevents corrosion of the cable armour.

6 Cable Tightening Guide

To help address issues with the overtightening of cable glands and the resultant damage to cables and seals, Hawke International has developed the patented INBUILT TIGHTENING GUIDE. Without the need for fiddly measuring systems, the guide provides a permanent visual indication of the gland tightness through installation, inspection and maintenance. The gland is permanently marked with various lines/numbers indicating the correct tightening level related to the cable diameter. The backnut, once tightened to the line corresponding to the cable diameter, ensures there is no cable damage whilst still maintaining IP and pull-out.

Mining Cable Glands

Hawke Cable glands for mining applications are designed to withstand much harsher operating conditions than equipment used in surface applications.

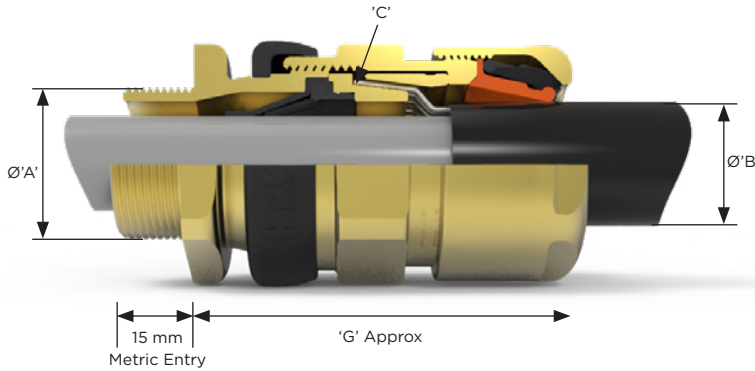
The mining industry was the birthplace for much of today's hazardous area certification. It was in these extremely tough and hostile mining environments that many modern day explosion proof products were born and this is also true for our range of cable glands. Having serviced the mining industry for over 50 years, Hawke mining glands are recognised for their durability and ease of use.





453/UNIV GP1

Mining, Flameproof, Increased Safety, Certified ATEX / IECEx / UKEX



Features

- Inspectable Deluge Seal - Offering IP66, IP67, IP68 & IP69 Ingress Protection.
- Passive diaphragm seal - Suitable for cables exhibiting 'Cold Flow.' Fully inspectable.
- Reversible Armour Clamp - For all types of armour and braid.
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening.
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range.

The 453 Universal group I mining Cable Gland is dual certified Exe/Exd, robust and for use with single wire armour 'W', wire braid 'X', steel tape armour 'Z', elastomer and plastic insulated cables. For particular use with cables that exhibit 'Cold Flow' characteristics, with a fully inspectable passive inner diaphragm seal.

Cable Gland Selection Table											
Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details						'G'	Hexagon Dimensions	
	Metric	NPT* Standard	Inner Sheath		Outer Sheath 'B'		Armour/Braid 'C'			Across Flats	Across Corners
			Min	Max	Min	Max	Orientation 1	Orientation 2			
Os	M20	½"	3.5	8.1	5.5	12.0	0.8 / 1.25	0.0 / 0.8	58.4	24.0	26.5
O	M20	½"	6.5	11.4	9.5	16.0	0.8 / 1.25	0.0 / 0.8	58.4	24.0	26.5
A	M20	¾" or ½"	8.4	14.3	12.5	20.5	0.8 / 1.25	0.0 / 0.8	59.6	30.0	32.5
B	M25	1" or ¾"	11.1	19.7	16.9	26.0	1.25 / 1.6	0.0 / 0.7	66.4	36.0	39.5
C	M32	1¼" or 1"	17.6	26.5	22.0	33.0	1.6 / 2.0	0.0 / 0.7	71.2	46.0	50.5
C2	M40	1½" or 1¼"	23.1	32.5	28.0	41.0	1.6 / 2.0	0.0 / 0.7	75.2	55.0	60.6
D	M50	2" or 1½"	28.9	44.4 / 42.3 ¹	36.0	52.6	1.8 / 2.5	0.0 / 1.0	98	65.0	70.8
E	M63	2½" or 2"	39.9	56.3 / 54.3 ¹	46.0	65.3	1.8 / 2.5	0.0 / 1.0	94.4	80.0	88.0
F	M75	3" or 2½"	50.5	68.2 / 65.3 ¹	57.0	78.0	1.8 / 2.5	0.0 / 1.0	102	95.0	104.0

All dimensions in millimetres (except * where dimensions are in inches). Metric entry threads are 1.5mm pitch as standard

¹ Smaller value is applicable when selecting reduced NPT entry option.

Technical Data	
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67, IP68 (30 metres for 7 days; special instructions apply), IP69 to IEC/EN 60529 and NEMA 4X
Enclosure Protection	IK10 to IEC 62262
Operating Temperature	-60°C to +80°C
Approvals	
ATEX/IECEx Protection Class	Ex IM2 Ex db I Mb, Ex eb I Mb
ATEX Certificate No	CML 19ATEX1166X
IECEx Certificate No	CML 19.0044X
UKEX Certificate No	CML 21UKEX1160X
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D), IEC/EN 60079-0, 1, 7
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007

Alternative Reversible Armour Clamping Ring Size Selection		
Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

Ordering Information				
If brass is required please omit material selection Format for ordering is as follows: Alternative Ring (R), add suffix R to ordering information				
Cable Gland Type	Size	Thread	Material	(Optional)
453UM	C	M32		R
453UM	C	1.25	NP	R

Example Code: 453UMCM32R
Please note all NPT entries should be state as a decimal
Please refer to part code logic information page for further details on product options

653/UNIV GP1

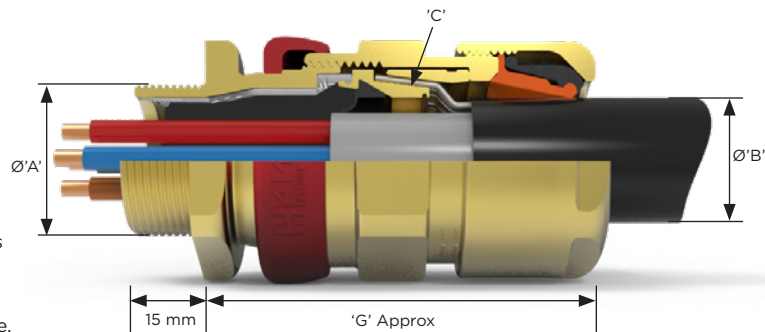
Mining, Flameproof, Increased Safety
Certified ATEX / IECEx / UKEX



International Approvals

Features

- Inspectable Deluge Seal - Offering IP66, IP67, IP68 & IP69 Ingress Protection.
- Transparent Elastomeric Fully Inspectable Compound Pot - compatible with both injectable resin and 2 part compound.
- Reversible Armour Clamp - For all types of armour and braid.
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening.
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range.



Dual certified Exe/Exd group I mining barrier gland, providing a seal around individual cable cores, especially for cables that exhibit "cold flow" characteristics, are not effectively filled, have hygroscopic fillers or have fibre optic cores. For use with single wire armour 'W', wire braid 'X', steel tape armour 'Z' elastomer and plastic insulated cables. The 653/UNIVERSAL is available with either ExPress liquid barrier resin or QSP 2-part hand mix compound, both with a cure time of 30 minutes.

Cable Gland Selection Table													
Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details								'G'	Hexagon Dimensions	
	Metric	NPT*	Inner Sheath / Cores				Outer Sheath 'B'		Armour/Braid 'C'			Across Flats	Across Corners
			Max Inner Sheath 'E'	Max Over Core Diameter	Max No of Cores	Max No of Fibre Optic	Min	Max	Orientation 1	Orientation 2			
Os	M20 ²	½"	8.1	8	12	48	5.5	12	0.8/1.25	0.0/0.8	58.4	24	26.5
O	M20 ²	½"	11.7	8.8	12	48	9.5	16	0.8/1.25	0.0/0.8	58.4	24	26.5
A	M20	¾" or ½"	14	10.8	15	72	12.5	20.5	0.8/1.25	0.0/0.8	60.6	30	32.5
B	M25	1" or ¾"	19.9	15.9	30	144	16.9	26	1.25/1.6	0.0/0.7	67.3	36	39.5
C	M32	1¼" or 1"	26.2	21.9	42	-	22	33	1.6/2.0	0.0/0.7	73.2	46	50.5
C2	M40	1½" or 1¼"	32.3	26.7	60	-	28	41	1.6/2.0	0.0/0.7	78.3	55	60.6
D	M50	2" or 1½"	44.2	37.7	80	-	36	52.6	1.8/2.5	0.0/1.0	97.5	65	70.8
E	M63	2½" or 2"	56	49	100	-	46	65.3	1.8/2.5	0.0/1.0	93.5	80	88
F	M75	3" or 2½"	68	59.8	120	-	57	78	1.8/2.5	0.0/1.0	104.5	95	104

1. All dimensions in millimetres (except * where dimensions are in inches). Metric entry threads are 1.5mm pitch as standard, 15mm length of thread.
2. Are available with M16 entry thread, which reduces Max Over Core Diameter to 7mm.

