# Hawke International Supplying Safety Critical Products for over 50 Years EPIN AUTOMATION

Cable Glands for Worldwide Applications EPIN AUTOMATION



# A Quality Company

## A QUALITY COMPANY ALWAYS DEMANDS THE BEST

For those who demand quality, reliability and above all, safety, Hawke products are the obvious choice.

## **Smarter Products**

Hawke International is a division of Hubbell Ltd which is part of the Hubbell Incorporated Group of Companies. Hawke is a well established leading manufacturer of electrical equipment for Hazardous (Classified) locations and hostile environments, with an innovative range of cable connection and termination products.

Sustained safety and reliability under extreme conditions are Hawke's primary goals. The company also promise ease of installation and low lifetime cost of ownership - due to superior design, long life materials and precision manufacturing.



#### Worldwide

Located in Manchester, UK, Hawke International has subsidiary companies in Houston, USA and Singapore, along with direct representation in Brazil, the Middle East and Canada. Hawke International is supported worldwide by Hubbell Incorporated as well as by a network of agents and distributors.

## **Product Development**

A commitment to the development of innovative features which improve the safety, versatility, reliability and ease of use of our products.

## **First Choice**

Used on Offshore and Onshore oil and gas exploration and production facilities. Hawke's products are the 'First Choice' for the world's major oil and gas companies.

## A Quality Company

Hawke International's products are designed and manufactured under a quality system not only complying with ISO 9001, but also with the latest international standards. Rigorous and regular in-house testing ensures that every product manufactured meets the highest quality standards.



#### Hawke International - "Leading the way in the design of smarter products"











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ATEX (Ex) (E

## 501/421

Application

# Performance in the second seco

The 501/421 cable gland provides a seal on the outer cable sheath and is intended for use on non-armoured elastomer and plastic insulated cables. The cable gland is dual certified EExd and EExe and is suitable for installation in Zone 1 (21) and Zone 2 (22) hazardous areas.

## CABLE GLAND SELECTION TABLE

Flameproof and Increased Safety

	Entry	Thread			Cable Acc	ceptance Detail	S		Hexa	gon
Size	· · ·	bize	Thread		Oute	er Sheath 'B'		'G'	Dimen	-
Ref.	Maria	NPT*	Length 'H'	Star	ndard Seal	Alternati	ve Seal (S)	9	Across	Across
	Metric	Standard or Option		Min.	Max.	Min.	Max.		Flats	Corners
2K	MI6	-	15	3.0	8.0	-	-	27.0	19.0	21.2
Os	M20 <sup>2</sup>	1/2"	15	3.0	8.0	-	-	32.8	24.0	27.7
0	M20 <sup>2</sup>	1/2"	15	7.5	11.9	-	-	32.8	24.0	27.7
Α	M20	3⁄4" or 1⁄2"	15	11.0	14.3	8.5	13.4	32.8	30.0	34.6
В	M25	l" or ¾"	15	13.0	20.2	9.5	15.4	33.8	36.0	41.6
С	M32	1¼" or 1"	15	19.0	26.5	15.5	21.2	35.2	46.0	53.I
C2	M40	11⁄2" or 11⁄4"	15	25.0	32.5	22.0	28.0	36.5	55.0	63.5
D	M50	2" or 11⁄2"	15	31.5	44.4/42.3 <sup>1</sup>	27.5	34.8	47.9	65.0	75.1
E	M63	21/2" or 2"	15	42.5	56.3/54.3 <sup>1</sup>	39.0	46.5	46.2	80.0	92.4
F	M75	3" or 2½"	15	54.5	68.2/65.3 <sup>1</sup>	48.5	58.3	48.0	95.0	109.6
G	M80	31/2"	20	67.0	73.0	-	-	41.0	106.4	123.0
Н	M90	M90 31/2"		67.0	77.6	-	-	41.0	115.0	132.8
J	M100	4"	20	75.0	91.6	-	-	41.0	127.0	146.7
	All dimens	ions in millimetres	(except * whe	re dimens	ions are in inches).	2K - F size metr	ic entry threads ar	e I.5mm pitc	h as standard.	

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

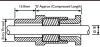
<sup>1</sup>Smaller value is applicable when selecting reduced NPT entry option.

<sup>2</sup>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.

<sup>3</sup> Accessories including locknuts, sealing washers, serrated washers, earth tags, shrouds, adaptors and reducers are also available.

## Features

- When used in increased safety applications, this cable gland may be used with braided cable where the braid and the outer sheath pass into the enclosure. The braid must then be suitably terminated inside the enclosure.
- Manufactured in brass (standard), nickel plated brass, 316 stainless steel or aluminium.
- Brass NPT entries are nickel plated as standard.



Size 2K Cable Gland Design

## **Technical Data**

- Flameproof EExd and Increased Safety EExe. (x) II 2 GD
- BASEEFA Certificate No. BAS 01 ATEX 2070X for Os F. BASEEFA Certificate No. BAS 01 ATEX 2294X for G J.
- Suitable for use in Zone 1, Zone 2, Zone 21 and Zone 22. Suitable for use in Gas Groups IIA, IIB and IIC.
- Construction and test standards EN 50014, EN 50018, EN 50019 and EN 50281-1-1. IEC 60079-0, IEC 60079-1 and IEC 60079-7.
- IP66, IP67 and IP68 (30 metres for 7 days) ingress protection to IEC 60529, EN 60529 and NEMA 4X.
- DTS01 deluge protection, certified by ITS.
- Operating temperature range -60°C to +100°C as standard.
- Assembly instruction data sheet No. A.I. 307.
- Alternative Certification Options Available.
  - Exd IIC/Exe II. 💽 C/CEPEL BR-Exd IIC/Exe II. 🔤 🕼 GOST R-Exd IICU/Exe IIU. Neproved for use in Kazakhstan.

AUS-Exd IIC/Exe II.



HWK35 Feb '05

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## 501/453/Universal

## Flameproof and Increased Safety

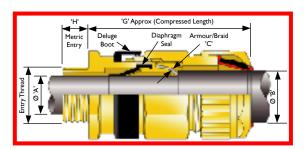


## Application

The 501/453/Universal cable gland provides a flameproof seal on the inner cable sheath and an IP seal on the outer sheath. It utilises reversible armour clamp (RAC) technology and can therefore accommodate all types of armoured or braided cables (W, X and Z).

