

# PEPPERS CABLE GLANDS

PRODUCTS AND ACCESSORIES 2017 ISSUE 03A



# **MORE THAN THE SUM OF OUR PARTS**

At Peppers, we are known for the manufacture and supply of what are widely regarded as one of the best cable gland products and accessories available. Although this is a key element of what we do – it's only part of the story.

We take pride in providing our customers with the confidence and peace of mind that comes with a total cable gland solution. From the design engineers who specify our products, to the fitter who installs them, to the organisations that ultimately utilise them all over the world – Peppers products can be relied upon 24 hours a day, 7 days a week, 365 days of the year.

This calls for an expert approach from initial contact and quotation to ordering and final delivery. We call this "End-To-End Performance" – the unique combination of unrivalled product quality, technical support and service delivery which truly sets Peppers apart.

#### On-time. Every time

Peppers is famously fast when it comes to lead times and turnaround. This is partly due to a determination to protect that reputation - but also due to the structure of the business and smart manufacturing processes. A satellite manufacturing unit and global distribution network gives Peppers full control of the supply chain. Our clever "component manufacturing" process allows us to remain agile and react fast to customer demands.

#### **Knowledgeable and Trusted**

We are proud of our reputation for knowledge and expertise in the industry. When you're in the business of supplying products into hazardous areas, it's comforting for customers to know they're receiving accurate technical information they can rely on. Equally important is trust and integrity. We don't bend the truth to secure orders. We don't promise what we cannot deliver.

#### The Innovators

Peppers R&D Engineering Team is continually developing new designs for cutting edge products to benefit our customers:

#### Versatile and Multi-Use Solutions

New innovative gland styles such as the A\*RCC, A\*RCM, A\*RCF and LT-C provide added versatility in conduit installations. The CR-S\*M, unlike any other gland on the market, known as a "Conduit Stopper Box", can effectively stop explosions from either direction. Peppers has also integrated it's ingenious CROCLOCK® single orientation clamping system and Deluge protection concept into various gland designs ensuring more installations are completed without mistakes.

#### Reduced installation times and costs

Peppers' Barrier Glands featuring Peppers T-1000 compound enable conductors to be terminated within the equipment after just one hour. At four hours, the compound chamber can be inspected and the equipment can be energised. Our innovative barrier chamber provides a cable acceptance that is on average 17% larger than our competitors designs allowing the use of smaller glands which significantly reduces cost.

#### Gland & Enclosure Accessories

Peppers offer a full range of approved hazardous area connectivity solutions to complement their extensive range of glands. Popular enclosure accessories include adapters and reducers, stopping plugs, breather drains, right angle adapters and more, all available in multiple thread conversion options such as Metric, NPT and PG just to name a few. Gland accessories specifically made for use with Peppers glands include locknuts, sealing washers, serrated washers, earth tags and shrouds. Whatever you need for your installation, we've got you covered.

### Commitment to Quality

Peppers maintains a quality management system approved to ISO 9001:2008, ISO/IEC 80079-34:2011 Explosive atmospheres - Part 34: Application of quality systems for equipment manufacture and an Environmental System approved to ISO 14001:2004 as well as operating within Occupational Health and Safety Management (OHS) to BS OHSAS 18001.



## **Cable Gland Overview Guide / Index**

Product Type	Outer Seal	Inner Seal	Compound	Lead Option	Armour Clamp	Conduit Connection	Exd	Exe	Ex nR	Class 1 Div II	Class 1 Div I	IP Rating	Page No.	
CR	✓	✓	×	✓	✓ CROCLOCK ®	×	✓	✓	✓	✓	×	IP66 / IP68 - NEMA 4X - DELUGE	1.1.0	
Е	✓	✓	×	✓	✓	×	✓	✓	✓	✓	×	IP66 / IP68 - NEMA 4X	1.2.0	
С	✓	×	×	×	✓	×	×	✓	×	✓	×	IP66 - NEMA 4X	1.2.2	
A*L	<b>✓</b>	×	×	✓	×	×	✓	<b>√</b>	✓	<b>✓</b>	×	¥ IP66 / IP68 - NEMA 4X - DELUGE		
A*LDS	<b>√</b>	×	×	✓	×	×	✓	<b>√</b>	<b>✓</b>	<b>✓</b>	×	IP66 / IP68 - NEMA 4X - DELUGE	2.2.0	
A*RCC	✓	×	×	✓	×	Rotating Metallic Conduit	✓	✓	✓	×	×	IP66 / IP68 - DELUGE	2.3.0	
A*RCM	<b>√</b>	×	×	✓	×	Rotating Male	✓	✓	✓	✓	×	IP66 / IP68 - NEMA 4X - DELUGE	2.3.2	
A*RCF	✓	×	×	✓	×	Rotating Female	✓	✓	✓	✓	×	IP66 / IP68 - NEMA 4X - DELUGE	2.3.4	
A*LCM	<b>✓</b>	×	×	✓	×	Fixed Male	✓	<b>✓</b>	<b>✓</b>	<b>✓</b>	×	IP66 / IP68 - NEMA 4X - DELUGE	2.4.0	
A*LCF	<b>√</b>	×	×	✓	×	Fixed Female	✓	<b>√</b>	<b>√</b>	<b>√</b>	×	IP66 / IP68 - NEMA 4X - DELUGE	2.4.1	
A8	<b>✓</b>	×	×	×	×	×	✓	<b>✓</b>	✓	✓	×	IP66 - IP68	3.1.0	
A8RC	<b>√</b>	×	×	×	×	Rotating Metallic Conduit	<b>√</b>	<b>✓</b>	<b>√</b>	×	×	IP66 - IP68	3.3.0	
A8CM	<b>√</b>	×	×	×	×	Fixed Male	✓	<b>√</b>	✓	✓	×	IP66 / IP68 - NEMA 4X	3.3.1	
A8CF	<b>√</b>	×	×	×	×	Fixed Female	✓	✓	✓	✓	×	IP66 / IP68 - NEMA 4X	3.3.2	
D8X	×	<b>√</b>	×	×	✓	×	<b>√</b>	✓	<b>√</b>	✓	×	IP66 / IP68 - NEMA 4X	3.4.0	
E8X	<b>√</b>	✓	×	×	✓	×	✓	✓	✓	✓	×	IP66 / IP68 - NEMA 4X	3.5.0	
E8XCM	<b>✓</b>	✓	×	×	✓	×	✓	✓	✓	×	×	IP66 / IP68	3.5.1	
E8XCF	<b>✓</b>	✓	×	×	✓	×	✓	✓	✓	×	×	IP66 / IP68	3.5.2	
PF	<b>√</b>	×	×	×	×	×	×	<b>√</b>	×	<b>√</b>	×	IP66 - IP68	3.7.0	
CR-C	<b>✓</b>	✓	<b>√</b>	✓	✓ CROCLOCK ®	×	<b>✓</b>	✓	✓	✓	×	IP66 - IP68 NEMA 4X - DELUGE	4.1.0	
CR-X	×	✓	<b>√</b>	<b>√</b>	×	×	✓	✓	<b>✓</b>	<b>√</b>	×	IP66 - IP68 NEMA 4X - DELUGE	4.2.0	
CR-U	✓	✓	<b>√</b>	<b>√</b>	×	×	✓	✓	✓	<b>√</b>	×	IP66 - IP68 NEMA 4X - DELUGE	4.2.1	
CR-SM	×	✓	<b>√</b>	×	×	Male Union	✓	✓	✓	✓	×	IP66 - IP68 NEMA 4X - DELUGE	4.3.0	
CR-SF	×	✓	<b>√</b>	×	×	Female Union	✓	✓	✓	✓	×	IP66 - IP68 NEMA 4X - DELUGE	4.3.1	
LT-C	×	✓	<b>√</b>	×	×	Rotating Metallic Conduit	✓	✓	×	×	×	IP66 - IP68	4.4.0	
UL-C	✓	✓	<b>√</b>	×	✓ CROCLOCK ®	×	✓	✓	✓	✓	✓	IP66 - IP68 NEMA 4X - DELUGE	4.5.0	
UL-X	×	✓	<b>√</b>	×	×	×	✓	✓	✓	<b>✓</b>	×	IP66 - IP68 NEMA 4X - DELUGE	4.6.0	
UL-U	✓	✓	✓	×	×	×	✓	✓	✓	✓	×	IP66 - IP68 NEMA 4X - DELUGE	4.6.1	
Α	✓	×	×	✓	×	×	×	×	×	×	×	IP66 - IP68	5.1.0	
Е	<b>√</b>	✓	×	✓	✓	×	×	×	×	×	×	IP66 - IP68	5.2.0	
С	<b>√</b>	×	×	×	✓	×	×	×	×	×	×	IP66	5.2.2	
C*IE	✓	×	×	×	✓	×	×	×	×	×	×	IP66	5.2.3	
AR Metallic Thread Conversion Adaptors & Reducers - Male-Female 7.1.0										7.1.0				
ARMM /	ARFF		ľ	Metallic <sup>*</sup>	Thread Co	onversio	n Adapto	rs & Redu	ıcers - Ma	ale-Male	& Female	-Female	7.1.1	
SPMH &	SPHH /	SPA & S	SPB N	Metallic	Stopping	/ Blankir	ng Plugs					7.2.0 8	& 7.2.1	
ACDP			Ŋ	Metallic	Breather	Drains							7.3.0	
ARMR /					90 Degre			-					7.4.0	
Cable Gl	Cable Gland AccessoriesLocknuts - Earthtags - IP Washers & O-rings - Serrated Washers & Shrouds7.5.0													



## Cable Gland Type CR - (Double Compression Gland for Armoured Cable featuring "CROCLOCK®")

Ex d : Ex e : Ex nR : Ex ta : IP66 : IP68 Class I Div 2 : AEx e : AEx ta

Part No's:



"CR" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2, for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Also certified for Class I Zone 1 & Class 1 Div 2 installations for use with Marine Shipboard & Tray Cables under NEC & CEC. They provide a controlled Ex d & IP displacement seal on the cable inner sheath minimising damage to cables that exhibit "cold flow" characteristics, an environmental seal on the outer sheath and "CROCLOCK®", a unique non reversible multi clamping system for wire, braid and tape armoured cables. The gland maintains IP66 & IP68 to 50 metres and is deluge proof without the use of an additional seal. It is supplied with an IP O-ring seal as standard on metric entry threads. Options are available for use with lead sheath, LSOH cables and extreme temperature applications.

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 Standards: IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529

C22.2 (see certificate), CAN/CSA 60079-0/1/7

UL514B, UL1203, UL2225, UL50E, ANSI/UL 60079-0/7, ISA 60079-31 II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Gc Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da Class I Zone 1 Ex d IIC / Ex e II IECEx CEC - Canada

Class I Division 1, EX G III. / EX E II
Class I Division 2, Groups A, B, C & D
Class II Division 1, Groups E, F & G
Class II, Enclosure Type 4X
Class I Cone 1 AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da
Class II Division 1, Groups E, F & G
Class III, Enclosure Type 4X

Exd IICU / Exe IIU / ExnR IIU

INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Go

SAC - China Ex d IIC / Ex e IIC UKRAINE Ex d IIC X / Ex e II X Petroleum Rules 2002 (PESO) CCoE - India KCS - Korea Ex d IIC / Ex e IIC

Specified ABS Rules Enclosure Systems (Part 1B) Part XI of RS Rules for the classification & construction ABS LLOYD'S RMRS

of sea-going ships (ed. 2014)

Certificate No. BAS 01ATEX2271X & SIRA 09ATEX1221X ATEX

IECEX SIR 07.0099X CSA 1356011 CSA 2627370 CEC - Canada NEC - USA EAC INMETRO - Brazil RU C-GB.ГБ06.В.00098 NCC 13.2185 X SAC - China NEPSI GYJ16.1402X UKRAINE CCoE - India UA.TR.047.C.0408-13 & 2937 PESO P365300/2 & P365300/14 KCS - Korea 15-GA4BO-0669X & 15-GA4BO-0670X

ABS 14-LD463991-1-PDA LLOYD'S 14.02755.315

IP Rating: Operating

Certification:

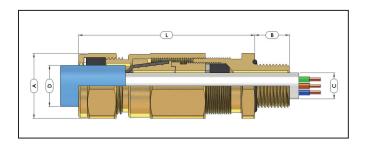
IP66 & IP68 (50 metres - 7 Days), Type 4X & DTS01:1991

Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C

Brass or Stainless Steel Electroless Nickel Materials: Plating:

NEC - USA

EAC



		art Numbering for details)	CR-1B/NP/20/M20							
	CR	Gland featuring "G	CROCLOCK®", single orientation clamping							
	1	Neoprene Seal (1)	Silicone Seal (3) - Neoprene/Lead (2) - Silicone/Lead (4)							
	В	Brass (B) - Stainles	ss Steel (S)							
	R	Reduced Bore Sea	al							
	C	PVC Shroud (C) - PCP Shroud (P) - LSOH Silicone Shroud (3)								
Options	K-V-H	Locknut, Earth Ta	g & Nylon (K), Fibre (V) or PTFE (H) IP Washer							
Opt	S	Including Serrate	Including Serrated Washer							
	1	Quantity per kit								
	NP	Nickel Plated								
	20	Gland shell size								
	M20	M20 x 1.5 Male Er	ntry Thread							
		Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)							
	Optional Accessories	Earth tag	Brass (ACBET) / Stainless Steel (ACSET)							
	Optional ccessorie	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)							
	Acc O	Serrated Washer	Stainless Steel (ACSSW)							
	•	Shrouds	PVC (ACSPVC) / PCP (ACSPCP) / LSOH Silicone (ACSSIO)							

	CABLE GLAND SELECTION TABLE														
	F . T	1.61	Metric		C	able Accep	tance Detai	s				Dimensions	s/Weight (Meti	ric Versions)	
Gland	Entry Ir	read Size	Thread	Inner Sh	neath [C]	Outer Sh	neath [D]	Reduc	ed [D]	Armour	Nominal Protrusion				Shroud
Size	Metric	NPT	Length [B]	Min	Max	Min	Max	Min	Max	- Acceptance Range	Length [L]	Across Flats [A]	Across Corners	Weight Kgs	Size
16	M20 x 1.5	1/2" or 3/4"	16	3.4	8.4	8.4	13.5	6.7	10.3	0.10-1.25	78	25.4	28.0	0.178	EL24
16H	M20 x 1.5	1/2" or 3/4"	16	3.4	8.4	11.5	16.0	9.4	12.5	0.10-1.25	78	25.4	28.0	0.173	EL24
205	M20 x 1.5	1/2" or 3/4"	16	7.2	11.7	11.5	16.0	9.4	12.5	0.10-1.25	78	25.4	28.0	0.173	EL24
20	M20 x 1.5	1/2" or 3/4"	16	9.4	14.0	15.5	21.1	12.0	17.6	0.10-1.25	78	30.0	33.0	0.233	EL30
25	M25 x 1.5	3/4" or 1"	16	13.5	20.0	20.3	27.4	16.8	23.9	0.10-1.60	90	38.0	41.4	0.416	EL38
32	M32 x 1.5	1" or 1 1/4"	16	19.5	26.3	26.7	34.0	23.2	30.5	0.10-2.00	105	46.0	50.6	0.772	EL46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	23.0	32.2	33.0	40.6	28.6	36.2	0.10-2.00	113	55.0	60.5	1.093	EL55
50S	M50 x 1.5	1 1/2" or 2"	16	28.1	38.2	39.4	46.7	34.8	42.4	0.10-2.50	125	65.0	71.5	1.255	EL65
50H	M50 x 1.5	1 1/2" or 2"	16	28.1	38.2	45.7	53.2	41.1	48.5	0.10-2.50	125	65.0	71.5	1.369	EL65
50	M50 x 1.5	2"	16	33.1	44.1	45.7	53.2	41.1	48.5	0.10-2.50	125	65.0	71.5	1.400	EL65
635	M63 x 1.5	2" or 2 1/2"	19	39.2	50.1	52.1	59.5	47.5	54.8	0.10-2.50	125	80.0	88.0	2.550	EL80
63H	M63 x 1.5	2" or 2 1/2"	19	39.2	50.1	58.4	65.8	53.8	61.2	0.10-2.50	125	80.0	88.0	2.478	EL80
63	M63 x 1.5	2 1/2"	19	46.7	56.0	58.4	65.8	53.8	61.2	0.10-2.50	125	80.0	88.0	2.104	EL80
75S	M75 x 1.5	2 1/2" or 3"	19	52.1	62.0	64.8	72.2	60.2	68.0	0.10-2.50	131	90.0	99.0	2.916	EL90
75H	M75 x 1.5	2 1/2" or 3"	19	52.1	62.0	71.1	78.0	66.5	73.4	0.10-2.50	131	90.0	99.0	2.808	EL90
75	M75 x 1.5	3"	19	58.0	68.0	71.1	78.0	66.5	73.4	0.10-2.50	131	90.0	99.0	2.315	EL90
80	M80 x 2.0	3" or 3 1/2"	25	62.2	72.0	77.0	84.0	71.9	79.4	0.10-3.15	170	104.0	115.2	4.953	EL104
80H	M80 x 2.0	3" or 3 1/2"	25	62.2	72.0	79.6	90.0	75.0	85.4	0.10-3.15	170	104.0	115.2	4.740	EL104
85	M85 x 2.0	3" or 3 1/2"	25	69.0	78.0	79.6	90.0	75.0	85.4	0.10-3.15	170	104.0	115.2	4.070	EL104
90	M90 x 2.0	3 1/2" or 4"	25	74.0	84.0	88.0	96.0	82.0	91.4	0.10-3.15	170	114.0	125.7	5.129	EL114
90H	M90 x 2.0	3 1/2" or 4"	25	74.0	84.0	92.0	102.0	87.4	97.4	0.10-3.15	170	114.0	125.7	4.867	EL114
100	M100 x 2.0	3 1/2" or 4"	25	82.0	90.0	92.0	102.0	87.4	97.4	0.10-3.15	170	114.0	125.7	4.362	EL114
110	M110 x 2.0	4"	25	92.0	102.0	104.0	117.0	-	-	0.10-3.15	165	135.0	148.5	7.327	-
							All din	ensions in	mm						

- Gland size does not necessarily equate to the entry thread size.
- The IP O-ring seal is only available on metric entry threads. IP washers can be supplied for tapered entry threads.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supply cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients installations where this has not been taken into account.
- When selecting IP Washer & Shroud material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order



## Cable Gland Type E - (Double Compression Gland for Armoured Cable featuring Dedicated Armour Clamping)

Ex d : Ex e : Ex nR : Ex ta : IP66 : IP68 Class I Div 2 : AEx e : AEx ta

Part Numbers:

E	1	W	В	*	F	*
	2	Х	S	IE		R
	3		Α			
	4					



"E" type double compression glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Also certified for Class I Zone 1 & Class I Div 2 installations for use with Marine Shipboard & Tray Cables under NEC & CEC. They provide a controlled Ex d & IP seal on the cable inner sheath, an environmental seal on the outer sheath and a detachable armour specific clamping system for wire (W), braid/tape (X) armoured cables. The gland has been tested to IP66 and IP68 to 50 metres and is available with an IP O-ring seal on metric entry threads. The Integral Earth "IE" version allows the gland to be used with HV cables where the fault load is greater than 10.4kA and options are available for use with lead sheath, LSOH cables and extreme temperature applications.

**Example Part Numbering** 

Compliance Standards: IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529

C22.2 (see certificate), CAN.CSA 60079-0/1/7

UL514B, UL1203, UL2225, UL50E, ANSI/UL 60079-0/7, ISA 60079-31

Certification: ATEX II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Gc Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da Class I Zone 1 Ex d IIC / Ex e II IECEx CEC - Canada

Class I Division 2, Groups A, B, C & D Class I Division 1, Groups E, F & G Class III, Enclosure Type 4X Class II Zone 1 AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da

NFC - USA

Class I Division 1, Groups E, F & G Class III, Enclosure Type 4X Exd IICU / Exe IIU / ExnR IIU

INMETRO - Brazil SAC - China UKRAINE Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da Ex d IIC / Ex e IIC Ex d IIC X / Ex e II X

CCoE - India Petroleum Rules 2002 (PESO) Specified ABS Rule ABS LLOYD'S

Enclosure Systems (Part 1B)
Part XI of RS Rules for the classification & construction of RMRS

sea-going ships (ed. 2014)

SIRA 01ATEX1271X & SIRA 09ATEX1221X Certificate No. ATEX

IECEx CEC - Canada NEC - USA IECEx SIR 07.0097X CSA 1356011 CSA 2627370 RU C-GB.ГБ06.В.00098 INMETRO - Brazil NCC 13.2186 X NEPSI GYJ16.1400X UA.TR.047.C.0408-13 & 2937 PESO P365300/2 & P365300/13 SAC - China UKRAINE

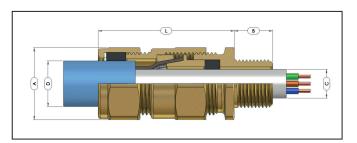
CCoE - India 14-LD463991-1-PDA

ABS LLOYD'S 10/00056(E1) 14.02755.315 **RMRS** 

IP Rating: IP66 & IP68 (50 metres - 7 days), Type 4X

Operating Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C Temperature:

Materials: Plating: Aluminium, Brass or Stainless Steel Electroless Nickel



E1M/DE/NID/20/050NIDT

(5	See below 1	or details)						
	E	Gland featuring armour specific clamping						
	1 Neoprene Seal (1) - Silicone Seal (3) - Neoprene/Lead (2) - Silicone/Lead (4							
	W SWA (W) / SWB or STA (X)							
	B Aluminium (A) / Brass (B) / Stainless Steel (S)							
	IE Integral Earth (see page TR-4)							
	F	Multiple Certification						
	R	Reduced Bore Seal						
S	C	PVC Shroud (C) - PCP Shroud (P) - LSOH Silicone Shroud (3)						
ö	K-V-H Locknut, Earth Tag & Nylon (K), Fibre (V) or PTFE (H) IP Washer  S Including Serrated Washer							
ğ	S	Including Serrated Washer						
0	1	Quantity per kit						
	NP Nickel Plated							
	20 Gland shell size							
	050NPT 1/2"NPT Male Entry Thread							

v	Locknut	Brass (ACBLN) / Stainless Steel (ACSLN) / Aluminium (ACALN)
na <u>l</u>	Earth tag	Brass (ACBET) / Stainless Steel (ACSET) / Aluminium (ACAET)
Optional Accessories	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
ဝီ ဗွီ	Serrated Washer	Stainless Steel (ACSSW)
⋖	Shrouds	PVC (ACSPVC) / PCP (ACSPCP) / LSOH Silicone (ACSSIO)

	CABLE GLAND SELECTION TABLE															
	F	161	Metric		C	able Accept	tance Detai	ls		Arm	nour	Nominal	Dimensi	ons/Weight	(Metric)	
Gland Size	Entry II	nread Size	Thread Length	Inner Sh	neath [C]	Outer Sh	eath [D]	Reduc	ed [D]	Acceptar	ice Range	Protrusion Length [L]	Across	Across	Weight	Shroud Size
	Metric	NPT	[B]	Min	Max	Min	Max	Min	Max	W	X	Length [L]	Flats [A]	Corners	Kgs	
16	M16 x 1.5	1/2" or 3/4"	16	3.5	8.4	8.4	13.5	4.9	10.3	0.90	0.15-0.35	58	24.0	26.5	0.143	L24
16	M20 x 1.5	1/2" or 3/4"	16	3.5	8.4	8.4	13.5	4.9	10.3	0.90	0.15-0.35	58	24.0	26.5	0.154	L24
205	M20 x 1.5	1/2" or 3/4"	16	8.0	11.7	11.5	16.0	9.4	12.5	0.90-1.25	0.15-0.35	58	24.0	26.5	0.125	L24
20	M20 x 1.5	1/2" or 3/4"	16	6.7*	14.0	15.5	21.1	12.0	17.6	0.90-1.25	0.15-0.50	58	30.0	33.0	0.180	L30
25	M25 x 1.5	3/4" or 1"	16	13.0	20.0	20.3	27.4	16.8	23.9	1.25-1.60	0.15-0.50	58	38.0	41.4	0.256	L38
32	M32 x 1.5	1" or 1 1/4"	16	19.0	26.3	26.7	34.0	23.2	30.5	1.60-2.00	0.15-0.55	65	46.0	50.6	0.400	L46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	25.0	32.2	33.0	40.6	28.6	36.2	1.60-2.00	0.20-0.60	72	55.0	60.5	0.649	L55
50S	M50 x 1.5	1 1/2" or 2"	16	31.5	38.2	39.4	46.7	34.8	42.4	2.00-2.50	0.20-0.60	73	65.0	71.5	0.940	L65
50H	M50 x 1.5	1 1/2" or 2"	16	31.5	38.2	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	73	65.0	71.5	0.849	L65
50	M50 x 1.5	2"	16	36.5	44.1	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	73	65.0	71.5	0.707	L65
635	M63 x 1.5	2" or 2 1/2"	19	42.5	50.1	52.1	59.5	47.5	54.8	2.50	0.30-0.80	76	80.0	88.0	1.369	L80
63H	M63 x 1.5	2" or 2 1/2"	19	42.5	50.1	58.4	65.8	53.8	61.2	2.50	0.30-0.80	76	80.0	88.0	1.306	L80
63	M63 x 1.5	2 1/2"	19	49.5	56.0	58.4	65.8	53.8	61.2	2.50	0.30-0.80	76	80.0	88.0	1.123	L80
75S	M75 x 1.5	2 1/2" or 3"	19	54.5	62.0	64.8	72.2	60.2	68.0	2.50	0.30-1.00	82	90.0	99.0	1.661	L90
75H	M75 x 1.5	2 1/2" or 3"	19	54.5	62.0	71.1	78.0	66.5	73.4	2.50	0.30-1.00	82	90.0	99.0	1.553	L90
75	M75 x 1.5	3"	19	60.5	68.0	71.1	78.0	66.5	73.4	2.50	0.30-1.00	82	90.0	99.0	1.310	L90
80	M80 x 2.0	3" or 3 1/2"	25	62.2	72.0	77.0	84.0	71.9	79.4	3.15	0.45-1.00	110	104.0	115.2	2.718	L104
80H	M80 x 2.0	3" or 3 1/2"	25	62.2	72.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	110	104.0	115.2	2.489	L104
85	M85 x 2.0	3" or 3 1/2"	25	69.0	78.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	110	104.0	115.2	2.326	L104
90	M90 x 2.0	3 1/2" or 4"	25	74.0	84.0	88.0	96.0	82.0	91.4	3.15	0.45-1.00	110	114.0	125.7	2.852	L114
90H	M90 x 2.0	3 1/2" or 4"	25	74.0	84.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	110	114.0	125.7	2.629	L114
100	M100 x 2.0	3 1/2" or 4"	25	82.0	90.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	110	114.0	125.7	2.496	L114
							All dim	ensions in	mm							

- Gland size does not necessarily equate to the entry thread size.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- \* For gland size 20 the silicone inner seal has a minimum diameter of 9.3 mm and NOT 6.7mm
- When selecting IP Washer & Shroud material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



## Cable Gland Type C - (Single Compression Gland for Armoured Cable featuring Dedicated Armour Clamping)

Ex e : Ex ta : IP66 Class I Div 2 : AEx e : AEx ta

Part Numbers:

С	1	W	В	*	E	*
	3	Х	S	IE		R
			Α.		-	

CE SIGN OF STREET OF STREE

**Example Part Numbering** 

Shrouds









C1WBE/NP/20/050NPT

PVC (ACSPVC) / PCP (ACSPCP) / LSOH Silicone (ACSSIO)





"C" type single compression glands are certified Increased Safety Ex e and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Also certified for Class I Zone 1 & Class I Div 2 installations for use with Marine Shipboard & Tray Cables under NEC & CEC. The gland is suitable for cables that exhibit "cold flow" characteristics, whilst providing an IP66 environmental seal on the cable outer sheath and a detachable armour specific clamping system for wire (W), braid/tape (X) armoured cables. The "IE" version allows the gland to be used with HV cables where the fault load is greater than 10.4kA and options are available for use with LSOH cables and extreme temperature applications.

