

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

Hubbell

106 | Sustainability at Hubbell

75 | 653/UNIV GP1

76 | 453/RAC GP1

42 | ICG/653/UNIV

44 | ICG/653/UNIV/L

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)



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	
	C-1-10 C 1:+ C	I J.			Always leave blank for NPT	
501/453/UNIV	Coldflow Compliant G 453U	ianas				
ICG/653/UNIV						
PSG/553/RAC						
1 30/333/11/10	Compression Glands					
501/421						
501/423	423					
501/453/RAC	453R					
	Barrier Glands	1	1			
PSG/553/RAC						
ICG/653/UNIV						
CSB/656/N	Conduit Glands 656N					
C3B/030/N SB/474						
501/414						-
33.7	NEC Compliant Glands	s				
701	701					
710						
711	711					
153X						
753						
114	Industrial Glands					
114	121					
123						
150/RAC						
151/RAC						
153/RAC						
153/UNIV						
	Mining Glands					
453/RAC						
453/UNIV						
653/UNIV	653UM					

ease select a	ccessory kits num	ber by comb	ination of accessor	ies 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 configuations 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



TIGHTENING GUIDE

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.

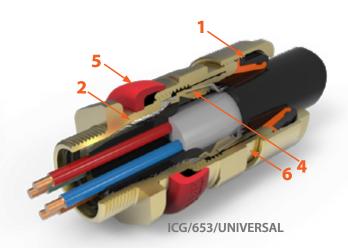
501/453/UNIVERSAL

The only known independently tested non-barrier gland <u>proven</u> 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.





01/453/UNIV

Flameproof, Increased Safety, Dust Protection & Restricted Breathing Class - Zones

Certified ATEX / IECEx / UKEX / c CSA us





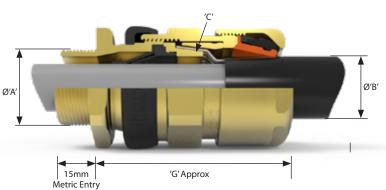












Features

- 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 degree bonding

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										
<i>c</i> .	Entry T	hread Size 'A'			Cable A	cceptance [Details			Hexagon [Dimensions
Size Ref.	Metric	NPT*	Inne	r Sheath	Outer S	heath 'B'	Armour ,	/ Braid 'C'	'G'	Across	Across
itei.	Metric	INPT"	Min.	Max.	Min.	Max.	Orientation 1	Orientation 2		Flats	Corners
Os	M20 ²	1/2"	3.5	8.1	5.5	12.0	0.8 / 1.25	0.0 / 0.8	58.4	24.0	26.5
0	M20 ²	1/2"	6.5	11.4	9.5	16.0	0.8/ 1.25	0.0 / 0.8	58.4	24.0	26.5
Α	M20	3/4" or 1/2"	8.4	14.3	12.5	20.5	0.8 / 1.25	0.0 / 0.8	59.6	30.0	32.5
В	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	11/4" 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
Е	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
Н	M90	31/2"	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					
	to DTS01					
	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)					
	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: 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					
	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					
В	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	С	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.



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



653/UNIV

Flameproof, Increased Safety, Dust Protection and Restricted Breathing









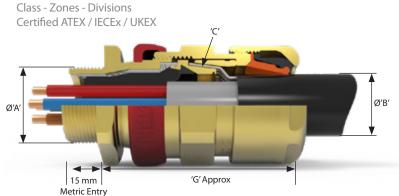












Features

- 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,\ providing\ a\ providing\ a\ providing\ a\ providing\ a\ providing\ barrier\ gland,\ providing\ a\ providing\ a\ providing\ a\ providing\ a\ providing\ barrier\ gland,\ providing\ a\ provid\ a\ providing\ a\ providing\$ 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												
	Entry Th	read Size 'A'			Cable	Acceptance	Details					Hexagon [imensions
Size Ref.				Inner Sheath/	Cores			Sheath B'	Armour	/Braid 'C'	'G'	Across	Across
nei.	Metric	NPT*	Max Inner Sheath Dia	Max Over Core Dia	Max No of Cores	Max No of Fibre Optic	Min	Max	Orientation 1	Orientation 2		Flats	Corners
Os	M20 ²	1/2"	8.1**	8	12	48	5.5	12	0.8 / 1.25	0.0 / 0.8	58.4	24	26.5
0	M20 ²	1/2"	11.7	8.8	12	48	9.5	16	0.8 / 1.25	0.0 / 0.8	58.4	24	26.5
Α	M20	3/4" or 1/2"	14	10.8	15	72	12.5	20.5	0.8 / 1.25	0.0 / 0.8	60.6	30	32.5
В	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 1 1½"	44.2	37.7	80	-	36	52.6	1.8 / 2.5	0.0 / 1.0	97.5	65	70.8
Е	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 21/2"	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.

	Today's d Data							
	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						
В	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						
Е	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	С	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

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.











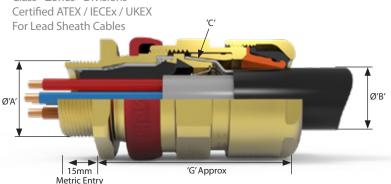






653/UNIV/

Flameproof, Increased Safety, Dust Protection, Restricted Breathing Class - Zones - Divisions



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												
	Entry Thread Size 'A' Cable Acceptance Details										Hexagon [Dimensions	
Size Ref.				Inner Sheath/	Cores			Sheath B'	Armour	Braid 'C'	'G'	Across	Across
nei.	Metric	NPT*	Max Inner Sheath	Max Over Core Diameter		Max No of Fibre Optic	Min	Max	Orientation 1	Orientation 2		Flats	Corners
Os	M20 ²	1/2"	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
0	M20 ²	1/2"	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
Α	M20	34" or 1/2"	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
В	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
Е	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.

^{*}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.

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/B0DNV: 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						

Technical Data

	1124/ 323
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
	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

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

Alternative Reversible Armour Clamping Ring Size Selection								
Size Ref	Orientation 1	Orientation 2						
В	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									
is as f	please omit material selection 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 e supplied with Express resin as standard. If QSP (Quick Set Putty) is required please select Q in compound selection									
ре	Size	Thread	Material	(Optional)	Compound					
	С	M32		LR						

653U Example Code: 653UCM32LR

653U

If brass is required p Format for ordering i All barrier glands are

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

1.25

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.



G 553 RAC

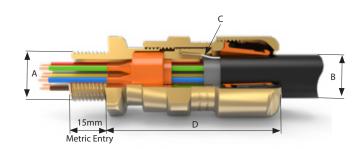
Flameproof, Increased Safety, Dust Protection, Restricted Breathing Certified ATEX / IECEx / UKEX











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 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																	
	Entry Th	hread	read Cable Acceptance Details															
Size	Size 'A'		Conductors							Armour / Braid / Tape 'C'		Outer		Approx Length 'D'		Hexagon Dimensions		
Ref.	Metric*		S	tanda	rd Se	al	Alte	rnativ	re Sea	al (S)	Standa	rd Ring	Shea	th 'B'	Leng		Dillie	1310113
		NPT	Dia.	(mm)	Qua	antity [Dia.	(mm)	Qua	ntity	Orientation 1	Orientation 2	Min.	Max.	Min.	Max.	Across	Across
			Min	Max	Min	Max	Min	Max	Min	Max	Offentation			IVIAA.	Willi.	IVIAX.	Flats	Corners
Os	M16 or M20	1/2"	1.5	4	1	4	-	-	-	-	0.8 / 1.25	0.0 / 0.8	5.5	12	52	81	24.0	26.5
0	M16 or M20	1/2"	1.5	4	1	4	-	-	-	-	0.8 / 1.25	0.0 / 0.8	9.5	16	52	81	24.0	26.5
Α	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
В	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
С	M32	1" or 1 1/4"	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								
В	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

ormation oracling is as follows. For Alternative Sear (5), Atternative raing (11), and sample or the oracling information										
Cable Gland Type	Size	Thread	Material	(Optional)						
553R	С	M32		R						
553R	В	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