The cable gland is particularly suitable for use on 'soft' inner cable sheaths that exhibit "Cold Flow" characteristics as the inner diaphragm seal will not damage the cable bedding.

The cable gland is dual certified EExd and EExe and is suitable for installation in Zone I (21) and Zone 2 (22) hazardous areas.



EPIN AUTOMATION

CABLE GLAND SELECTION TABLE														
Entry	Throad					Cal	ble Accept	ance Det	tails			Hav	2000	
,		Thread	Inne				Armour/Braid				'C'		nsions	
M	NPT*	Length 'H'		'A'			'C'			. ,	G	Across	Across	
Metric	Standard or Option		Min.	Max.	Min. Max. Orien		Orientation I	Orientation 2	Orientation I	Orientation 2		Flats	Corners	
M20 <sup>2</sup>	<sup>1</sup> /2"	15	3.0	8.1	5.5	12.0	0.9/1.25	0/0.7	0.8 - 1.0	0.4 - 0.8	64.4	24.0	27.7	
M20 <sup>2</sup>	1/2 <b>"</b>	15	7.5	11.9	9.5	16.0	0.9/1.25	0/0.7	0.8 - 1.0	0.4 - 0.8	64.4	24.0	27.7	
M20	3/4" or 1/2"	15	9.4	14.3	12.5	20.5	0.9/1.25	0/0.7	0.8 - 1.0	0.4 - 0.8	65.4	30.0	34.6	
M25	l" or ¾"	15	12.1	20.2	16.9	26.0	1.25/1.6 0/0.7		0.9 - 1.25	0.5 - 0.9	71.0	36.0	41.6	
M32	1¼" or 1"	15	17.6	26.5	22.0	33.0	1.6/2.0 0/0.7		1.2 - 1.6	0.6 - 1.2	76.0	46.0	53.I	
M40	1½" or 1¼"	15	23.I	32.5	28.0	41.0	1.6/2.0	0/0.7	1.2 - 1.6	0.6 - 1.2	78.I	55.0	63.5	
M50	2" or 11/2"	15	28.9	44.4/42.31	36.0	52.6	1.8/2.5	0/1.0	1.45 - 1.8	1.0 - 1.45	93.I	65.0	75.1	
M63	21⁄2" or 2"	15	39.9	56.3/54.3 <sup>1</sup>	46.0	65.3	1.8/2.5	0/1.0	1.45 - 1.8	1.0 - 1.45	99.0	80.0	92.4	
M75	3" or 21/2"	15	50.5	68.2/65.3 <sup>1</sup>	57.0	78.0	1.8/2.5	0/1.0	1.45 - 1.8	1.0 - 1.45	101.9	95.0	109.6	
M80	31⁄2"	20	67.0	73.0	75.0	89.5	#	#	-	-	90.6	106.4	123.0	
M90	<b>3</b> ½"	20	67.0	77.6	75.0	89.5	#	#	-	-	90.6	115.0	132.8	
M100	4"	20	75.0 91.6 88.0 104.5		#	#	-	-	90.6	127.0	146.7			
	Metric M20 <sup>2</sup> M20 <sup>2</sup> M20 M25 M32 M40 M50 M63 M75 M80 M90	Metric         Standard or Option           M20 <sup>2</sup> ½"           M20         ¼" or ½"           M40         ½" or 1½"           M50         2" or 1½"           M63         2½" or 2"           M80         3½"           M90         3½"	Size         Thread Length 'H'           Metric         NPT* Standard or Option         Length 'H'           M202         ½"         IS           M202         ½"         IS           M202         ½"         IS           M202         ½"         IS           M202         ½" or ½"         IS           M203         1½" or ½"         IS           M204         1½" or ½"         IS           M32         1¼" or 11"         IS           M40         ½" or 1½"         IS           M50         3½" or 2½"         IS           M80         3½2"         20           M90         3½"         20	Size         Thread Length Standard or Option         Thread Length H"           M20 <sup>2</sup> ½"         15         3.0           M20 <sup>2</sup> ½"         15         3.0           M20 <sup>2</sup> ½"         15         3.0           M20 <sup>2</sup> ½"         15         7.5           M20         ¾" or ½"         15         2.1           M32         1¼" or 1"         15         12.1           M32         1¼" or 1"         15         17.6           M40         1½" or 1½"         15         23.1           M50         2" or 1½"         15         23.1           M50         2" or 1½"         15         39.9           M63         2½" or 2"         15         39.9           M75         3" or 2½"         15         50.5           M80         3½"         20         67.0           M90         3½"         20         67.0	Entry Thread Size         Thread Length Standard or Option         Thread Length 'A'           Metric         NPT* Standard or Option         Min.         Max.           M202 $1/2$ "         15         3.0         8.1           M203 $1/2$ "         15         3.0         8.1           M204 $1/2$ "         15         7.5         11.9           M205 $1^{"1}$ or $1/2$ "         15         2.1         20.2           M32 $1/4$ " or $1^{"1}$ 15         17.6         26.5           M40 $1/2$ " or $1/2$ "         15         28.9         44.4/42.3 <sup>1</sup> M50 $21/2$ " or $21/2$ "         15         39.9         56.3/54.3 <sup>1</sup> M50 $31/2$ "         20         67.0         73.0           M80 $31/2$ "	Image: Size         Image: Size           Image: Size         Image: Size         Image: Size         Image: Size         Size         Image: Size         Image: Size         Size         Image: Size         Image: Size         Image: Size         Size         Image: Size <th< td=""><td>Entry Thread Size         Thread Length 'H'         Imressite Miner Sheath 'A'         Cutter Sheath 'B'           Metric         NPT* Standard or Option         Thread Length 'H'         Imressite Min         Max.         Min.         Max.           M20<sup>2</sup> <math>1/2</math>"         15         3.0         8.1         5.5         12.0           M20<sup>2</sup> <math>1/2</math>"         15         3.0         8.1         5.5         12.0           M20<sup>2</sup> <math>1/2</math>"         15         7.5         11.9         9.5         16.0           M20         <math>3/4</math>" or <math>1/2</math>"         15         9.4         14.3         12.5         20.5           M25         1" or <math>3/4</math>"         15         12.1         20.2         16.0         26.0           M32         <math>11/4</math>" or 1"         15         17.6         26.5         22.0         33.0           M40         <math>1\frac{1}{2}</math>" or <math>1\frac{1}{2}</math>"         15         23.1         32.5         28.0         41.0           M50         <math>2^{1}</math>or <math>1\frac{1}{2}</math>"         15         39.9         56.3/54.3<sup>1</sup>         46.0         65.3           M75         <math>3</math>" or <math>2\frac{1}{2}</math>"         15         50.5         68.2/65.3<sup>1</sup>         57.0</td><td><math display="block"> \begin{array}{c c c c c c c c c c c c c c c c c c c </math></td><td><math display="block"> \begin{array}{ c c c c c c c c c c c c c c c c c c c</math></td><td><math display="block"> \begin{array}{c c c c c c c c c c c c c c c c c c c </math></td><td><math display="block"> \begin{array}{c c c c c c c c c c c c c c c c c c c </math></td><td>Intread Size         Intread Length 'H'         Intread Length 'A'         Cuter Sheath 'B'         Armour/Braid 'C'         Alternative Reversible Armour Clamping Rings (RAC)         rd           Metric         NPT* Standard or Option         In         Max.         Min.         Max.         Outer Sheath 'B'         Armour/Braid C'         Alternative Reversible Armour Clamping Rings (RAC)         <math>\gamma_{\rm C}</math>'           M202         1/2"         15         3.0         8.1         5.5         12.0         0.9/1.25         0/0.7         0.8 - 1.0         0.4 - 0.8         64.4           M202         1/2"         15         3.0         8.1         2.5         2.0         0/9/1.25         0/0.7         0.8 - 1.0         0.4 - 0.8         64.4           M202         1/2"         15         7.4         14.3         12.5         20.5         0/9/1.25         0/0.7         0.8 - 1.0         0.4 - 0.8         64.4           M203         1'4" or 1"         15         12.1         20.2         16.9         2/0.5         0/0.7         0.8 - 1.0         0.4 - 0.8         65.4           M203         1'4" or 1"         15         2.1         20.2         <t< td=""><td><math display="block"> \begin{array}{ c c c c c c c c c c c c c c c c c c c</math></td></t<></td></th<>	Entry Thread Size         Thread Length 'H'         Imressite Miner Sheath 'A'         Cutter Sheath 'B'           Metric         NPT* Standard or Option         Thread Length 'H'         Imressite Min         Max.         Min.         Max.           M20 <sup>2</sup> $1/2$ "         15         3.0         8.1         5.5         12.0           M20 <sup>2</sup> $1/2$ "         15         3.0         8.1         5.5         12.0           M20 <sup>2</sup> $1/2$ "         15         7.5         11.9         9.5         16.0           M20 $3/4$ " or $1/2$ "         15         9.4         14.3         12.5         20.5           M25         1" or $3/4$ "         15         12.1         20.2         16.0         26.0           M32 $11/4$ " or 1"         15         17.6         26.5         22.0         33.0           M40 $1\frac{1}{2}$ " or $1\frac{1}{2}$ "         15         23.1         32.5         28.0         41.0           M50 $2^{1}$ or $1\frac{1}{2}$ "         15         39.9         56.3/54.3 <sup>1</sup> 46.0         65.3           M75 $3$ " or $2\frac{1}{2}$ "         15         50.5         68.2/65.3 <sup>1</sup> 57.0	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	$ \begin{array}{c c c c c c c c c c c c c c c c c c c $	Intread Size         Intread Length 'H'         Intread Length 'A'         Cuter Sheath 'B'         Armour/Braid 'C'         Alternative Reversible Armour Clamping Rings (RAC)         rd           Metric         NPT* Standard or Option         In         Max.         Min.         Max.         Outer Sheath 'B'         Armour/Braid C'         Alternative Reversible Armour Clamping Rings (RAC) $\gamma_{\rm C}$ '           M202         1/2"         15         3.0         8.1         5.5         12.0         0.9/1.25         0/0.7         0.8 - 1.0         0.4 - 0.8         64.4           M202         1/2"         15         3.0         8.1         2.5         2.0         0/9/1.25         0/0.7         0.8 - 1.0         0.4 - 0.8         64.4           M202         1/2"         15         7.4         14.3         12.5         20.5         0/9/1.25         0/0.7         0.8 - 1.0         0.4 - 0.8         64.4           M203         1'4" or 1"         15         12.1         20.2         16.9         2/0.5         0/0.7         0.8 - 1.0         0.4 - 0.8         65.4           M203         1'4" or 1"         15         2.1         20.2 <t< td=""><td><math display="block"> \begin{array}{ c c c c c c c c c c c c c c c c c c c</math></td></t<>	$ \begin{array}{ c c c c c c c c c c c c c c c c c c c$	