EN 60079-0, EN 60079-7, EN 60079-31 Compliance

IEC 60079-0, IEC 60079-7, IEC 60079-31 & IEC 60529 C22.2 (see certificate), CAN/CSA 60079-0/7

UL514B, UL1203, UL2225, UL50E, ANSI/UL 60079-0/7, ISA 60079-31

Certification: II 1D 2G Ex e IIC Gb / Ex ta IIIC Da **IFCEx** Ex e IIC Gb / Ex ta IIIC Da

CEC - Canada Class I Zone 1 Ex e II

Class I Division 2, Groups A. B. C & D Class II Division 1, Groups E, F & G

Class III, Enclosure Type 4X NEC - USA Class I Zone 1 AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da

Class II Division 1, Groups E, F & G

Class III, Enclosure Type 4X

EAC Exe IIU Ex e IIC Gb / Ex ta IIIC Da INMETRO - Brazil

SAC - China Ex e IIC

UKRAINE Ex e II X

Petroleum Rules 2002 (PESO) CCoE - India ARS Specified ABS Rule

LLOYD'S Enclosure Systems (Part 1B)

**RMRS** Part XI of RS Rules for the classification & construction of sea-going ships (ed. 2014)

SIRA 01ATEX1271X Certificate No.

**IECEx** IECEx SIR 07.0097X CEC - Canada CSA 1356011 CSA 2627370 NEC - USA RU C-GB.ГБ06.В.00098 NCC 13.2186 X INMETRO - Brazil

SAC - China UKRAINE NEPSI GY 116 1400X UA.TR.047.C.0408-13 & 2937 PESO P365300/13 CCoE - India ABS 14-LD463991-1-PDA 10/00056(E1) LLOYD'S

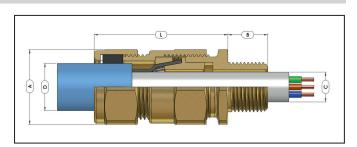
14 02755 315

IP Rating: IP66, Type 4X

Operating Temperature: Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C

Materials: Aluminium, Brass or Stainless Steel

Plating:



	(See below to	r details)									
	C	Gland featuring a	rmour specific clamping								
	1	Neoprene Seal (1)	(1) - Silicone Seal (3)								
	W	SWA (W) / SWB or	A (W) / SWB or STA (X)								
	В	Aluminium (A) / Brass (B) / Stainless Steel (S)									
	IE	Integral Earth (see	e page TR-4)								
	E	Ex e & Ex ta Certif	Ex e & Ex ta Certification								
	R	Reduced Bore Outer Sheath Seal									
	, C	PVC Shroud (C) - PCP Shroud (P) - LSOH Silicone Shroud (3)									
Ontions	K-V-H	Locknut, Earth Ta	Locknut, Earth Tag & Nylon (K), Fibre (V) or PTFE (H) IP Washer								
ž	<b>š</b> s	Including Serrated Washer									
١	1	Quantity per kit									
	NP	Nickel Plated									
	20	Gland shell size									
	050NPT	1/2"NPT Male Ent	ry Thread								
	e e	Locknut	Brass (ACBLN) / St Steel (ACSLN) / Aluminium (ACALN)								
	ori Ori	Earth tag	Brass (ACBET) / St Steel (ACSET) / Aluminium (ACAET)								
	Optional	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)								
	۵ ٪	Serrated Washer	Stainless Steel (ACSSW)								

	CABLE GLAND SELECTION TABLE															
	Entry T	hread Size	Metric		Ca	ble Accep	tance Deta	ils		Armour Acco	ptance Range	Nominal -	Dimen	sions/Weight (	Metric)	
Gland Size	Litty i	Tireau Size	Thread Length	Inner Sh	eath [C]	Outer Sh	neath [D]	Reduc	ed [D]	Almour Acce	plance hange	Protrusion Length [L]	Across	Across	Weight	Shroud Size
	Metric	NPT	[B]	Min	Max	Min	Max	Min	Max	w	x	Length (L)	Flats [A]	Corners	Kgs	
16	M16 x 1.5	1/2" or 3/4"	16	n/a	8.4	8.4	13.5	4.9	10.3	0.90	0.15-0.35	58	24.0	26.5	0.143	L24
16	M20 x 1.5	1/2" or 3/4"	16	n/a	8.4	8.4	13.5	4.9	10.3	0.90	0.15-0.35	58	24.0	26.5	0.154	L24
205	M20 x 1.5	1/2" or 3/4"	16	n/a	11.7	11.5	16.0	9.4	12.5	0.90-1.25	0.15-0.35	58	24.0	26.5	0.125	L24
20	M20 x 1.5	1/2" or 3/4"	16	n/a	14.0	15.5	21.1	12.0	17.6	0.90-1.25	0.15-0.50	58	30.0	33.0	0.180	L30
25	M25 x 1.5	3/4" or 1"	16	n/a	20.0	20.3	27.4	16.8	23.9	1.25-1.60	0.15-0.50	58	38.0	41.4	0.256	L38
32	M32 x 1.5	1" or 1 1/4"	16	n/a	26.3	26.7	34.0	23.2	30.5	1.60-2.00	0.15-0.55	65	46.0	50.6	0.400	L46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	n/a	32.2	33.0	40.6	28.6	36.2	1.60-2.00	0.20-0.60	72	55.0	60.5	0.649	L55
50S	M50 x 1.5	1 1/2" or 2"	16	n/a	38.2	39.4	46.7	34.8	42.4	2.00-2.50	0.20-0.60	73	65.0	71.5	0.940	L65
50H	M50 x 1.5	1 1/2" or 2"	16	n/a	38.2	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	73	65.0	71.5	0.849	L65
50	M50 x 1.5	2"	16	n/a	44.1	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	73	65.0	71.5	0.707	L65
63S	M63 x 1.5	2" or 2 1/2"	19	n/a	50.1	52.1	59.5	47.5	54.8	2.50	0.30-0.80	76	80.0	88.0	1.369	L80
63H	M63 x 1.5	2" or 2 1/2"	19	n/a	50.1	58.4	65.8	53.8	61.2	2.50	0.30-0.80	76	80.0	88.0	1.306	L80
63	M63 x 1.5	2 1/2"	19	n/a	56.0	58.4	65.8	53.8	61.2	2.50	0.30-0.80	76	80.0	88.0	1.123	L80
75S	M75 x 1.5	2 1/2" or 3"	19	n/a	62.0	64.8	72.2	60.2	68.0	2.50	0.30-1.00	82	90.0	99.0	1.661	L90
75H	M75 x 1.5	2 1/2" or 3"	19	n/a	62.0	71.1	78.0	66.5	73.4	2.50	0.30-1.00	82	90.0	99.0	1.553	L90
75	M75 x 1.5	3"	19	n/a	68.0	71.1	78.0	66.5	73.4	2.50	0.30-1.00	82	90.0	99.0	1.310	L90
80	M80 x 2.0	3" or 3 1/2"	25	n/a	72.0	77.0	84.0	71.9	79.4	3.15	0.45-1.00	110	104.0	115.2	2.718	L104
80H	M80 x 2.0	3" or 3 1/2"	25	n/a	72.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	110	104.0	115.2	2.489	L104
85	M85 x 2.0	3" or 3 1/2"	25	n/a	78.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	110	104.0	115.2	2.326	L104
90	M90 x 2.0	3 1/2" or 4"	25	n/a	84.0	88.0	96.0	82.0	91.4	3.15	0.45-1.00	110	114.0	125.7	2.852	L114
90H	M90 x 2.0	3 1/2" or 4"	25	n/a	84.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	110	114.0	125.7	2.629	L114
100	M100 x 2.0	3 1/2" or 4"	25	n/a	90.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	110	114.0	125.7	2.496	L114
	All dimensions in mm															

- Gland size does not necessarily equate to the entry thread size
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supply cable glands with parallel entry threads that conform to the flame proof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a property of the flame proof threaded point requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a property of the flame proof threaded point requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a property of the flame proof threaded point requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a property of the flame proof threaded point requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a property of the flame proof threaded point requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a property of the flame proof threaded point requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a property of the flame proof threaded point requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a property of the IEC/EN 60079-1 and other equivalent standards are also become a property of the IEC/EN 60079-1 and other equivalent standards are also become a property of the IEC/EN 60079-1 and other equivalent standards are also become a property of the IEC/EN 60079-1 and other equivalent standards are also become a property of the IEC/EN 60079-1 and other equivalent standards are also become a property of the IEC/EN 60079-1 and other equivalent standards are also become a property of the IEC/EN 60079-1 and other equivalent standards are also become a property of the IEC/EN 60079-1 and other equivalent standards are also become a property of the IEC/EN 60079-1 and other equivalent standards are also become a property of the IEC/EN 60079-1 and other equivalent standards are also become a property of the IEC/EN 60079-1 and other equivalent standards are also become a property of the IEC/EN 60079-1 and otherthread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer & Shroud material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



#### Cable Gland Type A - (Single Compression Gland for Unarmoured Cable)

Ex d: Ex e: Ex nR: Ex ta: IP66: IP68 Class I Div 2: AEx e: AEx ta

Part Numbers:

Α	1	L	В	F
	2		S	Е
	3		Α	
	Λ			



"A" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Commonly referred to as "stuffing glands" they provide a controlled pull resistant environmental displacement seal on the cable outer sheath, minimising damage to cables that exhibit "cold flow" characteristics. The gland maintains IP66 & IP68 to 50 metres. It is supplied with an IP O-ring seal as standard on metric entry threads. Options are available for use with LSOH cables and extreme temperature applications.

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 Compliance Standards:

IEC 60079-1, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529 C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL514B, UL1203, UL2225, UL50E,

ANSI/UL 60079-0/7, ISA 60079-31

Certification: II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Gc

Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da Class I Zone 1 Ex d IIC / Ex e II **IECEx** CEC - Canada Class I Division 2, Groups A, B, C & D (except size 12) Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X

NEC - USA Class I Zone 1 AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da

Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X Exd IICU / Exe IIU / ExnR IIU

INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

Ex d IIC / Ex e IIC Ex d IIC X / Ex e II X Petroleum Rules 2002 (PESO) Specified ABS Rules SAC - China UKRAINE CCoE ABS LLOYD'S Enclosure Systems (Part 1B)

Part XI of RS Rules for the classification & construction of sea-going ships (ed. 2014) RMRS

SIRA 01ATEX1272X & SIRA 09ATEX1221X IECEx SIR 07.0096X CSA 1356011 Certificate No. ATEX IECEx

CEC - Canada NEC - USA CSA 2627370 RU C-GB.ГБ06.В.00098 NCC 13.2012 X EAC INMETRO - Brazil NEPSI GYJ16.1399X SAC - China UKRAINE

UA.TR.047.C.0408-13 & 2937 PESO P365300/2 & P365300/5 14-LD463991-1-PDA CCoE - India ABS LLOYD'S 10/00056(E1)

14.02755.315 IP Rating: IP66 & IP68 (50 metres - 7 Days ), Type 4X

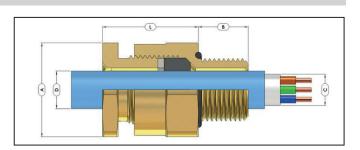
Operating

Temperature: Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C

Materials: Aluminium, Brass or Stainless Steel

Plating: Electroless Nickel

EAC



		Part Numbering of for details)	A2LBF/NP/20/M20							
	Α	Type of gland featur	ing controlled displacement sealing							
	2	Neoprene Seals (2) -	Silicone (3) - Neoprene/Lead (1) - Silicone/Lead (4)							
	L	Peppers Standard D	esignation							
	В	Aluminium (A) / Bras	ss (B) / Stainless Steel (S)							
	F Multiple Certification									
	C	PVC Shroud (C) - PCI	PVC Shroud (C) - PCP Shroud (P) - Silicone LSOH Shroud (3)							
s	K-V-H	Locknut & Nylon (K)	, Fibre (V) or PTFE (H) IP Washer							
Options	Т	Including Earth Tag								
þ	S	Including Serrated Washer								
O	1	Quantity per kit								
	NP	Nickel Plated								
	20	Gland shell size								
	M20	M20 x 1.5mm Male I	Entry Thread							
	S	Locknut	Brass (ACBLN) / St Steel (ACSLN) / Aluminium (ACALN)							
	ri a	Farth tag	Brass (ACBET) / St Steel (ACSET) / Aluminium (ACAET)							

Optional Accessories	Locknut	Brass (ACBLN) / St Steel (ACSLN) / Aluminium (ACALN)
	Earth tag	Brass (ACBET) / St Steel (ACSET) / Aluminium (ACAET)
	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
	Serrated Washers	Stainless Steel (ACSSW)
⋖	Shrouds	PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)

				CABLE (	GLAND SELECTI	ON TABLE				
	Entry Th	road Sizo	Cable Acceptance Details		Nominal	Dimensio	ons/Weight (Metric \	/ersions)		
Gland Size	Entry Thread Size		Length [B]	Outer S	heath [D]	Protrusion Length [L]	Across	Across	Weight	Shroud Size
	Metric	NPT	[D]	Min	Max	Length [L]	Flats [A]	Corners	Kgs	
12	M12 x 1.5	3/8"	16	0.9	6.0	33	19.0	21.0	0.038	L19
12	M16 x 1.5	3/8" or 1/2"	16	0.9	6.0	33	25.4	28.0	0.068	L24
12	M20 x 1.5	3/8" or 1/2"	16	0.9	6.0	33	25.4	28.0	0.082	L24
16	M16 x 1.5	3/8" or 1/2"	16	4.0	8.4	33	25.4	28.0	0.097	L24
16	M20 x 1.5	1/2" or 3/4"	16	4.0	8.4	33	25.4	28.0	0.104	L24
20S	M20 x 1.5	1/2" or 3/4"	16	7.2	11.7	33	25.4	28.0	0.102	L24
20	M20 x 1.5	1/2" or 3/4"	16	9.4	14.0	33	30.0	33.0	0.127	L30
25	M25 x 1.5	3/4" or 1"	16	13.5	20.0	33	37.6	41.4	0.166	L38
32	M32 x 1.5	1" or 1 1/4"	16	19.5	26.3	33	46.0	50.6	0.244	L46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	23.0	32.2	37	55.0	60.5	0.396	L55
50S	M50 x 1.5	1 1/2" or 2"	16	28.1	38.2	37	65.0	71.5	0.558	L65
50	M50 x 1.5	2"	16	33.1	44.1	37	65.0	71.5	0.438	L65
63S	M63 x 1.5	2" or 2 1/2"	19	39.2	50.1	37	80.0	88.0	0.832	L80
63	M63 x 1.5	2 1/2"	19	46.7	56.0	37	80.0	88.0	0.664	L80
75S	M75 x 1.5	2 1/2" or 3"	19	52.1	62.0	37	90.0	99.0	0.924	L90
75	M75 x 1.5	3"	19	58.0	68.0	37	90.0	99.0	0.714	L90
80	M80 x 2.0	3" or 3 1/2"	25	62.2	72.0	50	104.0	115.2	1.514	L104
85	M85 x 2.0	3" or 3 1/2"	25	69.0	78.0	50	104.0	115.2	1.332	L104
90	M90 x 2.0	3 1/2" or 4"	25	74.0	84.0	50	114.0	125.7	1.622	L114
100	M100 x 2.0	3 1/2" or 4"	25	82.0	90.0	50	114.0	125.7	1.523	L114
				1	All dimensions in r	nm				

- Gland size does not necessarily equate to the entry thread size.
- The IP O-ring seal is only available on metric entry threads. IP washers can be supplied for tapered entry threads.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer & Shroud material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



#### Cable Gland Type A\*LDS - (Double Compression Gland designed for use with Unarmoured Cable)

Ex d : Ex e : Ex nR : Ex ta : IP66 : IP68 Class I Div 2 : AEx e : AEx ta

Part Numbers:

Α	1	L	DS	В	F
	2			S	
	3			Α	
	4				



"A\*LDS" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Commonly referred to as "double seal stuffing glands" they provide two controlled pull resistant environmental displacement seals on the cable outer sheath, minimising damage to cables that exhibit "cold flow" characteristics. The gland maintains IP66 & IP68 to 50 metres. It is supplied with an IP O-ring seal as standard on metric entry threads. Options are available for use with LSOH cables and extreme temperature applications.

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529 Standards:

C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL514B, UL1203, UL2225, UL50E

ANSI/UL 60079-0/7, ISA 60079-31

Certification: II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Gc

Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da **IECEx** CEC - Canada Class I Zone 1 Ex d IIC / Ex e II (except size 12) Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G

Class III, Enclosure Type 4X

Class I Zone 1 AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da NFC - USA

Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X Exd IICU / Exe IIU / ExnR IIU

INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

SAC - China UKRAINE Ex d IIC / Ex e IIC Ex d IIC X / Ex e II X CCoF - India Petroleum Rules 2002 (PESO) Specified ABS Rules
Enclosure Systems (Part 1B)
Part XI of RS Rules for the classification & construction ABS LLOYD'S **RMRS** 

of sea-going ships (ed. 2014)

Certificate No. SIRA 01ATEX1272X & SIRA 09ATEX1221X ATEX

**IECEx** IECEx SIR 07.0096X CEC - Canada NEC - USA EAC CSA 1356011 CSA 2627370 RU C-GB.ГБ06.В.00098 INMETRO - Brazil NCC 13.2012 X SAC - China

NEPSI GYJ16.1399X UA.TR.047.C.0408-13 & 2937 PESO P365300/2 & P365300/5 UKRAINE CCoE - India

ARS 14-LD463991-1-PDA LLOYD'S 14.02755.315

IP66 & IP68 (50 metres - 7 Days), Type 4X IP Rating:

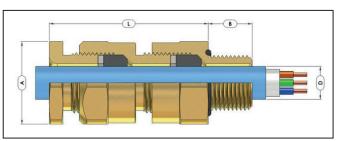
Operating

Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C Temperature:

Materials: Aluminium, Brass or Stainless Steel

Plating: Electroless Nickel

FAC



		ort Numbering For details)	A2LDSBF/NP/20/M20				
	Α	Gland featuring con	trolled displacement sealing				
	2	Neoprene Seals (2) -	Silicone Seals (3) - Neoprene/Lead (1) - Silicone/Lead (4)				
	L	Peppers Standard D	esignation				
	DS	Double Sealing					
	В	Aluminium (A) / Bras	ss (B) / Stainless Steel (S)				
	F	Multiple Certificatio	n				
	C	PVC Shroud (C) - PC	P Shroud (P) - LSOH Silicone Shroud (3)				
S	K-V-H	Locknut & Nylon (K)	, Fibre (V) or PTFE (H) IP Washer				
Options	Т	Including Earth Tag					
þ	S	Including Serrated V	Vasher				
0	1	Quantity per kit	Quantity per kit				
	NP	Nickel Plated					
	20	Gland shell size					
	M20	M20 x 1.5mm Male I	Entry Thread				
		Locknut	Brass (ACBLN) / St Steel (ACSLN) / Aluminium (ACALN)				
	rie:	Earth tag	Brass (ACBET) / St Steel (ACSET) / Aluminium (ACAET)				
	Optional Accessories	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)				
	Opt cce	Serrated Washers	Stainless Steel (ACSSW)				
	Ã	Shrouds	PVC (ACSPVC) / PCP (ACSPCP) / LSOH Silicone(ACSSIO)				

					CABLE GLAND	SELECTION TABLE					
Cl l	Entry Th	THI Cad Size		Metric Cable Acceptance Details  Outer Sheath [D]		Nominal	Dimens	ions/Weight (Metric	Versions)	Shroud	
Gland Size Me	Metric	NPT	Thread Length [B]	Min	Max	Protrusion Length [L] (Metric)	Across Flats [A]	Across Corners	Weight Kgs (Metric)	Size	
12	M12 x 1.5	3/8"	16	0.9	6.0	33	19.0	21.0	0.064	L19	
12	M16 x 1.5	3/8" or 1/2"	16	0.9	6.0	33	25.4	28.0	0.119	L24	
16	M16 x 1.5	1/2" or 3/4"	16	4.0	8.4	48	25.4	28.0	0.133	L24	
205	M20 x 1.5	1/2" or 3/4"	16	7.2	11.7	48	25.4	28.0	0.209	L24	
20	M20 x 1.5	1/2" or 3/4"	16	9.4	14.0	62	30.0	33.0	0.275	L30	
25	M25 x 1.5	3/4" or 1"	16	13.5	20.0	62	37.6	41.4	0.408	L38	
32	M32 x 1.5	1" or 1 1/4"	16	19.5	26.3	62	46.0	50.6	0.408	L46	
40	M40 x 1.5	1 1/4" or 1 1/2"	16	23.0	32.2	68	55.0	60.5	0.666	L55	
505	M50 x 1.5	1 1/2" or 2"	16	28.1	38.2	68	65.0	71.5	0.896	L65	
50	M50 x 1.5	2"	16	33.1	44.1	74	65.0	71.5	0.736	L65	
63S	M63 x 1.5	2" or 2 1/2"	19	39.2	50.1	74	80.0	88.0	1.330	L80	
63	M63 x 1.5	2 1/2"	19	46.7	56.0	74	80.0	88.0	1.114	L80	
75S	M75 x 1.5	2 1/2" or 3"	19	52.1	62.0	74	90.0	99.0	1.493	L90	
75	M75 x 1.5	3"	19	58.0	68.0	74	90.0	99.0	1.218	L90	
80	M80 x 2.0	3" or 3 1/2"	25	62.2	72.0	87	104.0	115.2	2.322	L104	
85	M85 x 2.0	3" or 3 1/2"	25	69.0	78.0	87	104.0	115.2	2.107	L104	
90	M90 x 2.0	3 1/2" or 4"	25	74.0	84.0	88	114.0	125.7	2.539	L114	
100	M100 x 2.0	3 1/2" or 4"	25	82.0	90.0	90	114.0	125.7	2.211	L114	
					All dime	nsions in mm					
					7111 411110						

- Gland size does not necessarily equate to the entry thread size.
- The IP O-ring seal is only available on metric entry threads. IP washers can be supplied for tapered entry threads.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers  $Cable \ Glands \ Limited \ will \ not \ be \ held \ responsible \ for \ clients' in stallations \ where \ this \ has \ not \ been \ taken \ into \ account.$
- When selecting IP Washer & Shroud material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



## **Cable Gland Type A\*RCC**

(Single Compression Gland featuring a lic Conduit Connector

Ex d : Ex e : Ex nR : Ex ta : IP66 : IP68

Part Numbers:

Α	1	R	CC	В	F
	2			S	
	3			Α	
	4				



"A\*RCC" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Commonly referred to as "stuffing glands", they provide a controlled pull resistant environmental displacement seal on the cable outer sheath, minimising damage to cables that exhibit "cold flow" characteristics. The gland maintains IP66 & IP68 to 50 metres. It is supplied with an IP O-ring seal as standard on metric entry threads. The gland features a freely rotating flexible conduit connection.