Technical Data	
Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67, IP68 (30 metres for 7 days, special conditions may apply) and IP69 to IEC/EN 60529 and NEMA 4X
Operating Temperature	-60°C to +80°C
Enclosure Protection	IK10 to IEC 62262

Approvals	
Protection Class	Ex I M2 Ex db I Mb, Ex eb I Mb
ATEX Certificate No	CML19ATEX1169X
IECEx Certificate No	CML 19.0047X
UKEX Certificate No	CML 21UKEX1162X
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D), IEC/EN 60079-0, 1, 7
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007

Alternative Reversible Armour Clamping Ring Size Selection		
Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

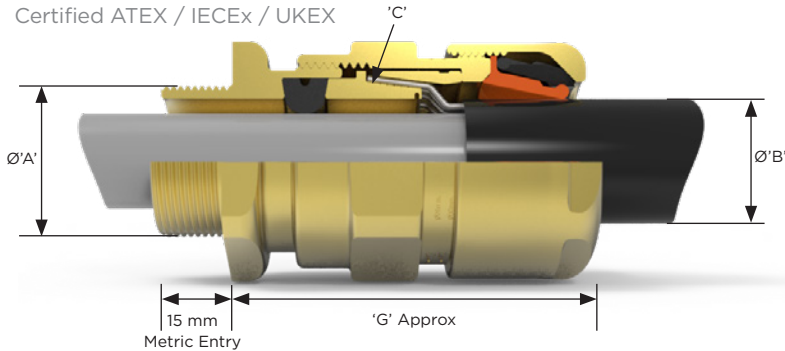
Ordering Information					
If brass is required please omit material selection					
Format for ordering is as follows: Alternative Ring (R), add suffix R to ordering information					
All barrier glands are supplied with Express resin as standard. If QSP (Quick Set Putty) is required please select Q in compound selection					
Cable Gland Type	Size	Thread	Material	(Optional)	Compound
653UM	C	M32		R	
653UM	C	1.25	NP	R	Q

Example Code: 653UMCM32R
Assembly instructions are supplied with the cable gland.
Please note all NPT entries should be state as a decimal. Please refer to part code logic information page for further details on product options



453/RAC GP1

Mining
Flameproof, Increased Safety
Certified ATEX / IECEx / UKEX



Features

- Elastomeric Exd flameproof seal on cable inner sheath
- Reversible Armour Clamp - For all types of armour and braid
- Patented Cable Gland Tightening Guide - Helps prevent damage caused by over tightening
- Unique Rear Seal - Offering ultimate sealing over an extremely wide cable acceptance range

International Approvals
CE
UK CA

The 453/RAC group I mining Cable Gland is dual certified Exe/Exd, robust and for use with single wire armour 'W', wire braid 'X', steel tape armour 'Z', elastomer and plastic insulated cables. The gland provides an elastomeric seal on the cable inner sheath, and a low smoke, zero halogen IP and retention seal onto the cable outer sheath.

Cable Gland Selection Table

Size Ref.	Entry Thread Size 'A'		Cable Acceptance Details								Hexagon Dimensions		
	Metric	NPT* Standard	Inner Sheath				Outer Sheath 'B'		Armour/Braid 'C'		'G'	Across Flats	Across Corners
			Standard Seal		Alternative Seal (S)		Min	Max	Orientation 1	Orientation 2			
			Min	Max	Min	Max							
Os	M20	½"	3.2	8	-	-	5.5	12.0	0.8 / 1.25	0.0 / 0.8	52.0	24.0	26.5
O	M20	½"	6.5	11.9	-	-	9.5	16.0	0.8 / 1.25	0.0 / 0.8	52.0	24.0	26.5
A	M20	¾" or ½"	10	14.3	9	13.4	12.5	20.5	0.8 / 1.25	0.0 / 0.8	53.0	30.0	32.5
B	M25	1" or ¾"	13	20.2	9.5	15.4	16.9	26.0	1.25 / 1.6	0.0 / 0.7	69.5	36.0	39.5
C	M32	1¼" or 1"	19.5	26.5	15.5	21.2	22.0	33.0	1.6 / 2.0	0.0 / 0.7	64.0	46.0	50.5
C2	M40	1½" or 1¼"	25	32.5	22	28.0	28.0	41.0	1.6 / 2.0	0.0 / 0.7	68.3	55.0	60.6
D	M50	2" or 1½"	31.5	44.4 / 42.3 ¹	27.5	34.8	36.0	52.6	1.8 / 2.5	0.0 / 1.0	79.0	65.0	70.8
E	M63	2½" or 2"	42.5	56.3 / 54.3 ¹	39	46.5	46.0	65.3	1.8 / 2.5	0.0 / 1.0	78.9	80.0	88.0
F	M75	3" or 2½"	54.5	68.2 / 65.3 ¹	49.5	58.3	57.0	78.0	1.8 / 2.5	0.0 / 1.0	83.7	95.0	104.0

All dimensions in millimetres (except * where dimensions are in inches). Metric entry threads are 1.5mm pitch as standard

¹ Smaller value is applicable when selecting reduced NPT entry option.

Technical Data

Material Options	Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel
Ingress Protection	IP66, IP67 and IP68 (30 metres for 7 days, special instructions apply) to IEC/EN 60529
Operating Temperature	-60°C to +100°C
Enclosure Protection	IK10 to IEC 62262

Approvals

ATEX/IECEx Protection Class	Ex IM2 Ex db I Mb, Ex eb I Mb
ATEX Certificate No	CML 19ATEX1165X
IECEx Certificate No	CML 19.0043X
UKEX Certificate No	CML 21UKEX1159X
Construction & Test Standards	IEC/EN 62444 (Anchorage Type D), IEC/EN 60079-0, 1, 7
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00264/21 EQM: 20-11-27224/Q20-11-000979/NB0007

Alternative Reversible Armour Clamping Ring Size Selection

Size Ref	Orientation 1	Orientation 2
B	0.9 - 1.25	0.5 - 0.9
C	1.2 - 1.6	0.6 - 1.2
C2	1.2 - 1.6	0.6 - 1.2
D	1.45 - 1.8	1.0 - 1.45
E	1.45 - 1.8	1.0 - 1.45
F	1.45 - 1.8	1.0 - 1.45

Ordering Information

If brass is required please omit material selection

Format for ordering is as follows: Alternative Seal (S), Alternative Ring (R), add suffix S and/or R to ordering information

Cable Gland Type	Size	Thread	Material	(Optional)
453RM	C	M32		R
453RM	C	1.25	NP	S

Order Example: 453RMCM32R

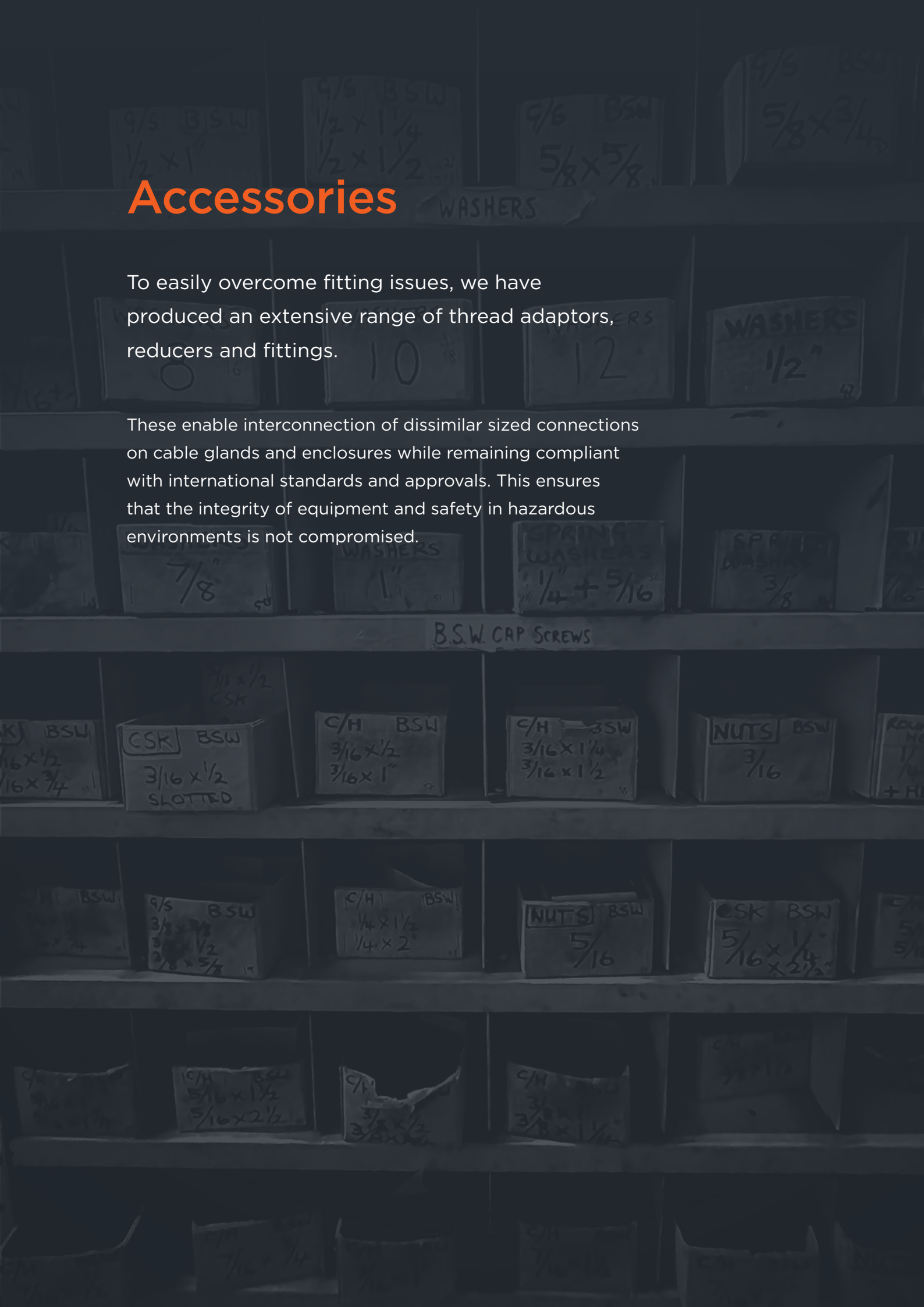
Please note all NPT entries should be state as a decimal

Please refer to part code logic information page for further details on product options

Accessories

To easily overcome fitting issues, we have produced an extensive range of thread adaptors, reducers and fittings.

These enable interconnection of dissimilar sized connections on cable glands and enclosures while remaining compliant with international standards and approvals. This ensures that the integrity of equipment and safety in hazardous environments is not compromised.