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

<sup>1</sup>Smaller value is applicable when selecting reduced NPT entry option.

<sup>2</sup>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.

<sup>3</sup> Accessories including locknuts, sealing washers, serrated washers, earth tags, shrouds, adaptors and reducers are also available.

<sup>4</sup>Larger cable glands available in 501/453 design with a compression type inner seal.

# Dedicated armour clamping rings are fitted. Please specify armour type and size when ordering.

#### Features

- Reversible Armour Clamp One clamping device accommodates all types of armour or braid.
- External Deluge Seal Visibly inspectable device that prevents moisture ingress into the cable armour or braid and associated equipment.
- Versatile LSFZH Rear Seal Accommodates a wide range of cable sizes and provides highly effective cable grip/ingress protection.
- Inner Diaphragm Seal 50% faster to install than conventional seals and will not damage cable bedding.
- Manufactured in brass (standard), nickel plated brass, 316 stainless steel or aluminium.
- Brass NPT entries are nickel plated as standard.

#### **Technical Data**

- Flameproof EExd and Increased Safety EExe. 🐼 II 2 GD
- BASEEFA Certificate No. BAS 01 ATEX 2078X for Os F. BASEEFA Certificate No. BAS 01 ATEX 2296X for G J.
- Suitable for use in Zone 1, Zone 2, Zone 21 and Zone 22. Suitable for use in Gas Groups IIA, IIB and IIC.
- Construction and test standards EN 50014, EN 50018, EN 50019 and EN 50281-1-1. IEC 60079-0, IEC 60079-1 and IEC 60079-7.
- IP66, IP67 and IP68 (30 metres for 7 days) ingress protection to IEC 60529, EN 60529 and NEMA 4X.
- DTS01 deluge protection certified by ITS.
- Operating temperature range -60°C to +80°C as standard.
- Assembly instruction data sheet No. A.I. 300 for sizes Os to F. Assembly instruction data sheet No. A.I. 329 for sizes G to J.
- Alternative Certification Options Available.