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 Compliance IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529 Standard:

ATEX Certification: II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3 G Ex nR IIC Gc IECEx

Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da Exd IICU / Exe IIU / ExnR IIU INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

SAC - China Fx d IIC / Fx e IIC Ex d IIC X / Ex e II X UKRAINE Petroleum Rules 2002 (PESO) CCoE - India Specified ABS Rules ABS

Enclosure Systems (Part 1B) LLOYD'S Part XI of RS Rules for the classification & construction RMRS

of sea-going ships (ed. 2014)

Certificate No. ATEX SIRA 01ATEX1272X & SIRA 09ATEX1221X

IECEx SIR 07.0096X IECEx RU C-GB.ГБ06.В.00098 NCC 13.2012 X INMETRO - Brazil SAC - China NEPSI GYJ16.1399X UA.TR.047.C.0408-13 & 2937 UKRAINE PESO P365300/2 & P365300/5 CCoE - India

14-LD463991-1-PDA 10/00056(E1) LLOYD'S

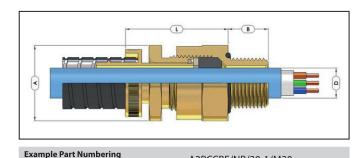
14.02755.315

IP66 & IP68 (50 metres - 7 Days) IP Rating:

Operating Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C

Materials: Aluminium, Brass or Stainless Steel

Plating:



	Part Numbering A2RCCBF/NP/20-1/M20 v for details)					
Α	Gland featuring controlled displacement sealing					
2	Neoprene Seal (2) - Silicone Seal (3) - Neoprene/Lead (1) - Silicone/Lead (4)					
R	Rotating Conduit Design					
cc	Metallic Flexible Conduit Connector					
В	Aluminium (A) / Brass (B) / Stainless Steel (S)					
F	Multiple Certification					
NP	Nickel Plated					
20-1	Gland & Connector Size					
M20	M20 x 1.5mm Male Entry Thread					

MZU	M20 x 1.5mm Male	Entry Inread
ies	Locknut	Brass (ACBLN) / Stainless Steel (ACSLN) / Aluminium (ACALN)
Sori	Earth tag	Brass (ACBET) / Stainless Steel (ACSET) / Aluminium (ACAET)
Optional Accessories	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
o §	Serrated Washers	Stainless Steel (ACSSW)

					CABLE GL	AND SELECT	ION TABLE					
Gland &	Entry Th	read Size	Metric		tance Details	Typical Con	duit Diameter	Nominal	Dimensio	ns/Weight (Metric	Versions)	Metric Thread
Connector Size	Metric	NPT	Thread Length [B]	Outer S Min	heath [D] Max	I/D	Max O/D	Protrusion Length [L]	Across Flats [A]	Across Corners	Weight Kas	Shroud Size
12-1	M12 x 1.5	3/8"	16	0.9	5.4	6.8	10.3	35	19.0	20.9	0.051	n/a
12-1	M16 x 1.5	3/8" or 1/2"	16	0.9	5.4	6.8	10.3	34	25.4	28.0	0.059	n/a
12-2	M12 x 1.5	3/8"	16	0.9	6.0	9.1	14.3	35	19.0	20.9	0.083	n/a
12-2	M16 x 1.5	3/8" or 1/2"	16	0.9	6.0	9.1	14.3	34	25.4	28.0	0.092	n/a
12-3	M16 x 1.5	3/8" or 1/2"	16	0.9	6.0	7.7	13.0	34	25.4	28.0	0.107	n/a
16-1	M16 x 1.5	3/8" or 1/2"	16	4.0	8.4	10.2	14.1	39	25.4	28.0	0.130	n/a
16-1	M20 x 1.5	3/8" or 1/2"	16	4.0	8.4	10.2	14.1	45	25.4	28.0	0.130	n/a
16-2	M16 x 1.5	3/8" or 1/2"	16	4.0	8.4	10.9	15.8	39	25.4	28.0	0.130	n/a
16-2	M20 x 1.5	3/8" or 1/2"	16	4.0	8.4	10.9	15.8	45	25.4	28.0	0.130	n/a
16-3	M16 x 1.5	3/8" or 1/2"	16	4.0	8.4	13.0	17.1	39	25.4	28.0	0.130	n/a
16-3	M20 x 1.5	3/8" or 1/2"	16	4.0	8.4	13.0	17.1	45	25.4	28.0	0.130	n/a
20S-1	M20 x 1.5	3/8" or 1/2"	16	7.2	11.0	13.0	17.1	45	25.4	28.0	0.133	n/a
20S-2	M20 x 1.5	3/8" or 1/2"	16	7.2	11.7	15.0	19.3	45	25.4	28.0	0.133	n/a
20S-3	M20 x 1.5	3/8" or 1/2"	16	7.2	11.7	13.6	20.7	45	25.4	28.0	0.133	n/a
20-1	M20 x 1.5	1/2" or 3/4"	16	9.4	14.0	16.9	22.3	45	30.0	33.0	0.162	n/a
20-2	M20 x 1.5	1/2" or 3/4"	16	9.4	14.0	18.0	23.8	45	30.0	33.0	0.162	n/a
20-3	M20 x 1.5	1/2" or 3/4"	16	9.4	14.0	18.7	24.8	45	30.0	33.0	0.174	n/a
20-4	M20 x 1.5	1/2" or 3/4"	16	9.4	14.0	20.7	28.3	45	30.0	33.0	0.195	n/a
20-5	M20 x 1.5	1/2" or 3/4"	16	9.4	13.0	13.9	19.3	45	30.0	33.0	0.210	n/a
25-1	M25 x 1.5	3/4" or 1"	16	13.5	20.0	23.7	31.3	46	37.6	41.4	0.256	n/a
25-2	M25 x 1.5	3/4" or 1"	16	13.5	19.0	21.1	26.8	46	37.6	41.4	0.231	n/a
25-3	M25 x 1.5	3/4" or 1"	16	13.5	19.0	24.3	31.3	46	37.6	41.4	0.234	n/a
25-4	M25 x 1.5	3/4" or 1"	16	13.5	20.0	22.3	28.3	46	37.6	41.4	0.234	n/a
32-1	M32 x 1.5	1" or 1 1/4"	16	19.5	26.0	28.1	33.3	47	46.0	50.6	0.322	n/a
32-2	M32 x 1.5	1" or 1 1/4"	16	19.5	26.3	30.4	38.2	47	46.0	50.6	0.347	n/a
32-3	M32 x 1.5	1" or 1 1/4"	16	19.5	26.3	30.4	40.2	47	46.0	50.6	0.369	n/a
40-1	M40 x 1.5	1 1/4" or 1 1/2"	16	23.0	32.2	36.4	46.2	50	55.0	60.5	0.518	n/a
40-2	M40 x 1.5	1 1/4" or 1 1/2"	16	23.0	32.2	36.4	44.2	50	55.0	60.5	0.497	n/a
40-3	M40 x 1.5	1 1/4" or 1 1/2"	16	23.0	32.2	37.7	44.7	50	55.0	60.5	0.484	n/a
50S-1	M50 x 1.5	1 1/2" or 2"	16	28.1	38.2	48.4	55.8	50	65.0	71.5	0.630	n/a
50-1	M50 x 1.5	2"	16	33.1	44.1	48.4	55.8	50	65.0	71.5	0.575	n/a
63S-1	M63 x 1.5	2" or 2 1/2"	19	39.2	50.1	57.5	64.8	50	80.0	88.0	0.990	n/a
63-1	M63 x 1.5	2 1/2"	19	46.7	53.6	57.5	64.8	50	80.0	88.0	0.900	n/a
					All	dimensions in	mm					

- Gland size does not necessarily equate to the entry thread size.
- The IP O-ring seal is only available on metric entry threads. IP washers can be supplied for tapered entry threads.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers' supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer material for gland kits, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- Where approval in addition to ATEX and IECEx is required, this must be clearly requested at time of enquiry / order.
- It is the installer's responsibility to ensure that the flexible conduit is secured correctly.
- If fit testing is required for specific conduit please contact Peppers.



#### Cable Gland Type A\*RCM - (Single Compression Gland with a Freely Rotating Male Conduit Connection)

Ex d: Ex e: Ex nR: Ex ta: IP66: IP68
Class I Div 2: AFx e: AFx ta

Part Numbers:

Certification:

Α	1	R	CM	В	F
	2			S	
	3			Α	
	4				=







"A\*RCM" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIB and IIIC. They provide a controlled pull resistant environmental displacement seal on the cable outer sheath, minimising damage to cables that exhibit "cold flow" characteristics. The gland maintains IP66 & IP68 to 50 metres and is supplied with an IP O-ring seal as standard on metric entry threads. The gland features a freely rotating male threaded conduit connection for ease of installation.

Compliance EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31 & IEC 60079-9, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60079-1 (IEC 60079-7), IEC 60079-31 & IEC 60079-07, IEC 60079-07,

ATEX II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Gc

IECEx Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

NEC - USA Class I Zone 1 AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da

Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X Exd IICU / Exe IIU / ExnR IIU

EAC Exd IICU / Exe IIU / ExnR IIU

INMETRO - Brazil Ex d IIC Gb / Ex te IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

 SAC - China
 Ex d IIC / Ex e IIC

 UKRAINE
 Ex d IIC X / Ex e II X

 CCOE - India
 Petroleum Rules 2002 (PESO)

 ABS
 Specified ABS Rules

 LLOYD'S
 Enclosure Systems (Part 1B)

RMRS Part XI of RS Rules for the classification & construction of

sea-going ships (ed. 2014)

Certificate No. ATEX SIRA 01ATEX1272X & SIRA 09ATEX1221X

 IECEX
 IECEX SIR 07.0096X

 NEC - USA
 CSA 2627370

 EAC
 RU C-GB.F606.B.00098

 INMETRO - Brazil
 NCC 13.2012 X

 SAC - China
 NEPSI GYJ16.1399X

 UKRAINE
 UA.TR.047.C.0408-13 & 2937

 CCOE - India
 PESO P365300/2 & P365300/5

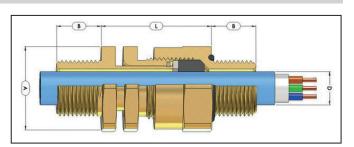
ABS 14-LD463991-1-PDA LLOYD'S 10/00056(E1) RMRS 14.02755.315

IP Rating: IP66 & IP68 (50 metres - 7 Days), Type 4X

**Operating** Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C **Temperature:** 

Materials: Brass, Stainless Steel or Aluminium

Plating: Electroless Nickel



# Example Part Numbering (See below for details) A 2RCMBF050NPT/NP/20/M20



es .	Locknut	Brass (ACBLN) / Stainless Steel (ACSLN) / Aluminium (ACALN)
ona sori	Earth tag	Brass (ACBET) / Stainless Steel (ACSET) / Aluminium (ACAET)
Optional Accessories	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
O Å	Serrated Washers	Stainless Steel (ACSSW)

				C	ABLE GLAND SE	LECTION TAB	BLE				
	Entry Thread Size		Metric Thread	Metric Thread Conduit Connection Thread Cable Acceptance Outer Sheath [D]		Nominal	Dimensions/Weight (Metric Versions)				
Gland Size	land Size Metric NPT	NPT	Length [B]	Metric	NPT	Min	Max	_ Protrusion Length [L]	Across Flats [A]	Across Corners	Weight Kgs
12	M12 x 1.5	3/8"	16	M12 x 1.5	3/8"	0.9	6.0	34	19.0	21.0	0.061
12	M16 x 1.5	3/8" or 1/2"	16	M16 x 1.5	3/8" or 1/2"	0.9	6.0	32	25.4	28.0	0.121
16	M16 x 1.5	1/2" or 3/4"	16	M16 x 1.5	1/2" or 3/4"	4.0	8.4	38	25.4	28.0	0.133
20S	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	7.2	11.7	43	25.4	28.0	0.149
20	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	9.4	14.0	43	30.0	33.0	0.174
25	M25 x 1.5	3/4" or 1"	16	M25 x 1.5	3/4" or 1"	13.5	20.0	43	37.6	41.4	0.243
32	M32 x 1.5	1" or 1 1/4"	16	M32 x 1.5	1" or 1 1/4"	19.5	26.3	43	46.0	50.6	0.344
40	M40 x 1.5	1 1/4" or 1 1/2"	16	M40 x 1.5	1 1/4" or 1 1/2"	23.0	32.2	46	55.0	60.5	0.510
50S	M50 x 1.5	1 1/2" or 2"	16	M50 x 1.5	1 1/2" or 2"	28.1	38.2	47	65.0	71.5	0.597
50	M50 x 1.5	2"	16	M50 x 1.5	2"	33.1	44.1	47	65.0	71.5	0.540
63S	M63 x 1.5	2" or 2 1/2"	19	M63 x 1.5	2" or 2 1/2"	39.2	50.1	47	80.0	88.0	0.921
63	M63 x 1.5	2 1/2"	19	M63 x 1.5	2 1/2"	46.7	56.0	47	80.0	88.0	0.825
75S	M75 x 1.5	2 1/2" or 3"	19	M75 x 1.5	2 1/2" or 3"	52.1	62.0	47	90.0	99.0	1.132
75	M75 x 1.5	3"	19	M75 x 1.5	3"	58.0	68.0	47	90.0	99.0	1.011
80	M80 x 2.0	3" or 3 1/2"	25	M80 x 2.0	3" or 3 1/2"	62.2	72.0	58	104.0	115.2	1.852
85	M85 x 2.0	3" or 3 1/2"	25	M85 x 2.0	3" or 3 1/2"	69.0	78.0	58	104.0	115.2	1.667
90	M90 x 2.0	3 1/2" or 4"	25	M90 x 2.0	3 1/2" or 4"	74.0	84.0	59	114.0	125.7	2.041
100	M100 x 2.0	3 1/2" or 4"	25	M100 x 2.0	3 1/2" or 4"	82.0	90.0	60	114.0	125.7	1.986
					All dimension	ons in mm					

Notes: • Gland s

- Gland size does not necessarily equate to the entry thread size.
- The IP O-ring seal is only available on metric entry threads. IP washers can be supplied for tapered entry threads.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



#### **Cable Gland Type A\*RCF** - (Single Compression Gland with a Freely Rotating Female Conduit Connection)

Ex d: Ex e: Ex nR: Ex ta: IP66: IP68
Class I Div 2: AFx e: AFx ta

Part Numbers:

Α	1	R	CF	В	F
	2			S	
	3			Α	
	4				



"A\*RCF" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. They provide a controlled pull resistant environmental displacement seal on the cable outer sheath, minimising damage to cables that exhibit "cold flow" characteristics. The gland maintains IP66 & IP68 to 50 metres and is supplied with an IP O-ring seal as standard on metric entry threads. The gland features a freely rotating female threaded conduit connection for ease of installation.

 Compliance
 EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31

 Standards:
 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529

UL514B, UL1203, UL2225, UL50E, ANSI/UL 60079-0/7, ISA 60079-31

Certification: ATEX II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Gc

IECEx Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

NEC - USA Class I Zone 1 AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da

Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X Exd IICU / Exe IIU / ExnR IIU

INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

 SAC - China
 Ex d IIC / Ex e IIC

 UKRAINE
 Ex d IIC X / Ex e II X

 CCOE - India
 Petroleum Rules 2002 (PESO)

 ABS
 Specified ABS Rules

 LLOYD'S
 Enclosure Systems (Part 1B)

RMRS Part XI of RS Rules for the classification & construction of

sea-going ships (ed. 2014)

Certificate No. ATEX SIRA 01ATEX1272X & SIRA 09ATEX1221X

 IECEX
 IECEX SIR 07.0096X

 NEC - USA
 CSA 2627370

 EAC
 RU C-GB.IF066.B.00098

 INMETRO - Brazil
 NCC 13.2012 X

 SAC - China
 NEPSI GYJ16.1399X

 UKRAINE
 UA.TR.047.C.0408-13 & 2937

 CCOE - India
 PESO P365300/2 & P365300/5

ABS 14-LD463991-1-PDA LLOYD'S 10/00056(E1) RMRS 14.02755.315

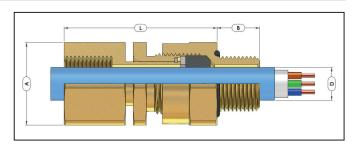
IP Rating: IP66 & IP68 (50 metres - 7 Days), Type 4X

**Operating** Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C **Temperature:** 

Materials: Brass, Stainless Steel or Aluminium

Plating: Electroless Nickel

FAC



## Example Part Numbering (See below for details) A2RCFI

#### A2RCFBF050NPT/NP/20/M20

	Α	Gland featuring controlled displacement sealing							
	2	Treoprene sear (2) Sincorre sear (3) Treoprene, zeaa (1) Sincorre, zeaa (1)							
	R Rotating Conduit Design								
	CF	Female Conduit Connection Thread							
	В	Aluminium (A) / Brass (B) / Stainless Steel (S)							
	F	Multiple Certification							
0.	50NPT	1/2"NPT Female Conduit Connection Thread							
	L	Locknut (material dictated by gland entry thread material)							
S	N	Including IP Washer, Nylon [N] - Fibre [V] - PTFE [H]							
. <u>5</u>	Т	Including Earth Tag							
Options	S	Including Serrated Washer							
0	1	Quantity per kit							
	NP	Nickel Plated							
	20	Gland & Connector Size							
	M20	M20 x 1.5mm Male Entry Thread							

tional	ssories
Opti	Acces

 Locknut
 Brass (ACBLN) / Stainless Steel (ACSLN) / Aluminium (ACALN)

 Earth tag
 Brass (ACBET) / Stainless Steel (ACSET) / Aluminium (ACAET)

 IP Washers
 Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)

 Serrated Washers
 Stainless Steel (ACSSW)

				C	ABLE GLAND SE	LECTION TAB	LE				
	Entry Th	nread Size	Metric Thread	Conduit Con	nection Thread		ceptance heath [D]	Nominal	Dimensio	ns/Weight (Metric	Versions)
Gland Size			Length			Outer 51	ileatii [D]	Protrusion	Across	Across	Weight
	Metric	NPT	[B]	Metric	NPT	Min	Max	Length [L]	Flats [A]	Corners	Kgs
12	M12 x 1.5	3/8"	16	M12 x 1.5	3/8"	0.9	6.0	52	19.0	21.0	0.085
12	M16 x 1.5	3/8" or 1/2"	16	M16 x 1.5	3/8" or 1/2"	0.9	6.0	50	25.4	28.0	0.159
16	M16 x 1.5	1/2" or 3/4"	16	M16 x 1.5	1/2" or 3/4"	4.0	8.4	56	25.4	28.0	0.173
20S	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	7.2	11.7	61	25.4	28.0	0.165
20	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	9.4	14.0	61	30.0	33.0	0.229
25	M25 x 1.5	3/4" or 1"	16	M25 x 1.5	3/4" or 1"	13.5	20.0	61	37.6	41.4	0.340
32	M32 x 1.5	1" or 1 1/4"	16	M32 x 1.5	1" or 1 1/4"	19.5	26.3	61	46.0	50.6	0.471
40	M40 x 1.5	1 1/4" or 1 1/2"	16	M40 x 1.5	1 1/4" or 1 1/2"	23.0	32.2	64	55.0	60.5	0.676
50S	M50 x 1.5	1 1/2" or 2"	16	M50 x 1.5	1 1/2" or 2"	28.1	38.2	65	65.0	71.5	0.835
50	M50 x 1.5	2"	16	M50 x 1.5	2"	33.1	44.1	65	65.0	71.5	0.777
63S	M63 x 1.5	2" or 2 1/2"	19	M63 x 1.5	2" or 2 1/2"	39.2	50.1	68	80.0	88.0	1.307
63	M63 x 1.5	2 1/2"	19	M63 x 1.5	2 1/2"	46.7	56.0	68	80.0	88.0	1.211
75S	M75 x 1.5	2 1/2" or 3"	19	M75 x 1.5	2 1/2" or 3"	52.1	62.0	68	90.0	99.0	1.489
75	M75 x 1.5	3"	19	M75 x 1.5	3"	58.0	68.0	68	90.0	99.0	1.368
80	M80 x 2.0	3" or 3 1/2"	25	M80 x 2.0	3" or 3 1/2"	62.2	72.0	85	104.0	115.2	2.775
85	M85 x 2.0	3" or 3 1/2"	25	M85 x 2.0	3" or 3 1/2"	69.0	78.0	85	104.0	115.2	2.437
90	M90 x 2.0	3 1/2" or 4"	25	M90 x 2.0	3 1/2" or 4"	74.0	84.0	86	114.0	125.7	3.062
100	M100 x 2.0	3 1/2" or 4"	25	M100 x 2.0	3 1/2" or 4"	82.0	90.0	86	114.0	125.7	2.559
					All dimension	ons in mm					

- Gland size does not necessarily equate to the entry thread size.
- The IP O-ring seal is only available on metric entry threads. IP washers can be supplied for tapered entry threads.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length.
   Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



## Cable Gland Type A\*LCM - (Single Compression Gland with Male Thread for Conduit Connection)

Ex d : Ex e : Ex nR : Ex ta : IP66 : IP68 Class I Div 2 : AEx e : AEx ta

Part Numbers:

Α	1	L	CM	В	F
	2			S	
	3			Α	
	4				



"A\*LCM" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. They provide a controlled pull resistant environmental displacement seal on the cable outer sheath, minimising damage to cables that exhibit "cold flow" characteristics. The gland maintains IP66 & IP68 to 50 metres. It is supplied with an IP O-ring seal as standard on metric entry threads. The gland features a male conduit connection thread as standard.