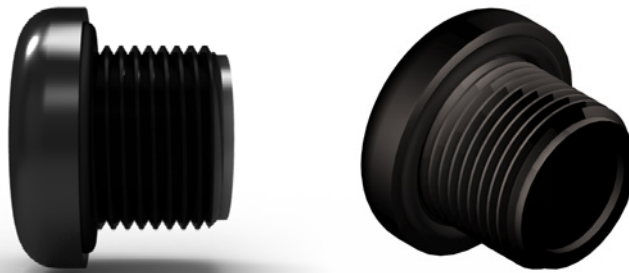




MADE IN BRITAIN

375

Domed Head Stopping Plug



Technical Data

Ingress Protection	IP66, IP67
Operating Temperature	-60°C to +75°C
Construction Materials	Manufactured in Polyamide with Nitrile O-Ring
Threadform	M16 to M75 Thread Length 15mm as standard Thread Pitch 1.5mm as standard

Approvals

Applications	Suitable for Use in Zone 1, Zone 21, Zone 2, Zone 22
Protection Class	Ex II 2GD Ex eb IIC Gb; Ex tb IIIC Db
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-7 and IEC/EN 60079-31
ATEX Certificate No	Baseefa 12ATEX0095X
UKEx Certificate No	UKEx: BAS21UKEX0053X
IECEX Certificate Number	IECEX BAS 12.0065X
Marine Approvals	ABS: 17-LD1653734-PDA Bureau Veritas: 43523/B0
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00265/21* EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 15.0291X PESO: P409088 SONCAP: LCOGB049552-0500

NEC/CEC*

*Only marked on request

NEC Protection Class	Class 1 Zone 1 AEx eb IIC Gb Zone 21 AEx tb IIIC Db
CEC Protection Class	Ex eb IIC Gb; Ex tb IIIC Db
c CSA us Certificate	2700364
Construction & Test Standards	CSA C22.2 No 0-10; CSA/UL 60079-0; CSA/UL 60079-7; CSA/UL 60079-31; IEC 60529

Size Selection

Thread Size	Head Diameter (mm)	Allen Key Socket Size (mm)
M16	23	8
M20	27.5	10
M25	32	10
M32	39	10
M40	49	10
M50	59	10
M63	72	10
M75	84	10

Ordering Information

Format for ordering is as follows:

Product	Thread Size
375	M32

Part code Example - 375M32

International Approvals





385



Plastic M20 Breather Drain
Increased Safety, Dust Protection
Certified ATEX / IECEx / c CSA us



International Approvals

The Hawke plastic breather drain is a cost effective accessory to prevent condensation and drain moisture from hazardous area enclosures. Certified for increased safety and dust protection and dual certified for ATEX/IECEx and NEC/CEC. Supplied with nitrile o-ring and plastic locknut as standard.

Technical Data	
Ingress Protection	IP66
Operating Temperature	-60°C to +80°C
Construction Materials	Manufactured in Polyamide with Nitrile O-Ring
Threadform	M20 x 1.5 pitch Thread Length 15mm
Approvals	
Applications	Suitable for Use in Zone 1, Zone 21, Zone 2, Zone 22
Protection Class	Ex II 2GD Ex eb IIC Gb; Ex tb IIIC Db
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-7 and IEC/EN 60079-31
ATEX Certificate No	Baseefa 11ATEX0153X
UKEx Certificate No	BAS21UKEX0043X
IECEx Certificate Number	BAS11.0075X
Additional Certifications	EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 15.0208X
NEC/CEC	
NEC/CEC Protection Class	Class I, Zone 1, AEx e/Ex eb IIC Gb; Zone 21, AEx/Ex tb IIIC Db
c CSA us Certificate Number	2700364
Construction & Test Standards	CSA C22.2 NO. 0 - 10, CSA/ANSI 60079-0, CSA/ANSI 60079-1, CSA/ANSI 60079-7 and CSA/ANSI 60079-31

Ordering Information

Format for ordering is as follows:

Product	Thread Size
385	M20

Part code example - 385M20



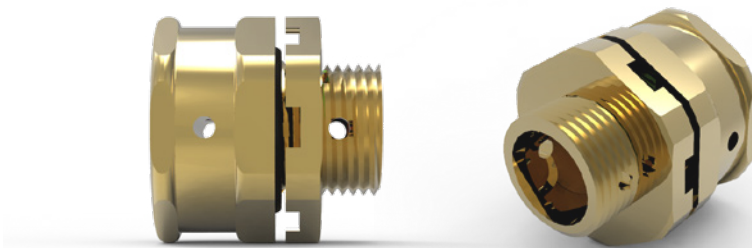
MADE IN BRITAIN

389

Metallic Breather Drain



International Approvals



Metallic breather drain designed to be installed onto metric threaded or thinwalled enclosures. Suitable for use in Increased Safety protection concepts and mining applications.

Technical Data

Ingress Protection	IP66
Operating Temperature	-60°C to +80°C (with Nitrile O-Ring) -60°C to +160°C (with Silicone O-Ring)
Construction Materials	Manufactured in Brass (Standard), Nickel Plated Brass or 316L Stainless Steel
Threadform	M20, M25*

*Metric Thread Length 15mm as standard; Metric Thread Pitch 1.5mm as standard

Approvals

Applications	Suitable for Use in Zone 1, Zone 21, Zone 2, Zone 22
Protection Class	Ex II 2GD Ex eb IIC Gb; Ex tb IIIC Db Ex I M2 Ex eb I Mb
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-7 and IEC/EN 60079-31
ATEX Certificate No	Baseefa 11ATEX0153X
UKEx Certificate No	BAS21UKEX0043X
IECEx Certificate Number	BAS11.0075X
Marine Approvals	ABS: 17-LD1653734-PDA BV: 43523/BO
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00265/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 15.0208X

NEC/CEC

NEC Protection Class	Class 1 Zone 1 AEx eb IIC Gb Zone 21 AEx tb IIIC Db
CEC Protection Class	Ex eb IIC Gb; Ex tb IIIC Db
c CSA us Certificate	2700364
Construction & Test Standards	CSA C22.2 No 0-10; CSA/UL 60079-0, CSA/UL 60079-7, CSA/UL 60079-31, IEC 60529

Ordering Information

If brass is required please omit material selection
Format for ordering is as follows: For silicone O ring add suffix S to optional

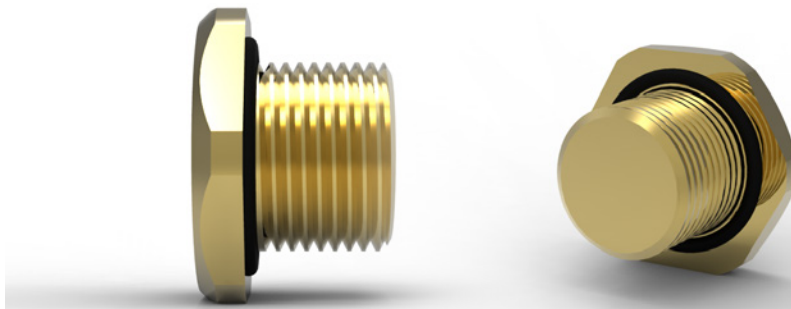
Product	Thread Size	Material	Optional
389	M20	NP	S

Part code example - 389M20NPS

390



Hexagon Head Metallic Stopping Plug



Metallic hexagon headed stopping plug designed to be installed onto metric threaded or thin walled enclosures. Suitable for use in Increased Safety protection concepts and for mining applications.



International Approvals

Technical Data

Ingress Protection	IP66, IP67
Operating Temperature	-60°C to +80°C (with Nitrile O-Ring) -60°C to +160°C (with Silicone O-Ring)
Construction Materials	Manufactured in Brass (Standard), Nickel Plated Brass or 316L Stainless Steel
Threadform	M16 to M130* 1/2" NPT to 6" NPT

**For M16-M75: Thread Length 15mm as standard; Thread Pitch 1.5mm as standard For M80-M130: Thread Length 20mm as standard; Thread Pitch 2mm as standard
** NPT threadforms may only be used with thinwalled enclosures and fitted with an NPSM locknut*

Approvals	
Applications	Suitable for Use in Zone 1, Zone 21, Zone 2, Zone 22 and mining applications
Protection Class	Ex II 2GD Ex eb IIC Gb; Ex tb IIIC Db Ex I M2 Ex eb I Mb
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-7 and IEC/EN 60079-31
ATEX Certificate No	Baseefa 11ATEX0157X
UKEx Certificate No	BAS21UKEX0052X
IECEx Certificate Number	BAS11.0079X
Marine Approvals	ABS: 17-LD1653734-PDA Bureau Veritas: 43523/B0
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00265/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx15.0291X SONCAP: LCOGB049552-0500
NEC/CEC	
NEC Protection Class	Class 1 Zone 1 AEx eb IIC Gb Zone 21 AEx tb IIIC Db
CEC Protection Class	Ex eb IIC Gb; Ex tb IIIC Db
c CSA us Certificate	2700364
Construction & Test Standards	CSA C22.2 No 0-10; CSA/UL 60079-0; CSA/UL 60079-7; CSA/UL 60079-31; IEC 60529

Metric Size Selection

Thread Size	Across Flats (mm)	Across Corners (mm)
M16	24	26.5
M20	30	32.5
M25	36	39.5
M32	46	50.5
M40	55	60.6
M50	65	70.8
M63	80	88
M75	95	104
M80	95	104
M90	106.4	115
M100	115	130
M110	127	142
M115	127	142
M120	140	154
M130	140	154

Ordering Information

If brass is required please omit material selection
Format for ordering is as follows: For silicone O ring add suffix S to optional

Product	Thread Size	Material	Optional
390	M25	NP	S

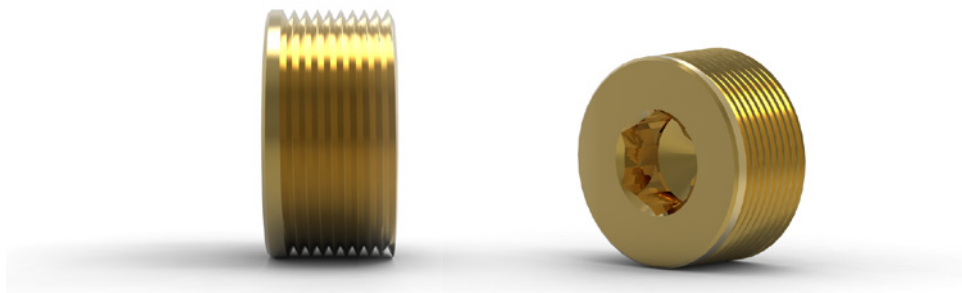
Part code example - 390M25NPS
Please note all NPT entries should be state as a decimal



MADE IN BRITAIN

475

Tamperproof Metallic Stopping Plug



Tamperproof stopping plug designed to be installed onto thick walled threaded enclosures. Mounted from the outside of the enclosure. Suitable for use in Flameproof protection concepts and mining applications.