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GOST R-Exd IICU/Exe IIU.

AUS-Exd IIC/Exe II.

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Approved for use in Kazakhstan.

ATEX (Ex) CE

## 501/453/RAC



Petric Entry Big O The 501/453/RAC cable gland provides a flameproof seal on the inner cable sheath and an IP seal on the outer sheath. It utilises reversible armour clamp (RAC) technology and can therefore accommodate all types of armoured or braided cables (W, X and Z).

The cable gland is dual certified EExd and EExe and is suitable for installation in Zone 1 (21) and Zone 2 (22) hazardous areas.

	CABLE GLAND SELECTION TABLE															
	Entry	Thread						Cab	le Acc	eptance	Details				Hes	kagon
Size	,	lize	Thread		Inner Shea				iter	Armou	r/Braid		versible Armour			ensions
Ref.		NPT*	Length	St	andard Seal		native		eath B'	'C	?		Rings (RAC) Braid 'C'	'G'		
	Metric	Standard or	'H'	Min.			l (S) Max.	Min.	ь Max.	Orientation	Orientation		Orientation		Across Flats	Across Corners
		Option					Fidx.	1	1 Ia.	I	2	1	2			
Os	M20 <sup>2</sup>	<sup>1</sup> /2"	15	3.0	8.0	-	-	5.5	12.0	0.9/1.25	0/0.7	0.8 - 1.0	0.4 - 0.8	65.I	24.0	27.7
0	M20 <sup>2</sup>	1⁄2"	15	7.5	11.9	-	-	9.5	16.0	0.9/1.25	0/0.7	0.8 - 1.0	0.4 - 0.8	65.I	24.0	27.7
Α	M20	<sup>3</sup> /4"or <sup>1</sup> /2"	15	11.0	14.3	8.5	13.4	12.5	20.5	0.9/1.25	0/0.7	0.8 - 1.0	0.4 - 0.8	66.I	30.0	34.6
В	M25	l"or³⁄4"	15	13.0	20.2	9.5	15.4	16.9	26.0	1.25/1.6	0/0.7	0.9 - 1.25	0.5 - 0.9	71.4	36.0	41.6
С	M32	I¼"orl"	15	19.0	26.5	15.5	21.2	22.0	33.0	1.6/2.0	0/0.7	1.2 - 1.6	0.6 - 1.2	75.2	46.0	53.1
C2	M40	1½"or1¼"	15	25.0	32.5	22.0	28.0	28.0	41.0	1.6/2.0	0/0.7	1.2 - 1.6	0.6 - 1.2	77.1	55.0	63.5
D	M50	2"or1½"	15	31.5	44.4/42.3 <sup>1</sup>	27.5	34.8	36.0	52.6	1.8/2.5	0/1.0	1.45 - 1.8	1.0 - 1.45	90.3	65.0	75.1
Е	M63	21⁄2"or2"	15	42.5	56.3/54.3 <sup>1</sup>	39.0	46.5	46.0	65.3	1.8/2.5	0/1.0	1.45 - 1.8	1.0 - 1.45	96.7	80.0	92.4
F	M75	3"or2½"	15	54.5	68.2/65.3 <sup>1</sup>	48.5	58.3	57.0	78.0	1.8/2.5	0/1.0	1.45 - 1.8	1.0 - 1.45	96.0	95.0	109.6
G <sup>4</sup>	M80	31⁄2"	20	67.0	73.0	-	-	75.0	89.5	#	#	-	-	95.6	106.4	123.0
H <sup>4</sup>	M90	<b>3</b> ½"	20	67.0	77.6	-	-	75.0	89.5	#	#	-	-	95.6	115.0	132.8
J <sup>4</sup> M100 4" 20 75.0 91.6 88.0 104.5 # #										95.6	127.0	146.7				
Fo													ds are 1.5mm pitc e supplied) please			rdering.

Flameproof and Increased Safety

<sup>1</sup>Smaller value is applicable when selecting reduced NPT entry option.

<sup>2</sup>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.

<sup>3</sup>Accessories including locknuts, sealing washers, serrated washers, earth tags, shrouds, adaptors and reducers are also available.

<sup>3</sup>Accessories including locknuts, sealing washers, serrated washers
<sup>4</sup>Larger cable glands available in 501/453 design.

<sup>5</sup>This cable gland type is also available for use with lead sheath cables - 501/453/RAC/L. Contact Hawke sales for more information.

<sup>6</sup>Deluge protection option available.

# Dedicated armour clamping rings are fitted. Please specify armour type and size when ordering.

#### **Features**

- Reversible Armour Clamp One clamping device accommodates all types of armour or braid.
- Versatile LSFZH Rear Seal Accommodates a wide range of cable sizes and provides highly effective cable grip/ingress protection.
- Manufactured in brass (standard), nickel plated brass, 316 stainless steel or aluminium.
- Brass NPT entries are nickel plated as standard.

#### **Technical Data**

- Flameproof EExd and Increased Safety EExe. S II 2 GD
- BASEEFA Certificate No. BAS 01 ATEX 2072X for Os F. BASEEFA Certificate No. BAS 01 ATEX 2296X for G J.
- Suitable for use in Zone I, Zone 2, Zone 21 and Zone 22. Suitable for use in Gas Groups IIA, IIB and IIC.
- Construction and test standards EN 50014, EN 50018, EN 50019 and EN 50281-1-1. IEC 60079-0, IEC 60079-1 and IEC 60079-7.
- IP66, IP67 and IP68 (30 metres for 7 days) ingress protection to IEC 60529, EN 60529 and NEMA 4X.
- DTS01 deluge protection, certified by ITS.
- Operating temperature range -60°C to +80°C as standard.
- Assembly instruction data sheet No. A.I. 302 for sizes Os to F. Assembly instruction data sheet No. A.I. 329 for sizes G to J.
- Alternative Certification Options Available.
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AUS-Exd IIC/Exe II.