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 Compliance IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529

C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL514B, UL1203, UL2225, UL50E

ANSI/UL 60079-0/7, ISA 60079-31

II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Gc

IECEx CEC - Canada Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da Class I Zone 1 Ex d IIC / Ex e II Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G (except size 12)

Class III, Enclosure Type 4X Class I Zone 1 AExe IIC Gb / Class II Zone 20 AEx ta IIIC Da NEC - USA

Class II Division 1, Groups E, F & G

Class III, Enclosure Type 4X Exd IICU / Exe IIU / ExnR IIU

INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc Ex d IIC / Ex e IIC

SAC - China UKRAINE

Ex d IIC X / Ex e II X Petroleum Rules 2002 (PESO) CCoE - India ABS LLOYD'S Specified ABS Rules

Enclosure Systems (Part 1B)
Part XI of RS Rules for the classification & construction of RMRS

sea-going ships (ed. 2014)

SIRA 01ATEX1272X & SIRA 09ATEX1221X Certificate No. ATEX

IECEx SIR 07.0096X CSA 1356011 **IECEx** CEC - Canada NEC - USA EAC INMETRO - Brazil CSA 2627370 RU C-GB.ΓБ06.B.00098 NCC 13.2012 X NEPSI GYJ16.1399X SAC - China UKRAINE

UA.TR.047.C.0408-13 & 2937 PESO P365300/2 & P365300/5 CCoE - India ABS 14-LD463991-1-PDA

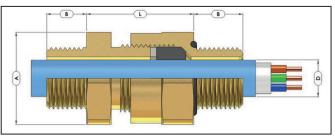
LLOYD'S 10/00056(E1) RMRS 14 02755 315

IP Rating: IP66 & IP68 (50 metres - 7 Days), Type 4X

Operating Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C Temperature:

Materials: Aluminium, Brass or Stainless Steel

Plating: Electroless Nickel



		art Numbering for details)	A2LCMBF050NPT/NP/20/M20
Ξ			
	Α		olled displacement sealing
	2		cone Seal (3) - Neoprene/Lead (1) - Silicone/Lead (4)
	L	Peppers Standard Des	ignation
	CM	Male Conduit Connect	ion Thread
	В	Brass (B) / Stainless Ste	el (S) / Aluminium (A)
	F	Multiple Certification	
	050NPT	1/2"NPT Male Conduit	Connection Thread
	L	Locknut (material dicta	ated by gland entry thread material)
S	N	Including IP Washer, N	ylon [N] - Fibre [V] - PTFE [H]
Options	Т	Including Earth Tag	
pt	S	Including Serrated Wa	sher
0	1	Quantity per kit	
	NP	Nickel Plated	
	20	Gland shell size	
	M20	M20 x 1.5mm Male En	try Thread
	es _	Locknut	Brass (ACBLN) / St Steel (ACSLN) / Aluminium (ACALN)
	ona	Earth tag	Brass (ACBET) / St Steel (ACSET) / Aluminium (ACAET)
	Optional Accessories	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
	Ž Š	Serrated Washers	Stainless Steel (ACSSW)

	CABLE GLAND SELECTION TABLE											
	Entry Th	nread Size	Metric Thread	Conduit Con	nection Thread		cceptance	Nominal	Dimensio	ns/Weight (Metri	Versions)	
Gland Size	Lilliy II	ileau Size	Length	Conduit Com	lection mieau	Outer S	heath [D]	Protrusion Length [L]	Across	Across	Weight	
	Metric	NPT	[B]	Metric	NPT	Min	Max	(Metric)	Flats [A]	Corners	Kgs (Metric)	
12	M12 x 1.5	3/8"	16	M12 x 1.5	3/8"	0.9	6.0	25	19.0	21.0	0.048	
12	M16 x 1.5	3/8" or 1/2"	16	M16 x 1.5	3/8" or 1/2"	0.9	6.0	26	25.4	28.0	0.117	
16	M16 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	4.0	8.4	30	25.4	28.0	0.131	
205	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	7.2	11.7	35	25.4	28.0	0.134	
20	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	9.4	14.0	35	30.0	33.0	0.150	
25	M25 x 1.5	3/4" or 1"	16	M25 x 1.5	3/4" or 1"	13.5	20.0	35	37.6	41.4	0.215	
32	M32 x 1.5	1" or 1 1/4"	16	M32 x 1.5	1" or 1 1/4"	19.5	26.3	35	46.0	50.6	0.293	
40	M40 x 1.5	1 1/4" or 1 1/2"	16	M40 x 1.5	1 1/4" or 1 1/2"	23.0	32.2	38	55.0	60.5	0.472	
50S	M50 x 1.5	1 1/2" or 2"	16	M50 x 1.5	1 1/2" or 2"	28.1	38.2	38	65.0	71.5	0.583	
50	M50 x 1.5	2"	16	M50 x 1.5	2"	33.1	44.1	38	65.0	71.5	0.525	
635	M63 x 1.5	2" or 2 1/2"	19	M63 x 1.5	2" or 2 1/2"	39.2	50.1	38	80.0	88.0	0.899	
63	M63 x 1.5	2 1/2"	19	M63 x 1.5	2 1/2"	46.7	56.0	38	80.0	88.0	0.803	
75S	M75 x 1.5	2 1/2" or 3"	19	M75 x 1.5	2 1/2" or 3"	52.1	62.0	38	90.0	99.0	0.994	
75	M75 x 1.5	3"	19	M75 x 1.5	3"	58.0	68.0	38	90.0	99.0	0.873	
80	M80 x 2.0	3" or 3 1/2"	25	M80 x 2.0	3" or 3 1/2"	62.2	72.0	47	104.0	115.2	1.640	
85	M85 x 2.0	3" or 3 1/2"	25	M85 x 2.0	3" or 3 1/2"	69.0	78.0	47	104.0	115.2	1.462	
90	M90 x 2.0	3 1/2" or 4"	25	M90 x 2.0	3 1/2" or 4"	74.0	84.0	47	114.0	125.7	1.713	
100	M100 x 2.0	3 1/2" or 4"	25	M100 x 2.0	3 1/2" or 4"	82.0	90.0	48	114.0	125.7	1.757	
					All dime	nsions in mm						

- Gland size does not necessarily equate to the entry thread size.
- The IP O-ring seal is only available on metric entry threads. IP washers can be supplied for tapered entry threads.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



## Cable Gland Type A\*LCF - (Single Compression Gland with Female Thread for Conduit Connection)

Ex d : Ex e : Ex nR : Ex ta : IP66 : IP68 Class I Div 2 : AEx e : AEx ta

Part Numbers:

Α	1	L	CF	В	F
	2			S	
	3			Α	
	4				



"A\*LCF" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. They provide a controlled pull resistant environmental displacement seal on the cable outer sheath, minimising damage to cables that exhibit "cold flow" characteristics. The gland maintains IP66 & IP68 to 50 metres. It is supplied with an IP O-ring seal as standard on metric entry threads. The gland features a female conduit connection thread as standard.

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 Compliance Standards:

IEC 60079-1, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529 C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL514B, UL1203, UL2225, UL50E

ANSI/UL 60079-0/7, ISA 60079-31

Certification: II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Gc

Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da Class I Zone 1 Ex d IIC / Ex e II **IFCF**x CEC - Canada Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G (except size 12)

Class III, Enclosure Type 4X Class I Zone 1 AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da NEC - USA

Class II Division 1, Groups E, F & G Class III, Enclosure Type 4) Exd IICU / Exe IIU / ExnR IIU

INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

SAC - China Fx d IIC / Fx e IIC CCoE - India Petroleum Rules 2002 (PESO) Specified ABS Rules Enclosure Systems (Part 1B) ABS LLOYD'S RMRS

Part XI of RS Rules for the classification & construction

of sea-going ships (ed. 2014)

SIRA 01ATEX1272X & SIRA 09ATEX1221X Certificate No.

IECEx SIR 07.0096X CSA 1356011 CEC - Canada NEC - USA CSA 2627370 EAC INMETRO - Brazil RU C-GB.ГБ06.В.00098 NCC 13.2012 X SAC - China NEPSI GYJ16.1399X

UA.TR.047.C.0408-13 & 2937 PESO P365300/2 & P365300/5 UKRAINE CCoE - India ABS 14-LD463991-1-PDA

LLOYD'S 10/00056(F1) 14.02755.315

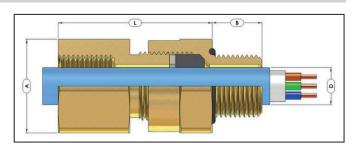
IP Rating: IP66 & IP68 (50 metres - 7 Days), Type 4X Operating

Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C Temperature:

Materials Aluminium, Brass or Stainless Steel Plating:

Electroless Nickel

EAC



		A2LCFBF050NPT/NP/20/M20
(Se	e belov	v for details)
	Α	Gland featuring controlled displacement sealing
	2	Neoprene Seal (2) - Silicone Seal (3) - Neoprene/Lead (1) - Silicone/Lead (4)
	L	Peppers Standard Designation
	CF	Female Conduit Connection Thread
	В	Brass (B) / Stainless Steel (S) / Aluminium (A)
	F	Multiple Certification
05	ONPT	1/2"NPT Female Conduit Connection Thread
	L	Locknut (material dictated by gland entry thread material)
S	N	Including IP Washer, Nylon (N) - Fibre (V) - PTFE (H)
Options	Т	Including Earth Tag
Þ	S	Including Serrated Washer
0	1	Quantity per kit
	NP	Nickel Plated
	20	Gland shell size
	M20	M20 x 1.5mm Male Entry Thread

es =	Locknut	Brass (ACBLN) / Stainless Steel (ACSLN) / Aluminium (ACALN)
ona	Earth tag	Brass (ACBET) / Stainless Steel (ACSET) / Aluminium (ACAET)
Optional Accessories	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
O Š	Serrated Washers	Stainless Steel (ACSSW)

	CABLE GLAND SELECTION TABLE											
Gland	Entry Thread Size		Metric Thread	Conduit Con	nection Thread		ceptance heath [D]	Nominal Protrusion	Dimensions/Weight (Metric Versions)			
Size	Metric	NPT	Length [B]	Metric	NPT	Min	Max	Length [L] (Metric)	Across Flats [A]	Across Corners	Weight Kgs (Metric)	
12	M12 x 1.5	3/8"	16	M12 x 1.5	3/8"	0.9	6.0	45	19.0	21.0	0.078	
12	M16 x 1.5	3/8" or 1/2"	16	M16 x 1.5	3/8" or 1/2"	0.9	6.0	44	25.4	28.0	0.130	
16	M16 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	4.0	8.4	48	25.4	28.0	0.154	
20S	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	7.2	11.7	53	25.4	28.0	0.150	
20	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	9.4	14.0	53	30.0	33.0	0.206	
25	M25 x 1.5	3/4" or 1"	16	M25 x 1.5	3/4" or 1"	13.5	20.0	53	37.6	41.4	0.310	
32	M32 x 1.5	1" or 1 1/4"	16	M32 x 1.5	1" or 1 1/4"	19.5	26.3	53	46.0	50.6	0.442	
40	M40 x 1.5	1 1/4" or 1 1/2"	16	M40 x 1.5	1 1/4" or 1 1/2"	23.0	32.2	56	55.0	60.5	0.625	
505	M50 x 1.5	1 1/2" or 2"	16	M50 x 1.5	1 1/2" or 2"	28.1	38.2	56	65.0	71.5	0.777	
50	M50 x 1.5	2"	16	M50 x 1.5	2"	33.1	44.1	56	65.0	71.5	0.719	
63S	M63 x 1.5	2" or 2 1/2"	19	M63 x 1.5	2" or 2 1/2"	39.2	50.1	59	80.0	88.0	1.238	
63	M63 x 1.5	2 1/2"	19	M63 x 1.5	2 1/2"	46.7	56.0	59	80.0	88.0	1.142	
75S	M75 x 1.5	2 1/2" or 3"	19	M75 x 1.5	2 1/2" or 3"	52.1	62.0	59	90.0	99.0	1.339	
75	M75 x 1.5	3″	19	M75 x 1.5	3"	58.0	68.0	59	90.0	99.0	1.218	
80	M80 x 2.0	3" or 3 1/2"	25	M80 x 2.0	3" or 3 1/2"	62.2	72.0	74	104.0	115.2	2.454	
85	M85 x 2.0	3" or 3 1/2"	25	M85 x 2.0	3" or 3 1/2"	69.0	78.0	74	104.0	115.2	2.272	
90	M90 x 2.0	3 1/2" or 4"	25	M90 x 2.0	3 1/2" or 4"	74.0	84.0	74	114.0	125.7	2.643	
100	M100 x 2.0	3 1/2" or 4"	25	M100 x 2.0	3 1/2" or 4"	82.0	90.0	75	114.0	125.7	2.209	
					All dime	nsions in mm						

- Gland size does not necessarily equate to the entry thread size.
- . The IP O-ring seal is only available on metric entry threads. IP washers can be supplied for tapered entry threads.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



## Cable Gland Type A8 - (Single Compression Gland designed for Unarmoured Flat Cable)

Ex d : Ex e : Ex nR : Ex ta : IP66 : IP68 Class I Div 2 : AEx e : AEx ta

Part Numbers:

Α	8	В	F
		5	



"A8" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Developed for flat cables, they provide controlled Ex d sealing and have been tested to IP66 and IP68 to 50 metres. The A8 version is designed to accommodate unarmoured and armoured cables where sealing and retention is required only on the outer sheath.

Compliance EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 Standards: IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529

UL514B, UL1203, ANSI/UL 60079-0/7, ISA 60079-31

Certification: ATEX II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Go

IECEx Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

NEC - USA Class I Zone 1 AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da

Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X Exd IICU / Exe IIU / ExnR IIU

SAC - China Ex d IIC / Ex e IIC

EAC

UKRAINE

INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Go

CCoE Petroleum Rules 2002 (PESO)
ABS Specified ABS Rules

LLOYD'S Enclosure Systems (Part 1B)

Ex d IIC X / Ex e II X

RMRS Part XI of RS Rules for the classification & construction of

sea-going ships (ed. 2014)

Certificate No. ATEX SIRA 01ATEX1270X & SIRA 09ATEX1221X

 IECEX
 IECEX SIR 05.0020X

 NEC - USA
 CSA 2627370

 EAC
 RU C-GB.ΓБ06.B.00098

 SAC - China
 NEPSI GYJ16.1398X

 INMETRO - Brazil
 NCC 13.2187 X

UKRAINE UA.TR.047.C.0408-13 & 2937

CCOE - India PESO P365300/2 & P365300/6

ABS 14-LD463991-1-PDA LLOYD'S 10/00056(E1) RMRS 14.02755.315

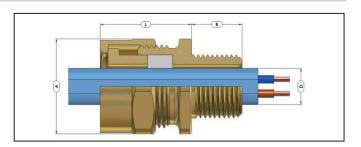
IP Rating: IP66 & IP68 (50 metres - 7 Days)

Operating

Temperature: Silicone Seals -60°C to +180°C

Materials: Brass or Stainless Steel

Plating: Electroless Nickel



(See below fo	or details)	A8BF/NP/20R/M20					
А	Gland for Unarmoured Cables						
8	Silicone Seal for flat	Silicone Seal for flat cables					
В	Brass (B) / Stainless	Brass (B) / Stainless Steel (S)					
F	Multiple Certification						
NP	Nickel Plated						
20R	Gland shell size						
M20	M20 x 1.5mm Male	Entry Thread					
	Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)					
onal	Earth tag	Brass (ACBET) / Stainless Steel (ACSET)					
<b>Optional</b> Accessories	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)					
	Serrated Washers	Stainless Steel (ACSSW)					

	CABLE GLAND SELECTION TABLE											
	Entry Thread Size		Cable Outer Sheath [D]				Nominal	Dimensions/Weight (Metric Versions)			Metric	
Gland Size	Entry In	read Size	Length	Wi	dth	Thick	iness	Protrusion	Across Flats [A]	Across Corners	Weight Kgs (Metric)	Thread Shroud
	Metric	NPT	[B]	Min	Max	Min	Max	Length [L]				Size
205	M20 x 1.5 M25 x 1.5	3/4" or 1/2"	16	6.3	11.7	4.0	7.0	33	30.0	33.0	0.104	N/A
20R	M20 x 1.5 M25 x 1.5	3/4" or 1/2"	16	8.1	13.5	5.8	6.2	33	30.0	33.0	0.104	N/A
20	M20 x 1.5 M25 x 1.5	3/4" or 1/2"	16	10.3	13.5	5.6	9.0	33	30.0	33.0	0.103	N/A
** 25	M25 x 1.5	3/4" or 1"	16	10.6	16.2	4.0	7.0	31	37.6	41.4	0.162	N/A
	All dimensions in mm											

- Gland size does not necessarily equate to the entry thread size.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and
  other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full
  form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken
  into account.
- When selecting IP Washer material for gland kits, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.
- \*\* Size 25mm is only ATEX & IECEx certified.



# Cable Gland Type A8RC - (Single Compression Gland for use with Unarmoured Flat Cable, featuring a Rotating Flexible Metallic Conduit Connector)

Ex d: Ex e: Ex nR: Ex ta: IP66: IP68

Part Numbers:

Α	8	RC	В	F
			٠	



"A8RC" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Developed for flat cables, they provide controlled Ex d sealing and have been tested to IP66 and IP68 to 50 metres. The "A8RC" version is designed to accommodate unarmoured cables where sealing and retention is required only on the outer sheath. The gland features a rotating flexible metallic conduit connection.

 Compliance
 EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31

 Standards:
 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529

Certification: ATEX II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Go

IECEx Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

SAC - China Ex d IIC / Ex e IIC

CCoE - India Petroleum Rules 2002 (PESO)
LLOYD'S Enclosure Systems (Part 1B)

Certificate No. ATEX SIRA 01ATEX1270X & SIRA 09ATEX1221X

 IECEx
 IECEx SIR 05.0020X

 INMETRO - Brazil
 NCC 13.2187 X

 SAC - China
 NEPSI GYJ16.1398X

CCoE - India PESO P365300/2 & P365300/6

LLOYD'S 10/00056(E1)

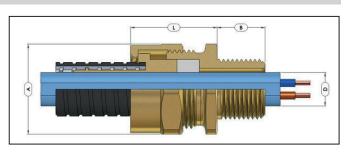
IP Rating: IP66 & IP68 (50 metres - 7 Days)

Operating

Temperature: Silicone Seals -60°C to +180°C

Materials: Brass or Stainless Steel

Plating: Electroless Nickel



	•	art Numbering for details)	A8RCBF/NP/20-1/M20				
	Α	Gland designed for u	use with Unarmoured Cables				
	8	Silicone Seal for Flat	Cable				
	RC Rotating Metallic Flexible Conduit Connector						
	В	Brass (B) / Stainless S	iteel (S)				
	F	Multiple Certification	n				
	L	Locknut (material di	ctated by gland entry thread material)				
SI	N	Including IP Washer,	Including IP Washer, Nylon (N) - Fibre (V) - PTFE (H)				
Options	Т	Including Earth Tag					
o	S	Including Serrated W	/asher				
	1	Quantity per kit					
	NP	Nickel Plated					
	20-1	Gland shell size					
	M20	M20 x 1.5 Male Entry	/Thread				
		Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)				
	al ries						
	ion	Earth tag Brass (ACBET) / Stainless Steel (ACSET)					
	Optional Accessories	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)				
	Ã	Serrated Washers	Stainless Steel (ACSSW)				

					CABLE	GLAND SELE	CTION TABL	E				
	F-tT	hread Size		Cable Oute	r Sheath [D]		Typical Conduit Dia		Nominal	Dime	ensions/Weight	Metric)
GLAND	Entry	niedu size	W	/idth	Thic	ckness	Турісаі	Typical Collduit Dia		Across	Across	
SIZE	Metric	NPT	Min	Max	Min	Max	I/D	Max O/D	Length [L]	Flats [A]	Corners	Weight Kgs
20S-1	M20 x 1.5	1/2" or 3/4"	6.3	11.2	4.0	7.0	13.0	17.1	31	30.0	33.0	0.117
20S-2	M20 x 1.5	1/2" or 3/4"	6.3	11.7	4.0	7.0	15.0	19.3	31	30.0	33.0	0.125
20S-3	M20 x 1.5	1/2" or 3/4"	6.3	11.7	4.0	7.0	16.9	21.5	31	30.0	33.0	0.117
20-1	M20 x 1.5	1/2" or 3/4"	10.3	11.2	5.6	9.0	13.0	17.1	31	30.0	33.0	0.117
20-2	M20 x 1.5	1/2" or 3/4"	10.3	13.5	5.6	9.0	15.0	19.3	31	30.0	33.0	0.125
20-3	M20 x 1.5	1/2" or 3/4"	10.3	13.5	5.6	9.0	16.9	21.5	31	30.0	33.0	0.117
20R-1	M20 x 1.5	1/2" or 3/4"	8.1	11.2	5.8	6.2	13.0	17.1	32	30.0	33.0	0.118
20R-2	M20 x 1.5	1/2" or 3/4"	8.1	13.5	5.8	6.2	15.0	19.3	32	30.0	33.0	0.126
20R-3	M20 x 1.5	1/2" or 3/4"	8.1	13.5	5.8	6.2	16.9	21.5	32	30.0	33.0	0.118
25-1	M25-1.5	3/4" or 1"	10.6	16.2	4.0	7.0	16.9	23.8	31	37.6	41.4	0.164
25-2	M25-1.5	3/4" or 1"	10.6	16.2	4.0	7.0	18.7	24.8	31	37.6	41.4	0.175
25-3	M25-1.5	3/4" or 1"	10.6	16.2	4.0	7.0	21.1	26.8	31	37.6	41.4	0.178
25-4	M25-1.5	3/4" or 1"	10.6	16.2	4.0	7.0	20.7	27.8	31	37.6	41.4	0.185
					1	A <mark>ll</mark> dimensions ir	n mm					

- Gland size does not necessarily equate to the entry thread size.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and
  other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full
  form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken
  into account.
- When selecting IP Washer material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- It is the installer's responsibility to ensure that the conduit is secured correctly.
- If fit testing is required for specific conduit please contact Peppers.
- Where approval in addition to ATEX and IECEx is required, this must be clearly requested at time of enquiry / order.



#### Cable Gland Type A8CM

ingle Compression Gland designed for use with Unarmoured Flat Cables and (Single Compression Gland designed featuring a Male Conduit Connection)

Part Numbers:

8



"A8CM" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Developed for flat cables, they provide controlled Ex d, IP sealing and have been tested to IP66 and IP68 to 50 metres. The "A8CM" version is designed to accommodate unarmoured cables where sealing and retention is required only on the outer sheath and additionally provides a male thread for the connection of conduit.

Compliance EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 Standards: IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529

UL514B, UL1203, UL2225, UL50E, ANSI/UL 60079-0/7 & ISA 60079-31

Certification: II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da ATEX

**IECEx** Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

Class I Zone 1 AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da NEC - USA

Class II Division 1, Groups E, F & G (except size 25) Class III, Enclosure Type 4X Exd IICU / Exe IIU / ExnR IIU

INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

SAC - China Ex d IIC / Ex e IIC UKRAINE Ex d IIC X / Ex e II X Petroleum Rules 2002 (PESO) CCoE - India

Specified ABS Rules ABS LLOYD'S Enclosure Systems (Part 1B)

Part XI of RS Rules for the classification & construction of RMRS

sea-going ships (ed. 2014)

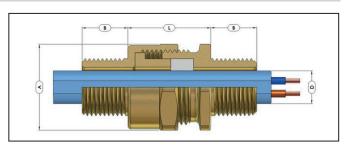
Certificate No. SIRA 01ATEX1270X & SIRA 09ATEX1221X

> **IFCF**x IECEx SIR 05.0020X CSA 2627370 NEC - USA RU C-GB.ГБ06.В.00098 INMFTRO - Brazil NCC 13.2187 X SAC - China UKRAINE LIA TR 047 C 0408-13 & 2937 PESO P365300/2 & P365300/6 CCoE - India 14-LD463991-1-PDA ABS

LLOYD'S 10/00056(E1) RMRS 14.02755.315

IP66 & IP68 (50 metres - 7 Days), Type 4X IP Rating:

Silicone Seals -60°C to +180°C Temperature: Brass or Stainless Steel Materials: Plating: Electroless Nickel



	ample Part e below for	Numbering details)	A8CMBFM20/NP/20/M20						
	Α	Gland designed for	use with Unarmoured Cables						
	8	Silicone Seal for Fla	t Cables						
	CM	Male Conduit Connection Thread							
	В	Brass (B) / Stainless Steel (S)							
	F	Multiple Certification	Multiple Certification						
	M20	M20 x 1.5 Male Con	M20 x 1.5 Male Conduit Connection Thread						
	L	Locknut (material d	Locknut (material dictated by gland entry thread material)						
	N	Including IP Washer	r, Nylon (N) - Fibre (V) - PTFE (H)						
Options	Т	Including Earth Tag							
Opt	S	Including Serrated	Washer						
	1	Quantity per kit							
	NP	Nickel Plated							
	20	Gland shell size							
	M20	M20 x 1.5 Male Entr	ry Thread						
	Optional Accessories	Locknut  Earth tag	Brass (ACBLN) / Stainless Steel (ACSLN) Brass (ACBET) / Stainless Steel (ACSET)						
	Optional	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)						
	Ž	Serrated Washers	Stainless Steel (ACSSW)						

	CABLE GLAND SELECTION TABLE												
	Entry Th	read Size	Metric	Connection	Thread Options		Cable Oute	r Sheath [D]		Nominal	Dimensio	ns/Weight (Metric	Versions)
Gland Size	2.1.07	icaa size	Thread Length	Connection	Tineda Options	Wie	Width Thickness		Protrusion	Across	Across	Weight	
	Metric	NPT	[B]	Metric	NPT	Min	Max	Min	Max	Length [L]	Flats [A]	Corners	Kgs
205	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	6.3	11.7	4.0	7.0	31	30.0	33.0	0.132
20R	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	8.1	13.5	5.8	6.2	32	30.0	33.0	0.133
20	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	10.3	13.5	5.6	9.0	31	30.0	33.0	0.132
25	M25 x 1.5	3/4" or 1"	16	M25 x 1.5	3/4" or 1"	10.6	16.2	4.0	7.0	31	37.6	41.4	0.280
	All dimensions in mm												

- Gland size does not necessarily equate to the entry thread size.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



Cable Gland Type A8CF (Single Com

(Single Compression Gland designed for use with Unarmoured Flat Cables and featuring a Female Conduit Connection)

Ex d: Ex e: Ex nR: Ex ta: IP66: IP68

Part Numbers:

Α	8	CF	В	F



"A8CF" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Developed for flat cables, they provide controlled Ex d, IP sealing and have been tested to IP66 and IP68 to 50 metres. The "A8CF" version is designed to accommodate unarmoured cables where sealing and retention is required only on the outer sheath and additionally provides a female thread for the connection of conduit.

Compliance Standards: EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529 UL514B, UL1203, UL2225, UL50E, ANSI/UL 60079-0/7 & ISA 60079-31

Certification:

ATEX II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Go

IECEx Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

NEC - USA Class I Zone 1 AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da

(except size 25)

Class II Division 1, Groups E, F & G
Class III, Enclosure Type 4X

EAC

Exd IICU / Exe IIU / ExnR IIU

INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

 SAC - China
 Ex d IIC / Ex e IIC

 UKRAINE
 Ex d IIC X / Ex e II X

 CCOE - India
 Petroleum Rules 2002 (PESO)

 ABS
 Specified ABS Rules

LLOYD'S Enclosure Systems (Part 1B)

RMRS Part XI of RS Rules for the classification & construction of

sea-going ships (ed. 2014)

Certificate No.