Technical Data

Ingress Protection	IP66
Operating Temperature	-60°C to +160°C
Construction Materials	Manufactured in Brass (Standard), Nickel Plated Brass or 316L Stainless Steel
Threadform	M16 to M75* 1/2" NPT to 3" NPT
<i>*Metric Thread Length 15mm as standard; Metric Thread Pitch 1.5mm as standard</i>	
Socket Size	M16-M20: 6mm M20-M75: 10mm 1/2" NPT: 6mm 3/4" NPT - 3" NPT: 10mm

Approvals

Applications	Suitable for Use in Zone 1, Zone 21, Zone 2, Zone 22 and mining applications
Protection Class	Ex II 2GD Ex db IIC Gb; Ex tb IIIC Db Ex I M2 Ex db I Mb
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-1 and IEC/EN 60079-31
ATEX Certificate No	Baseefa 10ATEX0262X
UKEx Certificate No	BAS21UKEX0064X
IECEX Certificate Number	IECEX BAS10.0120X
Marine Approvals	ABS: 17-LD1653734-PDA BV: 43523/BO
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00265/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 15.0291X SONCAP: LCOGB049552-0500

NEC/CEC

NEC Protection Class	CI ABCD; CII EFG CIII; C1 Zn1 AEx d IIC Gb; AEx tb IIIC Db
CEC Protection Class	Ex eb IIC Gb; Ex tb IIIC Db
c CSA us Certificate	1731876
Construction & Test Standards	CSA C22.2 No. 25-1966, 30-M1986, 45-M1981, 94-M91; 18.3.-12 UL514B; CSA/UL 60079-0; CSA/UL 60079-1; CSA/UL 60079-31

Ordering Information

If brass is required please omit material selection

Product	Thread Size	Material
475	M25	NP

Part code example - 475M25NP

Please note all NPT entries should be state as a decimal



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FibreEx Connectors.

Harnessing lightning fast fibre
technology safely in hazardous areas



SIZE GUIDE

Selection Guides for Adaptors and Reducers

476 Allowable Thread Combinations

KEY: A = Adaptor R = Reducer		Female Thread															Metric			
		M16	M20	M25	M32	M40	M50	M63	M75	M80	M90	M100	M110	M115	M120	M130	5"	6"	NPT	
Male Thread	M16	3/8"	A	A	A															
	M20	1/2"	R	A	A	A														
	M25	3/4"	R	R	A	A	A													
	M32	1"	R	R	R	A	A	A												
	M40	1 1/4"	R	R	R	R	A	A	A											
	M50	1 1/2"	R	R	R	R	R	A	A	A										
	M63	2"	R	R	R	R	R	R	A	A	A									
	M75	2 1/2"	R	R	R	R	R	R	R	A	A	A								
	M80		R	R	R	R	R	R	R	R	A	A	A							
	M90	3"	R	R	R	R	R	R	R	R	R	A	A	A						
	M100	3 1/2"	R	R	R	R	R	R	R	R	R	R	A	A	A					
	M110		R	R	R	R	R	R	R	R	R	R	R	A	A	A				
	M115	4"	R	R	R	R	R	R	R	R	R	R	R	R	A	A	A			
	M120		R	R	R	R	R	R	R	R	R	R	R	R	R	A	A			
	M130		R	R	R	R	R	R	R	R	R	R	R	R	R	R	A			
		5"	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	A		
	6"	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	A		
	Metric	NPT																		

Size	Major Dia. (mm)	Pitch (mm)
M12	11.97	1.5
M16	15.97	1.5
M20	19.97	1.5
M25	24.97	1.5
M32	31.97	1.5
M40	39.97	1.5
M50	49.97	1.5
M63	62.97	1.5
M75	74.97	1.5
M80	79.97	2
M90	89.97	2
M100	99.97	2
M110	109.97	2
M115	114.97	2
M120	115.97	2
M130	129.97	2

Size	Major Dia. (mm)	TPI
3/8"	17.15	18
1/2"	21.34	14
3/4"	26.67	14
1"	33.4	11 1/2
1 1/4"	42.16	11 1/2
1 1/2"	48.26	11 1/2
2"	60.33	11 1/2
2 1/2"	73.03	8
3"	88.90	8
3 1/2"	101.6	8
4"	114.3	8
5"	141.3	8
6"	168.28	8

Ordering Example:

Product	Thread Size	Material	Product	Thread Size	Material
Locknut	M25	Brass	Locknut	1" NPT	Brass

476



Adaptors and Reducers



Metallic Adaptor and Reducer Range; designed to increase or reduce entry thread sizes when mounted to an enclosure. Suitable for use in Flameproof and Increased Safety protection concepts along with mining applications



International Approvals

Technical Data	
Ingress Protection	IP66*
Operating Temperature	-60°C to +200°C**
Construction Materials	Manufactured in Brass (Standard), Nickel Plated Brass or 316L Stainless Steel
Threadform	M16 to M130*** 3/8" NPT to 6" NPT
*In order to maintain IP rating at the joints a suitable sealing method must be used.	
**With No IP Seal fitted	
***For M16-M75: Metric Thread Length 15mm as standard; Metric Thread Pitch 1.5mm as standard For M80-M130: Metric Thread Length 20mm as standard; Metric Thread Pitch 2mm as standard	
Approvals	
Applications	Suitable for Use in Zone 1, Zone 21, Zone 2, Zone 22 and mining applications
Protection Class	Ex II 2GD Ex db eb IIC Gb; Ex tb IIIC Db Ex I M2 Ex db eb I Mb
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 60079-7 and IEC/EN 60079-31
ATEX Certificate No	Baseefa 11ATEX0067X
UKEx Certificate No	BAS21UKEX0057X
IECEX Certificate Number	IECEX BAS11.0037X
Marine Approvals	ABS: 17-LD1653734-PDA BV: 43523/BO
Additional Certifications	CCC: 2020312313000308 EN EAC: No EA3C RU C-GB.HA91.B.00265/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 15.0193X SONCAP: LCOGB049552-0500
NEC/CEC	
NEC Protection Class	CI D1 ABCD CII EFG CIII: CI Zn1 AEx d e IIC Gb; Zn 21 AEx tb IIIC Db
CEC Protection Class	Ex db eb IIC Gb; Zn 21 Ex tb IIIC Db
c CSA us Certificate	1731876
Construction & Test Standards	CSA C22.2 No. 25-1966, 30-M1986, 45-M1981, 94-M91, 18.3.-12 CSA/UL 60079-0, CSA/UL 60079-1, CSA/UL 60079-7, CSA/UL 60079-31, UL514B

Ordering Information

If brass is required please omit material selection
Format for ordering is as follows: Thread configuration should state (A) Adaptor or (R) Reducer

Product	Thread Configuration	Male Thread Size	Female Thread Size	Material
476	A	M25	1.0	NP

Part code example - 476AM251.ONP
Please note all NPT entries should be state as a decimal



MADE IN BRITAIN

487

Domed Head Metallic Stopping Plug



Metallic dome headed stopping plug designed to be installed onto metric threaded or thin walled enclosures. Suitable for use in Increased Safety and Flameproof protection concepts, along with mining applications.

Technical Data

Ingress Protection	IP66, IP67
Operating Temperature	-60°C to +80°C (with Nitrile O-Ring) -60°C to +160°C (with Silicone O-Ring)
Construction Materials	Manufactured in Brass (Standard), Nickel Plated Brass or 316L Stainless Steel
Threadform	M16 to M130*

*For M16-M75: Thread Length 15mm as standard; Thread Pitch 1.5mm as standard For M80-M130: Thread Length 20mm as standard; Thread Pitch 2mm as standard

Approvals

Applications	Suitable for Use in Zone 1, Zone 21, Zone 2, Zone 22 and mining applications
Protection Class	Ex II 2GD Ex db eb IIC Gb; Ex tb IIIC Db Ex I M2 Ex db eb I Mb
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 60079-7 and IEC/EN 60079-31
ATEX Certificate No	Baseefa 11ATEX0149X
UKEx Certificate No	BAS21UKEX0058X
IECEX Certificate Number	BAS11.0071X
Marine Approvals	ABS: 22-2260038-PDA Bureau Veritas: 43523/BO
Additional Certifications	CCC: 2020312313000329 EAC: No EA3C RU C-GB.HA91.B.00265/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 15.0291X SONCAP: LCOGB049552-0500

NEC/CEC

NEC Protection Class	Class 1 Zone 1 AEx db eb IIC Gb Zone 21 AEx tb IIIC Db
CEC Protection Class	Ex db eb IIC Gb; Ex tb IIIC Db
c CSA us Certificate	2700364
Construction & Test Standards	CSA C22.2 No 0-10; CSA/UL 60079-0; CSA/UL 60079-1; CSA/UL 60079-7; CSA/UL 60079-31; IEC 60529

Metric Size Selection

Thread Size	Head Diameter (mm)	Hex Key Size (mm)
M16	24	6
M20	26.5	
M25	34	
M32	45	
M40	52	
M50	62	
M63	75	10
M75	87	
M80	92	
M90	102	
M100	112	
M110	122	
M115	127	19
M120	132	
M130	142	

Ordering Information

If brass is required please omit material selection
Format for ordering is as follows: For silicone O ring add suffix S to optional

Product	Thread Size	Material	Optional
487	M25	NP	S

Part code example - 487M25NPS



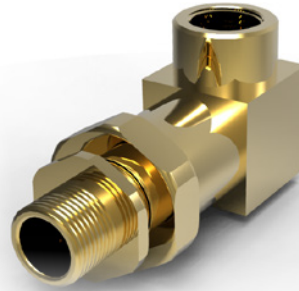
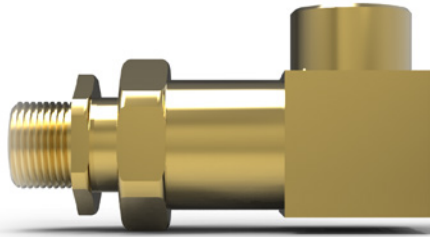
MADE IN BRITAIN



International Approvals

492

Swivel 90° Elbow with Lockstop
(Male to Female)



Metallic swivel elbow with lockstop with integral O-ring seals.
Suitable for use in Flameproof and Increased Safety protection concepts and mining applications.