NEOX

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



International Approvals



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								
D. J. C'.	Seal/Ring Size	Inner Sheath	Outer	Outer Sheath Steel Wire Armour/Tape/Braid			Max Hexagon Dimensions		
Body Size		Max	Min	Max	Orientation 1	Orientation 2	Entry Thread	Across Flats	Across Corners
	Os	8.1	5.5	12	0.8-1.25	0-0.8	M20	24	26.5
4-Pin	0	11.4	9.5	16	0.8-1.25	0-0.8		24	26.5
	Α	14.3	12.5	20.5	0.8-1.25	0-0.8		30	32.5
	0	11.4	9.5	16	0.8-1.25	0-0.8		24	26.5
Ci	Α	14.3	12.5	20.5	0.8-1.25	0-0.8	Mar	30	32.5
6-pin	В	19.7	16.9	26	1.25-1.6	0-0.7	M25	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				
0.75mm²	5A	5A				
1.5mm²	5A	5A				
2.5mm ²	10A	16A				
4mm ²	12A	18A				
6mm²	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 0.75 mm^2 $\mathrm{6mm}^2$ 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				
Novel on CP're	4	4 Pins				
Number of Pins	6	6 Pins				
	E	Entry (Supplied with Energised Cap)				
Body style	В	Body (Supplied with Energised Cap)				
	G	Entry and Body (Supplied with Transit Caps)				
	А	0.75mm2 - 1.5mm2				
Contact size	В	2.5mm2				
Selection only required for Body Style E and G	С	4/6mm2				
	X	N/A for Bodies				
	S	OS (4way)				
	0	O (4/6way)				
Cable OD Selection only required for Body Style B and G	A	A (4/6way)				
Science on only required for body Style build d	В	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							
D. J. C.	Seal/Ring Size	Inner Sheath	Outer Sheath		Steel Wire Armour/Tape/Braid		Max Hexagon Dimensions	
Body Size		Max	Min	Max	Orientation 1	Orientation 2	Across Flats	Across Corners
	Os	8.1	5.5	12	0.8-1.25	0-0.8	24	26.5
4-Pin	0	11.4	9.5	16	0.8-1.25	0-0.8	24	26.5
	Α	14.3	12.5	20.5	0.8-1.25	0-0.8	30	32.5
	0	11.4	9.5	16	0.8-1.25	0-0.8	24	26.5
C min	Α	14.3	12.5	20.5	0.8-1.25	0-0.8	30	32.5
6-pin	В	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 0.75mm² - 6mm²				
Over Insulation Acceptance Diameter Ø5.50mm				
Operating Temperature -60°C to +60°C (may be limited by T-Class)				
ATEX/IECEx				

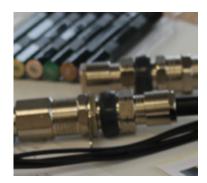
ATEX/IECEx Protection Class	Ex II 2 GD Ex eb IIC T6/T5 Gb, Ex tb IIIC T80°C/95°C Db Suitable for use in Zone 1, Zone 21, Zone 2 and Zone 22					
ATEX Certificate No	CML20ATEX3217X					
IECEx Certificate No	CML20.0137X					
Construction & Test Standards	IEC/EN 60079-0, IEC/EN 60079-7 and IEC/EN 60079-31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

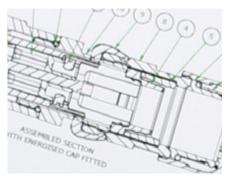
T-Rating Selection Table						
Conductor Size	T6 +60°C	T5 +50°C				
0.75mm²	5A	5A				
1.5mm ²	5A	5A				
2.5mm²	10A	10A				
4mm²	12A	18A				
6mm²	20A	30A (4pin) 25A (6pin)				

- 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				
N	4	4 pins			
Number of cores	6	6 pins			
Body style	С	Coupler			
	S	OS (4way)			
Cable OD	0	O (4/6way)			
Cable OD	A	A (4/6way)			
	В	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







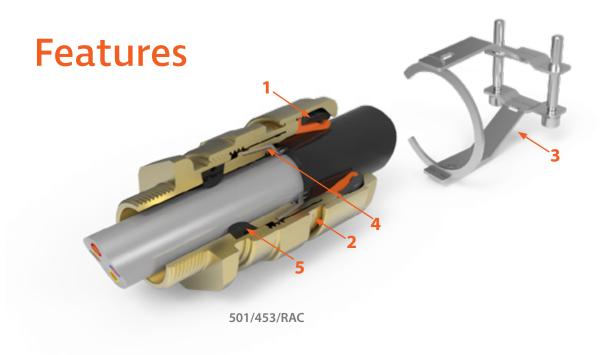
The RCG coupler allows an installer to extend an existing piece of cable without the need to use a junction box, or a more permanent splice kit.

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.



■ 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).





Flameproof, Increased Safety, Dust Protection and Restricted Breathing Class - Zones

Certified ATEX / IECEx / UKEX / c CSA us









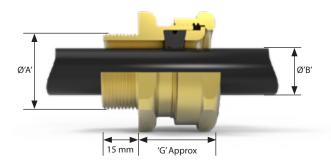












Features

- 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 with BS EN 60079-14.

	Cable Gland Selection Table								
Entry Thread Size 'A'			Cable A		Hexagon Dimensions				
Size Ref.	Metric	NPT*	Standard Seal		Alternative Seal (S)		'G'		
	Wetric	INF I	Min.	Max.	Min.	Max.		Across Flats	Across Corners
2K	M16	_	3.2	8.0	-	_	23.5	19.0	21.2
Os	M20 ²	1/2"	3.2	8.0	-	_	23.8	24.0	26.5
0	M20 ²	1/2"	6.5	11.9	-	-	23.8	24.0	26.5
Α	M20	3/4" or 1/2"	10.0	14.3	9.0	13.4	24.8	30.0	32.5
В	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	21/2" or 2"	42.5	56.3 / 54.3 ¹	39	46.5	38.2	80.0	88.0
F	M75	3" or 21/2"	54.5	68.2 / 65.3 ¹	49.5	58.3	40.5	95.0	104.0
G	M80	31/2"	67.0	73.0	-	-	41	106.4	115.0
Н	M90	31/2"	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 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)
	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: 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-KA4B0-0120X 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	С	M32	Brass	S				
501/421	С	1¼" NPT	Brass	S				

Order Example: 501/421 C M32 Brass S



Certified ATEX / IECEx / UKEX / c CSA us

Flameproof, Increased Safety, Dust Protection Class - Zones













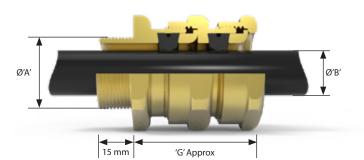
International Approvals











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										
	Entry Thread Size 'A'				Acceptance Details uter Sheath 'B'			Hexagon Dimensions			
Size			Stan	dard Seal	Alterntati	ve Seal (S)	'G'				
Ref.	Metric	Metric NPT*		Max.	Min.	Max.		Across Flats	Across Corners		
Os	M20 ²	1/2"	3.2	8.0	-	_	40.0	24.0	26.5		
0	M20 ²	1/2"	6.5	11.9	_	_	40.0	24.0	26.5		
Α	M20	3/4" or 1/2"	10.0	14.3	9.0	13.4	40.4	30.0	32.5		
В	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		
Е	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 21/2"	54.5	68.2 / 65.3 ¹	49.5	58.3	68.0	95.0	104.0		
G	M80	31/2"	67.0	73.0	_	_	68.0	106.4	115.0		
Н	M90	31/2"	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

¹Smaller value is applicable when selecting reduced NPT entry option. ²Sizes 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	С	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



01/453/RAC

Flameproof, Increased Safety, Dust Protection and Restricted Breathing Class - Zones

Certified ATEX / IECEx / UKEX / c CSA us





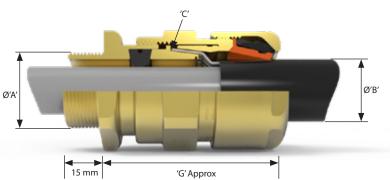












Features

- 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												
	Entry Th	read Size 'A'			Ca	ıble Accepta	nce Detai	ls	_			Hexagon [Dimensions
Size Ref.	Market	NOTE		Inner She	ath		Outer SI	Outer Sheath 'B'		/Braid 'C'	'G'	Across	Across
nei.	Metric	NPT*	Standa	rd Seal	Alternat	ive Seal (S)			Orientation	Orientation		Flats	Corners
			Min	Max	Min	Max	Min	Max	1	2			
Os	M20 ²	1/2"	3.2	8.0	-	-	5.5	12.0	0.8 / 1.25	0.0 / 0.8	52.0	24.0	26.5
0	M20 ²	1/2"	6.5	11.9	-	-	9.5	16.0	0.8 / 1.25	0.0 / 0.8	52.0	24.0	26.5
Α	M20	3⁄4" or 1⁄2"	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
В	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
Е	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
Н	M90	31/2"	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 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

Alternative Reversible Armour Clamping Ring Size Selection								
Size Ref	Steel Wire Armour / Braid / Tape							
Size Kei	Orientation 1	Orientation 2						
В	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	С	M32		R
453R	С	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



501/453/RAC/

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







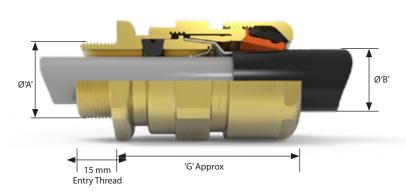












Features

- 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												
	Entry Th	read Size 'A'			(Cable Acceptai	nce Detai	ls				Hexagon [Dimensions
Size Ref.	Metric	NPT*		Inner :	Sheath		Outer S	heath 'B'	Armour	/Braid 'C'	'G'	Across	Across
	Metric	NP1"	Std Seal (L)	Seal + Bond	Alt Seal (K) Seal + Bond			Orientation	Orientation		Flats	Corners
			Min	Max	Min	Max	Min	Max	1	2			
0	M20 ²	1/2"	6.5	10.2	-	-	9.5	16.0	0.8/1.25	0.0/0.8	52.0	24.0	26.5
Α	M20	3/4" or 1/2"	-	-	9	12.5	12.5	20.5	0.8/1.25	0.0/0.8	53.0	30.0	32.5
В	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	11/4" 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
Е	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 21/2"	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
Н	M90	31/2"	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

¹Smaller 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						
	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	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 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	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						
Size Ker	Orientation 1	Orientation 2					
В	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					

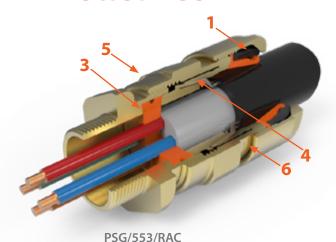
Ordering Information

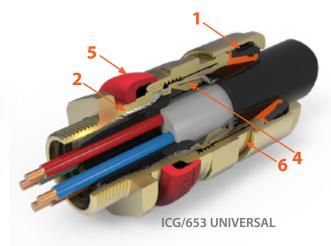
If brass is required please omit material selection information
Format for ordering is as follows: Lead sheath must be selected in optional (L) or Alternative Seal (K), Alternative Ring (R), add suffix L or K and R if required

Cable Gland Type	Size	Thread	Material	(Optional)
453R	С	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





■ 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.