ATEX SIRA 01ATEX1270X & SIRA 09ATEX1221X

IECEx SIR 05.0020X NFC - USA CSA 2627370 RU C-GB.F506.B.00098 EAC INMETRO - Brazil NCC 13.2187 X SAC - China NEPSI GYJ16.1398X UKRAINE UA.TR.047.C.0408-13 & 2937 CCoE - India PESO P365300/2 & P365300/6 14-LD463991-1-PDA ABS LLOYD'S 10/00056(E1)

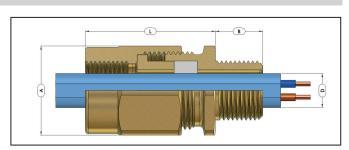
RMRS 14.02755.315

IP Rating: P66 & IP68 (50 metres - 7 Days), Type 4X

Operating Temperature: Materials:

Plating:

Silicone Seals -60°C to +180°C Brass or Stainless Steel Electroless Nickel



	<b>cample Pa</b> ee below fo	r <b>t Numbering</b> or details)	A8CFBFM20/NP/20/M20				
	А	Gland designed for u	use with Unarmoured Cables				
	8	Silicone Seal for Flat	Cables				
	CF	Female Conduit Con	nection Thread				
	В	Brass (B) / Stainless S	iteel (S)				
	F Multiple Certification						
	M20	M20 x 1.5 Female Conduit Connection Thread					
	L	Locknut (material dictated by gland entry thread material)					
	N	Including IP Washer, Nylon (N) - Fibre (V) - PTFE (H)					
ons	Т	Including Earth Tag					
Options	S	Including Serrated W	asher				
	1	Quantity per kit					
	NP	Nickel Plated					
	20	Gland shell size					
	M20	M20 x 1.5 Male Entry	Thread				
Ξ			D (1501) (5.11 5.11 5.11 5.11 5.11 5.11 5.11 5.1				
	ies	Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)				
	Optional	Earth tag	Brass (ACBET) / Stainless Steel (ACSET)				
	Optional Accessories	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)				
	<	Serrated Washers	Stainless Steel (ACSSW)				

						CABLE G	LAND SELEC	CTION TABL	E				
	F . T	Let	Metric				Cable Oute	r Sheath [D]		Nominal	Dimensions/Weight (Metric Versions)		
Gland Size	Entry In	read Size	Thread Length	Connection I	hread Options	Wi	dth	Thick	kness	Protrusion Length [L]	Across	Across	Weight
	Metric	NPT	[B]	Metric	NPT	Min	Max	Min	Max	(Metric)	Flats [A]	Corners	Kgs
205	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	6.3	11.7	4.0	7.0	45	30.0	33.0	0.174
20R	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	8.1	13.5	5.8	6.2	46	30.0	33.0	0.175
20	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	10.3	13.5	5.6	9.0	45	30.0	33.0	0.174
25	M25 x 1.5	3/4" or 1"	16	M25 x 1.5	3/4" or 1"	10.6	16.2	4.0	7.0	48	37.6	41.4	0.194
	All dimensions in mm												

- Gland size does not necessarily equate to the entry thread size.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



## Cable Gland Type D8X - (Single Compression Gland designed for use with Armoured Flat Cable)

Ex d: Ex e: Ex nR: Ex ta: IP66: IP68
Class I Div 2: AFx e: AFx ta

Part Numbers:

D	8	Х	В	F
			S .	



"D8X" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Developed for flat cables, they provide controlled Ex d sealing and have been tested to IP66 and IP68 to 50 metres. The "D8X" version is designed to accommodate armoured cables, sealing on the inner sheath and also incorporates a detachable armour specific clamping system.

 Compliance
 EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31

 Standards:
 IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529

 UL514B, UL1203, UL2225, UL50E, ANSI/UL 60079-0//7, ISA 60079-31

Certification: ATEX II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Gc

IECEx Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

NEC - USA Class I Zone 1 AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da

Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X

EAC Exd IICU / Exe IIU / ExnR IIU

INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

 SAC - China
 Ex d IIC / Ex e IIC

 UKRAINE
 Ex d IIC X / Ex e II X

 CCOE - India
 Petroleum Rules 2002 (PESO)

 ABS
 Specified ABS Rules

 LLOYD'S
 Enclosure Systems (Part 1B)

RMRS Part XI of RS Rules for the classification & construction of

sea-going ships (ed. 2014)

Certificate No. ATEX SIRA 01ATEX1270X & SIRA 09ATEX1221X

 IECEX
 IECEX SIR 05.0020X

 NEC - USA
 CSA 2627370

 EAC
 RU C-GB.F066.B.00098

 INMETRO - Brazil
 NCC 13.2187 X

 SAC - China
 NEPSI GYJ16.1398X

 UKRAINE
 UA.TR.047.C.0408-13 & 2937

 CCOE - India
 PESO P365300/2 & P365300/6

 ABS
 14-LD463991-1-PDA

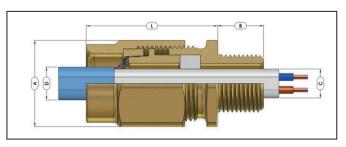
ABS 14-LD463991-1-PD LLOYD'S 10/00056(E1) RMRS 14.02755.315

IP Rating: IP66 & IP68 (50 metres - 7 Days), Type 4X

Temperature: Silicone Seals -60°C to +180°C

Materials: Brass or Stainless Steel

Plating: Electroless Nickel



	<b>xample Pa</b> see below f	rt Numbering or details)	D8XBF/NP/20/050NPT					
	D	Gland designed for u	use with Armoured Cables					
	8	Silicone Seal for flat cables						
	х	Detachable Clampin	Detachable Clamping for Braid Armour					
	В	Brass (B) / Stainless Steel (S)						
	F	Multiple Certification	Multiple Certification					
	L	Locknut (material di	ctated by gland entry thread material)					
	N	Including IP Washer,	Including IP Washer, Nylon (N) - Fibre (V) - PTFE (H)					
Options	Т	Including Earth Tag						
Opti	S	Including Serrated W	/asher					
	1	Quantity per kit						
	NP	Nickel Plated						
	20	Gland shell size						
	050NPT	1/2"NPT Male Entry	Thread					
		Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)					
	ial ries							
	Optional Accessories	Earth tag	Brass (ACBET) / Stainless Steel (ACSET)					
	Op	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)					
		Serrated Washers	Stainless Steel (ACSSW)					

	CABLE GLAND SELECTION TABLE													
Gland	Entry Th	read Size	Metric Thread		Cable Inner	r Sheath [C]		Cable Oute	r Sheath [D]	Armour	Nominal	Dimensions/Weight (Metric Versions)		
Size			Length [B]	Wid	dth	Thick	ness	Width	Thickness	Acceptance Range	Protrusion Length [L]		Across	Weight
	Metric	NPT	[6]	Min	Max	Min	Max	Max	Max					Kgs
205	M20 x 1.5	1/2" or 3/4"	16	6.3	11.7	4.0	7.0	15.5	n/a	0.10-0.30	48	30.0	33.0	0.165
20R	M20 x 1.5	1/2" or 3/4"	16	8.1	13.5	5.8	6.2	20.5	n/a	0.10-0.30	49	30.0	33.0	0.166
20	M20 x 1.5	1/2" or 3/4"	16	10.3	13.5	5.6	9.0	20.5	n/a	0.10-0.30	48	30.0	33.0	0.165
						All a	dimonsions in							

- Gland size does not necessarily equate to the entry thread size.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



## Cable Gland Type E8X - (Double Compression Gland designed for use with Armoured Flat Cable)

Ex d: Ex e: Ex nR: Ex ta: IP66: IP68

Class I Div 2: AEx e: AEx ta

FOVER (NID /20 /0FONID)

Part Numbers:

Certification:

E	8	Х	В	F
			S	



"E8X" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Developed for flat cables, they provide controlled Ex d sealing and have been tested to IP66 and IP68 to 50 metres. The E8X version is designed to accommodate armoured cables, sealing on the inner and outer sheaths and also incorporates a detachable armour specific clamping system.

Example Part Numbering

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 Standards: IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529

UL514B, UL1203, UL2225, UL50E, ANSI/UL 60079-0/7, ISA 60079-31

II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da ATEX

**IECEx** Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

Class I Zone 1 AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da NEC - USA

> Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X

EAC Exd IICU / Exe IIU / ExnR IIU

INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

Ex d IIC / Ex e IIC SAC - China UKRAINE Ex d IIC X / Ex e II X Petroleum Rules 2002 (PESO) CCoE - India

ABS Specified ABS Rules LLOYD'S Enclosure Systems (Part 1B)

Part XI of RS Rules for the classification & construction of RMRS

sea-going ships (ed. 2014)

Certificate No. ATEX SIRA 01ATEX1270X & SIRA 09ATEX1221X

> **IFCE**x IECEx SIR 05.0020X CSA 2627370 NEC - USA RU C-GB.F506.B.00098 EAC INMETRO - Brazil NCC 13.2187 X NEPSI GYJ16.1398X SAC - China UKRAINE UA.TR.047.C.0408-13 & 2937 PESO P365300/2 & P365300/6 CCoE - India ABS 14-LD463991-1-PDA

LLOYD'S 10/00056(E1) 14.02755.315 **RMRS** 

IP Rating: IP66 & IP68 (50 metres - 7 Days) Type 4X

1	B -
4 0	

(5	ee below	below for details)									
	Е	Gland designed for us	se with Armoured Cables								
	_										
	8	Silicone Seals for flat	cables								
	Х	Detachable Clamping	for Braid Armour								
	В	Brass (B) / Stainless St	eel (S)								
	F	F Multiple Certification									
	L	L Locknut (material dictated by gland entry thread material)									
	Н	Including IP Washer, Nylon (N) - Fibre (V) - PTFE (H)									
Options	Т	Including Earth Tag									
opt	S	Including Serrated Wa	asher								
	1	Quantity per kit									
	NP	Nickel Plated									
	20	Gland shell size									
	050NPT	1/2"NPT Male Entry T	nread								
	S	Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)								
	ional	Earth tag	Brass (ACBET) / Stainless Steel (ACSET)								

Plating:	Electroless Nickel			Serrated Washers	Stainless Steel (ACSSW)
Naterials:	Brass or Stainless Steel	o o o o o o o o o o o o o o o o o o o	į	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
emperature:	Silicone Seals -60°C to +180°C	otio	ŝ	10.14	N. I. (ACNONO /ET /ACECHO / PTEE (ACECHO)
Operating		nal	5	Earth tag	Brass (ACBET) / Stainless Steel (ACSET)

							CABLE	GLAND:	SELECTION	ON TABL	.E					
	FTh	d C:	Metric	(	Cable Innei	Sheath [C	:]	C	able Oute	r Sheath [[	0]			Dimension	ns/Weight (Metr	ic Versions)
Gland Size	Entry In	read Size	Thread Length	Wi	dth	Thick	ness	Wie	dth	Thick	ness	Armour Acceptance Range	Nominal Protrusion Length [L]	Across	Across	Weight
	Metric	NPT	[B]	Min	Max	Min	Max	Min	Max	Min	Max	nalige	Length [L]	Flats [A]	Corners	Kgs (Metric)
205	M20 x 1.5	1/2" or 3/4"	16	6.3	11.7	4.0	7.0	7.9	11.7	4.5	7.0	0.10-0.30	63	30.0	33.0	0.212
20R	M20 x 1.5	1/2" or 3/4"	16	8.1	13.5	5.8	6.2	10.7	16.1	5.4	8.3	0.10-0.30	64	30.0 33.0		0.213
20	M20 x 1.5	1/2" or 3/4"	16	10.3	13.5	5.6	9.0	11.0	13.5	4.5	9.0	0.10-0.30	63	30.0	33.0	0.212
								All dimen	sions in n	nm						

- Gland size does not necessarily equate to the entry thread size.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



#### Cable Gland Type E8XCM

(Double Compression Gland designed for use with Armoured Flat Cables featuring a Male Conduit Connection)

Ex d: Ex e: Ex nR: Ex ta: IP66: IP68

F8XCMBF050NPT/NP/20/M20

Part Numbers: E 8 X CM B F



"E8XCM" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Developed for flat cables, they provide controlled Ex d sealing and have been tested to IP66 and IP68 to 50 metres. The "E8XCM" version is designed to accommodate armoured cables, sealing on the inner and outer sheaths and also incorporates a detachable armour specific clamping system. The gland features a male conduit connection thread as standard.

**Example Part Numbering** 

Compliance EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31
Standards: IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529

Certification: ATEX II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Gc

IECEx Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

SAC - China Ex d IIC / Ex e IIC

CCoE - India Petroleum Rules 2002 (PESO)
LLOYD'S Enclosure Systems (Part 1B)

Certificate No. ATEX SIRA 01ATEX1270X & SIRA 09ATEX1221X

IECEX IECEX SIR 05.0020X
INMETRO - Brazil NCC 13.2187 X

SAC - China NEPSI GYJ16.1398X

CCoE - India PESO P365300/2 & P365300/6

LLOYD'S 10/00056(E1)

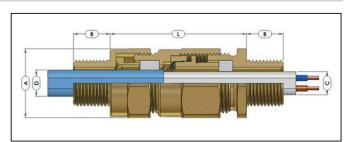
IP Rating: IP66 & IP68 (50 metres - 7 Days)

Operating

Temperature: Silicone Seals -60°C to +180°C

Materials: Brass or Stainless Steel

Plating: Flectroless Nickel



(Se	ee below for details)											
	E	Gland designed for	use with Armoured Cables									
	8	Silicone Seals for fla	it cables									
	х	Detachable Clampii	ng for Braid Armour									
	CM	Male Conduit Conn	ection Thread									
	В	Brass (B) / Stainless	Steel (S)									
	F	Multiple Certification	Aultiple Certification									
05	ONPT	1/2"NPT Male Conduit Connection Thread										
	L	Locknut (material d	ocknut (material dictated by gland entry thread material)									
	N	Including IP Washer	r, Nylon (N) - Fibre (V) - PTFE (H)									
Options	Т	Including Earth Tag										
Opt	S	Including Serrated \	Washer									
	1	Quantity per kit										
	NP	Nickel Plated										
	20	Gland shell size										
	M20	M20 x 1.5 Male Entr	y Thread									
		Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)									
0	optional cessories	Earth tag	Brass (ACBET) / Stainless Steel (ACSET)									
	ptional cessorie	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)									
ċ	<del>-</del> 0	ii vvasiicis	Tylor (Tersty) There (Tersty) The (Tersty)									

Serrated Washers Stainless Steel (ACSSW)

							CA	BLE GL	AND SI	LECTIO	ON TAB	LE						
Gland	Entry Th	read Size	Metric Thread		onnection	Ca	ıble Inner	Sheath	[C]	Cal	ble Oute	r Sheath	[D]	Armour	Nominal Protrusion		Δcrocc	
Size			Length [B]	Inr	ead	Wi	dth	Thicl	kness	Wie	dth	Thicl	kness	Acceptance Range	Length [L] (Metric)	Across Flats		Weight
	Metric	NPT		Metric	NPT	Min	Max	Min	Max	Min	Max	Min	Max			[A]	Corners	Kgs (Metric)
205	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	6.3	11.7	4.0	7.0	7.9	11.7	4.5	7.0	0.10-0.30	63	30.0	33.0	0.230
20R	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	8.1	13.5	5.8	6.2	10.7	16.1	5.4	8.3	0.10-0.30	64	30.0	33.0	0.231
20	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	10.3	13.5	5.6	9.0	11.0	13.5	4.5	9.0	0.10-0.30	63	30.0	33.0	0.230
	All dimensions in mm																	

- Gland size does not necessarily equate to the entry thread size.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer Material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- Where approval in addition to ATEX & IECEx is required, this must be clearly requested at time of enquiry / order.



#### **Cable Gland Type E8XCF**

(Double Compression Gland designed for use with Armoured Flat Cables featuring a Female Conduit Connection)

Ex d: Ex e: Ex nR: Ex ta: IP66: IP68

Part Numbers: E 8 X CF B F









"E8XCF" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Developed for flat cables, they provide controlled Ex d sealing and have been tested to IP66 and IP68 to 50 metres. The E8XCF version is designed to accommodate armoured cables, sealing on the inner and outer sheaths and also incorporates a detachable armour specific clamping system. The gland features a female conduit connection thread as standard.

Compliance EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31
Standards: IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529

Certification: ATEX II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Gc

IECEx Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

INMETRO - Brazil Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

SAC - China Ex d IIC / Ex e IIC

CCoE - India Petroleum Rules 2002 (PESO)

LLOYD'S Enclosure Systems (Part 1B)

Certificate No. ATEX SIRA 01ATEX1270X & SIRA 09ATEX1221X

IECEX IECEX SIR 05.0020X
INMETRO - Brazil NCC 13.2187 X

SAC - China NEPSI GYJ16.1398X

CCoE - India PESO P365300/2 & P365300/6

LLOYD'S 10/00056(E1)

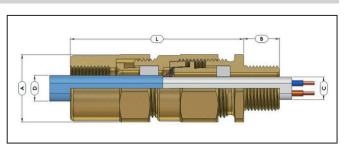
IP Rating: IP66 & IP68 (50 metres - 7 Days)

Operating Temperature:

erature: Silicone Seals -60°C to +180°C

Materials: Brass or Stainless Steel

Plating: Electroless Nickel



		art Numbering for details)	E8XCFBF050NPT/NP/20/M20
	E	Gland designed for	use with Armoured Cables
	8	Silicone Seal for fl	t cables
	X	Detachable Clampi	ng for Braid Armour
	CF	Female Conduit Co	nnection Thread
	В	Brass (B) / Stainless	Steel (S)
	F	Multiple Certific tid	on
050N	PT	1/2"NPT Female Co	nduit Connection Thread
	L	Locknut (material d	lictated by gland entry thread material)
	N	Including IP Washe	r, Nylon (N) - Fibre (V) - PTFE (H)
Options	Т	Including Earth Tag	
opt	S	Including Serrated	Washer
	1	Quantity per kit	
	NP	Nickel Plated	
:	20	Gland shell size	
M:	20	M20 x 1.5 Male Enti	ry Thread
_ si		Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)
onal		Earth tag	Brass (ACBET) / Stainless Steel (ACSET)
Optional Accessories		IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
O &		Serrated Washers	Stainless Steel (ACSSW)

	CABLE GLAND SELECTION TABLE																	
	Entry Th	read Size	Metric		Connection read	Ca	able Innei	Sheath [	[C]	Ca	ble Oute	r Sheath	[D]	Armour	Nominal	Dimensions/W (Metric Version Across Across Flats [A] Corners	mensions/Weig Metric Versions	
Gland Size			Thread Length [B]	In	read	Wid	dth	Thicl	kness	Wi	dth	Thicl	kness	Acceptance Range	Protrusion Length [L] (Metric)		Across	Weight
	Metric	NPT	[6]	Metric	NPT	Min	Max	Min	Max	Min	Max	Min	Max		(Metric)		Corners	Kgs
205	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	6.3	11.7	4.0	7.0	7.9	11.7	4.5	7.0	0.10-0.30	81	30.0	33.0	0.273
20R	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	8.1	13.5	5.8	6.2	10.7	16.1	5.4	8.3	0.10-0.30	82	30.0	33.0	0.274
20	M20 x 1.5	1/2" or 3/4"	16	M20 x 1.5	1/2" or 3/4"	10.3	13.5	5.6	9.0	11.0	13.5	4.5	9.0	0.10-0.30	81	30.0	33.0	0.273
			Α	ll dimen:	ions in n	ım												

- Gland size does not necessarily equate to the entry thread size.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and
  other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full
  form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken
  into account.
- When selecting IP Washer material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- Where approval in addition to ATEX & IECEx is required, this must be clearly requested at time of enquiry / order.



#### Cable Gland Type PF - (Single Compression Nylon Gland)

Ex eb: Ex tb: IP68

Part Numbers:

PF \* E





Peppers "PF" type glands, certified Increased Safety Ex eb are suitable for use in Zone 1, Zone 2, Zone 21, Zone 22 and in Gas Group IIC. They are manufactured from polyamide and provide a controlled pull resistant displacement seal on the cable outer sheath providing both Ex eb & IP protection. The gland has been tested to IP66 & IP68 to 50 metres and is fully compliant with the Increased Safety standard with no reduced impact restriction. Available in black or blue, in a range of thread forms complete with an IP flat washer on metric entry threads.

**Compliance** EN 60079-0, EN 60079-7, EN 60079-31

**Standard:** IEC 60079-0, IEC 60079-7, IEC 60079-31 & IEC 60529

**Certification:** ATEX II 2GD Ex e IIC / Ex tb IIIC

IECEx Ex eb IIC / Ex tb IIIC

EAC Ex e II

CEC - Canada CAN/CSA C22.2 NEC - USA ANSI/UL514B

VDE DIN EN 50262 / VDE 0619 LLOYD'S Enclosure Systems (Part 1B)

INMETRO Ex e II

Certificate No. ATEX LCIE 07ATEX6082X/02

IECEx LCI 10.0008X

EAC RU C-FR.ГБ05.В.00955

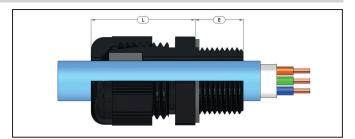
 CEC - Canada
 E306665

 NEC - USA
 E306665

 VDE
 131210

 LLOYD'S
 10/00056(E1)

 INMETRO
 BR230661-X



 Operating
 M16-M63
 -35°C to +95°C

 Temperature:
 M12
 -20°C to +80°C

Materials: Polyamide

IP Rating: IP66 & IP68 (50 metres - 30 minutes)

Impact Resistance: 7Nm

Options: Colour - Black / Blue

Industrial Non-Ex version - Omit "E" from part number

Accessories: Nylon Locknut / IP Washers

	CABLE GLAND SELECTION TABLE													
		Nominal	Cabla Saa	ling Range	ISO Thread	Part N	umber	ISO Thread	Part N	umber	Dimensions/Weight			
Gland Size	Entry Thread Size	Protrusion	Cable Sea	iing kange	Length	Standard	d Thread	Length	Long <sup>1</sup>	Гhread	Across	Across	Weight	
		[L]	Min	Max	Standard [E]	Blue	Black	Long [E]	Blue	Black	Flats	Corners	Kgs	
12	M12 x 1.5	23.0	4.0	6.5	8.0	PF7421200E	PF8021200E	15.0	PF7431200E	PF8031200E	15.0	16.5	0.003	
16	M16 x 1.5	28.0	5.0	8.0	10.0	PF7421650E	PF8021650E	15.0	PF7431650E	PF8031650E	19.0	22.0	0.009	
16	M16 x 1.5	28.0	5.0	10.0	10.0	PF7421600E	PF8021600E	15.0	PF7431600E	PF8031600E	22.0	24.5	0.009	
20	M20 x 1.5	28.0	7.0	12.0	10.0	PF7422050E	PF8022050E	15.0	PF7432050E	PF8032050E	24.0	28.0	0.010	
20	M20 x 1.5	28.0	10.0	14.0	10.0	PF7422000E	PF8022000E	15.0	PF7432000E	PF8032000E	27.0	30.3	0.010	
25	M25 x 1.5	36.0	10.0	14.0	10.0	PF7422550E	PF8022550E	15.0	PF7432550E	PF8032550E	33.0	37.0	0.021	
25	M25 x 1.5	36.0	12.0	18.0	10.0	PF7422500E	PF8022500E	15.0	PF7432500E	PF8032500E	33.0	37.0	0.021	
32	M32 x 1.5	42.0	16.0	25.0	10.0	PF7423200E	PF8023200E	15.0	PF7433200E	PF8033200E	42.0	47.0	0.038	
40	M40 x 1.5	52.5	22.0	32.0	10.0	PF7424000E	PF8024000E	16.0	PF7434000E	PF8034000E	53.0	59.8	0.078	
50	M50 x 1.5	54.5	28.0	38.5	12.0	PF7425000E	PF8025000E	16.0	PF7435000E	PF8035000E	60.0	67.6	0.088	
63	M63 x 1.5	55.5	40.0	48.0	12.0	PF7426300E	PF8026300E	16.0	PF7436300E	PF8036300E	70.0	78.3	0.128	
						All	dimensions in n	ım						

	CABLE GLAND SELECTION TABLE														
		Nominal	Cable Seal	ling Pango		Part Nu	umbor		Dimensions/Weight						
Gland Size	nd Entry Thread Protrusion			Thread Length	raitive	ambei	Across	Across	Weight						
		Length [L]	Min	Max		Blue	Black	Flats	Corners	Kgs					
16	3/8" NPT	27.0	5.0	8.0	11	PF7440800E	PF8040800E	19.0	22.0	0.008					
20	1/2" NPT	27.0	7.0	12.0	14	PF7441200E	PF8041200E	24.0	26.8	0.010					
25	3/4" NPT	35.0	12.0	18.0	15	PF7442000E	PF8042000E	33.0	37.0	0.021					
32	1"NPT	41.0	16.0	25.0	18	PF7442800E	PF8042800E	42.0	47.0	0.038					
						All dimensions in mm									

- Assembly instructions must be read prior to installation and adhered to in full.
- If used in a threaded entry, NPT versions may protrude more than "L" length due to engagement of threads.
- Industrial Non-Ex versions are not supplied with IP thread sealing washer.
- Industrial Non-Ex versions are available in Black or Grey.