Technical Data

Ingress Protection	IP66
Operating Temperature	-60°C to +100°C
Construction Materials	Manufactured in Brass (Standard), Nickel Plated Brass or 316L Stainless Steel
Threadform	M16 to M75* 1/2" NPT to 3" NPT

*Metric Thread Length 15mm as standard; Metric Thread Pitch 1.5mm as standard

Approvals

Applications	Suitable for Use in Zone 1, Zone 21, Zone 2, Zone 22 and mining applications
Protection Class	Ex II 2GD Ex db eb IIC Gb; Ex tb IIIC Db Ex I M2 Ex db eb I Mb
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 60079-7 and IEC/EN 60079-31
ATEX Certificate No	Sira 11ATEX1347U
UKEx Certificate No	CSAE21UKEX1054U
IECEX Certificate Number	IECEX SIR 11.0152U
Marine Approvals	ABS: 17-LD1653734-PDA
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00265/21

NEC/CEC

NEC Protection Class	Class 1 Zone 1 AEx d e IIC Gb Zone 21 AEx tb IIIC Db
CEC Protection Class	Ex db eb IIC Gb; Ex tb IIIC Db
c CSA us Certificate	1731876
Construction & Test Standards	CSA C22.2 No. 25, No. 30; No. 45, No. 94, No 18.3; CSA/UL 60079-0; CSA/UL 60079-1; CSA/UL 60079-7; CSA/UL 60079-31; UL514B

Size Selection

Male Thread Size	Female Thread Size	Typical A/F (mm)	Typical A/C (mm)
M16	M16	36	39.5
M20	M20	36	39.5
M25	M25	55	60.6
M32	M32	55	60.6
M40	M40	80	88
M50	M50	80	88
M63	M63	95	104
M75	M75	95	104

Ordering Information

If brass is required please omit material selection

Format for ordering is as follows:

Product	Male Thread Size	Female Thread Size	Material
492	M25	1.0	NP

Part code example - 492M25.1ONP

Please note all NPT entries should be state as a decimal.

More options may be available on request.



493

Swivel 90° Elbow
(Male to Female)



International Approvals

Metallic swivel elbow with integral O-ring seals.
Suitable for use in Flameproof and Increased Safety protection concepts and mining applications.

Technical Data	
Ingress Protection	IP66
Operating Temperature	-60°C to +100°C
Construction Materials	Manufactured in Brass (Standard), Nickel Plated Brass or 316L Stainless Steel
Threadform	M16 to M75* 1/2" NPT to 3" NPT
<i>*Metric Thread Length 15mm as standard; Metric Thread Pitch 1.5mm as standard</i>	
Approvals	
Applications	Suitable for Use in Zone 1, Zone 21, Zone 2, Zone 22 and Mining Applications
Protection Class	Ex II 2GD Ex db IIC Gb; Ex tb IIIC Db Ex I M2 Ex db eb I Mb
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 60079-7 and IEC/EN 60079-31
ATEX Certificate No	Sira 11ATEX1347U
UKEx Certificate No	CSAE21UKEX1054U
IECEX Certificate Number	IECEX SIR 11.0152U
Marine Approvals	ABS: 17-LD1653734-PDA
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00265/21
NEC/CEC	
NEC Protection Class	Class 1 Zone 1 AEx d e IIC Gb Zone 21 AEx tb IIIC Db
CEC Protection Class	Ex db eb IIC Gb; Ex tb IIIC Db
c CSA us Certificate	1731876
Construction & Test Standards	CSA C22.2 No. 25, No. 30; No. 45, No. 94, No 18.3; CSA/UL 60079-0; CSA/UL 60079-1; CSA/UL 60079-7; CSA/UL 60079-31; UL514B

Size Selection			
Male Thread Size	Female Thread Size	Typical A/F (mm)	Typical A/C (mm)
M16	M16	36	39.5
M20	M20	36	39.5
M25	M25	55	60.6
M32	M32	55	60.6
M40	M40	80	88
M50	M50	80	88
M63	M63	95	104
M75	M75	95	104

Ordering Information			
If brass is required please omit material selection			
Format for ordering is as follows:			
Product	Male Thread Size	Female Thread Size	Material
493	M25	1.0	NP

Part code example - 493M25.1NP
Please note all NPT entries should be state as a decimal
More options may be available on request.



MADE IN BRITAIN



International Approvals

494

90° Fixed Elbow
(Male to Female)



Fixed 90 degree metallic elbow. Suitable for use in Flameproof and Increased Safety protection concepts.

Technical Data

Ingress Protection	IP66
Operating Temperature	-60°C to +200°C
Construction Materials	Manufactured in Brass (Standard), Nickel Plated Brass or 316L Stainless Steel
Threadform	M20 to M75* 1/2" NPT to 2" NPT

*Metric Thread Length 15mm as standard; Metric Thread Pitch 1.5mm as standard

Approvals

Applications	Suitable for Use in Zone 1, Zone 21, Zone 2, Zone 22
Protection Class	Ex II 2GD Ex db eb IIC Gb; Ex tb IIIC Db
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 60079-7 and IEC/EN 60079-31
ATEX Certificate No	Baseefa14ATEX0014U
UKEx Certificate No	BAS21UKEX0055U
IECEx Certificate Number	BAS14.0002U
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00265/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx15.0205U

Size Selection

Male Thread Size	Female Thread Size	Typical Block Size
M20	M20	27
M25	M25	35
M32	M32	42
M40	M40	50
M50	M50	60
M63	M63	78
M75	M75	90

Ordering Information

If brass is required please omit material selection

Format for ordering is as follows:

Product	Male Thread Size	Female Thread Size	Material
494	M25	1.0	NP

Part code example - 494M251.ONP

Please note all NPT entries should be state as a decimal



495
90° Fixed Elbow
(Male to Male)



International Approvals

Fixed 90 degree metallic elbow. Suitable for use in Flameproof and Increased Safety protection concepts.

Technical Data	
Ingress Protection	IP66
Operating Temperature	-60°C to +200°C
Construction Materials	Manufactured in Brass (Standard), Nickel Plated Brass or 316L Stainless Steel
Threadform	M20 to M75* 1/2" NPT to 2" NPT

*Metric Thread Length 15mm as standard; Metric Thread Pitch 1.5mm as standard

Approvals	
Applications	Suitable for Use in Zone 1, Zone 21, Zone 2, Zone 22
Protection Class	Ex II 2GD Ex db eb IIC Gb; Ex tb IIIC Db
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 60079-7 and IEC/EN 60079-31
ATEX Certificate No	Baseefa14ATEX0014U
UKEx Certificate No	BAS21UKEX0055U
IECEx Certificate Number	BAS14.0002U
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00265/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx15.0205U

Size Selection		
Male Thread Size	Female Thread Size	Typical Block Size
M20	M20	27
M25	M25	35
M32	M32	42
M40	M40	50
M50	M50	60
M63	M63	78
M75	M75	90

Ordering Information			
If brass is required please omit material selection Format for ordering is as follows:			
Product	Male Thread Size	Male Thread Size	Material
495	M25	1.0	NP

Part code example - 495M251.ONP

Please note all NPT entries should be state as a decimal

Product design and specifications are subject to change without notice. Please check the Hawke website for latest specifications.

www.hubbell.com/hawke



MADE IN BRITAIN



International Approvals

496

90° Fixed Elbow
(Female to Female)



Fixed 90 degree metallic elbow. Suitable for use in Flameproof and Increased Safety protection concepts.

Technical Data

Ingress Protection	IP66
Operating Temperature	-60°C to +200°C
Construction Materials	Manufactured in Brass (Standard), Nickel Plated Brass or 316L Stainless Steel
Threadform	M20 to M75* 1/2" NPT to 2" NPT

**Metric Thread Length 15mm as standard; Metric Thread Pitch 1.5mm as standard*

Approvals

Applications	Suitable for Use in Zone 1, Zone 21, Zone 2, Zone 22
Protection Class	Ex II 2GD Ex db eb IIC Gb; Ex tb IIIC Db
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 60079-7 and IEC/EN 60079-31
ATEX Certificate No	Baseefa14ATEX0014U
UKEx Certificate No	BAS21UKEX0055U
IECEx Certificate Number	BAS14.0002U
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00265/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx15.0205U

Size Selection

Male Thread Size	Female Thread Size	Typical Block Size
M20	M20	27
M25	M25	35
M32	M32	42
M40	M40	50
M50	M50	60
M63	M63	78
M75	M75	90

Ordering Information

If brass is required please omit material selection

Format for ordering is as follows:

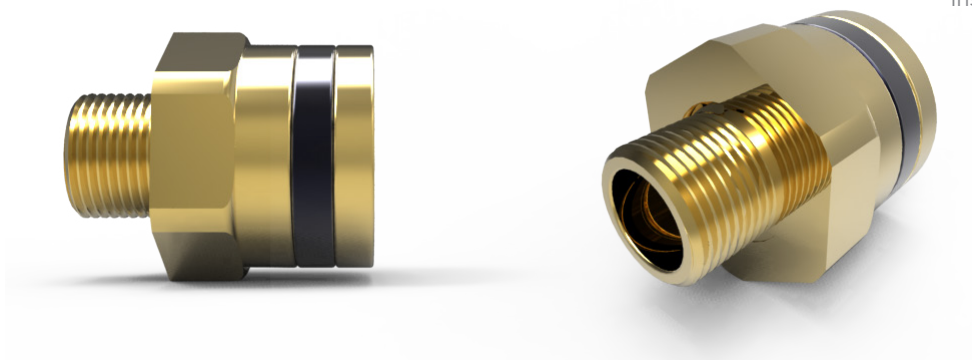
Product	Female Thread Size	Female Thread Size	Material
496	M25	1.0	NP

Part code example - 496M25I.ONP

Please note all NPT entries should be state as a decimal

478

Insulated Adaptor



Insulated adaptor used for converting dissimilar or similar thread forms or thread sizes, and insulating the cable gland entry from the equipment. Suitable for use in Flameproof, Increased Safety and Mining applications.