Inspect installed glands

with zero destruction.

The Difference is Clear.





SG 553 RAC

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

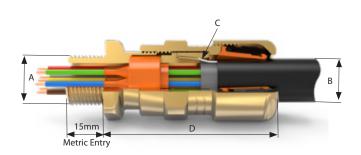


UKA TA

International Approvals







Features

- Provides an instant barrier seal around the individual cable
- 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																								
	Entry Th	nread Cable Acceptance Details																							
Size	Size	'A'			(Cond	uctor	S			Armour / Br	aid / Tape 'C'	Ou	iter		Approx Hexago Length 'D' Dimension									
Ref.			S	tanda	rd Se	al	Alte	rnativ	/e Sea	al (S)	Standa	rd Ring	Sheath 'B'		Length D Dimensions		1310113								
	Metric*	NPT	Dia.	(mm)	Qua	ntity	Dia.	(mm)	Qua	ntity	Orientation 1	Orientation 2	Min	Min	Min	Min	Min	Min.	Max.	Max	Max	Min.	Max.	Across Acros	Across
			Min	Max	Min	Max	Min	Max	Min	Max	Offentation	Offentation 2	IVIIII.	IVIAX.	IVIIII.	IVIAA.	Flats	Corners							
Os	M16 or M20	1/2"	1.5	4	1	4	-	-	-	-	0.8 / 1.25	0.0 / 0.8	5.5	12	52	81	24.0	26.5							
0	M16 or M20	1/2"	1.5	4	1	4	-	-	-	-	0.8 / 1.25	0.0 / 0.8	9.5	16	52	81	24.0	26.5							
Α	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							
В	M25	3/4" 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							
С	M32	1" or 1 1/4"	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

metric tireataintis are 1.5min pilcit, 15min 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 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				
В	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	С	M32		R
553R	В	1.0	NP	S

Example code: 553RCM32R

Please note all NPT entries should be state as a decimal







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

See full technical details of our GMC product on page 95





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International Approvals

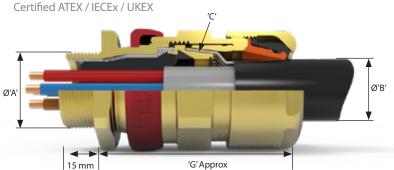
ICG/653/UNIV

Flameproof, Increased Safety, Dust Protection and Restricted Breathing

Class - Zone Certified AT



Metric Entry



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 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 Entry Thread Size 'A' **Hexagon Dimensions** Outer Sheath Inner Sheath/Cores Armour/Braid 'C' Size Ref. 'G' NPT¹ M20² 1/2' Os 12 0.8 / 1.25 0.0 / 0.8 58.4 24 26.5 8.1* 8 48 5.5 12 0 M20² 1/2" 48 0.8 / 1.25 0.0 / 0.8 11.7 8.8 12 9.5 16 58.4 24 26.5 Α M20 34" or 1/2" 10.8 15 72 12.5 20.5 0.8 / 1.25 0.0 / 0.8 60.6 30 32.5 14 1" or ¾" В M25 19.9 15.9 30 144 16.9 26 1.25 / 1.6 0.0 / 0.7 67.3 36 39.5 C 11/4" or 1" 33 1.6 / 2.0 0.0 / 0.7 46 50.5 M32 26.2 21.9 42 22 73.2 1½" or C2 M40 32.3 41 1.6 / 2.0 0.0 / 0.7 55 60.6 26.7 60 28 78.3 11/4" 2" or 1 D M50 37.7 80 1.8 / 2.5 0.0 / 1.0 97.5 65 70.8 44.2 36 52.6 11/5" Ε M63 21/2" or 2" 1.8 / 2.5 0.0 / 1.0 93.5 80 88 56 49 100 46 65.3 68 0.0 / 1.0 95 104 M75 3" or 21/2" 59.8 120 57 1.8 / 2.5 104.5 78

^{**}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

	7,661.074.13
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 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

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.

Alternative Reversible Armour Clamping Ring Size Selection								
Size Ref	Orientation 1	Orientation 2						
В	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						
Е	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		Size Thread Material		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





EAC







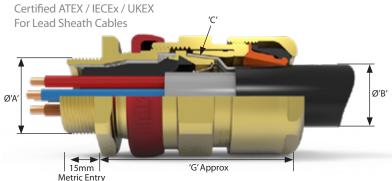






ICG/653/UNIV/I

Flameproof, Increased Safety, Dust Protection, Restricted Breathing Class - Zones - Divisions



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												
	Entry Th	read Size 'A'		Cable Acceptance Details							Hexagon Dimensions		
Size Ref.				Inner Sheath/Cores				Sheath B'	Armour Braid 'C'		'G'	Across	Across
nei.	Metric	NPT*	Max Inner Sheath	Max Over Core Diameter		Max No of Fibre Optic	Min	Max	Orientation 1	Orientation 2		Flats	Corners
Os	M20 ²	1/2"	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
0	M20 ²	1/2"	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
Α	M20	34" 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
В	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
Е	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.

^{*}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/B0DNV: 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

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

Alternative Reversible Armour Clamping Ring Size Selection								
Size Ref	Orientation 1	Orientation 2						
В	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	С	M32		LR	
653U	С	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



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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

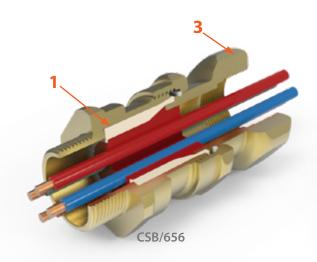
Simple to use with a cure time from 30 minutes. Particularly useful where termination space is limited or cables are running horizontally to the installation area. Can be inspected and repaired if necessary, allowing for the very highest level of safety.

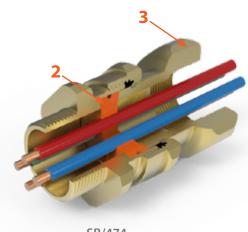
Instant Barrier Seal

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.

Features





SB/474

■ 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.

Flameproof, Increased Safety, Dust Protection and Restricted Breathing















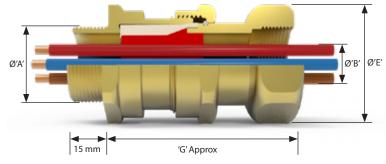




Certified ATEX / IECEx / UKEX / c CSA us

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 nonbarrier 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										
Thread Sizes ³									Hexagon Dimensions ²		
Size			'	nner Sheath / C	Cores	'G'					
Ref.	Metric	NPT*	Metric	NPT*	Max Over Cores 'C'	Max Inner Sheath	Max No of Cores		Across Flats	Across Corners	
A	M20	3/4" or 1/2"	M20	3/4" or 1/2"	11	12.5	16	74.0	30.0	32.5	
В	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	11/4" 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	21/2" or 2"	47.8	53.5	120	97.0	80.0	88.0	
F	M75	3" or 21/2"	M75	3" or 21/2"	59	66.2 / 65.3 ¹	160	100.0	95.0	104.0	
All dime	ensions in m	illimetres (exce	pt * where din	nensions are in inches).	Metric entry threa	ds are 1.5mm pitc	h as standard, 15mm le	ngth of thread.			