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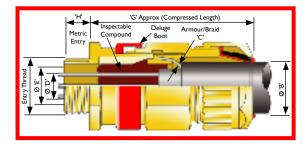
## ICG 653/Universal

## Flameproof and Increased Safety



## Application

The ICG 653/Universal cable gland provides a flameproof barrier seal on the individual insulated cable cores and prevents entry of the products of an explosion into the cable's surrounding environment. It also provides an IP seal on the cable outer sheath. The cable gland is suitable for cables that are not effectively filled and for cables with a 'soft' inner sheath that exhibit "Cold Flow" characteristics. The cable gland is dual certified EExd and EExe and is suitable for installations in Zone I (21) and Zone 2 (22) hazardous areas, where the enclosure is greater than 2 litres in volume and contains an ignition source and requires IIC apparatus.



	CABLE GLAND SELECTION TABLE														
	Entr	y Thread					Ca	ble Ac	ceptance	Details					(2 <b>7</b> 22)
Size	Size Thre		Thread		r Sheath/Co		Ou She	ter ath	Armou		Alternative Rev Clamping R	versible Armour Lings (RAC)	'G'		kagon ensions
Ref.			'H'	'D' Max	'E' Max	Max. No.		B'	C		Armour	/Braid 'C'	Ŭ	Across	Across
	Metric	Standard or Option		Over Cores	Over Inner Of Cores Sheath Cores		Min.	Max.	Orientation I	Orientation 2	Orientation I	Orientation 2		Flats	Corners
Os	M20	1/2"	15	8.9	10.0	6	5.5	12.0	0.9/1.25	0/0.7	0.8 - 1.0	0.4 - 0.8	72.8	24.0	27.7
0	M20	1/2"	15	8.9	10.0	6	9.5	16.0	0.9/1.25	0/0.7	0.8 - 1.0	0.4 - 0.8	72.8	24.0	27.7
Α	M20	<sup>3</sup> /4"or <sup>1</sup> /2"	15	11.0	12.5	10	12.5	20.5	0.9/1.25	0/0.7	0.8 - 1.0	0.4 - 0.8	73.8	30.0	34.6
В	M25	l"or¾"	15	16.2	18.4	21	16.9	26.0	1.25/1.6	0/0.7	0.9 - 1.25	0.5 - 0.9	78.I	36.0	41.6
С	M32	l¼"orl"	15	21.9	24.7	42	22.0	33.0	1.6/2.0	0/0.7	1.2 - 1.6	0.6 - 1.2	83.0	46.0	53.I
C2	M40	½"or   ¼"	15	26.3	29.7	60	28.0	41.0	1.6/2.0	0/0.7	1.2 - 1.6	0.6 - 1.2	84.I	55.0	63.5
D	M50	2"or1½"	15	37.1	41.7	80	36.0	52.6	1.8/2.5	0/1.0	1.45 - 1.8	1.0 - 1.45	91.3	65.0	75.1
E	M63	2½"or2"	15	47.8	53.3	100	46.0	65.3	1.8/2.5	0/1.0	1.45 - 1.8	1.0 - 1.45	101.8	80.0	92.4
F M75 3"or2½" 15 59.0 66.2/65.3 <sup>1</sup> 120 57.0 78.0 1.8/2.5 0/1.0 1.45 - 1.8 1.0 - 1.45 1											101.2	95.0	109.6		
				A			1 C C C C C C C C C C C C C C C C C C C		I.5mm pi		idard. Ins are in inches).				

<sup>1</sup>Smaller value is applicable when selecting reduced NPT entry option.

<sup>3</sup> Accessories including locknuts, sealing washers, serrated washers, earth tags, shrouds, adaptors and reducers are also available.

<sup>5</sup>This cable gland type is also available for use with lead sheath cables - ICG 653/Universal/L. Contact Hawke sales for more information.

#### Features

- Inspectable Compound Chamber Can be separated from the cured compound to allow barrier seal inspection and possible repair.
- Reversible Armour Clamp One clamping device accommodates all types of armour or braid.
- External Deluge Seal Visibly inspectable device that prevents moisture ingress into the cable armour or braid and associated equipment. The red coloured deluge seal indicates a barrier (explosion proof connector) type cable gland.
- Versatile LSFZH Rear Seal Accommodates a wide range of cable sizes and provides highly effective cable grip/ingress protection.
- Manufactured in brass (standard), nickel plated brass, 316 stainless steel or aluminium.
- Brass NPT entries are nickel plated as standard.

## **Technical Data**

- Flameproof EExd and Increased Safety EExe. (I) 2 GD
- BASEEFA Certificate No. BAS 01 ATEX 2080X.
- Suitable for use in Zone 1, Zone 2, Zone 21 and Zone 22. Suitable for use in Gas Groups IIA, IIB and IIC.
- Construction and test standards EN 50014, EN 50018, EN 50019 and EN 50281-1-1. IEC 60079-0, IEC 60079-1 and IEC 60079-7.
- IP66, IP67 and IP68 (30 metres for 7 days) ingress protection to IEC 60529, EN 60529 and NEMA 4X.
- DTS01 deluge protection, certified by ITS.
- Operating temperature range -60°C to +80°C as standard.
- Assembly instruction data sheet No. A.I. 301.
- Two part sealing compound and assembly instructions are supplied with the cable gland.
- Alternative Certification Options Available.
  - Exd IIC/Exe II. CCCEPEL BR-Exd IIC/Exe II. CCGOST R-Exd IICU/Exe IIU. Approved for use in Kazakhstan.

AUS-Exd IIC/Exe II.

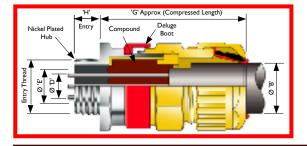
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# **Explosion Proof**



Application The 710 Cable Connector is intended for use with non-armoured cable, as permitted by the NEC.

It provides an explosion proof seal around the cable conductors and an IP seal on the cables outer jacket.

The connector is UL Listed for use in Class 1 Division 2 and Class 1 Zone 2 applications.