International Approvals

Technical Data	
Ingress Protection	IP66
Operating Temperature	-55°C to +95°C
Construction Materials	Manufactured in Brass (Standard), Nickel Plated Brass or 316L Stainless Steel Polymer Insulating Material
Threadform	M20 to M75* 1/2" to 3" NPT
*Metric Thread Length 15mm as standard; Metric Thread Pitch 1.5mm as standard	
Approvals	
Applications	Suitable for Use in Zone 1, Zone 21, Zone 2, Zone 22 and mining applications
Protection Class	Ex II 2GD Ex db eb IIC Gb; Ex tb IIIC Db Ex I M2 Ex db eb I Mb
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-1, IEC/EN 60079-7 and IEC/EN 60079-31
ATEX Certificate No	FIDI 24ATEX0040X
IECEx Certificate Number	FIDI24.0009X
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00265/21 Inmetro: IEx 15.0193X
NEC/CEC	
NEC Protection Class	Class 1 Zone 1 AEx d e IIC Gb Zone 21 AEx tb IIIC Db
CEC Protection Class	Ex db IIC Gb; Ex eb IIC Gb; Ex tb IIIC Db
c CSA us Certificate	2700364
Construction & Test Standards	CSA C22.2 No 25, No 30, No 45, No 94, No 18.3, CSA/UL 60079-0, CSA/UL 60079-1, CSA/UL 60079-7, CSA/UL 60079-31, UL514B

Size Selection			
Alternative combinations and NPT threadforms also available			
Male Thread Size	Female Thread Size	Across Flats (mm)	Across Corners (mm)
M20	M20	36.0	39.5
M25	M25	46.0	50.5
M32	M32	55.0	60.6
M40	M40	65.0	70.5
M50	M50	80.0	88.0
M63	M63	95.0	104.0
M75	M75	106.4	115.0

Ordering Information				
If brass is required please omit material selection				
Format for ordering is as follows: Thread configuration should state (A) Adaptor or (R) Reducer				
Product	Thread Configuration	Male Thread Size	Female Thread Size	Material
478	A	M25	M32	NP

Part code example - 478AM25M32NP

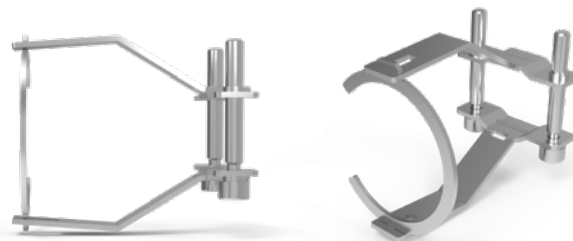
Please note all NPT entries should be state as a decimal

Product design and specifications are subject to change without notice. Please check the Hawke website for latest specifications.

www.hubbell.com/hawke



Gland Mounted Clamp For Hawke Cable Glands



The Hawke GMC is a retro fittable clamp intended for use where additional cable support is required.

Features

- Provides additional cable support and pullout resistance
- 3-Part design allows clamp to be retrospectively fitted
- Captive fittings for easy installation
- Manufactured in 316 Stainless Steel
- Offers clamping solution in accordance with BS EN 60079-14 10.3
- Suitable for all styles of Hawke cable gland listed below

Clamp Selection Table

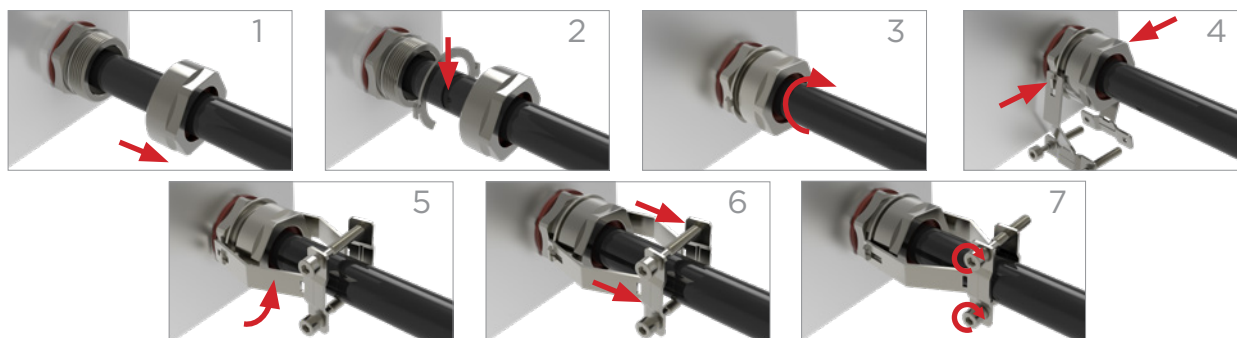
Clamp Size	Gland Type	501/321					All Other Glands				
		Os	O	A	B	C	Os	O	A	B	C
Size 1											
Size 2											
Size 3											
Size 4											
Size 5											

Suitable Hawke Cable Glands

501/321, 501/421, 501/423, 501/453/RAC, 501/453/UNIV, ICG653/UNIV, PSG553/RAC, 501/453/RAC/L, ICG653/UNIV/L, 121, 123, 151/RAC, 153/RAC, 153/UNIV, 153/RAC/L, 653/UNIV, 453/RAC, 453/UNIV

Installation Steps

- 1 Unscrew tail nut and slide down the cable.
- 2 Choose correct mounting ring from two options supplied and drop onto cable.
- 3 Slide mounting ring onto the gland and re-install the backnut. The clamp mounting ring should now be retained on the gland.
- 4 Hook the clamp arms onto the clamp mounting ring.
- 5 Rotate the clamp arms 90 degrees and pre-engage the screws. Do not yet tighten.
- 6 Whilst the clamp is still loose, pull it in the direction shown to ensure it is up against the backnut.
- 7 Tighten the screws. It is recommended to incrementally tighten each screw to ensure the clamp is tightened equally on both sides.



Ordering Example:

Gland Mounted Clamp / Size 1



WASHERS

Nylon IP



High quality Nylon washers designed to maintain ingress protection ratings at the entry into enclosures. Designed for use with cable gland entries, and also suitable for use with stopping plugs, adaptors and other accessories.

Suitable for maintaining ingress protection requirements as specified in IEC/EN 60079

Features

- Suitable for use on hazardous area cable gland entry threads.
- To maintain ingress protection rating of the enclosure.
- Retaining pips make washer captive on metric cable gland entry thread (M20-M75).
- Sealing washer for other thread sizes available on request.

Technical Data

Ingress Protection	Tested to meet IP66, IP67, IP68 and IP69 to IEC/EN 60529
Operating Temperature	-60°C to +130°C
Washer Material	Nylon 66
Washer Thickness	1.5mm

Metric Selection Table

Thread Size	Outside Diameter
M16	24
M20	30
M25	36
M32	46
M40	55
M50	65
M63	80
M75	89
M80	95
M90	106
M100	126

NPT Selection Table

Thread Size	Outside Diameter
½"	28
¾"	35
1"	42
1 ¼"	53
1 ½"	59
2"	70
2 ½"	84
3"	115
3 ½"	126
4"	141

*All dimensions are in millimetres except where * denotes dimensions in inches.*

Ordering Example:

Product	Thread Size
WAS	M25

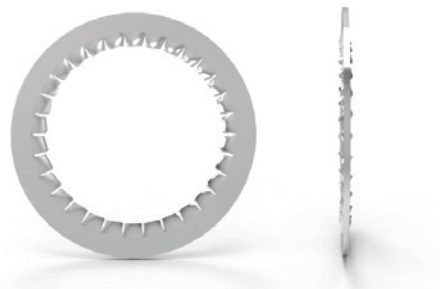
Part code example - WASM25
Please note all NPT entries should be state as a decimal



SERRATED WASHER



Stainless Steel



High quality metallic serrated washers designed to protect against loosening of cable gland or locknut in vibrating applications. Often used when mounting a cable gland mounted to a thin wall enclosure, fitted internally with a locknut.

Suitable for maintaining vibration proofing requirements as specified in IEC/EN 60079

Features

- Suitable for mounting internally to the enclosure with locknut.
- Offers protection against vibration loosening.
- Washers for other thread sizes available on request.

Technical Data

Washer Material	Stainless Steel 316
Washer Thickness	4.5mm

Metric Selection Table

Thread Size	Outside Diameter
M16	25.5
M20	32.5
M25	37.5
M32	48.0
M40	60.0
M50	71.0
M63	87.0
M75	102.0
M80	120.0
M90	125.0
M100	140.0

NPT Selection Table

Thread Size*	Outside Diameter
½"	35.5
¾"	43.5
1"	52.0
1 ¼"	59.5
1 ½"	71.0
2"	87.0
2 ½"	102.0
3"	125.0
3 ½"	140.0
4"	155.0

All dimensions are in millimetres except where * denotes dimensions in inches.

Ordering Example:

Product	Thread Size
SW	M25

Part code example - SWM25

Please note all NPT entries should be state as a decimal



EARTH TAGS

Brass, Brass Nickel Plated or Stainless Steel

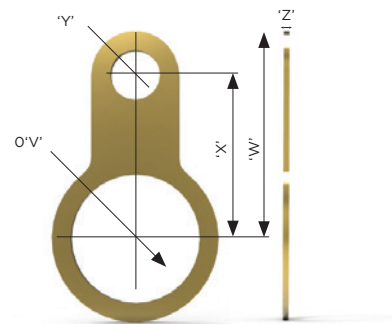
General Information

- Provides an earth bond attachment for a cable gland.
- Manufactured in Brass, Brass Nickel Plated and Stainless Steel
- Stainless Steel earthtags are available, but dimensions may differ to those stated in the selection table. Please contact Hawke Sales Team for details.
- The earthtags shape may vary for different sizes.