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 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/B0 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 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

Ordering Information									
If brass is required please omit from material selec	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	С	M32	M32						
656N	С	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

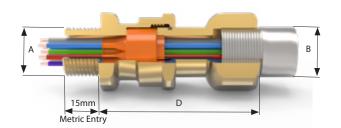
Alexagon dimensions as shown may increase to acommodate non-metric female threads

Other thread types available upon request



Flameproof, Increased Safety, Dust Protection Certified ATEX/IECEx





Features

- Provides an instant barrier seal around the individual conductors
- Accomodates 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															
	Entry Threa	ad Size 'B'					C	able Ac	ceptanc	e Detai	ls					
	Entry Iniea	u size A	remale mre	au size b							Approx	Length	Hexa	agon		
Size Ref.						Standa	rd Seal		A	lternativ	e Seal (S)	'[)'	Dimens	sions***
	Metric* NP1	tric* NPT Metric**		NPT	Dia.	(mm)	Qua	ntity	Dia.	(mm)	Qua	ntity	Min.	Max	Across	Across
					Min	Max	Min	Max	Min	Max	Min	Max	Willi.	Max.	Flats	Corners
0	M16 or M20	1/2"	M16 or M20	1/2"	1.5	4	1	4	-	-	-	-	54.5	69	24.0	26.5
Α	M20	½" or ¾"	M20	½" or ¾"	1.5	4	1	7	-	-	-	-	56.4	69	30.0	32.5
В	M25	3/4" or 1"	M25	¾" or 1"	1.5	4	1	12	4.5	6.5	1	5	48.2	61	36.0	39.5
C	M32	1" or 11/4"	M32	1" or 11/4"	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							
٠	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	С	M32	M32		
474	В	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

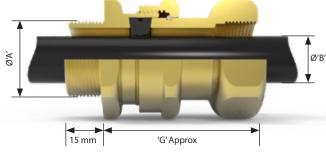


Flameproof, Increased Safety, Dust Protection and Restricted Breathing Class - Zones

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.







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Cab	le Glar	id Selec	tion 1	Гable

	Thread Sizes					Cable Acceptance Details				Hexagon Dimensions ³	
Size	Male Entry Thread 'A' Female Conduit Thread			Outer SI	heath 'B'		' G'	Across	Across		
Ref.	Metric	NPT*	Metric	NPT*	Standa	rd Seal	Alterna	tive Seal		Flats	Corners
	Metric	INPT"	Metric	INP I	Min	Max	Min	Max			
Os	M20 ²	1/2"	M20 ²	1/2"	3.2	8.0	-	-	54.5	24.0	26.5
0	$M20^2$	1/2"	M20 ²	1/2"	6.5	11.9	-	-	54.5	24.0	26.5
Α	M20	3/4" or 1/2"	M20	3/4" or 1/2"	10.0	14.3	9.0	13.4	56.4	30.0	32.5
В	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	11/4" 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 21/2"	M75	3" or 21/2"	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)

Smaller value is applicable when selecting reduced NPT entry option.
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

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	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 / B0								
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								

Ordering Information

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,

If brass is required please omit material selection

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

CSA 22.2 60079-7 and CSA 22.2 60079-31

3	,	3			
Cable Gland Type	Size	Male Thread	Female Thread	Material	(Optional)
414	С	M32	M32		S
414	С	1.25	1.25	NP	S

Order Example: 414CM32M32S

Please note all NPT entries should be state as a decimal



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.

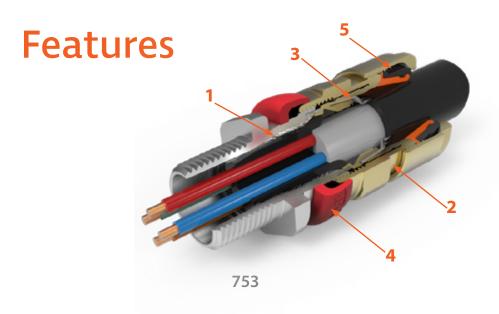
How was the silicone compound pot tested and certified?

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.





■ 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.



Increased Safety Exe for Zones North American Cable Gland

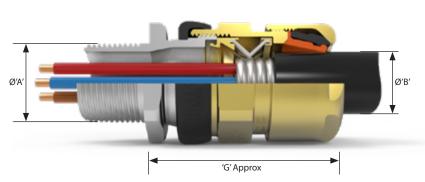












Features

- 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										
	Entry Thre	ead Size 'A'		Cable Accep	tance Details			Hexagon [Hexagon Dimensions	
Size Ref.	Metric	NPT* Standard	Armour Jacket 'E'		Outer Jacket 'B'		'G'	Across Flats	Across Corners	
			Min	Max	Min	Max				
Α	M20	½" or ¾"	0.41"	0.64"	0.49"	0.81"	2.5"	1.18"	1.28"	
В	M25	3/4" or 1"	0.55"	0.93"	0.67"	1.02"	2.59"	1.42"	1.56"	
C	M32	1" or 11/4"	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.

 $Over size \ glands \ are \ available \ for \ Wet \ Locations. \ Please \ contact \ Hawke \ for \ more \ details.$

	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

Features



North American Explosion proof

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IECEx, ATEX and UKEX Approved Flameproof, Increased Safety Dual Marked UL & ATEX/IECEx/UKEX as standard

'G' Approx

 Patented Cable Gland Tightening Guide -Helps prevent damage caused by over tightening

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

Unique Rear Seal - Offering ultimate

sealing over an extremely wide cable acceptance range

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							

Cable Glaffu Selection Table											
	Entry TI	nread Size 'A'		Cable Acceptance Details						Hexagon Dimensions	
Size Ref.	Metric	NPT ¹ Standard	Inner Jacket Cores 'OA'			Outer Jacket 'θΒ'		'G'	Across Flats	Across Corners	
			Max Over Cores 'D'	Min Inner Jacket 'E'	Max Inner Jacket 'E'	Max No of Cores	Min	Max		ACIOSSTIALS	ACIOSS COITICIS
Os	M20 ²	1/2"	0.31"	0.14"	0.32"	12	0.22"	0.47"	2.30"	0.94"	1.04"
0	$M20^2$	1/2"	0.35"	0.26"	0.46"	12	0.37"	0.63"	2.30"	0.94"	1.04"
Α	M20	3/4" or 1/2"	0.43"	0.33"	0.55"	15	0.49"	0.81"	2.39"	1.18"	1.28"
В	M25	1" or ¾"	0.63"	0.44"	0.78"	30	0.66"	1.02"	2.65"	1.42"	1.56"
C	M32	1¼" 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 1 1½"	1.48"	1.14"	1.74"	80	1.42"	2.07"	3.84"	2.56"	2.79"
Е	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*, 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 IIIC
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 IIIC 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 and 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 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 60079-0, IEC/EN 60079-1, IEC/EN 60079-7, IEC/EN 60079-15 and IEC/EN 60079-31
Marine Approvals	ARS: 19-I D1876514-1-PDA RV: 43523/R0 DNV: TAF0000RS

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

Ordering Information

EAC: No EA3C RU C-GB.HA91.B.00264/21* EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 14.0272X PESO: P450038

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

All barrier glarias are supplied with Express resin as standard. If QSF (Quiek See Facty) is required pieuse select Q in compound selection									
Cable Gland Type	Size	Thread	Material	Compound					
710	C	1.0	NE						
710	С	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



 $\langle \epsilon_x \rangle$ EAC



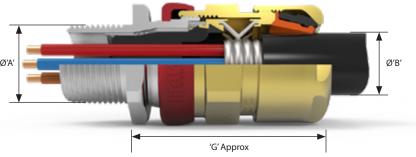
International Approvals







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											
	Entry Th	nread Size 'A'			Cable Acce	ptance Deta	ils			Hexagon Dimensions	
Size	Metric	NPT* Standard	ı	nner Jacket	:/Cores 'θA'		Outer Ja	Outer Jacket 'θΒ' 'G'			
Ref.			Max Over Cores	Armou Min	r Jacket Max	Max No of Cores	Min	Max		Across Flats	Across Corners
Α	M20	3/4" or 1/2"	0.43"	0.41"	0.64"	15	0.49"	0.81"	2.5"	1.18"	1.28"
В	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 1 1½"	1.48"	1.37"	1.96"	80	1.42"	2.07"	3.9"	2.56"	2.79"
Е	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 siz	ze metric ent	ry threads are 1.5r	nm pitch as stand	lard, 15mm le	ngth of threa	d.					

	Technical Data
	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
	Class I Div 1 ABCD; Class II Div 1 EFG; Class III
NEC Protection Class	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 IIIC
	Class I Div 1 ABCD; Class II Div 1 EFG; Class III
CEC Protection Class	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	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; Extb 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 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/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

^{*}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

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

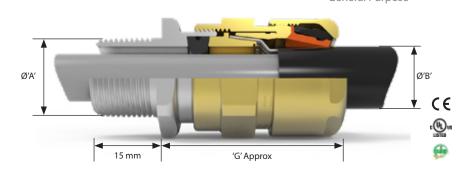
	Cable Gland Type	Size	Thread	Material	Compound					
	711	C	1.0	NE						
	711	C	1.0	NP	Q					
Α.	Accomply instructions are cumpled with the cable aland									

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

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



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													
	Entry Thread Size'A' Cable Acceptance Details								Hexago	Hexagon Dims				
Size Ref.			Standard Seal		Alternative Seal (S)		Outer Jacket 'B'		Armour / Braid 'C'		'G'	Across Flats	Across Corners	
		or Option	Min	Max	Min	Max	Min	Max	Orientation 1	Orientation 2		liats	Comers	
Os	M20 ²	1/2"	0.13"	0.31"	-	-	0.22"	0.47"	0.0315"/0.0492"	0"/0.0315"	2.05"	0.94"	1.04"	
0	M20 ²	1/2"	0.26"	0.47"	-	-	0.41"	0.63"	0.0315"/0.0492"	0"/0.0315"	2.05"	0.94"	1.04"	
Α	M20	3/4" or 1/2"	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"	
В	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"	
Е	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"	
Н	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 the size glands of thread (2.5mm 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 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: TAE00003BT										
Additional Certifications	SONCAP: LCOGB049552-0500										