	Entry T	hread			Cabl	e Acceptance	Details			Hev	agon
Size	Siz		Thread Length		ner Sheath/Co	res	Outer	Jacket 'B'	'G'		nsions
Ref.	NPT Std./	Metric	'H' *	'D' Max.	'E' Max.	Max. No. Of				Across	Across
	Option *		-1-	Over Cores	Inner Sheath	Cores	Min.	Max.		Flats	Corners
Os	1/2"	M20 <sup>2</sup>	15	0.35"	0.39"	6	0.22"	0.47"	2.81"	0.94"	1.09"
0	1⁄2"	M20 <sup>2</sup>	15	0.35"	0.39"	6	0.37"	0.63"	2.81"	0.94"	1.09"
А	1/2" or 3/4"	M20	15	0.43"	0.64"	10	0.49"	0.81"	2.84"	1.18"	1.36"
В	3⁄4" or 1"	M25	15	0.64"	0.93"	21	0.66"	1.02"	2.95"	I.42"	1.64"
С	or   1/4"	M32	15	0.86"	1.23"	42	0.87"	1.30"	3.11"	1.81"	2.09"
C2	11⁄4" or 11⁄2"	M40	15	1.04"	1.59"	60	1.10"	1.61"	3.26"	2.17"	2.50"
D	2" or 11/2"	M50	15	I.46"	1.96"	80	I.42"	2.07"	3.36"	2.56"	2.96"
Е	21⁄2" or 2"	M63	15	1.88"	2.55"	100	1.81"	2.57"	3.56"	3.15"	3.64"
F	3" or 21/2"	M75	15	2.32"	2.98"	120	2.24"	3.07"	3.76"	3.74"	4.31"
Н	31/2"	M90	20	2.79"	3.12"	-	3.07"	3.52"	3.54"	4.18"	4.84"

<sup>2</sup> 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".
<sup>3</sup> Accessories including locknuts, sealing washers, serrated washers, earth tags, shrouds, adaptors and reducers are also available.

## Features

• External Deluge Seal - Visibly inspectable device that prevents moisture ingress into the cable and associated equipment. The red coloured deluge seal indicates a barrier (explosion proof connector) type cable gland.

- Versatile LSFZH Rear Seal Accommodates a wide range of cable sizes and provides highly effective cable grip/ingress protection.
- Manufactured in brass (standard), nickel plated brass, 316 stainless steel or copper free aluminium.
- Brass NPT entries are nickel plated as standard.

## **Technical Data**

- UL Listed for use in Class I, Division 2, Gas Groups A, B, C and D.
- UL Listed for use in Class I, Zone 2, Gas Groups IIA, IIB and IIC.
- UL Listed AExd IIC and AExe II Class 1, Zone 2.
- Construction and test standards III UL Listed hazardous locations in USA and Canada. E84940.
- IP66, IP67 and IP68 (30 metres for 7 days) ingress protection to IEC 60529, EN60529 and NEMA 4X.
- DTS01 deluge protection, certified by ITS.
- Operating temperature range -50°C to +60°C as standard.
- Assembly instruction data sheet No. A.I. 316 for sizes Os to F. Assembly instruction data sheet No.A.I. 337 for size H.
- Two part sealing compound and assembly instructions are supplied with the cable connector.



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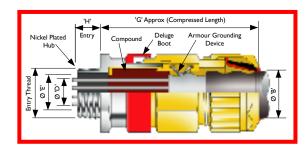
## **Explosion Proof**



## Application

The 711 Cable Connector is intended for use with continuous corrugated aluminium, Metal Clad (MCHL) type cable. The connector provides an explosion proof seal around the cable conductors, a 360° grounding and an IP seal on the cables outer jacket.

The connector is UL Listed for use in Class I Division I and Class I Zone I applications.



	Entry Thi	read				Cable Accep	otance De	tails			Hey	agon
Size	re Size Thre Leng f. NPT Metric 'H'		Thread Length		Inner Sheat	h/Cores		Outer	Jacket 'B'	'G'	Dimensions	
Ref.			'H <sup>ĭ</sup>	'D' Max.	Armour	Sheath 'E'	Max. No.	Max. No.			Across	Across
	Option	*	*	Over Cores	Min.	Coles		Min.	Max.		Flats	Corners
А	1/2 or /3/4"	M20	15	0.43"	0.41"	0.64"	10	0.49"	0.81"	2.74"	1.18"	1.36"
В	3⁄4" or 1"	M25	15	0.64"	0.49"	0.93"	21	0.66"	1.02"	2.95"	I.42"	1.64"
С	" or   1/4"	M32	15	0.86"	0.85"	1.23"	42	0.87"	1.30"	3.04"	1.81"	2.09"
C2	11⁄4" or 11⁄2"	M40	15	1.04"	1.17"	1.59"	60	1.10"	1.61"	3.09"	2.17"	2.50"
D	2" or 11/2"	M50	15	I.46"	1.37"	1.96"	80	I.42"	2.07"	3.37"	2.56"	2.96"
Е	21⁄2" or 2"	M63	15	1.88"	1.76"	2.55"	100	1.81"	2.57"	3.65"	3.15"	3.64"
F	3" or 21/2"	M75	15	2.32"	2.29"	2.98"	120	2.24"	3.07"	3.73"	3.74"	4.31"
Н	31/2"	M90	20	2.79" 2.93"		3.47"	120	3.07"	3.52"	4.33"	4.18"	4.84"

<sup>3</sup> Accessories including locknuts, sealing washers, serrated washers, earth tags, shrouds, adaptors and reducers are also available.

#### Features

- Armour Grounding Device Fully inspectable 360° cable armour grounding, which remains in contact with the metal jacket when the connector is disassembled.
- External Deluge Seal Visibly inspectable device that prevents moisture ingress into the cable armour and associated equipment. The red coloured deluge seal indicates a barrier (explosion proof connector) type cable gland.
- Versatile LSFZH Rear Seal Accommodates a wide range of cable sizes and provides highly effective cable grip/ingress protection.
- Manufactured in brass (standard), nickel plated brass, 316 stainless steel or copper free aluminium.
- Brass NPT entries are nickel plated as standard.

#### **Technical Data**

- UL Listed for use in Class I, Division I, Gas Groups A, B, C and D.
- UL Listed for use in Class I, Zone I, Gas Groups IIA, IIB and IIC.
- UL Listed AExd IIC and AExe II Class 1, Zone 1.
- Construction and test standards Total Canada. E84940.