Selection Table

Thread Type	Gland Size 'V'	'W'	'X'	'Y'	'Z'
Metric	M16	36.6	30	6.75	1.5
	M20	39.6	33	6.75	1.5
	M25	45.5	36.5	6.85	1.5
	M32	53.5	42.5	12.6	1.5
	M40	59.6	44	13.4	1.5
	M50	78.9	58	13.5	1.5
	M63	87.6	67	13.5	1.5
	M75	93.7	73	13.5	1.5
	M80	128	88	14	1.5
	M90	128	85	14	1.5
	M100	128	104	14	2
	M110	136	115	13.5	2
	M115	141	120	13.5	2
	M120	143.5	122.5	13.5	2
M130	153	128	13.5	2	
NPT	1/2"	39.6	33	6.75	1.5
	3/4"	45.5	36.5	6.85	1.5
	1"	53.5	42.5	12.6	1.5
	1 1/4"	59.6	44	13.4	1.5
	1 1/2"	78.9	58	13.5	1.5
	2"	87.6	67	13.5	1.5
	2 1/2"	93.7	73	13.5	1.5
	3"	128	85	13.5	1.5
	3 1/2"	128	104	14	1.5
	4"	144	120	14	2

Note: All dimensions are in millimetres, except NPT sizes
Other sizes may be available on request. Please contact Hawke for more details.



Ordering Example:

If brass is required please omit material selection
Format for ordering is as follows:

Product	Thread Size	Material
ET	M25	NP

Please note all NPT entries should be state as a decimal



LOCKNUTS

Brass, Brass Nickel Plated or Stainless Steel

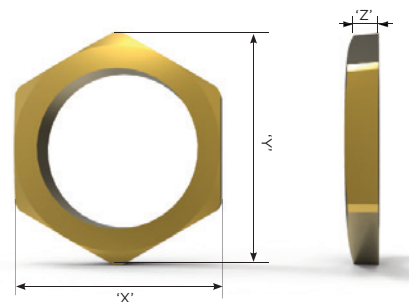
General Information

- For use on cable gland entry threads.
- Manufactured in Brass, Brass Nickel Plated and Stainless Steel
- Stainless Steel locknuts also available, dimensions may differ from table
- Locknuts for PG thread sizes are available.

Selection Table

Gland Size	Across Flats 'X'	Across Corners 'Y'	'Z'	NPT * Gland Size	Across Flats 'X'	Across Corners 'Y'	'Z'
M16	22	24	3.7/4.7	-	-	-	-
M20	24	26.4	3.7/4.7	1/2"	27	29.7	3.0/4.0
M25	30	33.3	3.7/4.7	3/4"	30.5	33.5	3.7/4.7
M32	40	44	3.7/4.7	1"	36	39.5	6.0/7.0
M40	46	50.5	4.5/5.5	1 1/4"	46	50.5	6.0/7.0
M50	65	71.5	4.5/5.5	1 1/2"	55	60.6	6.0/7.0
M63	80	88	6.0/7.0	2"	65	70.8	6.0/7.0
M75	90	99	6.5/7.5	2 1/2"	80	90	6.0/7.0
M80	107	122.2	9.5/10.5	3"	95	107	6.0/7.0
M90	107	122.2	9.5/10.5	3 1/2"	128	143	8.5/9.5
M100	128	147	9.5/10.5	4"	128	143	8.5/9.5
M110	128	147	9.5/10.5	5"	170	187	9.5/10.5
M115	128	147	9.5/10.5	6"	200	220	9.5/10.5
M120	140	152	9.5/10.5	---	---	---	---
M130	150	165	9.5/10.5	---	---	---	---

Note: All dimensions are in millimetres except where * denotes dimensions in inches.



Ordering Example:

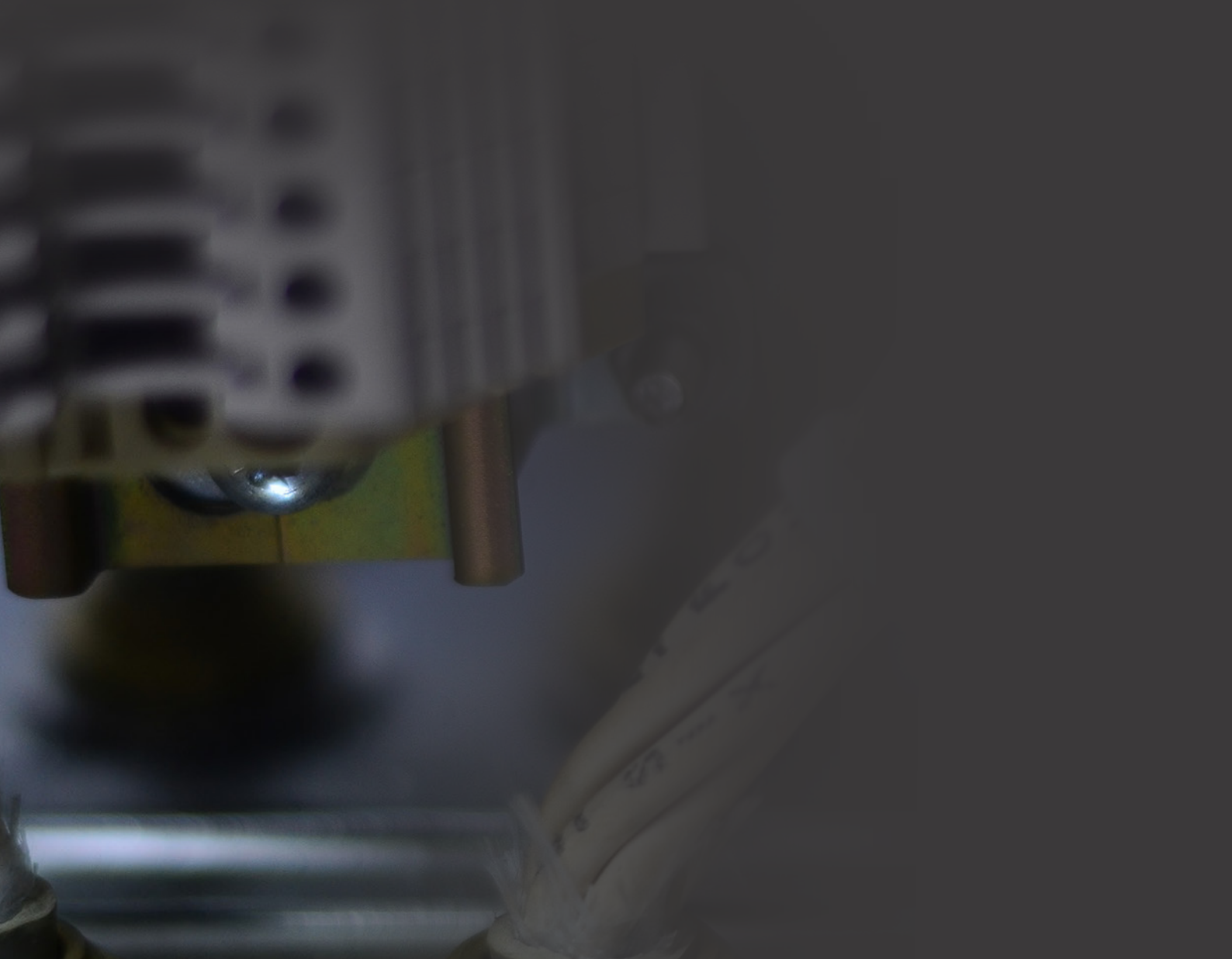
If brass is required please omit material selection

Product	Thread Size	Material
LN	M25	NP

Please note all NPT entries should be state as a decimal

Enclosures Controls & Connectors

Hawke International is also manufacturer of a range of Plastic and Stainless Steel Enclosures, Control Stations and Connectors.

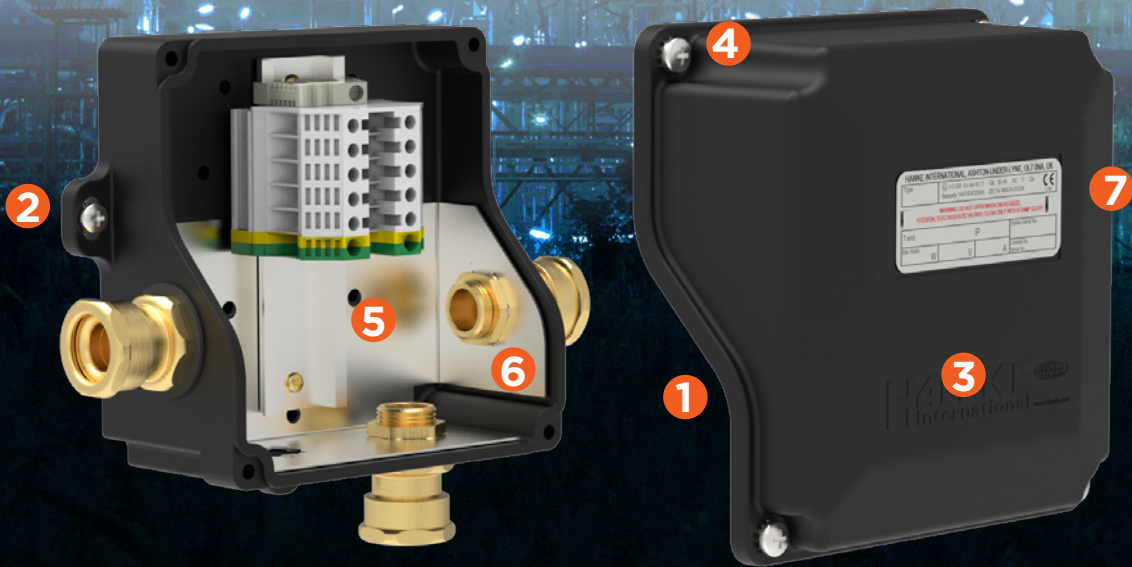




PL5 FEATURES

Glass Reinforced Plastic

- 1** **Dropped Lid Design**
Increased hand access makes wiring and inspection of terminations easier and quicker than traditional square, rectangular or octagonal enclosures. PL511 and PL514 Enclosures only
- 2** **External Mounting Feet**
Eliminates the need to remove the lid when mounting enclosure on the wall
- 3** **Superior Glass Reinforced Plastic Construction**
Designed to withstand impact of up to 7Nm, the PL5 ranges' lightweight construction also offers an exceptional degree of resistance to corrosive atmospheres
- 4** **Corrosion Resistant Lid Fixing Screws with Retaining Feature**
Prevents the loss of screws during assembly and maintenance, reducing delays in installation or the need to replace the screws during the products lifetime
- 5** **Earth Continuity Plate**
Available in Zintec or Brass
- 6** **Pips Stamped Around the ECP Clearance Hole**
Negates need for a serrated washer and makes more thread available on the gland for easier installation
- 7** **Stainless Steel Rating Label**
Highly durable and corrosion resistant



PL5 RANGE

Glass Reinforced Plastic



Exceptional Strength. 50% Less Weight.