Alternative Reversible Armour Clamping Ring Size Selection										
Size Ref Orientation 1 Orientation 2										
В	0.0354" - 0.0492"	0.0197" - 0.0354"								
С	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"								
Е	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											

1.0

Order Example: 153XC1.0NES

153X

Please note all NPT entries should be state as a decimal



15 mm

North American Explosion proof

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

'G' Approx









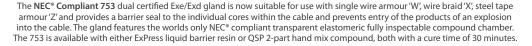






Features

- 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



	Cable Gland Selection Table													
	Entry 1	Thread Size			Cable	e Accepta	nce Detai	ls			Hexagon Dimensions			
Size Ref.	Metric	NPT*	Inne	r Jacket Core	et Cores 'θΑ' Outer Jacket 'θΒ'		cket 'θB'	Armour / Braid 'θC'		'G'	Across Flats	Across		
	Metric	Standard	Max Over Cores	Max Inner Jacket	Max No Cores	Min	Max	Orientation 1	Orientation 2		ACIOSS Flats	Corners		
Os	M20 ²	1/2"	0.31"	0.32"*	12	0.22"	0.47"	0.0315"/0.0492"	0"/0.0315"	2.3"	0.94"	1.04"		
0	M20 ²	1/2"	0.35"	0.46"	12	0.37"	0.63"	0.0315"/0.0492"	0"/0.0315"	2.3"	0.94"	1.04"		
Α	M20	3/4" or 1/2"	0.43"	0.55"	15	0.49"	0.81"	0.0315"/0.0492"	0"/0.0315"	2.39"	1.18"	1.28"		
В	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 1 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"		

- 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".
- 3. 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/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										

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

Alterr	Alternative Reversible Armour Clamping Ring Size Selection											
Size Ref	Orientation 1	Orientation 2										
В	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"										
Е	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	С	1.0	NE	
753	С	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





The Next Generation in Hazardous Area LED Lighting

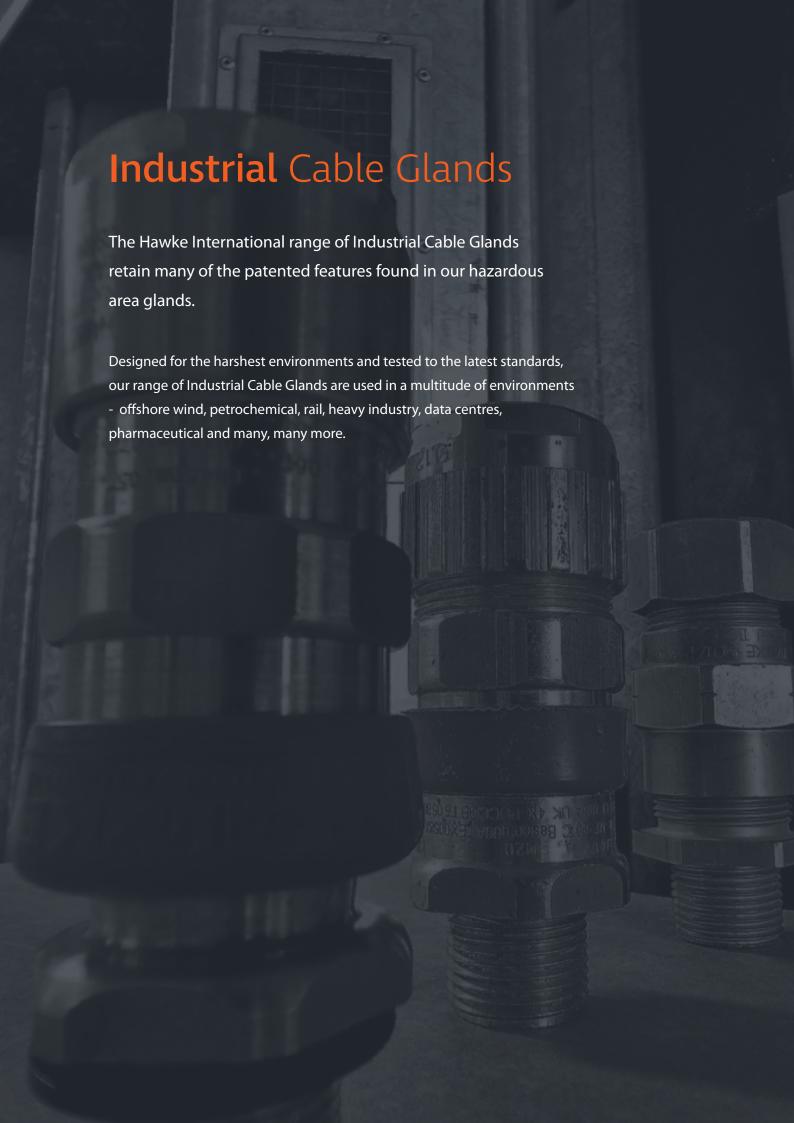


- Energy Efficient and Lightweight 25lbs/11.2kg
- Easy to Install with clamshell splice box
- Intelligent Battery Backup with built in self test/monitoring
- Front Access Cover with screwless mains terminals
- **Spot, Wide and Perimeter** optic options available

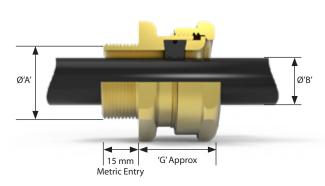
Zone 2 and Industrial Floodlight











Features

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

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													
	Entry Thre	ead Size 'A'		Cable Accep	tance Details			Hexagon Dimensions					
Size Ref.				Outer Sl	neath 'B'		' G'						
Size Nei.	Metric	NPT*	Standard Seal		Alternative Seal (S)		ď	Across Flats	Across Corners				
			Min	Max	Min	Max							
2K	M16	_	3.2	8	_	_	23.5	19.0	21.2				
Os	M20 ²	1/2"	3.2	8	-	-	23.8	24.0	26.5				
0	$M20^2$	1/2"	6.5	11.9	_	_	23.8	24.0	26.5				
Α	M20	3/4" or 1/2"	10	14.3	9	13.4	24.8	30.0	32.5				
В	M25	1" or ¾"	13	20.2	9.5	15.4	25.8	36.0	39.5				
С	M32	11/4" 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				
Е	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				
Н	M90	31/2"	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)

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	С	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

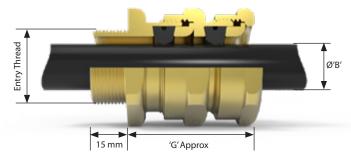
²K-F size metric entry threads are 1.5mm pitch, 15mm length of thread as standard G-L size metric entry threads are 2mm pitch, 20mm length of thread as standard





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													
	Entry Thr	ead Size 'A'		Cable Accept	tance Details			Hexagon Dimensions					
Size Ref.				Outer SI	neath 'B'		'G'						
Size nei.	Metric	NPT* Standard	Standa	ırd Seal	Alternative Seal (S)		ď	Across Flats	Across Corners				
			Min	Max	Min	Max							
Os	$M20^2$	1/2"	3.2	8	-	-	40.0	24.0	26.5				
0	$M20^2$	1/2"	6.5	11.9	-	_	40.0	24.0	26.5				
Α	M20	3/4" or 1/2"	10	14.3	9	13.4	43.0	30.0	32.5				
В	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	31/2"	67	73	-	_	68.0	106.4	115.0				
Н	M90	31/2"	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	S EN 62444 (Anchorage Type B)							
Enclosure Protection	K10 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

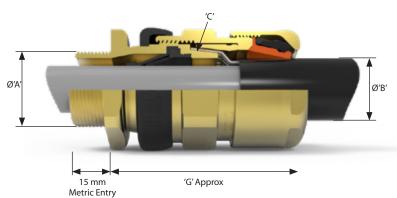
If brass is required please omit material selection Format for ordering is as follows: Alternative Seal (S), add suffix S to ordering information

Cable Gland Type	Size	Thread	Material	(Optional)	
123	С	M32		S	
123	С	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





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 degree bonding

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

	Cable Gland Selection Table										
	Entry Th	nread Size 'A'			Cable A	cceptance De	etails			Hexagon D	imensions
Size Ref.	Metric	NPT*	Inner Sheath		Outer SI	heath 'B'	Armour/Braid 'C'		'G'	Across Flats	Across Corners
			Min	Max	Min	Max	Orientation 1	Orientation 2			Corriers
Os	M20 ²	1/2"	3.5	8.1	5.5	12	0.8/1.25	0.0/0.8	58.4	24	26.5
0	M20 ²	1/2"	6.5	11.4	9.5	16	0.8/1.25	0.0/0.8	58.4	24	26.5
Α	M20	3/4" or 1/2"	8.4	14.3	12.5	20.5	0.8/1.25	0.0/0.8	59.6	30	32.5
В	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	21/2" 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	31/2"	67	73	75	89.5	2.0/3.5	0.0/1.0	90.6	106.4	115.0
Н	M90	31/2"	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