• IP66, IP67 and IP68 (30 metres for 7 days) ingress protection to IEC 60529, EN60529 and NEMA 4X.

- DTS01 deluge protection, certified by ITS.
- Operating temperature range -50°C to +60°C as standard.
- Assembly instruction data sheet No. A.I. 317 for sizes A to F. Assembly instruction data sheet No.A.I. 338 for size H.
- Two part sealing compound and assembly instructions are supplied with the cable connector.

For Class I, Division 2 MC cable applications, the 713 cable connector is available. Cable connector features and sizes are the same as the 711.

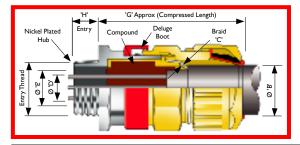
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# **Explosion Proof**



Application The 753 Cable Connector is intended for use with braid armoured marine shipboard, jacketed or non-jacketed cable.

It provides an explosion proof seal around the cable conductors and IP seal on the cables outer jacket. Mechanical cable retention and grounding are provided by the braid clamping device.

The connector is UL Listed for use in Class I Division I and Class I Zone I applications.

## **CONNECTOR SELECTION TABLE**

	Entry Thr	ead					Cable Accep	tance Details			Hav	agon
Size	Size	eau	Thread Length	Inne	er Sheath/Co	res	Outer l	ocket 'B'	'C'	'G'		nsions
Ref.	NPT Std./ Option	Metric *		<b>'D'</b> Max. Over Cores	<b>'E'</b> Max. Inner Sheath	Max. No. Of Cores Min. Max.			Braid	9	Across Flats	Across Corners
Os	1/2"	M20 <sup>2</sup>	15	0.35"	0.46"	6	0.22"	0.47"	0.008"/0.013"	2.80"	0.94"	1.09"
0	<sup>1</sup> /2"	M20 <sup>2</sup>	15	0.35"	0.46"	6	0.37"	0.63"	0.008"/0.013"	2.80"	0.94"	1.09"
Α	1/2" or 3/4"	M20	15	0.43"	0.49"	10	0.49" 0.81"		0.008"/0.013"	2.83"	1.18"	1.36"
В	3⁄4" or 1"	M25	15	0.64"	0.72"	21	0.66"	1.02"	0.008"/0.013"	2.94"	1.42"	1.64"
С	" or   1/4"	M32	15	0.86"	0.97"	42	0.87"	1.30"	0.008"/0.013"	3.10"	1.81"	2.09"
C2	11/4" or 11/2"	M40	15	1.04"	1.16"	60	1.10"	1.61"	0.008"/0.013"	3.26"	2.17"	2.50"
D	2" or 11/2"	M50	15	1.46"	I.64"	80	1.42"	2.07"	0.008"/0.013"	3.35"	2.56"	2.96"
E	21/2" or 2"	M63	15	1.88"	2.11"	100	1.81"	2.57"	0.008"/0.013"	3.56"	3.15"	3.64"
F	3" or 21/2"	M75	15	2.32"	2.61"/2.57"	120			0.008"/0.013"	3.76"	3.74"	4.31"
Н	31/2"	M90	20	2.79"	3.05"	-	3.07"	3.52"	0.008"/0.013"	3.54"	4.18"	4.84"
	All dim	ensions i	n inches	(excep	t * where dime	nsions	are in millime	etres). Os - F s	ize metric entry threads are 1.5mr	n pitch as	standard.	

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

<sup>1</sup>Smaller value is applicable when selecting reduced NPT entry option.

<sup>2</sup>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".

<sup>3</sup> Accessories including locknuts, sealing washers, serrated washers, earth tags, shrouds, adaptors and reducers are also available.

#### Features

- External Deluge Seal Visibly inspectable device that prevents moisture ingress into the cable armour or braid and associated equipment. The red coloured deluge seal indicates a barrier (explosion proof connector) type cable gland.
- Versatile LSFZH Rear Seal Accommodates a wide range of cable sizes and provides highly effective cable grip/ingress protection.
- Manufactured in brass (standard), nickel plated brass, 316 stainless steel or copper free aluminium.
- Brass NPT entries are nickel plated as standard.

## **Technical Data**

- UL Listed for use in Class I, Division I, Gas Groups A, B, C and D.
- UL Listed for use in Class I, Zones I & 2, Gas Groups IIA, IIB and IIC.
- UL Listed AExd IIC and AExe II Class 1, Zone 1.
- Construction and test standards 🚈 🚺 UL Listed hazardous locations in USA and Canada. E84941.
- IP66, IP67 and IP68 (30 metres for 7 days) ingress protection to IEC 60529, EN60529 and NEMA 4X.
- DTS01 deluge protection, certified by ITS.
- Operating temperature range -50°C to +60°C as standard.
- Assembly instruction data sheet No. A.I. 318 for sizes Os to F. Assembly instruction data sheet No.A.I. 339 for size H.
- Two part sealing compound and assembly instructions are supplied with the cable connector.

For Class 1, Division 2 armoured jacketed cable applications, the 755 cable gland/connector is available. Details and sizes are the same as the 753.



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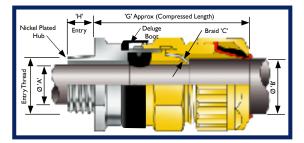
# 153/X

## **General Purpose**



## **Application**

The I53/X Cable Connector provides a seal on the inner cable jacket and a seal on the outer jacket. Mechanical cable retention and grounding is provided by the braid clamping device. It also offers an IP seal on the cables outer jacket. The connector is UL Listed for use in wet locations.