## **Cable Gland Type - CR-C**

uble Compression Barrier Gland designed for use with Armou<u>red Cable</u>

Part Numbers:

С	R	С	*	В	*
			2	S	R













"CR-C" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Group I Mining, Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Occasionally referred to as "potting glands", they provide a compound barrier Ex d & IP seal on the cable inner cores, eliminating damage to cables that exhibit "cold flow" characteristics and an environmental seal on the outer sheath. The unique features include "CROCLOCK"", the non reversible multi-clamping system for wire, braid and tape armoured cables and Peppers T-1000, the sealing compound that enables a quick and easy installation. The innovative barrier chamber provides a cable acceptance that allows for a full inspection of the compound fill. The gland maintains IP66 & IP68 to 100 metres and is deluge proof without the use of an additional seal or deluge boot. It is supplied with an IP O-ring seal as standard on metric entry threads and options are available for use with lead

Compliance EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 Standards:

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31 & IEC 60529 C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL514B, UL1203, UL2225, UL50E,

ANSI/UL 60079-0/1/7, ISA 60079-31

I M2 II 1D 2G Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da Certification:

II 3G Ex nR IIC Go

Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da IECEx

Ex nR IIC Gc

CEC - Canada Class I Zone 1 Ex d IIC / Ex e II Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G

Class III. Enclosure Type 4X Class I Zone 1 AEx d IIC Gb / AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da NEC - USA

Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III. Enclosure Type 4X

Exd IU / Exd IICU / Exe IU /Exe IIU / ExnR IIU

Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da INMETRO - Brazil

Ex nR IIC Gc Exd IIC / Exe IIC SAC - China Ex d IIC X / Ex e II X UKRAINE Petroleum Rules 2002 (PESO) CCoE - India Specified ABS Rules LLOYD'S Enclosure Systems (Part 1B)

RMRS Part XI of RS Rules for the classification & construction of sea-going ships (ed. 2014)

SIRA 03ATEX1479X & SIRA 09ATEX4124X Certificate No. ATEX

IECEx CEC - Canada IECEx SIR 07.0098X CSA 1356011 NEC - USA CSA 2627370 RU C-GB.ГБ06.В.00098 INMETRO - Brazil NCC 13.2188 X Nepsi GYJ16.1401X UA.TR.047.C.0408-13 & 2937 SAC - China UKRAINE CCoE - India PESO P365300/4 & P365300/10 14-LD463991A-1-PDA

LLOYD'S 10/00056(E1)

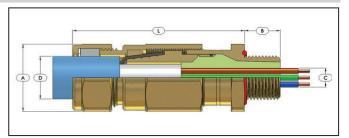
IP66 & IP68 (100 metres - 7 Days), Type 4X & DTS01:1991

IP Rating: Operating

Temperature: -60°C to +135°C Brass or Stainless Steel Materials: Plating: Electroless Nickel

Compound: Peppers T-1000 Sealing Compound

**Outer Seal:** 



<b>Example Part Numbering</b>	
(See below for details)	

#### CR-CB/NP/20/M20

	CR-C	Gland featuring "CROCLOCK®", single orientation clamping, Peppers T-1000 Compound (Barrier) Inner Seal & Silicone LSOH Elastomeric Outer Seal						
	2	for use with Lead Sheath Cables						
	В	Brass (B) / Stainless Steel (S)						
	R	Reduced Bore Outer Sheath Seal						
v	C	PVC Shroud (C) - PCP Shroud (P) - Silicone LSOH Shroud (3)						
.e	K <del>-</del> V-H	Locknut, Earth Tag & Nylon (K), Fibre (V) or PTFE (H) IP Washer						
Options	S	Including Serrated Washer						
•	1	Quantity per kit						
	NP	Nickel Plated						
	20	Gland shell size						
	M20	M20 x 1.5 Male Entry Thread						

	Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)
ries	Earth tag	Brass (ACBET) / Stainless Steel (ACSET)
tior	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
Optional Accessories	Serrated Washers	Stainless Steel (ACSSW)
⋖	Shrouds	PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)

Curing

Conductor termination can be effected after 1 hour Time:

Compound chamber can be fully inspected after 4 hours and the equipment then

						CABL	E GLAN	D SELEC	TION TAI	BLE						
			Metric			Cable Accept					Armour	Nominal	Dimensions/Weight (Metric)			
Gland	Entry Th	read Size	Thread	Inte	ernal Cable De	tails	Cal	ole Outer S	heath Seal	[D]		Protrusion	Dimens	Dimensions/ weight (i		Shroud
Size			Length	Max Number	Max Ø Over	Max Inner	Stan	dard	Redu	uced	Acceptance Range	Length [L]	Across	Across	Weight	Size
	Metric	NPT	[B]	of Cores	Cores	Sheath [C]	Min	Max	Min	Max	nunge	Metric	Flats [A]	Corners	Kgs	
16	M20 x 1.5	1/2" or 3/4"	16	15	10.4	11.7	8.4	13.5	6.7	10.3	0.10-1.25	79	25.4	28.0	0.177	EL24
205	M20 x 1.5	1/2" or 3/4"	16	35	10.4	11.7	11.5	16.0	9.4	12.5	0.10-1.25	79	25.4	28.0	0.166	EL24
20	M20 x 1.5	1/2" or 3/4"	16	40	12.5	14.0	15.5	21.1	12.0	17.6	0.10-1.25	79	30.0	33.0	0.245	EL30
25	M25 x 1.5	3/4" or 1"	16	60	17.8	20.0	20.3	27.4	16.8	23.9	0.10-1.60	89	37.6	41.4	0.402	EL38
32	M32 x 1.5	1" or 1 1/4"	16	80	23.5	26.3	26.7	34.0	23.2	30.5	0.10-2.00	110	46.0	50.6	0.738	EL46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	130	28.8	32.2	33.0	40.6	28.6	36.2	0.10-2.00	110	55.0	60.5	1.079	EL55
50S	M50 x 1.5	1 1/2" or 2"	16	200	34.2	38.2	39.4	46.7	34.8	42.4	0.10-2.50	125	65.0	71.5	1.455	EL65
50	M50 x 1.5	2"	16	400	39.4	44.1	45.7	53.2	41.1	48.5	0.10-2.50	125	65.0	71.5	1.366	EL65
63S	M63 x 1.5	2" or 2 1/2"	19	400	44.8	50.1	52.1	59.5	47.5	54.8	0.10-2.50	125	80.0	88.0	2.157	EL80
63	M63 x 1.5	2 1/2"	19	425	50.0	56.0	58.4	65.8	53.8	61.2	0.10-2.50	125	80.0	88.0	2.035	EL80
75S	M75 x 1.5	2 1/2" or 3"	19	425	55.4	62.0	64.8	72.2	60.2	68.0	0.10-2.50	130	90.0	99.0	2.399	EL90
75	M75 x 1.5	3"	19	425	60.8	68.0	71.1	78.0	66.5	73.4	0.10-2.50	130	90.0	99.0	2.313	EL90
80	M80 x 2.0	3" or 3 1/2"	25	425	64.4	72.0	77.0	84.0	71.9	79.4	0.10-3.15	162	104.0	115.2	4.763	EL104
85	M85 x 2.0	3" or 3 1/2"	25	425	69.8	78.0	79.6	90.0	75.0	85.4	0.10-3.15	162	104.0	115.2	4.122	EL104
90	M90 x 2.0	3 1/2" or 4"	25	425	75.1	84.0	88.0	96.0	82.0	91.4	0.10-3.15	162	114.0	125.7	5.114	EL114
100	M100 x 2.0	3 1/2" or 4"	25	425	80.5	90.0	92.0	102.0	87.4	97.4	0.10-3.15	162	114.0	125.7	4.356	EL114
							All dim	ensions ir	n mm							

- Gland size does not necessarily equate to the entry thread size.
- The IP O-ring seal is only available on metric entry threads. IP washers can be supplied for tapered entry threads.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supply cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer & Shroud material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- The gland is supplied with the correct amount of the two-part compound, gloves and instructions to allow one complete termination.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.

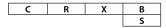


#### **Cable Gland Type - CR-X**

ngle Compression Gland designed for use with Unarmoured Cable aturing Peppers T-1000 Compound)

1 Div 2: AEx d: AEx e: AEx ta

Part Numbers:





"CR-X" type glands, approved for use with any shape cable, are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. suitable for use in Group I Mining, Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Occasionally referred to as "potting glands", they provide a compound barrier Ex d & IP seal on the cable inner cores (or flying leads), eliminating damage to cables that exhibit "cold flow" characteristics. The unique features include Peppers T-1000, the sealing compound that enables a quick and easy installation and an innovative barrier chamber that allows for a full inspection of the compound fill. The gland maintains IP66 & IP68 to 100 metres and is deluge proof without the use of an additional seal or deluge boot. It is supplied with an IP O-ring seal as standard on metric entry threads.

Compliance EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 . Standards:

LEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31 & IEC 600529 C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL514B, UL1203, UL2225, UL50E

ANSI/UL 60079-0/1/7, ISA 60079-31

Certification: ATEX I M2 II 1D 2G Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Fx nR IIC Go

Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da **IECEx** 

Ex nR IIC Gc

Class I Zone 1 Ex d IIC / Ex e II CEC - Canada Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G

Class III, Enclosure Type 4X

Class I Zone 1 AEx d IIC Gb / AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da NFC - USA

Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X

FAC Exd IU / Exd IICU / Exe IU /Exe IIU / ExnR IIU

INMETRO - Brazil Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da

Ex nR IIC Gc Ex d IIC / Ex e IIC SAC - China UKRAINE Ex d IIC X / Ex e II X CCoE - India Petroleum Rules 2002 (PESO) ABS Specified ABS Rules

LLOYD'S Enclosure Systems (Part 1B) RMRS Part XI of RS Rules for the classification & construction

of sea-going ships (ed. 2014)

SIRA 03ATEX1479X & SIRA 09ATEX4124X Certificate No. ATEX

**IECE**x IECEx SIR 07.0098X CFC - Canada CSA 1356011 NEC - USA CSA 2627370 RU C-GB.ГБ06.В.00098 NCC 13.2188 X FAC INMETRO - Brazil NEPSI GYJ16.1401X UA.TR.047.C.0408-13 & 2937 SAC - China UKRAINE CCoE - India PESO P365300/4 & P365300/10

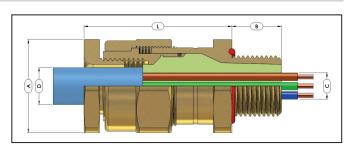
14-LD463991A-1-PDA ABS LLOYD'S 10/00056(F1) 14.02755.315

IP Rating: IP66 & IP68 (100 metres - 7 Days), Type 4X & DTS01:1991

Operating

Temperature: -60°C to +135°C Brass or Stainless Steel Plating: Electroless Nickel

Compound Peppers T-1000 Sealing Compound



	mple Part I	Numbering details)	CR-XB/NP/20/M20				
	CR-X	Peppers T-1000 Com unarmoured cable	pound (Barrier) Gland designed for use with				
	В	B Brass (B) / Stainless Steel (S)					
C PVC Shroud (C) - PCP Shroud (P) - Silicone LSOH Shroud (3)							
	K-V-H	Locknut, & Nylon (K)	, Fibre (V) or PTFE (H) IP Washer				
Options	Т	T Including Earth Tag					
Opt	S	Including Serrated Washer					
	1	Quantity per kit					
	NP	Nickel Plated					
	20	Gland shell size					
	M20	M20 x 1.5 Male Entry	ntry Thread				
		Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)				
	ries	Earth tag	Brass (ACBET) / Stainless Steel (ACSET)				
	Optional Accessories	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)				
	A S O	Serrated Washers	Stainless Steel (ACSSW)				
		PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)					
Curing Time: @ 21°C Conductor termination can be effected after 1 hour Compound chamber can be fully inspected after 4 hours and the equ							

Curing	iime:	

then energised

				(	ABLE GLAND	SELECTION TA	BLE				
	Entry Th	read Size		Gland Seal	Range - Cable She	ath & Cores	Nominal	Dime	nsions/Weight (M	etric)	
Gland Size	Metric	NPT	Metric Thread Length [B]	Max Number of Cores [C]	Max Ø Over Cores [C]	Max Outer Sheath [D]	Protrusion Length [L] Metric	Across Flats [A]	Across Corners	Weight Kgs	Shroud Size
205	M20 x 1.5	1/2" or 3/4"	16	35	10.4	11.7	42	25.4	28.0	0.126	L24
20	M20 x 1.5	1/2" or 3/4"	16	40	12.5	14.0	44	30.0	33.0	0.167	L30
25	M25 x 1.5	3/4" or 1"	16	60	17.8	20.0	48	37.6	41.4	0.260	L38
32	M32 x 1.5	1" or 1 1/4"	16	80	23.5	26.3	53	46.0	50.6	0.396	L46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	130	28.8	32.2	54	55.0	60.5	0.600	L55
50	M50 x 1.5	2"	16	400	39.4	44.1	54	65.0	71.5	0.710	L65
63	M63 x 1.5	2 1/2"	19	425	50.0	56.0	55	80.0	88.0	1.054	L80
75	M75 x 1.5	3"	19	425	60.8	68.0	60	90.0	99.0	1.318	L90
80	M80 x 2.0	3" or 3 1/2"	25	425	64.4	72.0	80	104.0	115.2	2.734	L104
85	M85 x 2.0	3" or 3 1/2"	25	425	69.8	78.0	80	104.0	115.2	2.282	L104
90	M90 x 2.0	3 1/2" or 4"	25	425	75.1	84.0	85	114.0	125.7	2.854	L114
100	M100 x 2.0	3 1/2" or 4"	25	425	80.5	90.0	85	114.0	125.7	2.453	L114
					All dimens	ions in mm					

- Gland size does not necessarily equate to the entry thread size.
- The IP O-ring seal is only available on metric entry threads. IP washers can be supplied for tapered entry threads.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supply cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting Shroud and IP Washer material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- The gland is supplied with the correct amount of the two-part compound, gloves and instructions to allow one complete termination.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



## Cable Gland Type - CR-U (Double Compression Barrie featuring Peppers T-1000 Co

ouble Compression Barrier Gland designed for use with Unarmoured Cable

Part Numbers:



"CR-U" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Group I Mining, Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Occasionally referred to as "potting glands", they provide a compound barrier Ex d & IP seal on the cable inner cores, eliminating damage to cables that exhibit "cold flow" characteristics and an additional environmental seal on the outer sheath. The unique features include Peppers T-1000, the sealing compound that enables a quick and easy installation and an innovative barrier chamber that allows for a full inspection of the compound fill. The gland maintains IP66 & IP68 to 100 metres and is deluge proof without the use of an additional seal or deluge boot. It is supplied with an IP O-ring seal as standard on metric entry threads.

Compliance EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 Standards:

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31 & IEC 60529 C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL514B, UL1203, UL2225, UL50E

ANSI/UL 60079-0/1/7, ISA 60079-31

Certification: I M2 II 1D 2G Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da ATEX

II 3G Ex nR IIC Go

Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da IECEx

Ex nR IIC Gc

CEC - Canada Class I Zone 1 Ex d IIC / Ex e II Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G

Class III, Enclosure Type 4X

NFC - USA Class I Zone 1 AEx d IIC Gb / AEx e IIC Gb / Class II Zone 20 AEx ta IIIC Da

Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X

Exd IU / Exd IICU / Exe IU /Exe IIU / ExnR IIU EAC

INMETRO - Brazil Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

Ex d IIC / Ex e IIC SAC - China Ex d IIC X / Ex e II X Petroleum Rules 2002 (PESO) UKRAINE CCoE - India Specified ABS Rules ABS Enclosure Systems (Part 1B) LLOYD'S

Part XI of RS Rules for the classification & construction RMRS

of sea-going ships (ed. 2014)

SIRA 03ATEX1479X & SIRA 09ATEX4124X Certificate No. ATEX

IECEx SIR 07.0098X IECEx CSA 1356011 CFC - Canada CSA 2627370 NEC - USA RU C-GB.ГБ06.В.00098 EAC NCC 13.2188 X INMETRO - Brazil NEPSI GYJ16.1401X SAC - China UA.TR.047.C.0408-13 & 2937 UKRAINE PESO P365300/4 & P365300/10 CCoE - India

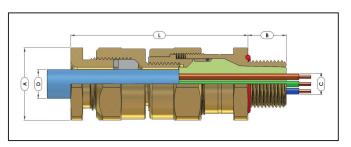
14-LD463991A-1 PDA ABS 10/00056(E1) LLOYD'S 14.02755.315

IP Rating: Operating IP66 & IP68 (100 metres - 7 Days) Type 4X & DTS01:1991

Temperature: -60°C to +135°C Materials: Brass or Stainless Steel Plating:

Electroless Nickel Peppers T-1000 Sealing Compound

Compound: Outer Seal: Silicone LSOH



		Part Numbering w for details)	CR-UB/NP/20/M20					
	CR-U	Gland with Peppers T-1000 Compound (Barrier) Inner Seal & Silicone LSOH Elastomeric Outer Seal						
	В	Brass (B) / Stainless S	Brass (B) / Stainless Steel (S)					
	C	PVC Shroud (C) - PCF	P Shroud (P) - Silicone LSOH Shroud (3)					
	K-V-H	Locknut, & Nylon (K)	, Fibre (V) or PTFE (H) IP Washer					
-	T 6	Including Earth Tag						
3	T S	Including Serrated V	/asher					
	1	Quantity per kit						
	NP	Nickel Plated						
	20	Gland shell size						
	M20	M20 x 1.5 Male Entry	rThread					
		Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)					
	Optional Accessories	Earth tag	Brass (ACBET) / Stainless Steel (ACSET)					
	Optional	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)					
	Ag o	Serrated Washers	Stainless Steel (ACSSW)					
	Shrouds PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)							
	Curing @ 21°C Time: Conductor termination can be effected after 1 hour							

Compound chamber can be fully inspected after 4 hours and the equipment then

					CABLE	GLAND SELE	CTION TABLE					
	F . T	1.6:	Metric		Cable Accep	tance Details		Nominal	Dime	nsions/Weight (N	letric)	
Gland	Entry Ir	read Size	Thread	Internal Cab	le Details [C]	Cable Outer SI	neath Seal [D]	Protrusion	Dillie	risioris/ weight (iv	ietric)	Shroud
Size	Metric	NPT	Length [B]	Max Number of Cores	Max Ø Over Cores	Min	Max	Length [L] Metric	Across Flats [A]	Across Corners	Weight Kgs	Size
16	M20 x 1.5	1/2" or 3/4"	16	15	10.4	3.4	8.4	73	25.4	28.0	0.192	EL24
205	M20 x 1.5	1/2" or 3/4"	16	35	10.4	4.8	11.7	73	25.4	28.0	0.192	EL24
20	M20 x 1.5	1/2" or 3/4"	16	40	12.5	9.5	14.0	73	30.0	33.0	0.258	EL30
25	M25 x 1.5	3/4" or 1"	16	60	17.8	11.7	20.0	74	37.6	41.4	0.382	EL38
32	M32 x 1.5	1" or 1 1/4"	16	80	23.5	18.1	26.3	80	46.0	50.6	0.578	EL46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	130	28.8	22.6	32.2	87	55.0	60.5	0.892	EL55
50\$	M50 x 1.5	1 1/2" or 2"	16	200	34.2	28.2	38.2	87	65.0	71.5	1.172	EL65
50	M50 x 1.5	2"	16	400	39.4	33.1	44.1	87	65.0	71.5	1.036	EL65
635	M63 x 1.5	2" or 2 1/2"	19	400	44.8	39.3	50.1	88	80.0	88.0	1.726	EL80
63	M63 x 1.5	2 1/2"	19	425	50.0	46.7	56.0	88	80.0	88.0	1.558	EL80
755	M75 x 1.5	2 1/2" or 3"	19	425	55.4	52.3	62.0	97	90.0	99.0	1.882	EL90
75	M75 x 1.5	3"	19	425	60.8	58.0	68.0	97	90.0	99.0	1.672	EL90
80	M80 x 2.0	3" or 3 1/2"	25	425	64.4	61.9	72.0	123	104.0	115.2	3.826	EL104
85	M85 x 2.0	3" or 3 1/2"	25	425	69.8	69.1	78.0	123	104.0	115.2	3.238	EL104
90	M90 x 2.0	3 1/2" or 4"	25	425	75.1	74.1	84.0	123	114.0	125.7	4.063	EL114
100	M100 x 2.0	3 1/2" or 4"	25	425	80.5	81.8	90.0	123	114.0	125.7	3.492	EL114
						All dimensions	in mm					

- Gland size does not necessarily equate to the entry thread size.
- The IP O-ring seal is only available on metric entry threads. IP washers can be supplied for tapered entry threads.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supply cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer & Shroud material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended
- The gland is supplied with the correct amount of the two-part compound, gloves and instructions to allow one complete termination.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



#### **Cable Gland Type CR-S\*M**

Ex d: Ex e: Ex nR: Ex ta: IP66: IP68

Part Numbers:

С	R	S	В	М	
			۲		

















"CR-S\*M" type glands, used in any orientation, are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Group I Mining, Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Commonly referred to as a "Conduit Stopper Box", they are suitable for use with conductors carried in conduit or as a line bushing for terminating flying leads. They provide a compound barrier Ex d & IP seal on the cable inner cores, eliminating damage to cables that exhibit "cold flow" characteristics. The unique features include Peppers T-1000, the sealing compound that enables a quick and easy installation and an innovative barrier chamber that allows for a full inspection of the compound fill. The gland maintains IP66 & IP68 to 100 metres and is deluge proof without the use of an additional seal or deluge boot. It is supplied with an IP O-ring seal as standard on metric entry threads. The gland is supplied with a male conduit connection thread.

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 Compliance

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31 & IEC 60529

C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL50

Certification:

ATEX I M2 II 1D 2G Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Go

IECEx Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Go CEC - Canada Class I Zone 1 Ex d IIC / Ex e II

Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X

FAC Exd IU / Exd IICU / Exe IU /Exe IIU / ExnR IIU

INMETRO - Brazil Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc SAC - China Ex d IIC / Ex e IIC

LIKRAINE Ex d IIC X / Ex e II X Petroleum Rules 2002 (PESO) CCoE - India KCS - Korea Ex d IIC / Ex e IIC ARS Specified ABS Rules LLOYD'S . Enclosure Systems (Part 1B)

**RMRS** Part XI of RS Rules for the classification & construction

of sea-going ships (ed. 2014)

SIRA 03ATEX1479X & SIRA 09ATEX4124X Certificate No. ATFX

IECEx IECEx SIR 07.0098X CEC - Canada EAC CSA 1356011 RU C-GB.ГБ06.В.00098 INMETRO - Brazil NCC 13.2188 X SAC - China NEPSI GYJ16.1401X UKRAINE UA.TR.047.C.0408-13 & 2937 CCoE - India PESO P365300/4 & P365300/10 15-GA4BO-0665X & 15-GA4BO-0666X KCS - Korea

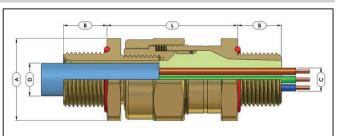
LLOYD'S 10/00056(E1) RMRS 14.02755.315

IP66 & IP68 (100 metres - 7 Days), Type 4X & DTS01:1991 IP Rating:

Operating Temperature: -60°C to +135°C

Materials: Brass or Stainless Steel Plating: Flectroless Nickel

Compound: Peppers T-1000 Sealing Compound



		rt Numbering or details)	CR-SBM20/NP/M20/050NPT	
	CR-S	Gland with Compo	ound (Barrier) Seal	
	В	Brass (B) / Stainles	s Steel (S)	
	М	Male Back End Cor	nfiguration	
	20	Gland shell size		
	L	Locknut (material	dictated by gland entry thread material)	
	N	Including IP Wash	er, Nylon (N) - Fibre (V) - PTFE (H)	
ons	Т	Including Earth Ta	g	
Options	S	Including Serrated	d Washer	
•	1	Quantity per kit		
	NP	Nickel Plated		
	M20	M20 x 1.5 Male En	try Thread	
	050NPT	1/2"NPT External N	Male Connection Thread	
	es –	Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)	
	Optional Accessories	Earth tag	Brass (ACBET) / Stainless Steel (ACSET)	
	Opti Ces	IP Washers Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)		
Serrated Washer Stain			Stainless Steel (ACSSW)	
			ation can be effected after 1 hour ber can be fully inspected after 4 hours and the equipment then	

	CABLE GLAND SELECTION TABLE													
Clared	Male Ent	ry Threads	Metric Entry	Male Conduit	t Entry Threads	Gland Seal Range - Cable Sheath & Cores			Nominal	Dimensions/Weight (Metric)				
Gland Size	Metric	NPT	Thread Length [B]	Metric	Metric NPT		Max Ø Over Cores [C]	Max Outer Sheath [D]	Protrusion Length [L]	Across Flats [A]	Across Corners	Weight Kgs		
20	20 M20 x 1.5 1/2" or 3/4" 16 M20 x 1.5 1/2" or 3/4"		40	12.5	14.0	45	30.0	33.0	0.224					
25	M25 x 1.5	3/4" or 1"	16	M25 x 1.5	M25 x 1.5 3/4" or 1"		17.8	20.0	49	37.6	41.4	0.323		
32	M32 x 1.5	1" or 1 1/4"	16	M32 x 1.5	M32 x 1.5 1" or 1 1/4"		23.5	26.3	55	46.0	50.6	0.548		
40	M40 x 1.5	1 1/4" or 1 1/2"	16	M40 x 1.5	M40 x 1.5 1 1/4" or 1 1/2"		28.8	32.2	56	55.0	60.5	0.770		
50	M50 x 1.5	2"	16	M50 x 1.5	2″	400	39.4	44.1	62	65.0	71.5	0.875		
63	M63 x 1.5	2 1/2"	19	M63 x 1.5	2 1/2"	425	50.0	56.0	63	80.0	88.0	1.281		
75	M75 x 1.5	3″	19	M75 x 1.5	3″	425	60.8	68.0	63	90.0	99.0	1.406		
80	M80 x 2.0	3" or 3 1/2"	25	M80 x 2.0	3" or 3 1/2"	425	64.4	72.0	81	104.0	115.2	2.957		
85	M85 x 2.0	3" or 3 1/2"	25	M85 x 2.0	3" or 3 1/2"	425	69.8	78.0	81	104.0	115.2	2.488		
90	M90 x 2.0	3 1/2" or 4"	25	M90 x 2.0	M90 x 2.0 3 1/2" or 4"		75.1	84.0	81	114.0	125.7	3.029		
100	100 M100 x 2.0 3 1/2" or 4"		25	M100 x 2.0	3 1/2" or 4"	425	80.5	90.0	81	114.0	125.7	2.825		
					All dim	ensions in mm								

- Gland size does not necessarily equate to the entry thread size.
- The IP O-ring seal is only available on metric entry threads. IP washers can be supplied for tapered entry threads.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supply cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- The gland is supplied with the correct amount of the two-part compound, gloves and instructions to allow one complete termination.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.