 $All\ dimensions\ in\ millimetres\ (except * where\ dimensions\ are\ in\ inches).\ Os\ -\ F\ size\ metric\ entry\ threads\ are\ 1.5mm\ pitch\ as\ standard,\ 15mm\ length\ of\ thread.\ For\ G\ size\ glands\ and\ and\ size\ length\ of\ thread.\ For\ G\ size\ glands\ and\ of\ size\ pitch\ of\ siz$ 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	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								
В	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	С	M32		R
153U	С	1.25	NP	R

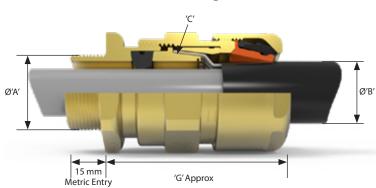
Example Code: 153UCM32R

Please note all NPT entries should be state as a decimal



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
- EMC Compliant with Integral 360 degree bonding



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												
	Entry Th	read Size 'A'				Cable /	Acceptan	ce Details	5			Hexagon [Dimensions
Size Ref.	Metric	NPT* Standard		Inner	Sheath		Outer Sheath 'B' Armour/Braid 'C'		'G'	Across Flats	Across Corners		
		Standard	S	td Seal	Alt Seal (S)		Min	Max	Orientation 1	Orientation 2		liats	Conners
Os	M20 ²	1/2"	3.2	8	-	-	5.5	12.0	0.8/1.25	0.0/0.8	52.0	24.0	26.5
0	M20 ²	1/2"	6.5	11.9	-	-	9.5	16.0	0.8/1.25	0.0/0.8	52.0	24.0	26.5
Α	M20	3/4" or 1/2"	10	14.3	9	14.3	12.5	20.5	0.8/1.25	0.0/0.8	53.0	30.0	32.5
В	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
Е	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 21/2"	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	31/2"	67	73	-	-	75.0	89.5	2.0/3.5	0.0/1.0	95.6	106.4	115.0
Н	M90	31/2"	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).

¹Smaller value is applicable when selecting reduced NPT entry option. ²Sizes 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, 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								
В	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	С	M32		R
153R	С	1.25	NP	S

Order Example: 153RCM32R

Please note all NPT entries should be state as a decimal

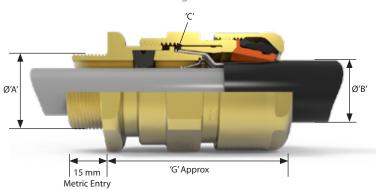
Os - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread.

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



53/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
- EMC Compliant with Integral 360 degree bonding

 $The 153/RAC/L\ Cable\ Gland\ is\ an\ industrial\ gland\ for\ indoor\ or\ outdoor\ use\ on\ Lead\ Sheath\ Cables.\ Robust\ and\ for\ use\ with\ single\ properties of the control of the$ 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												
	Entry Th	nread Size 'A'				Cable A	cceptano	e Details				Hexagon C	Dimensions
Size Ref.					Outer S	Outer Sheath 'B' Armour		Armour/Braid 'C'		Across	Across		
ne.	Metric	NPT*	Std (L) S	Seal +Bond Max	Alt Se Min	eal (S) Max	Min	Max	Orientation 1	Orientation 2		Flats	Corners
0	M20 ²	1/2"	6.5	10.2	-	-	9.5	16.0	0.8/1.25	0.0/0.8	52.0	24.0	26.5
Α	M20	3/4" or 1/2"	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
В	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	41.91	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 21/2"	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	31/2"	67.0	70	-	-	75.0	89.5	2.0/3.5	0.0/1.0	95.6	106.4	115.0
Н	M90	31/2"	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.

Smaller value is applicable when selecting reduced NPT entry option.
 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, 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						
В	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) or Alternative Seal (K), Alternative Ring (R), add suffix L or K, and R if required

Cable Gland Type	Size Thread		Size Thread Material	
153R	С	M32		LR
153R	C	1.25	NP	K

Order Example: 153RCM32LR

Please note all NPT entries should be state as a decimal

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



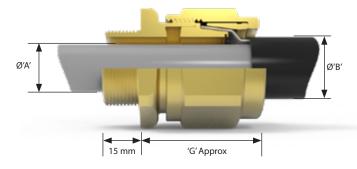


Industrial gland for indoor use



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 'W', wire braid 'X', steel tape armour 'Z', elastomer and plastic insulated cables.

	Cable Gland Selection Table								
	Entry Th	read Size 'A'		Cable Accep	tance Details			Hexagon [Dimensions
Size Ref.	Metric	NPT* Standard	Inner Sheath	Outer Sheath 'B'	Outer Sheath 'B' Armour Braid 'C' Max Orientation 1 Orientation 2		'G'	Across Flats	Across
		Stanuaru	Max	Max					Corners
О	$M20^2$	1/2"	11.9	16.0	0.8 / 1.25	0.0 / 0.8	37.0	24.0	26.5
Α	M20	3/4" or 1/2"	14.3	20.5	0.8 / 1.25	0.0 / 0.8	38.2	30.0	32.5
В	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
Е	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 dimens	ions in mil	limetres (except	* where dimensions are in	inches). O - F size metric en	try 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 outer sheath diameter is 10.9mm

Technical Data							
Material Options	Material Options Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel						
Construction & Test Standards	Construction & Test Standards BS EN 62444:2013 (Anchorage Type D), BS 6121: Part 1 Type BW, TX, BY and BZ						
Enclosure Protection	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					
В	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					
Е	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

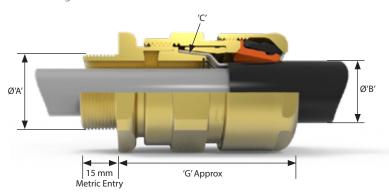
Cable Gland Type	Size	Thread	Material	(Optional)
150	С	M32		R
150	С	1.25	NP	R

Order Example: 150CM32R

Please note all NPT entries should be state as a decimal

 ${\it Please \, refer \, to \, part \, code \, logic \, information \, page \, for \, further \, details \, on \, product \, options}$





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
- EMC Compliant with Integral 360 degree bonding

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									
	Entry T	hread Size		Cable Acceptance Details					Hexagon [Dimensions
Size Ref.	Metric	NPT*	Inner Sheath "θΑ'	Outer Sh	eath 'θB'	Armour	Braid 'C'	'G'	ACIOSS	
			Max	Min	Max	Orientation 1	Orientation 2		Flats	Corners
Os	M20 ²	1/2"	8.0	5.5	12.0	0.8 / 1.25	0.0 / 0.8	52.0	24.0	26.5
0	M20 ²	1/2"	11.9	9.5	16.0	0.8 / 1.25	0.0 / 0.8	53.0	24.0	26.5
Α	M20	3/4" or 1/2"	14.3	12.5	20.5	0.8 / 1.25	0.0 / 0.8	53.0	30.0	32.5
В	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 21/2"	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	31/2"	73.0	75.0	89.5	2.0 / 3.5	0.0 / 1.0	95.6	106.4	115.0
Н	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

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	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				
В	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	С	M32		R
151R	С	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

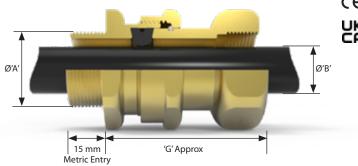
All dimensions in millimetres (except * where dimensions are in inches).
Os - F size metric entry threads are 1.5mm pitch as standard, 15mm length of thread.

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



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											
N	Male Entry Thread Size 'A' Female Entry Thread Size			Cable Accept	ance Details			Hexagon [Dimensions		
<i>c</i> : 2 <i>c</i>						Outer Sh	neath 'B'		161		
Size Ref.	Metric	NPT*	Metric	NPT*	Standa	ard Seal	Alternativ	ve Seal (S)	'G'	Across Flats	Across Corners
					Min	Max	Min	Max		rials	Corners
Os	M20	1/2"	M20	1/2"	3.2	8	-	-	56.4	24	26.5
0	M20	1/2"	M20	1/2"	6.5	11.9	-	-	56.4	24	26.5
Α	M20	3/4" or 1/2"	M20	3/4" or 1/2"	10	14.3	9	13.4	56.4	30	32.5
В	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

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	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	С	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

 ${\it Please \, refer \, to \, part \, code \, logic \, information \, page \, for \, further \, details \, on \, product \, options}$



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 todays 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.

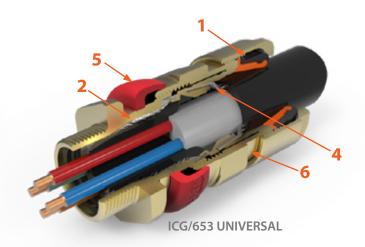
Having serviced the mining industry for over 50 years, Hawke mining glands are recognised for their durability and ease of use.





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 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.