Meet the PL5 range. Moulded from Glass Reinforced Plastic rather than the traditional Glass Reinforced Polyester, the range offers incredible GRP strength at a fraction of the weight. Reduce costs and installation time with our most economical Enclosure Range yet.

PL511 and PL514

- Enables finger access for easy wiring and inspection of terminations
- Eliminates the need to remove the lid when mounting the enclosure on the wall
- Provides Ingress Protection to IP66/67 Optimum performance at low and high temperature extremes
- Prevents loss of screws during assembly and maintenance
- Designed to withstand impact resistance up to 7Nm
- Glass Reinforced Plastic construction provides a high degree of resistance to corrosive atmospheres

PL513 and PL520

- Excellent operating temperature range for normal impact and low impact risk applications
- ATEX, IECEx and CSA certified
- Robust Glass Reinforced Plastic Construction
- External Mounting Feet - eliminates the need to remove the lid when mounting the enclosure on the wall
- Corrosion Resistant Lid Fixing Screws with Retaining Feature - Prevents the loss of screws during assembly and maintenance

Hawke International have been supplying Plastic Enclosures into the Hazardous Area market for over 40 years.



PL6 RANGE

Glass Reinforced Plastic

- 1** The Ultimate in Robust GRP Construction

Designed to withstand impact resistance up to 20Nm for the PL6 Series (7Nm for the PL7 Series), the GRP construction also provides a high degree of resistance to corrosive atmospheres for both ranges
- 2** Anti-Static Properties

Removes the risk of ignition sources through static induced sparking resistivity. Insulation resistance less than 1GΩ6
- 3** External Mounting Feet

Eliminates the need to remove the lid when mounting the enclosure on the wall
- 4** Earth Continuity Plate

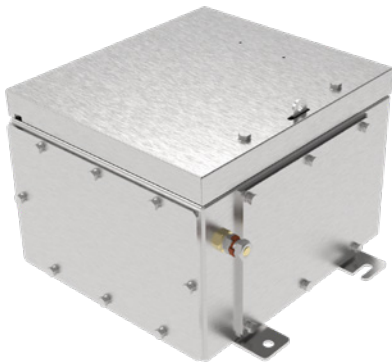
Available in Zintec or Brass
- 5** Stainless Steel Rating Label

Highly durable and corrosion resistant
- 6** Corrosion Resistant Lid Fixing Screws with Retaining Feature

Prevents the loss of screws during assembly and maintenance, reducing delays in installation or the need to replace the screws during the products lifetime
- 7** One Piece Durable Captive Moulded Silicone Gasket

Provides complete DTS01, IP66 and 4X protection from dust, oil and other non-corrosive materials – even at the most extreme temperatures

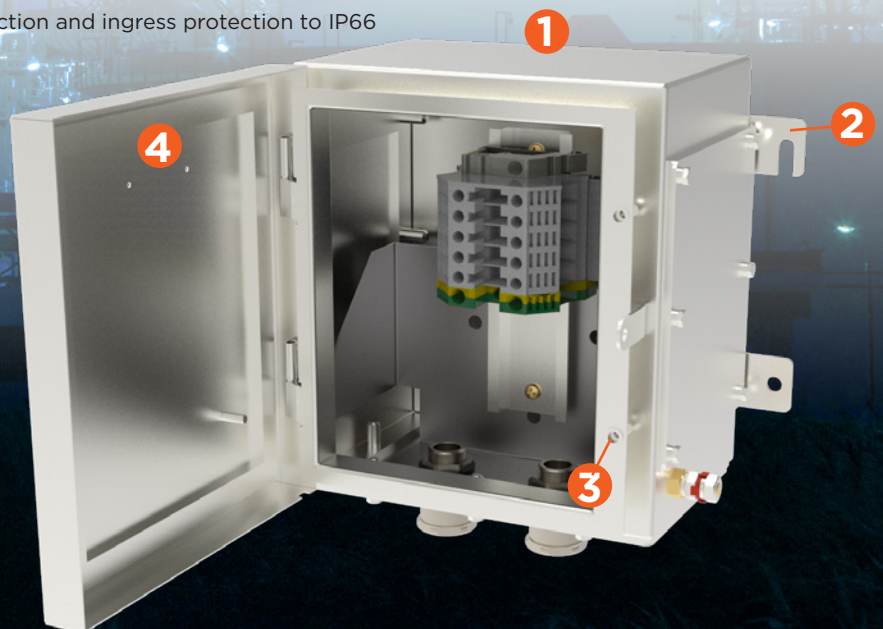




Tough. Durable. Reliable.

Our original Stainless Steel Enclosure range, the S Series has built a reputation for reliability and strength in some of the world's most arduous environments.

- 1** Robust & Durable Stainless Steel Construction
Enclosure material thickness ranges between 1.2-2.0mm with 2-3mm thick gland plates for ultimate strength
- 2** Rigid Slotted External Mounting Feet
For easier installation
- 3** Stainless Steel Lid Fixing Screws with Nylon Washers
Prevents the loss of screws during assembly and maintenance, reducing delays in installation or the need to replace the screws during the products lifetime
- 4** Superior One-Piece Silicone Sponge Gasket
Provides DTS01 deluge protection and ingress protection to IP66



Hawke's Exe Stainless Steel Enclosures have been serving the Harsh and Hazardous industries for decades.



HAZCON CONTROL STATIONS

GRP and Stainless Steel



Developed to exceed customer expectations, the Control Station range is for use wherever potential explosion hazards exist (Zone 1/21 & 2/22) and boasts a huge selection of pushbuttons, ammeters and selector switches.

Available in both high impact GRP (Glass Reinforced Antistatic Polymer) and 316L Stainless Steel and certified to ATEX/IECEX and UL, the range can also be marked cULus, EAC and Inmetro - a true globally certified range.

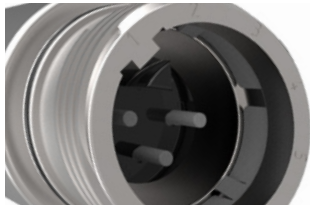
- IP66 Ingress protection
- AC/DC compatible LED's
- 5 enclosure size offerings
- External mounting feet
- High switch contact blocks

Ex CONNECTORS

For Harsh & Hazardous Environments



Hawke International has over 50 years experience in Hazardous Area connection systems, from instrumentation, Fiber Optic to low/medium power applications.



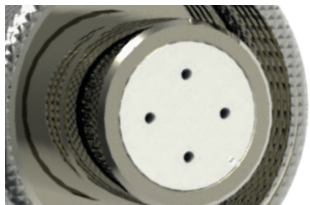
FibreEx

Fibre Optic connectors for use in extreme hazardous environments



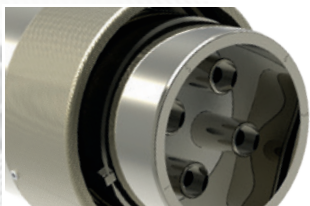
InstrumEx

Live make-and-break connectors for Ex d applications up to 250V



ControlEx

Multi-pin, globally approved Ex d connectors up to 750V as standard (Higher voltages available)



PowerEx

High Power connectors for up to 780A and 750V as standard (further options may be available)



SUSTAINABILITY

At Hubbell

At Hubbell we are committed to reducing the environmental impact of our operations.

We are continually developing products and processes that support sustainability and offer energy efficient solutions for our customers and partners.

Our focus remains addressing and managing the risks associated with climate change and we are committed to facilitating a sustainable future.

For more information visit us at www.hubbell.com/hubbell/en/sustainability

Our ESG Goals



10%
Reduction in
GHG Emissions
By 2025



10%
Reduction in
Water Consumption
By 2025

Hubbell have been recognised as **one of the most ethical companies in the world**



WHERE WE ARE

- Expanded public ESG disclosures, including alignment with leading sustainability frameworks
- Established goals for reducing greenhouse gas emissions and water consumptions
- Launched sustainability website and increased employee awareness of ESG topics
- Hired sustainability and diversity leaders to manage and drive ESG efforts
- Signed the Paradigm for Parity pledge and were recognized as one of the 2021 World's Most Ethical Companies
- Enhanced focus on products that enable sustainability for customers and value chain



WHERE WE'RE HEADED

- Publishing an inaugural sustainability report and enhancing climate change disclosures
- Expanding and refining company wide sustainability strategy
- Formalizing Hubbell's sustainability governance and ESG policies
- Pursuing product stewardship and circular economy opportunities
- Promoting sustainability and managing risks in Hubbell's supply chain
- Developing new environmental and social targets
- Increasing supplier diversity and engaging with vendors on ESG topics w



Social Responsibility

- Host two Employee Inclusion Groups: Women Advancing Their Careers At Hubbell (WATCH) and Multicultural Men (MCM)
- Hubbell Foundation donated over \$1 million in 2020
- Employee development formalized through Hubbell University



Environmental Stewardship

- Track environmental performance including greenhouse gas emissions, water and waste
- Audited largest facilities for energy reduction opportunities and implementing efficiency initiatives
- Launched a Hubbell Sustainability and Infrastructure Management Handbook which provides guidelines on improving the efficiency and sustainability of our facilities



Products With Impact

- Offer products that support renewable energy infrastructure
- LED lighting products allow for greater energy efficiency
- All products are designed with reliability and safety in mind

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