	CONNECTOR SELECTION TABLE														
	Entry Thr	ead				C	able Accep	tance De	etails				agon		
Size	Size	cud	Thread		Inner Sh	eath 'A'				'C'			insions		
Ref.	NPT Std./	Metric		Sta	ndard Seal	Alternativ	ve Seal (S)	Outer	acket 'B'	Braid	'G'	Across	Across		
	Option	*	*	Min.	Max.	Min.	Max.	Min.	Max.			Flats	Corners		
Os	1/2"	M20 <sup>2</sup>	15	0.12"	0.31"	-	-	0.22"	0.47"	0.008"/0.013"	3.19"	0.94"	1.09"		
0	1⁄2"	M20 <sup>2</sup>	15	0.30"	0.46"	-	-	0.37"	0.63"	0.008"/0.013"	3.19"	0.94"	1.09"		
А	1/2" or 3/4"	M20	15	0.44"	0.56"	0.34"	0.52"	0.49"	0.81"	0.008"/0.013"	3.27"	1.18"	1.36"		
В	³⁄₄" or 1"	M25	15	0.52"	0.79"	0.38"	0.60"	0.66"	1.02"	0.008"/0.013"	3.43"	I.42"	1.64"		
С	l" or 1¼"	M32	15	0.75"	1.04"	0.61"	0.83"	0.87"	1.30"	0.008"/0.013" 3.62		1.81"	2.09"		
C2	11/4" or 11/2"	M40	15	0.99"	1.27"	0.87"	1.10"	1.10"	1.61"	0.008"/0.013"	3.90"	2.17"	2.50"		
D	2" or 11/2"	M50	15	1.24"	1.74"/1.67" '	1.09"	1.37"	1.42"	2.07"	0.008"/0.013"	4.45"	2.56"	2.96"		
Е	21⁄2" or 2"	M63	15	1.68"	2.21"/2.14"	1.54"	1.83"	1.81"	2.57"	0.008"/0.013"	4.61"	3.15"	3.64"		
F	3" or 21/2"	M75	15	2.15"	2.68"/2.57"	1.91"	2.29"	2.24"	3.07"	0.008"/0.013"	4.72"	3.74"	4.31"		
G	31⁄2"	M80	20	2.63"	2.87"	-	-	3.05"	3.52"	0.008"/0.013"	4.48"	4.19"	4.84"		
Н	31⁄2"	M90	20	2.63"	3.05"	-	-	3.05"	3.52"	0.008"/0.013"	4.48"	4.52"	5.22"		
J	4"	M100	20	2.95"	3.60"	-	-	3.46"	4.11"	0.008"/0.013"	4.48"	5.00"	5.77"		
	All dime	nsions in	inches (ex	cent * w	here dimension	s are in milli	metres) Os	- E size n	netric entr	v threads are 1 5mm nit	tch as sta	andard			

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

<sup>1</sup>Smaller value is applicable when selecting reduced NPT entry option.

<sup>2</sup>Sizes Os and O are available with an M16 thread size. For O size with M16 thread, the maximum cable inner sheath diameter is 0.43".

<sup>3</sup> Accessories including locknuts, sealing washers, serrated washers, earth tags, shrouds, adaptors and reducers are also available.

#### Features

- External Deluge Seal Visibly inspectable device that prevents moisture ingress into the cable armour or braid and associated equipment.
- Versatile LSFZH Rear Seal Accommodates a wide range of cable sizes and provides highly effective cable grip/ingress protection.
  - Manufactured in brass (standard), nickel plated brass, 316 stainless steel or copper free aluminium.
  - Brass NPT entries are nickel plated as standard.

## **Technical Data**

Construction and test standards

CUL Listed wet locations. E218332.

- IP66, IP67 and IP68 (30 metres for 7 days) ingress protection to IEC 60529, EN60529 and NEMA 4X.
- DTS01 deluge protection, certified by ITS.
- Operating temperature range -50°C to +60°C as standard.
- Assembly instruction data sheet No. A.I. 341.

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## **General Purpose**

701

Application

# Nickel Plated Hub Hub Armour Stop

The 701 Cable Connector is intended for use with continuous corrugated aluminium, interlocked steel Metal Clad (MC) and Teck type cables. The connector provides a  $360^{\circ}$  grounding and an IP seal on the cables outer jacket.

The connector is UL Listed for use in wet locations.

				CONN	ECTOR S	ELECTIONT	ABLE			
	Entry Threa	ad			Cable A	Acceptance Details			Hexagon	
Size	Size		Thread Length	Armour	Sheath 'E'	Outer Ja	acket 'B'	'G'		nsions
Ref.	NPT Std./	Metric							Across	Across
	Option	*	*	Min.	Max.	Min.	Max.		Flats	Corners
Α	1/2" or 3/4"	M20	15	0.41"	0.64"	0.49"	0.81"	2.74"	1.18"	1.36"
В	3⁄4" or 1"	M25	15	0.49"	0.93"	0.66"	1.02"	2.95"	1.42"	l.64"
С	" or   ¼"	M32	15	0.85"	1.23"	0.87"	1.30"	3.04"	1.81"	2.09"
C2	11⁄4" or 11⁄2"	M40	15	1.17"	1.59"	1.10"	1.61"	3.09"	2.17"	2.50"
D	2" or 11/2"	M50	15	1.37"	1.96"	I.42"	2.07"	3.37"	2.56"	2.96"
E	21⁄2" or 2"	M63	15	I.76"	2.55"	1.81"	2.57"	3.65"	3.15"	3.64"
F	3" or 21/2"	M75	15	2.29"	2.98"	2.24"	3.07"	3.73"	3.74"	4.31"
н	31⁄2"	M90	20	2.93"	3.47"	3.07"	3.52"	4.33"	4.18"	4.84"
			· ·			netres). A - F size met				

For in size giands, a zmin picch is supplied as scandard (1.5min picch with 15min length of thread can be supplied) please specify when ordering

<sup>2</sup>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". <sup>3</sup>Accessories including locknuts, sealing washers, serrated washers, earth tags, shrouds, adaptors and reducers are also available.

## **Features**

- Armour Grounding Device Fully inspectable 360° cable armour grounding, which remains in contact with the metal jacket when the connector is disassembled.
- External Deluge Seal Visibly inspectable device that prevents moisture ingress into the cable armour and associated equipment.
- Versatile LSFZH Rear Seal Accommodates a wide range of cable sizes and provides highly effective cable grip/ingress protection.
- Manufactured in brass (standard), nickel plated brass, 316 stainless steel or copper free aluminium.
- Brass NPT entries are nickel plated as standard.

## **Technical Data**

Construction and test standards

UL Listed wet locations. E165706.

- IP66, IP67 and IP68 (30 metres for 7 days) ingress protection to IEC 60529, EN60529 and NEMA 4X.
- DTS01 deluge protection, certified by ITS.
- Operating temperature range -50°C to +60°C as standard.
- Assembly instruction data sheet No. A.I. 315 for sizes A to F. Assembly instruction data sheet No.A.I. 342 for size H.



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