#### **Cable Gland Type CR-S\*F**

(Single Compression Barrier Gland featuring Peppers T-1000 Compound and a Female Conduit Connection Thread)

Ex d: Ex e: Ex nR: Ex ta: IP66: IP68

Part Numbers:

C	R	S	В	F
			5	















"CR-S\*F" type glands, used in any orientation, are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Group I Mining, Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Commonly referred to as a "Conduit Stopper Box", they are suitable for use with conductors carried in conduit or as a line bushing for terminating flying leads. They provide a compound barrier Ex d & IP seal on the cable inner cores, eliminating damage to cables that exhibit "cold flow" characteristics. The unique features include Peppers T-1000, the sealing compound that enables a quick and easy installation and an innovative barrier chamber that allows for a full inspection of the compound fill. The gland maintains IP66 & IP68 to 100 metres and is deluge proof without the use of an additional seal or deluge boot. It is supplied with an IP O-ring seal as standard on metric entry threads. The gland is supplied with a female conduit connection thread.

Compliance EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31

Standards: IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31 & IEC 60529

C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL50

I M2 II 1D 2G Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb Certification: ATEX

Ex ta IIIC Da / II 3G Ex nR IIC Gc Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da **IECE**x

Ex nR IIC Gc

Class I Zone 1 Ex d IIC / Ex e II CEC - Canada Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G

Class III, Enclosure Type 4X Exd IU / Exd IICU / Exe IU / Exe IIU / ExnR IIU

INMETRO - Brazil Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da

Ex nR IIC Gc Ex d IIC / Ex e IIC SAC - China

Ex d IIC X / Ex e II X UKRAINE CCoE - India KCS - Korea Petroleum Rules 2002 (PESO) Ex d IIC / Ex e IIC ABS Specified ABS Rules LLOYD'S

Enclosure Systems (Part 1B)
Part XI of RS Rules for the classification & construction **RMRS** 

of sea-going ships (ed. 2014)

Certificate No. ATEX SIRA 03ATEX1479X & SIRA 09ATEX4124X

IECEx SIR 07.0098X **IECE**x CEC - Canada CSA 1356011 RU C-GB.ГБ06.В.00098 INMETRO - Brazil NCC 13.2188 X SAC - China UKRAINE NEPSI GYJ16.1401X UA.TR.047.C.0408-13 & 2937 CCoE - India KCS - Korea PESO P365300/4 & P365300/10

15-GA4BO-0665X & 15-GA4BO-0666X ARS 14-I D463991A-1-PDA LLOYD'S

14.02755.315

IP66 & IP68 (100 metres - 7 Days), Type 4X & DTS01:1991 IP Rating:

Operating Temperature:

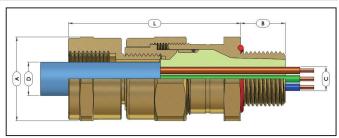
Materials Brass or Stainless Steel

**RMRS** 

Plating: Electroless Nickel

Peppers T-1000 Sealing Compound Compound:

-60°C to +135°C



		art Numbering for details)	CR-SBF20/NP/M20/050NPT					
C	R-S	Gland with Compo	ound (Barrier) Seal					
	В	Brass (B) / Stainless	s Steel (S)					
	F	Female Back End C	Configuration					
	20	Gland shell size						
	L	Locknut (material	dictated by gland entry thread material)					
	Ν	Including IP Wash	er, Nylon (N) - Fibre (V) - PTFE (H)					
Options	Т	Including Earth Ta	g					
opt	S	Including Serrated	l Washer					
	1	Quantity per kit						
	NP	Nickel Plated						
IV	120	M20 x 1.5 Male En	try Thread					
050N	IPT	12"NPT Internal Fe	emale Connection Thread					
_ s	}	Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)					
ona		Earth tag	Brass (ACBET) / Stainless Steel (ACSET)					
Optional Accessories		IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)					
¥		Serrated Washer	Stainless Steel (ACSSW)					
Curing Time:			ation can be effected after 1 hour oer can be fully inspected after 4 hours and the equipment then					

	CABLE GLAND SELECTION TABLE													
	Ma <b>l</b> e Ent	ry Threads		Female Er	ntry Threads	Gland Seal F	lange - Cable She	eath & Cores	Nominal	Dimensions/Weight (Metric)				
Gland Size	Metric	NPT	Metric Entry Thread Length [B]	Metric	NPT	Max Number of Cores [C]	Max Ø Over Cores [C]	Max Outer Sheath [D]	Protrusion Length [L] Metric	Across Flats [A]	Across Corners	Weight Kgs		
20 M20 x 1.5 1/2" or 3/4" 16				M20 x 1.5	1/2" or 3/4"	40	12.5	14.0	57	30.0	33.0	0.324		
25	M25 x 1.5	3/4" or 1"	16	M25 x 1.5	3/4" or 1"	60	17.8	20.0	63	37.6	41.4	0.513		
32	32 M32 x 1.5 1" or 1 1/4" 16			M32 x 1.5	1" or 1 1/4"	80	23.5	26.3	67	46.0	50.6	0.726		
40	M40 x 1.5	1 1/4" or 1 1/2"	16	M40 x 1.5	1 1/4" or 1 1/2"	130	28.8	32.2	68	55.0	60.5	1.088		
50	M50 x 1.5	2"	16	M50 x 1.5	2"	400	39.4	44.1	68	65.0	71.5	1.328		
63	M63 x 1.5	2 1/2"	19	M63 x 1.5	2 1/2"	425	50.0	56.0	72	80.0	88.0	2.022		
75	M75 x 1.5	3″	19	M75 x 1.5	3″	425	60.8	68.0	78	90.0	99.0	2.314		
80	M80 x 2.0	3" or 3 1/2"	25	M80 x 2.0	3" or 3 1/2"	425	64.4	72.0	103	104.0	115.2	4.262		
85	M85 x 2.0	3" or 3 1/2"	25	M85 x 2.0	3" or 3 1/2"	425	69.8	78.0	103	104.0	115.2	3.748		
90	M90 x 2.0	3 1/2" or 4"	25	M90 x 2.0	3 1/2" or 4"	425	75.1	84.0	104	114.0	125.7	4.791		
100	100 M100 x 2.0		25	M100 x 2.0	3 1/2" or 4"	425	80.5	90.0	104	114.0	125.7	4.103		
					All	dimensions in r	nm							

- Gland size does not necessarily equate to the entry thread size.
- The IP O-ring seal is only available on metric entry threads. IP washers can be supplied for tapered entry threads.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supply cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- The gland is supplied with the correct amount of the two-part compound, gloves and instructions to allow one complete termination.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order

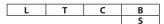


#### Cable Gland Type LT-C

(Double Compression Barrier Gland featuring a Liquid Tight Connector for Flexible Metallic Conduit and the Peppers T-1000 Compound)

Ex db: Ex e: Ex ta: IP66: IP68

Part Numbers:













"LT-C" type glands are certified Flameproof Ex db, Increased Safety Ex e and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Occasionally referred to as "potting glands", they provide a compound barrier Ex db & IP seal on the cable inner cores, eliminating damage to cables that exhibit "cold flow" characteristics. The gland maintains IP66 & IP68 to 100 metres. The gland incorporates a connection for liquid tight flexible metallic conduit and features the Peppers T-1000 sealing compound that enables a quick and easy installation.

Compliance EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-31

**Standards:** IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-31 & IEC 60529

Certification: ATEX I M2 II 1D 2G Ex db I Mb / Ex db IIC Gb / Ex e I Mb / Ex e IIC Gb

Ex ta IIIC [

IECEX Ex db | Mb / Ex db | IC Gb / Ex e | Mb / Ex e | IC Gb / Ex ta | IIC Da

INMETRO - Brazil Ex db | Mb / Ex e | Mb / Ex db | IC Gb / Ex ta | IIC Da

SAC - China Ex db IIC / Ex e IIC

CCoE - India Petroleum Rules 2002 (PESO)
LLOYD'S Enclosure Systems (Part 1B)

Certificate No. ATEX SIRA 14ATEX1303X

 IECEx
 IECEx SIR 14.0106X

 INMETRO - Brazil
 NCC 16.0275 X

 SAC - China
 NEPSI GYJ16.1408X

 CC0E - India
 PESO P365300/1

 LLOYD'S
 10/00056(E1)

**IP Rating:** IP66 & IP68 (100 metres - 7 Days ) & DTS01:1991

Operating

Temperature: -60°C to +135°C

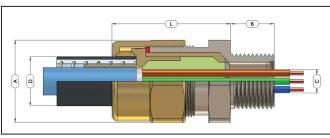
Materials: Brass or Stainless Steel

Plating: Electroless Nickel

Compound: Peppers T-1000 Sealing Compound

Curing Time: @ 21°C the conductor termination can be effected after 1 hour.

The equipment can be energised after 4 hours.



		Part Numbering of for details)	LT-CB/NP/20-1/M20							
	LT-C	Gland featuring Peppers T-1000 Compound and connection for liquid tight flexible metallic conduit								
	В	Brass (B) / Stainless Steel (S)								
	L	Locknut (material dictated by gland entry thread material)								
	N	Including IP Washer, Nylon (N) - Fibre (V) - PTFE (H)								
Su	Т	Including Earth Tag								
Options	S	Including Serrated Washer								
0	1	Quantity per kit								
	NP	Nickel Plated								
	20-1	Gland and Conduit (	Connection Size							
	M20	M20 x 1.5 Male Entry	rThread							
		Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)							
lal	ries		Brass (ACBET) / Stainless Steel (ACSEN)  Brass (ACBET) / Stainless Steel (ACSET)							
tio	Accessories	Earth tag IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)							
ŏ	Acc	Serrated Washers	Stainless Steel (ACSSW)							

	CABLE GLAND SELECTION TABLE													
Gland &	Standard Ent	ry Thread Size	Metric	Cable Acceptance Details [C]			Conduit	Data [D]	Nominal	Dimensions/Weight (Metric Versions)				
Connection Size	Metric	NPT	Thread Length [B]	Max No. of Cores	Max Ø Over Cores	Max Cable Inner Sheath Ø	Typical Conduit I/D	Max Conduit O/D	Protrusion Length [L]	Across Flats [A]	Across Corners	Weight Kgs		
20S-1	M20 x 1.5	M20 x 1.5 ½" or ¾" 16 9 5.0 5.0					6.2 - 7.1	11.4 - 12.9	45.0	25.4	28.0	0.180		
20S-2	M20 x 1.5	½" or ¾"	16	20	7.8	7.8	9.8 - 10.3	14.2 - 15.6	44.0	25.4	28.0	0.177		
20-1	M20 x 1.5	½" or ¾"	16	35	10.4	10.4	12.1 - 13.0	17.0 - 19.1	44.0	30.0	33.0	0.217		
20-2	M20 x 1.5	½" or ¾"	16	40	12.5	13.3	15.8 - 16.3	20.8 - 22.3	42.0	30.0	33.0	0.218		
25-1	M25 x 1.5	3/4" or 1"	16	60	17.8	18.0	20.8 - 21.3	26.0 - 27.8	46.0	41.3	45.4	0.364		
32-1	M32 x 1.5	1" or 1 ¼"	16	80	23.5	23.6	26.0 - 27.1	32.7 - 34.5	54.0	46.0	50.6	0.482		
40-1	M40 x 1.5	1 ¼" or 1 ½"	16	130	28.8	31.8	34.8 - 35.8	41.1 - 43.3	57.0	55.0	60.5	0.706		
50-1	M50 x 1.5	2″	16	200	35.2	37.0	40.0 - 40.6	47.3 - 49.4	66.0	65.0	71.5	0.989		
63-1	M63 x 1.5	2 1/2"	19	300	48.0	48.0	50.5 - 51.9	59.4 - 61.4	67.0	80.0	88.0	1.410		
75-1	M75 x 1.5 3" 19		325	59.3	59.3	62.9 - 63.9	72.1 - 74.1	67.0	98.8	108.7	1.945			
75-2	75-2 M75 x 1.5 3"		19	425	60.8	68.0	77.9 - 78.7	87.8 - 90.0	67.0	104.7	115.2	2.338		
					All	dimensions in r	nm							

#### All dimensions in

- Gland size does not necessarily equate to the entry thread size.
- All brass entry threads are Nickel Plated as standard.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- It is the installer's responsibility to ensure that the conduit is secured correctly.
- The gland is supplied with the correct amount of the two-part compound, gloves and instructions to allow one complete termination.
- If fit testing is required for specific conduit please contact Peppers.
- When selecting IP Washer material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- Where approval in addition to ATEX and IECEx is required, this must be clearly requested at time of enquiry / order.



Cable Gland Type - UL-C (Double Seal Barrier Gland designed for use with (Double Seal Barrier Gland designed for use with

Class I Div 1 : Class II Div 1 : Class III Type 4X

Armoured Cable featuring Peppers CROCLOCK® & T-1000 Compound) Ex d : Ex e : Ex nR : Ex ta : AEx d : AEx e : AEx ta : IP66 : IP68

Part Numbers:

Certification:

UL	С	В	*
		S	R

















"UL-C" type glands, certified Explosion Proof Class I Div 1, Gas Groups ABCD, Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR & dust protected Ex ta are suitable for use in Zone 1, Zone 2, Zone 20, Zone 21, Zone 22, Group I Mining, Gas Groups IIA, IIB, IIC and Dust Groups IIIA, IIIB, IIIC. Occasionally referred to as "potting glands", they provide a compound barrier Ex d & IP seal on the cable inner cores, eliminating damage to cables that exhibit "cold flow" characteristics and an environmental seal on the outer sheath. The gland is suitable for use with all certified Marine Shipboard Cable and Tray Cable whilst being UL listed for Marine Shipboard Armoured, Jacketed or Non Jacketed cable. The unique features include "CROCLOCK®", the non reversible multi-clamping system for wire, braid and tape armoured cables and Peppers T-1000, the sealing compound that enables a quick and easy installation. The gland is AEx d, AEx e, AEx ta approved and rated Type 4X, maintains IP66, IP68 to 100 metres and is deluge proof without the use of an additional seal or deluge boot.

Compliance UL514B, UL14203, UL2225, UL50E, ANSI/UL 60079-1/1/7, ISA 60079-31 C22.2 No. 0/25/30/94.1/94.2/174 & CAN/CSA C22.2 60079-0/1/7/31 EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31

IEC 60079-0, IEC 60079-1, 60079-7, IEC 60079-15, IEC 60079-31 & IEC 60529 Class I Division 1 / Division 2, Gas Groups ABCD Type 4X CEC - Canada Class I Zone 1 Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

Class I Division 1, Groups A, B, C & D Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X Class I Zone 1 AEx d IIC Gb / AEx e IIC Gb

NEC - USA Class II Zone 21 AEx ta IIIC Da Class I Division 1, Groups A, B, C & D Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G

Class III, Enclosure Type 4X I M2 II 1D 2G Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb

Ex ta IIIC Da / II 3G Ex nR IIC Go

Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC G IECEx Exd IU / Exd IICU / Exe IU / Exe IIU / ExnR IIU EAC

INMETRO - Brazil Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC G

SAC - China UKRAINE Ex d IIC / Ex e IIC Ex d IIC X / Ex e II X Petroleum Rules 2002 (PESO) CCoE - India Specified ABS Rules

Specified ABS Rules
Enclosure Systems (Part 1B)
Part XI of RS Rules for the classification & construction
of sea-going ships (ed. 2014) LLOYD'S RMRS

Certificate No. F248936

ATEX

CEC - Canada NEC - USA CSA 70004604 CSA 70004604

ATEX SIRA 09ATEX1066X & SIRA 09ATEX4124X IECEx SIR 09 0033)

**I**ECEx EAC INMETRO - Brazil SAC - China UKRAINE RU C-GB.F606.B.00098 NCC 13.1957 X NEPSI GYJ16.1403X UA.TR.047.C.0408-13 & 2937 CCoE - India ABS LLOYD'S PESO P365300/3 & P365300/10 14-LD463991A-1-PDA 10/00056(E1)

RMRS 14.02755.315

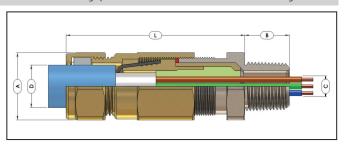
IP Rating: IP66 & IP68 (100 metres - 7 Days), Type 4X, Oil Resistant II & DTS01:1991

Operating Temperature: -60°C to +135°C (-25°C to +85°C for UL applications) Brass or Stainless Steel Electroless Nickel

Materials: Plating:

Peppers T-1000 Sealing Compound Compound:

Elastomeric Seal: Silicone LSOH



			for details)	UL-CB/NP/20/075NPT
āc āc		UL-C		OCLOCK®", single orientation clamping, Compound (Barrier) Elastomeric Outer Seal with Nickel Plated Entry Thread
		В	Brass (B) / Stainless	Steel (S)
		R	Reduced Bore Seal (	Outer Sheath Seal
	w	C	PVC Shroud (C) - PC	P Shroud (P) - Silicone LSOH Shroud (3)
	Options	K <del>-</del> V-H	Locknut, Earth Tag 8	& Nylon (K), Fibre (V) or PTFE (H) IP Washer
	Q D	S	Including Serrated \	Vasher
		1	Quantity per kit	
		NP	Nickel Plated	
		20	Gland shell size	
		075NPT	3/4"NPT Male Entry	Thread
			Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)
		Optional Accessories	Earth tag	Brass (ACBET) / Stainless Steel (ACSET)
		otior esso	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
		Op Acce	Serrated Washers	Stainless Steel (ACSSW)
			Shrouds	PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)
		ring ne:		ion can be effected after 1 hour be energised after 4 hours

							CABLI	E GLAND SE	LECTIO	N TABLE	≣							
							C	able Acceptan	ce Detail	s					Dime	ensions/W	eight	
Gland	Entry T	Thread Size	Metric Thread	NPT Thread	Inte		ernal Cable Details		Cable Outer Sheath Seal [D]			Armour	Nominal	(NPT Entry Thread Versions)			Shroud	
Size	re		Length [B]		Max No. of Cores		Max Ø	Max Inner	Standard Reduced		uced	Acceptance Range	Protrusion Length [L]	Across	Across	Weight	Size	
	Metric NPT		[-]	[6]		NEC	Over Cores	Sheath [C]	Min	Max	Min	Max			Flats [A]	A] Corners	(lbs)	
16	M20 x 1.5	1/2" or 3/4"	0.630	0.783 or 0.795	15	1	0.409	0.461	0.362	0.531	0.264	0.406	0.006-0.049	3.228	1.000	1.102	0.589	EL24
205	M20 x 1.5	1/2" or 3/4"	0.630	0.783 or 0.795	35	4	0.409	0.461	0.453	0.630	0.370	0.492	0.006-0.049	3.228	1.000	1.102	0.606	EL24
20	M20 x 1.5	1/2" or 3/4"	0.630	0.783 or 0.795	40	8	0.492	0.551	0.610	0.831	0.563	0.693	0.006-0.049	3.268	1.180	1.299	0.721	EL30
25	M25 x 1.5	3/4" or 1"	0.630	0.795 or 0.985	60	16	0.701	0.787	0.799	1.079	0.689	0.941	0.006-0.063	3.661	1.480	1.630	1.290	EL38
32	M32 x 1.5	1" or 1 1/4"	0.630	0.985 or 1.008	80	30	0.925	1.035	1.051	1.339	0.984	1.201	0.006-0.079	4.331	1.810	1.992	2.083	EL46
40	M40 x 1.5	1 1/4" or 1 1/2"	0.630	1.008 or 1.024	130	60	1.134	1.268	1.299	1.598	1.154	1.425	0.008-0.079	4.528	2.170	2.382	2.900	EL55
50S	M50 x 1.5	2"	0.630	1.059	200	5	1.374	1.736	1.551	1.839	1.499	1.669	0.008-0.098	4.921	2.560	2.815	4.800	EL65
50	M50 x 1.5	2"	0.630	1.059	400	5	1.551	1.736	1.799	2.094	1.618	1.909	0.008-0.098	4.921	2.560	2.815	4.200	EL65
635	M63 x 1.5	2 1/2"	0.748	1.571	400	4	1.764	2.205	2.051	2.343	1.846	2.157	0.012-0.098	4.921	3.150	3.465	7.740	EL80
63	M63 x 1.5	2 1/2"	0.748	1.571	425	4	1.969	2.205	2.299	2.591	2.118	2.409	0.012-0.098	4.921	3.150	3.465	6.810	EL80
75S	M75 x 1.5	3"	0.748	1.634	425	4	2.181	2.677	2.551	2.843	2.469	2.677	0.012-0.098	5.315	3.890	4.280	9.150	EL104
75	M75 x 1.5	3"	0.748	1.634	425	4	2.394	2.677	2.799	3.071	2.618	2.890	0.012-0.098	5.315	3.890	4.280	8.040	EL104
		A 11 . 12											07 X 10	1 1 0 45361				

netres (mm) multiply by 25.4] - All weights in lbs [Convert to kilograms (Kgs) multiply by 0.4536

#### Notes: Gland size does not necessarily equate to the entry thread size.

- UL approval/applications have a reduced core quantity. Consult product installation instructions for specific core data.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supply cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer & Shroud material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- The gland is supplied with the correct amount of the two-part compound, gloves and instructions to allow one complete termination.
- Metric versions are supplied with an IP O-ring.
- All brass entry threads are Nickel Plated as standard.
- Where approval in addition to UL, CSA, ATEX, and IECEx is required, this must be clearly requested at time of enquiry / order.



## **Cable Gland Type UL-X**

(Single Seal Barrier Gland designed for use with Unarmoured Cable featuring Peppers T-1000 Compound)

Class | Div 2 : Class || Div 1 : Class || Type 4X Ex d: Ex e: Ex nR: Ex ta: AEx d: AEx e: AEx ta: IP66: IP68

Part Numbers:

UL	Х	В
		S





**Example Part Numbering** 













"UL-X" type glands, certified Explosion Proof Class I Div 2, Gas Groups ABCD, Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR & Dust Protected Ex ta. They are suitable for use in Zone 1, Zone 2, Zone 20, Zone 21, Zone 22, Group I Mining, Gas Groups IIA, IIB, IIC and Dust Groups IIIA, IIIB, IIIC. Occasionally referred to as "potting glands", they provide a compound barrier Ex d & IP seal on the cable inner cores, eliminating damage to cables that exhibit "cold flow" characteristics. The gland is suitable for use with all certified Marine Shipboard Cable and Tray Cable whilst being UL listed for Marine Shipboard Unarmoured, Jacketed or Non Jacketed cable. A unique feature includes, Peppers T-1000, the sealing compound that enables a quick and easy installation. The gland is AEx d, AEx e, AEx ta approved and rated Type 4X, maintains IP66, IP68 to 100 metres and is deluge proof without the use of an additional seal or deluge boot.

Compliance UL514B, UL1203, UL2225, UL50E, ANSI/UL 60079-0/1/7, ISA 60079-31 C22.2 No. 0/25/30/94.1/94.2/174 & CAN/CSA C22.2 60079-0/1/7/31 EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31

IEC 60079-0, IEC 60079-1, 60079-7, IEC 60079-15, IEC 60079-31 & IEC 60529

Certification: Class I Division 2, Gas Groups ABCD Type 4X CEC - Canada Class I Zone 1 Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G

Class III, Enclosure Type 4X NEC - USA Class I Zone 1 AEx d IIC Gb / AEx e IIC Gb / AEx ta IIIC Da

Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III. Enclosure Type 4X

ATEX I M2 II 1D 2G Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da II 3G Ex nR IIC Gc

Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc IECEx

Exd IU / Exd IICU / Exe IU / Exe IIU / ExnR IIU

INMETRO - Brazil  $\mathsf{Ex}\,\mathsf{d}\,\mathsf{I}\,\mathsf{Mb}\,\mathsf{/}\,\mathsf{Ex}\,\mathsf{d}\,\mathsf{IIC}\,\mathsf{Gb}\,\mathsf{/}\,\mathsf{Ex}\,\mathsf{e}\,\mathsf{I}\,\mathsf{Mb}\,\mathsf{/}\,\mathsf{Ex}\,\mathsf{e}\,\mathsf{IIC}\,\mathsf{Gb}\,\mathsf{/}\,\mathsf{Ex}\,\mathsf{ta}\,\mathsf{IIIC}\,\mathsf{Da}\,\mathsf{/}\,\mathsf{Ex}\,\mathsf{nR}\,\mathsf{IIC}\,\mathsf{Gc}$ Ex d IIC / Ex e IIC Ex d IIC X / Ex e II X SAC - China

UKRAINE CCoE - India Petroleum Rules 2002 (PESO) ABS Specified ABS Rules LLOYD'S

Enclosure Systems (Part 1B)
Part XI of RS Rules for the classification & construction RMRS

of sea-going ships (ed. 2014)

Certificate No.