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

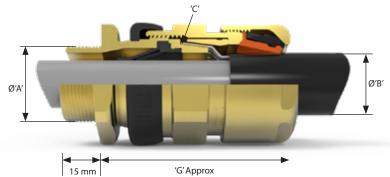
To help address issues with the overtightening of cable glands and the resultant damage to cables and seals, Hawke International has developed the patented INBUILT TIGHTENING GUIDE. Without the need for fiddly measuring systems, the guide provides a permanent visual indication of the gland tightness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



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											
	Entry Th	nread Size 'A'				Hexagon [Dimensions				
Size Ref.	Metric	NPT* Standard	Inne	r Sheath	Outer SI	Outer Sheath 'B' Armour/Braid 'C'		'G'	Across Flats	Across Corners	
		Stallualu	Min	Max	Min	Max	Orientation 1	Orientation 2		rials	Corners
Os	M20	1/2"	3.5	8.1	5.5	12.0	0.8 / 1.25	0.0 / 0.8	58.4	24.0	26.5
0	M20	1/2"	6.5	11.4	9.5	16.0	0.8 / 1.25	0.0 / 0.8	58.4	24.0	26.5
Α	M20	3/4" or 1/2"	8.4	14.3	12.5	20.5	0.8 / 1.25	0.0 / 0.8	59.6	30.0	32.5
В	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 11/2"	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 di	mensions in m	illimetres (except ¹	where dime	nsions are ir	inches). Metric entry t	threads are 1.5mm pitcl	n as standard		

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

Metric Entry

	Technical Data								
Material Options	Material Options Manufactured in Brass, Nickel Plated Brass or 316L Stainless Steel								
Ingress Protection	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.	CMI 19ATEX1166X								

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									
В	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	С	M32		R
453UM	С	1.25	NP	R

Example Code: 453UMCM32R

Please note all NPT entries should be state as a decimal

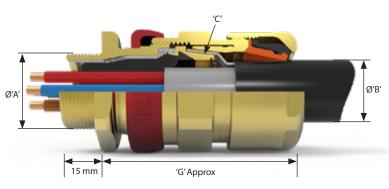
Please refer to part code logic information page for further details on product options



Mining, Flameproof, Increased Safety 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.



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												
	Entry Thre	ead Size 'A'				Cable <i>F</i>	Acceptano	e Details				Hexagon [Dimensions
Size			Inner Sheath / Cores			Outer Sheath 'B'		Armour/Braid 'C'		'G'			
Ref.	Metric	NPT*	Max Inner Sheath 'E'	Max Over Core Diameter	Max No of Cores	Max No of Fibre Optic	Min	Max	Orientation 1	Orientation 2		Across Flats	Across Corners
Os	M20 ²	1/2"	8.1	8	12	48	5.5	12	0.8/1.25	0.0/0.8	58.4	24	26.5
0	$M20^2$	1/2"	11.7	8.8	12	48	9.5	16	0.8/1.25	0.0/0.8	58.4	24	26.5
Α	M20	3/4" or 1/2"	14	10.8	15	72	12.5	20.5	0.8/1.25	0.0/0.8	60.6	30	32.5
В	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 1 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 21/2"	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						
	-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						
	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								
В	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

653UM C M32 R	Cable Gland Type	Size	Thread	Material	(Optional)	Compound
CE21IM C 125 ND D	653UM	С	M32		R	
653UM C 1.25 NP K Q	653UM	C	1.25	NP	R	Q

Example Code: 653UMCM32R

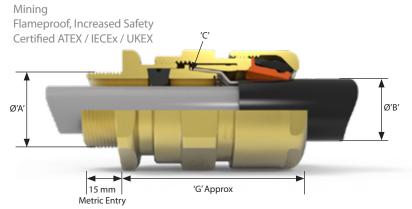
Assembly instructions are supplied with the cable aland.

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





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

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												
Entry Thread Size 'A' Cable Acceptance Details											Hexagon [Dimensions	
Size Ref.		NPT*	Inner Sheath			Outer Sh	neath 'B'	Armour/Braid 'C'		'G'	Across	Across	
itei.	Metric	Standard	Stan	dard Seal	Alternativ	e Seal (S)						Flats	Corners
			Min	Max	Min	Max	Min	Max	Orientation 1	Orientation 2			
Os	M20	1/2"	3.2	8	-	-	5.5	12.0	0.8 / 1.25	0.0 / 0.8	52.0	24.0	26.5
0	M20	1/2"	6.5	11.9	-	-	9.5	16.0	0.8 / 1.25	0.0 / 0.8	52.0	24.0	26.5
Α	M20	34" 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
В	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
Е	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 dime	nsions in millime	tres (except * v	vhere dimensio	ons are in inch	es). Metric e	entry threads are 1.5	5mm pitch as stand	dard		

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

Technical Data								
Material Options	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								

	Approvais
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	
В	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

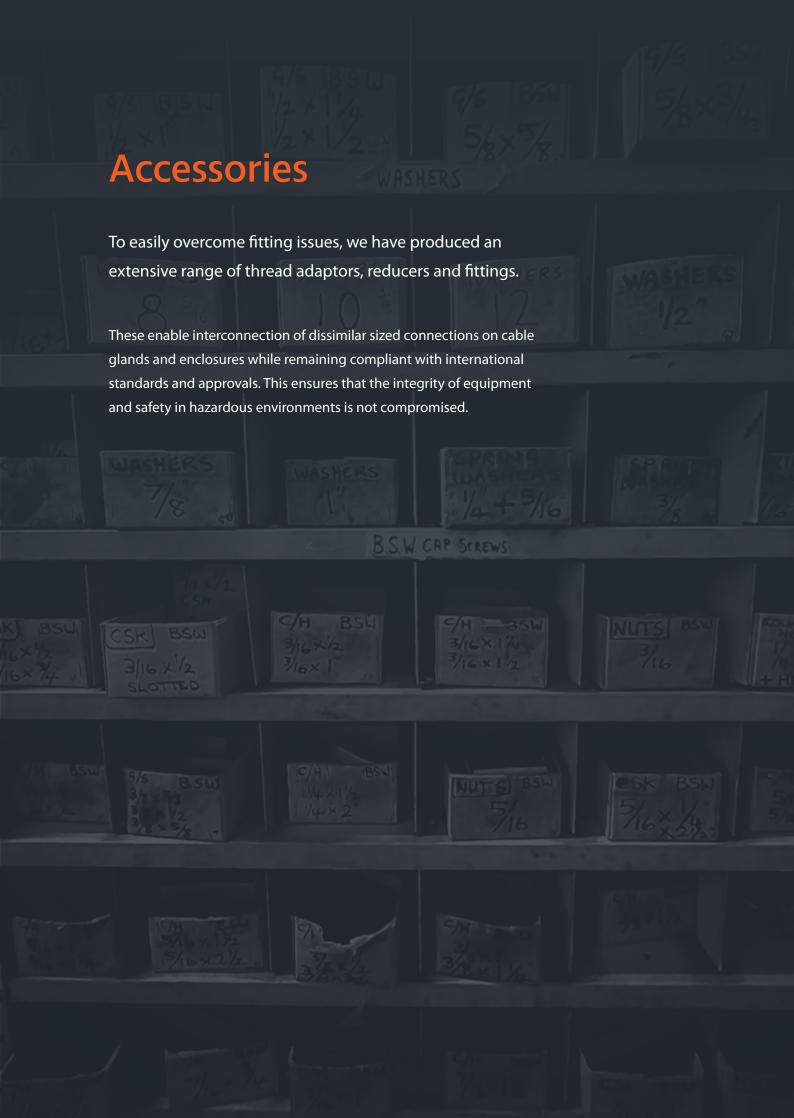
Format for ordering is as follows: Alternative Seal (S), Alternative Ring (R), add suffix S and/or R to ordering information

Cable Gland Type	Size	Thread	Material	(Optional)
453RM	С	M32		R
453RM	С	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







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.	Raceefa 12ATEX0095X			

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	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			
Product	Thread Size		
375	M32		

Part code Example - 375M32



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







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



Metallic Breather Drain













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/B0
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



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.

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

Approvals

	Approvais
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 Informat	ion

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













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				

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

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/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 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; 18.312 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





						47	6 Allo	owabl	le Thr	ead C	ombi	inatio	ons							
KI	EY:									Fen	nale Thr	read								
Α	= Adapto = Reduce		M16	M20	M25	M32	M40	M50	M63	M75	M80	M90	M100	M110	M115	M120	M130			Metr
_			3/8"	1/2"	3/4"	1″	1 1/4"	1 1/2"	2"	2 ½"		3″	3 ½"		4"			5″	6"	NP ⁻
	M16	3/8"	A	Α	Α															
	M20	1/2"	R	Α	Α	Α														
	M25	3/4"	R	R	Α	Α	Α													
	M32	1″	R	R	R	Α	Α	Α												
	M40	1 1⁄4″	R	R	R	R	A	Α	Α											
	M50	1 ½"	R	R	R	R	R	Α	Α	Α										
	M63	2″	R	R	R	R	R	R	А	Α	Α									
Male Inread	M75	2 ½"	R	R	R	R	R	R	R	А	Α	Α								
_ 	M80		R	R	R	R	R	R	R	R	A	Α	Α							
Male	M90	3″	R	R	R	R	R	R	R	R	R	Α	Α	Α						
	M100	3 ½"	R	R	R	R	R	R	R	R	R	R	Α	Α	Α					
	M110		R	R	R	R	R	R	R	R	R	R	R	Α	Α	Α				
	M115	4"	R	R	R	R	R	R	R	R	R	R	R	R	А	Α	Α			
	M120		R	R	R	R	R	R	R	R	R	R	R	R	R	Α	Α			
	M130		R	R	R	R	R	R	R	R	R	R	R	R	R	R	А			
		5″	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	Α		
		6"	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	А	
	Metric	NPT																		

N	letric – BS 364	13
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

National Pipe Thread NPT – USAS B 2.1 Taper 1 in 15 on Major Diameter						
Size	Major Dia. (mm)	TPI				
3/8"	17.15	18				
1/2"	21.34	14				
3/4"	26.67	14				
1"	33.4	11 ½				
1 1/4"	42.16	11 ½				
1 ½"	48.26	11 ½				
2"	60.33	11 ½				
2 ½"	73.03	8				
3"	88. 90	8				
3 ½"	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



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

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 n **With No IP Seal fitted			

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/B0	
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 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, 18.312 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 configuation should state (A) Adaptor or (R) Reducer

Product	Thread Configuation	Male Thread Size	Female Thread Size	Material
476	Α	M25	1.0	NP

Part code example - 476AM251.0NP Please note all NPT entries should be state as a decimal

^{***}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





















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 20mm 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: 17-LD1653734-PDA Bureau Veritas: 43523/B0			
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	10			
M50	62				
M63	75				
M75	87				
M80	92				
M90	102	17			
M100	112				
M110	122				
M115	127	19			
M120	132	19			
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



Metallic Breather Drain

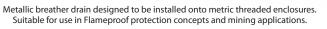














Technical Data			
Ingress Protection	IP66		
Operating Temperature	-60°C to +60°C		
Construction Materials	Manufactured in Brass (Standard), Nickel Plated Brass or 316L Stainless Steel Nitrile O-Ring fitted as standard		
Threadform	M20, M25*		
*Metric Thread Length 15mm as standard; Metric Thread Pitch 1.5mm as standard			

Approvals

Applications	Suitable for Use in Zone 1, Zone 21, Zone 2, Zone 22 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 11ATEX0154X			
UKEx Certificate No	BAS21UKEX0065X			
IECEx Certificate Number	BAS11.0076X			
Marine Approvals	ABS: 17-LD1653734-PDA BV: 43523/B0			
Additional Certifications	EAC: No EA3C RU C-GB.HA91.B.00265/21 EQM: 20-11-27224/Q20-11-000979/NB0007 Inmetro: IEx 15.0208X			
	NEC/CEC			
NEC Protection Class	Class 1 Zone 1 AEx db IIC Gb Zone 21 AEx tb IIIC Db			
CEC Protection Class	Ex db 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
489	M25	NP	S

Part code example - 489M25NPS











International Approvals





Swivel 90° Elbow with Lockstop (Male to Female)





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	
M16 to M75* Threadform 1/2" NPT to 3" NPT		
*Metric Thread Lenath 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 - 492M251.0NP Please note all NPT entries should be state as a decimal



















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	
*Metric Thread Lenath 15mm as standard: Metric Thread Pitch 1.5mm as standard		

Approvals

Applovais		
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
493	M25	1.0	NP

Part code example - 493M251.0NP Please note all NPT entries should be state as a decimal









(Male to Female)





 ${\sf Fixed~90~degree~metallic~elbow.~Suitable~for~use~in~Flame} proof~and~Increased~{\sf Safety~protection~concepts}.$

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	
M20 to M75* Threadform 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 - 494M251.0NP Please note all NPT entries should be state as a decimal













 ${\it Fixed 90 degree metallic elbow. Suitable for use in Flame proof and Increased Safety protection concepts.}$

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 - 495M251.0NP Please note all NPT entries should be state as a decimal





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 - 496M251.0NP Please note all NPT entries should be state as a decimal















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.

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	Baseefa 12ATEX0207X
UKEx Certificate No	BAS21UKEX0060X
IECEx Certificate Number	BAS12.0111X
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 configuation should state (A) Adaptor or (R) Reducer

Product	Thread Configuation	Male Thread Size	Female Thread Size	Material
478	Α	M25	M32	NP

Part code example - 478AM25M32NP



PVC Shrouds

For Hawke Cable Glands



Shrouds for fitting over cable glands when required by the application. Suitable for indoor and outdoor use.

	Technical Data					
Material	PVC					
Colour	Black					
Operating Temperature	-60 to +90 degC					
UV Resistance	Excellent (Tested to ASTM G 154-12a / ASTM D 412-2006)					

	Size Selection																			
Shroud	Internal Diameter	Length			50	1/32	21						All ot	ner H	lawk	e Gl	and [']	Туре		
Size	'A'	'B ['] '	Os M16	Os M20/O	Α	В	С	C2	D	Е	F	2K	Os/O	Α	В	С	C2	D	Е	F
Size 1B	21.0	27.0																		
Size 2B	25.5	75.0																		
Size 3B	31.5	77.0																		
Size 4B	39.0	83.0																		
Size 5B	50.0	89.0																		
Size 6B	60	97																		
Size 7B	70	123																		
Size 8B	87.5	120																		
Size 9B	103.5	130																		

Shrouds for gland sizes G,H & J available on request

Ordering Information				
Product	Size			
SHR	4B			

Part code example - SHR4B





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										
	Gland Type		501/321					Al	l Other Gla	nds	
		Os	0	Α	В	С	Os	0	Α	В	С
	Size 1										
Clamp Size	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

Ordering Example:

Gland Mounted Clamp / Size 1

Installation Steps

- Unscrew tail nut and slide down the cable.
- 2 Choose correct mounting ring from two options supplied and drop onto cable.
- 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.
- 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.
- Tighten the screws. It is recommended to incrementally tighten each screw to ensure the clamp is tightened equally on both sides.

















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 Sel	ection Table	NPT Selection Table				
Thread Size	Outside Diameter	Thread Size	Outside Diameter			
M16	24	1/2"	28			
M20	30	3/4"	35			
M25	36	1"	42			
M32	46	1 1/4"	53			
M40	55	1 ½"	59			
M50	65	2"	70			
M63	80	2 1/2"	84			
M75	89	3"	115			
M80	95	3 1/2"	126			
M90	106	4"	141			
M100	126	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 Stee



High quality metallic serrated washers designed to 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 Sel	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				
1/2"	35.5				
3/4"	43.5				
1"	52.0				
1 1/4"	59.5				
1 ½"	71.0				
2"	87.0				
2 ½"	102.0				
3"	125.0				
3 ½"	140.0				
4" All dimensions are in milli	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



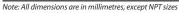
EARTHTAGS

Brass, Brass Nickel Plated or Stainless Steel

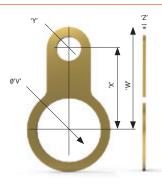
General Information

- Provides an earth bond attachment for a cable gland.
- Manufactured in Brass, Brass Nickel Plated and Stainless Steel
- Stainless Steel earthtags are available, but the dimensions may differ slightly 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'	ʻZ'
	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
Metric	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
	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
NIDT	1 1/2"	78.9	58	13.5	1.5
NPT	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



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

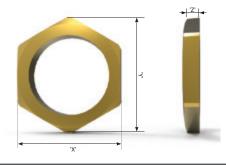


LOCKNUTS

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 are also available, but dimensions may differ from the ones in the 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'	ʻZ'
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 ½"	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 ½"	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 ½"	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

- 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
- External Mounting Feet

 Eliminates the need to remove the lid when mounting enclosure on the wall
- 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
- 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
- Earth Continuity Plate
 Available in Zintec or Brass
- Pips Stamped Around the ECP Clearance Hole

 Negates need for a serrated washer and makes more thread available on the gland for easier installation
- Stainless Steel Rating Label
 Highly durable and corrosion resistant







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

- 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
- Anti-Static Properties Removes the risk of ignition sources through static induced sparking resistivity. Insulation resistance less than $1G\Omega$
- External Mounting Feet

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

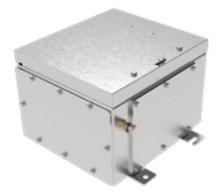
 Available in Zintec or Brass
- 5 Stainless Steel Rating Label
 Highly durable and corrosion resistant
- Corrosion Resistant Lid Fixing Screws with Retaining Feature

 Prevents the loss of screws during assembly and maintenance, reducing delays in installation or the need to replace the screws during the products lifetime
- 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.

- Robust & Durable Stainless Steel Construction
 Enclosure material thickness ranges between 1.2-2.0mm
 with 2-3mm thick gland plates for ultimate strength
- Rigid Slotted External Mounting Feet
 For easier installation
- 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



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



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 Hubbel

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

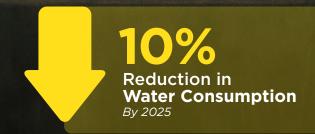
We are continually developing products and processes that support sustainability and offer energy efficient solutions for our customers and partners.

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





Hubbell have been recognised as one of 2023's most ethical companies



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



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 sustainably 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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HAV/KE