E248936 CEC - Canada NEC - USA CSA 70004604 CSA 70004604

ATEX SIRA 09ATEX1066X & SIRA 09ATEX4124X IECEx SIR 09.0033X

**IECE**x EAC RU C-GB.ГБ06.В.00098 NCC 13.1957 X INMETRO - Brazil SAC - China UKRAINE NEPSI GYJ16.1403X UA.TR.047.C.0408-13 & 2937 PESO P365300/3 & P365300/10 14-LD463991A-1-PDA CCoE - India

ABS 10/00056(E1) LLOYD'S 14.02755.315

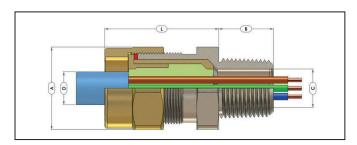
IP Rating: IP66 & IP68 (100 metres - 7 Days), Type 4X, Oil Resistant II & DTS01:1991

Operating

-60°C to +135°C (-25°C to +85°C for UL applications) Temperature:

Brass or Stainless Steel Materials: Plating: Flectroless Nickel

Compound: Peppers T-1000 Sealing Compound



LII -XR/NP/20/075NPT

	(See belov	v for details)	0E //B/141 / 20/ 07 3141 1
	UL-X	Gland featuring a Co	mpound (Barrier) Inner Seal with Nickel Plated Entry Thread
ı	В	Brass (B) / Stainless St	teel (S)
	С	PVC Shroud (C) - PCP	Shroud (P) - Silicone LSOH Shroud (3)
	K-V-H	Locknut & Nylon (K),	Fibre (V) or PTFE (H) IP Washer
	SI T	Including Earth Tag	
;	Options S	Including Serrated W	asher
•	1	Quantity per kit	
	NP	Nickel Plated	
	20	Gland shell size	
	075NPT	3/4"NPT Male Entry T	hread
		Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)
	ial ries	Earth tag	Brass (ACBET) / Stainless Steel (ACSET)
	Optional Accessories	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
	A S	Serrated Washers	Stainless Steel (ACSSW)
		Shrouds	PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)
	Curing Time:		on can be effected after 1 hour be energised after 4 hours

					c	ABLE	GLAND SELECT	ION TABLE					
	Entry Ti	nread Size	Metric	NPT Thread		Cak	le Acceptance De	tails	Nominal	Dimensions/Weight			
Gland	Lindy			Length	Max No. of		Max Ø Over	Max Outer	Protrusion	(NPT Entry Thread Versions)			Shroud
Size	Metric	NPT	Length [B]	[B]		res NEC	Cores	Sheath [D]	Length [L]	Across Flats [A]	Across Corners	Weight (lbs)	Size
205	M20 x 1.5	1/2" or 3/4"	0.630	0.783 or 0.795	35	4	0.409	0.461	41	1.000	1.102	0.138	L24
20	M20 x 1.5	1/2" or 3/4"	0.630	0.783 or 0.795	40	8	0.492	0.551	41	1.180	1.299	0.170	L30
25	M25 x 1.5	3/4" or 1"	0.630	0.795 or 0.985	60	16	0.701	0.787	47	1.480	1.630	0.320	L38
32	M32 x 1.5	1" or 1 1/4"	0.630	0.985 or 1.008	80	30	0.925	1.035	58	1.810	1.992	0.612	L46
40	M40 x 1.5	1 1/4" or 1 1/2"	0.630	1.008 or 1.024	130	60	1.134	1.268	58	2.170	2.382	0.790	L55
50	M50 x 1.5	2"	0.630	1.059	400	5	1.551	1.736	65	2.560	2.815	0.980	L65
63	M63 x 1.5	2 1/2"	0.748	1.571	425	4	1.969	2.205	66	3.150	3.465	1.510	L80
75	M75 x 1.5	3"	0.748	1.634	425	4	2.394	2.677	66	3.890	4.280	1.732	L104
		All dimensions	in inches - [C	onvert to millimet	res (mm)	multip	ly by 25.4] - All we	ights in lbs [Conv	vert to kilograms (	Kgs) multiply by	0.4536]		

- Gland size does not necessarily equate to the entry thread size.
- UL approval/applications have a reduced core quantity. Consult product installation instructions for specific core data.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supply cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account
- When selecting IP Washer & Shroud material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- The gland is supplied with the correct amount of the two-part compound, gloves and instructions to allow one complete termination.
- All brass entry threads are Nickel Plated as standard.
- Where approval in addition to UL, CSA, ATEX, and IECEx is required, this must be clearly requested at time of enquiry / order.



#### Cable Gland Type UL-U

(Double Seal Barrier Gland designed for use with Unarmoured Cable featuring Peppers T-1000 Compound)

Ex d: Ex e: Ex nR: Ex ta: AEx d: AEx e: AEx ta: IP66: IP68

Part Numbers:

UL	U	В
		S



"UL-U" type glands, certified Explosion Proof Class I Div 2, Gas Groups ABCD, Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR & Dust Protected Ex ta. They are suitable for use in Zone 1, Zone 2, Zone 20, Zone 21, Zone 22, Group I Mining, Gas Groups IIA, IIB, IIC and Dust Groups IIIA, IIIB, IIIC. Occasionally referred to as "potting glands", they provide a compound barrier Ex d & IP seal on the cable inner cores, eliminating damage to cables that exhibit "cold flow" characteristics and an environmental seal on the outer sheath. The gland is suitable for use with all certified Marine Shipboard Cable and Tray Cable whilst being UL listed for Marine Shipboard Unarmoured, Jacketed or Non Jacketed cable. A unique feature includes, Peppers T-1000, the sealing compound that enables a quick and easy installation. The gland is AEx d, AEx e, AEx ta approved and rated Type 4X, maintains IP66, IP68 to 100 metres and is deluge proof without the use of an additional seal or deluge boot.

Compliance UL514B, UL1203, UL2225, UL50E, ANSI/UL 60079-0/1/7, ISA 60079-31 C22.2 No. 0/25/30/94.1/94.2/174 & CAN/CSA C22.2 60079-0/1/7/31 EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31

IEC 60079-0, IEC 60079-1, 60079-7, IEC 60079-15, IEC 60079-31 & IEC 60529

Certification: Class I Division 2, Gas Groups ABCD Type 4X CEC - Canada Class I Zone 1 Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da

Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G

Class III, Enclosure Type 4X NEC - USA Class I Zone 1 AEx d IIC Gb / AEx e IIC Gb / AEx ta IIIC Da

Class I Division 2, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III. Enclosure Type 4X

ATEX I M2 II 1D 2G Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da II 3G Ex nR IIC Gc

Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc IECEx

Exd IU / Exd IICU / Exe IU / Exe IIU / ExnR IIU

INMETRO - Brazil Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc

Ex d IIC / Ex e IIC Ex d IIC X / Ex e II X SAC - China UKRAINE CCoE - India Petroleum Rules 2002 (PESO) ABS Specified ABS Rules LLOYD'S

Enclosure Systems (Part 1B)
Part XI of RS Rules for the classification & construction RMRS

of sea-going ships (ed. 2014)

Certificate No.

E248936 CSA 70004604 CSA 70004604 CEC - Canada NEC - USA

ATEX SIRA 09ATEX1066X & SIRA 09ATEX4124X IECEx SIR 09.0033X

**IECEx** RU C-GB.ГБ06.В.00098 NCC 13.1957 X INMETRO - Brazil NEPSI GYJ16.1403X UA.TR.047.C.0408-13 & 2937 SAC - China UKRAINE PESO P365300/3 & P365300/10 14-LD463991A-1-PDA CCoE - India ABS

10/00056(E1) LLOYD'S RMRS 14.02755.315

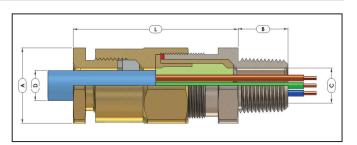
IP Rating: IP66 & IP68 (100 metres - 7 Days), Type 4X, Oil Resistant II & DTS01:1991

Operating

-60°C to +135°C (-25°C to +85°C for UL applications) Temperature:

Materials: Brass or Stainless Steel Plating: Electroless Nickel

Compound: Peppers T-1000 Sealing Compound



	e Part Numbering ow for details)	UL-UB/NP/20/075NPT									
UL-U	J Gland featuring a Co	mpound (Barrier) Inner Seal with Nickel Plated Entry Thread									
E	Brass (B) / Stainless S	teel (S)									
	PVC Shroud (C) - PCP	Shroud (P) - Silicone LSOH Shroud (3)									
K-V-H	Locknut & Nylon (K),	Locknut & Nylon (K), Fibre (V) or PTFE (H) IP Washer									
ous -	Including Earth Tag	Including Earth Tag									
Options	Including Serrated W	Including Serrated Washer									
-	Quantity per kit	Quantity per kit									
N	Nickel Plated										
20	Gland shell size										
075NP	7 3/4″NPT Male Entry 1	Thread									
	Locknut	Brass (ACBLN) / Stainless Steel (ACSLN)									
Optional Accessories	Earth tag	Brass (ACBET) / Stainless Steel (ACSET)									
tior	IP Washers	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)									
Q S	Serrated Washers	Stainless Steel (ACSSW)									
	Shrouds	PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)									
Curing Time:		on can be effected after 1 hour be energised after 4 hours									

						САВ	LE GLAND SE	LECTION TA	ABLE					
				NPT Thread Length			Cable Accept	ance Details			Dimensions/Weight			
Gland Entry T Size		nread Size	ISO Thread Length		Cable Inner Sheath [C]			Cable Oute	er Sheath [D]	Nominal Protrusion	(NPT	Entry Thread Ver	sions)	Shroud Size
Size	Metric NPT		[B]	[B]	Number of Cores IEC - NEC		Max Ø Over Cores	Min Max		Length [L]	Across Flats	Across Corners [A]	Weight (lbs)	Size
16	M20 x 1.5	1/2" or 3/4"	0.630	0.783 - 0.795	15	1	0.409	0.134	0.331	2.717	1.000	1.102	0.602	EL24
205	M20 x 1.5	1/2" or 3/4"	0.630	0.783 - 0.795	35	4	0.409	0.189	0.461	2.717	1.000	1.102	0.590	EL24
20	M20 x 1.5	1/2" or 3/4"	0.630	0.783 - 0.795	40	8	0.492	0.374	0.551	2.717	1.180	1.299	0.710	EL30
25	M25 x 1.5	3/4" or 1"	0.630	0.795 - 0.985	60	16	0.701	0.461	0.787	2.953	1.480	1.630	1.120	EL38
32	M32 x 1.5	1" or 1 1/4"	0.630	0.985 - 1.008	80	30	0.925	0.713	1.035	3.425	1.810	1.992	1.797	EL46
40	M40 x 1.5	1 1/4" or 1 1/2"	0.630	1.008 - 1.024	130	60	1.134	0.890	1.268	3.543	2.170	2.382	2.577	EL55
50S	M50 x 1.5	2"	0.630	1.059	200	5	1.346	1.110	1.504	3.937	2.560	2.815	3.770	EL65
50	M50 x 1.5	2"	0.630	1.059	400	5	1.551	1.303	1.736	3.937	2.560	2.815	3.263	EL65
63S	M63 x 1.5	2 1/2"	0.748	1.571	400	4	1.764	1.547	1.972	3.937	3.150	3.465	6.190	EL80
63	M63 x 1.5	2 1/2"	0.748	1.571	425	4	1.969	1.839	2.205	3.937	3.150	3.465	5.309	EL80
755	M75 x 1.5	3″	0.748	1.634	425	4	2.181	2.059	2.441	3.937	3.890	4.280	6.960	EL104
75	M75 x 1.5	3″	0.748	1.634	425	4	2.394	2.283	2.677	3.937	3.890	4.280	6.490	EL104
			All dimensions	in inches - [Con	vert to n	nillimet	res (mm) multip	oly by 25.4] - [C	onvert to kilogr	ams (Kgs) multip	oly by 0.4536]			

- Gland size does not necessarily equate to the entry thread size

- Gland size does not necessarily equate to the entry thread size.

  UL approval/applications have a reduced core quantity. Consult product installation instructions for specific core data.

  Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.

  Assembly instructions must be read prior to installation and adhered to in full.

  Peppers supply cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.

  When selecting IP Washer & Shroud material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.
- The gland is supplied with the correct amount of the two-part compound, gloves and instructions to allow one complete termination. All brass entry threads are Nickel Plated as standard.

  Where approval in addition to UL, CSA, ATEX, and IECEx is required, this must be clearly requested at time of enquiry / order.



## Cable Gland Type A - (Single Seal Gland designed for use with Unarmoured Cable)

IEC 62444: EN 62444: BS 6121: IP66: IP68

Part Numbers:

Α	1	L	В
	2		S
	3		Α
	4	1	



"A" type glands are commonly referred to as "stuffing glands". They provide a controlled, pull resistant environmental displacement seal on the cable outer sheath, minimising damage to cables that exhibit "cold flow" characteristics. The gland maintains IP66 & IP68 to 50 metres. Options are available for use with LSOH cables and extreme temperature applications.

Compliance IEC 62444 Standards:

BS 6121

Certification: ABS Specified ABS Rules

Certificate No. ABS 14-LD463991-1-PDA

IP Rating: IP66 & IP68 (50 metres - 7 Days )

Operating

Temperature: Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C

Materials: Aluminium, Brass, Stainless Steel

Plating: Electroless Nickel

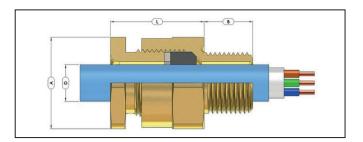
Optional Brass (ACBLN) / St Steel (ACSLN) / Aluminium (ALALN) Locknut Accessories:

> Earth tag Brass (ACBET) / St Steel (ACSET) / Aluminium (ACAET)

Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW) IP Washers

Serrated Washers Stainless Steel (ACSSW)

Shrouds PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)



		ort Numbering A2LB/NP/20/M20 for details)							
	Α	Gland featuring controlled displacement sealing							
	2	Neoprene Seal (2) - Silicone Seal (3) - Neoprene/Lead (1) - Silicone/Lead (4)							
	L	Peppers Standard Designation							
	В	Aluminium (A) / Brass (B) / Stainless Steel (S)							
	C	PVC Shroud (C) - PCP Shroud (P) - Silicone LSOH Shroud (3)							
10	K <del>-</del> V-H	Locknut & Nylon (K), Fibre (V) or PTFE (H) IP Washer							
Options	Т	Including Earth Tag							
op	S	Including Serrated Washer							
	1	Quantity per kit							
	NP	Nickel Plated							
	20	Gland shell size							
	M20	M20 x 1.5mm Male Entry Thread							

				CABLE	GLAND SELECTI	ON TABLE				
	Entry Ti	nread Size	Metric Thread —	Cable Accep	otance Details	Nominal	Dimensi	ons/Weight (Metric	Versions)	
Gland Size	Endy	ireau size	Length	Outer S	heath [D]	Protrusion	Across	Across	Weight	Shroud Size
	Metric	NPT	[B]	Min	Max	Length [L]	Flats [A]	Corners	Kgs	
12	M12 x 1.5	3/8"	16	0.9	6.0	33	19.0	21.0	0.038	L19
12	M16 x 1.5	3/8" or 1/2"	16	0.9	6.0	33	25.4	28.0	0.068	L24
12	M20 x 1.5	3/8" or 1/2"	16	0.9	6.0	33	25.4	28.0	0.082	L24
16	M16 x 1.5	3/8" or 1/2"	16	4.0	8.4	33	25.4	28.0	0.097	L24
16	M20 x 1.5	1/2" or 3/4"	16	4.0	8.4	33	25.4	28.0	0.104	L24
20S	M20 x 1.5	1/2" or 3/4"	16	7.2	11.7	33	25.4	28.0	0.102	L24
20	M20 x 1.5	1/2" or 3/4"	16	9.4	14.0	33	30.0	33.0	0.127	L30
25	M25 x 1.5	3/4" or 1"	16	13.5	20.0	33	37.6	41.4	0.166	L38
32	M32 x 1.5	1" or 1 1/4"	16	19.5	26.3	33	46.0	50.6	0.244	L46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	23.0	32.2	37	55.0	60.5	0.396	L55
50S	M50 x 1.5	1 1/2" or 2"	16	28.1	38.2	37	65.0	71.5	0.558	L65
50	M50 x 1.5	2"	16	33.1	44.1	37	65.0	71.5	0.438	L65
63S	M63 x 1.5	2" or 2 1/2"	19	39.2	50.1	37	80.0	88.0	0.832	L80
63	M63 x 1.5	2 1/2"	19	46.7	56.0	37	80.0	88.0	0.664	L80
75S	M75 x 1.5	2 1/2" or 3"	19	52.1	62.0	37	90.0	99.0	0.924	L90
75	M75 x 1.5	3″	19	58.0	68.0	37	90.0	99.0	0.714	L90
80	M80 x 2.0	3" or 3 1/2"	25	62.2	72.0	50	104.0	115.2	1.514	L104
85	M85 x 2.0	3" or 3 1/2"	25	69.0	78.0	50	104.0	115.2	1.332	L104
90	M90 x 2.0	3 1/2" or 4"	25	74.0	84.0	50	114.0	125.7	1.622	L114
100	M100 x 2.0	3 1/2" or 4"	25	82.0	90.0	50	114.0	125.7	1.523	L114

- Gland size does not necessarily equate to the entry thread size.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other  $equivalent\ standards. They\ usually\ incorporate\ a\ thread\ run\ out\ according\ to\ the\ available\ machining\ techniques\ and\ will\ not\ have\ a\ full\ form\ thread\ support of the available\ machining\ techniques\ and\ will\ not\ have\ a\ full\ form\ thread\ support\ for\ s$ for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer & Shroud material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.



Cable Gland Type E -

(Double Compression Gland for Armoured Cable featuring Dedicated Armour Clamping)

IEC 62444: EN 62444: BS 6121: IP66: IP68

Part Numbers:

Е	1	W	В	*	*
	2	Х	S	IE	R
	2		Λ		



"E" type double compression glands provide a controlled IP seal on the cable inner sheath, an environmental seal on the outer sheath and a detachable armour specific clamping system for wire (W), braid/tape (X) armoured cables. The gland has been tested to IP66 and IP68 to 50 metres. The Integral Earth, "IE" version, allows the gland to be used with HV cables where the fault load is greater than 10.4kA and options are available for use with lead sheath, LSOH cables and extreme temperature applications.

Compliance IEC 62444 Standards: EN 62444 BS 6121

Certification: ABS Specified ABS Rules

Certificate No. ABS 14-LD463991-1-PDA

IP Rating: IP66 & IP68 (50 metres - 7 Days)

Operating

Temperature: Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C

Materials: Aluminium, Brass or Stainless Steel

Plating: Electroless Nickel

Optional

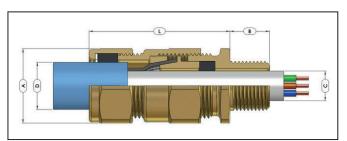
Locknut Brass (ACBLN) / St Steel (ACSLN) / Aluminium (ACALN)

Earth tag Brass (ACBET) / St Steel (ACSET) / Aluminium (ACALN)

IP Washers Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)

Serrated Washer Stainless Steel (ACSSW)

Shrouds PVC (ACSPVC) / PCP (ACSPCP) / LSOH Silicone (ACSSIO)



	ample Part e below foi	ENumbering E1WB/NP/20/050NPT r details)						
	E	Gland featuring armour specific clamping						
	1	Neoprene Seals (1) - Silicone Seals (3) - Neoprene/Lead (2) - Silicone/Lead (4)						
	w	SWA (W) / SWB or STA (X)						
	В	Aluminium (A) / Brass (B) / Stainless Steel (S)						
	IE	Integral Earth (see page TR-2)						
	R	Reduced Bore Seal						
us	C	PVC Shroud (C) - PCP Shroud (P) - LSOH Silicone Shroud (3)						
Options	K-V-H	Locknut, Earth Tag & Nylon (K), Fibre (V) or PTFE (H) IP Washer						
0	S	Including Serrated Washer						
	1	Quantity per kit						
	NP	Nickel Plated						
	20	Gland shell size						
	050NPT	1/2"NPT Male Entry Thread						

							CABLE	GLAND	SELECT	ION TABLE						
	Entry Thread Size		Metric		Ca	ble Accep	tance Deta	ils		Armour Acce	ntanco Pango	Nominal -	Dimensions/Weight (Metric)			
Gland Size	Littiy i	illeau Size	Thread Length	Inner Sh	eath [C]	Outer Sh	neath [D]	Reduc	ed [D]	Alliloui Acce	. Р		Across	Across	Weight	Shroud Size
	Metric	NPT	[B]	Min	Max	Min	Max	Min	Max	W	х	Length [L]	Flats [A]	Corners	Kgs	
16	M16 x 1.5	1/2" or 3/4"	16	3.5	8.4	8.4	13.5	4.9	10.3	0.90	0.15-0.35	58	24.0	26.5	0.143	L24
16	M20 x 1.5	1/2" or 3/4"	16	3.5	8.4	8.4	13.5	4.9	10.3	0.90	0.15-0.35	58	24.0	26.5	0.154	L24
205	M20 x 1.5	1/2" or 3/4"	16	8.0	11.7	11.5	16.0	9.4	12.5	0.90-1.25	0.15-0.35	58	24.0	26.5	0.125	L24
20	M20 x 1.5	1/2" or 3/4"	16	6.7*	14.0	15.5	21.1	12.0	17.6	0.90-1.25	0.15-0.50	58	30.0	33.0	0.180	L30
25	M25 x 1.5	3/4" or 1"	16	13.0	20.0	20.3	27.4	16.8	23.9	1.25-1.60	0.15-0.50	58	38.0	41.4	0.256	L38
32	M32 x 1.5	1" or 1 1/4"	16	19.0	26.3	26.7	34.0	23.2	30.5	1.60-2.00	0.15-0.55	65	46.0	50.6	0.400	L46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	25.0	32.2	33.0	40.6	28.6	36.2	1.60-2.00	0.20-0.60	72	55.0	60.5	0.649	L55
50S	M50 x 1.5	1 1/2" or 2"	16	31.5	38.2	39.4	46.7	34.8	42.4	2.00-2.50	0.20-0.60	73	65.0	71.5	0.940	L65
50H	M50 x 1.5	1 1/2" or 2"	16	31.5	38.2	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	73	65.0	71.5	0.849	L65
50	M50 x 1.5	2"	16	36.5	44.1	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	73	65.0	71.5	0.707	L65
63S	M63 x 1.5	2" or 2 1/2"	19	42.5	50.1	52.1	59.5	47.5	54.8	2.50	0.30-0.80	76	80.0	88.0	1.369	L80
63H	M63 x 1.5	2" or 2 1/2"	19	42.5	50.1	58.4	65.8	53.8	61.2	2.50	0.30-0.80	76	80.0	88.0	1.306	L80
63	M63 x 1.5	2 1/2"	19	49.5	56.0	58.4	65.8	53.8	61.2	2.50	0.30-0.80	76	80.0	88.0	1.123	L80
75S	M75 x 1.5	2 1/2" or 3"	19	54.5	62.0	64.8	72.2	60.2	68.0	2.50	0.30-1.00	82	90.0	99.0	1.661	L90
75H	M75 x 1.5	2 1/2" or 3"	19	54.5	62.0	71.1	78.0	66.5	73.4	2.50	0.30-1.00	82	90.0	99.0	1.553	L90
75	M75 x 1.5	3″	19	60.5	68.0	71.1	78.0	66.5	73.4	2.50	0.30-1.00	82	90.0	99.0	1.310	L90
80	M80 x 2.0	3" or 3 1/2"	25	62.2	72.0	77.0	84.0	71.9	79.4	3.15	0.45-1.00	110	104.0	115.2	2.718	L104
80H	M80 x 2.0	3" or 3 1/2"	25	62.2	72.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	110	104.0	115.2	2.489	L104
85	M85 x 2.0	3" or 3 1/2"	25	69.0	78.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	110	104.0	115.2	2.326	L104
90	M90 x 2.0	3 1/2" or 4"	25	74.0	84.0	88.0	96.0	82.0	91.4	3.15	0.45-1.00	110	114.0	125.7	2.852	L114
90H	M90 x 2.0	3 1/2" or 4"	25	74.0	84.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	110	114.0	125.7	2.629	L114
100	M100 x 2.0	3 1/2" or 4"	25	82.0	90.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	110	114.0	125.7	2.496	L114
								All dime	ensions in	mm						

- Gland size does not necessarily equate to the entry thread size.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other
  equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread
  for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- \* For gland size 20 the silicone inner seal has a minimum diameter of 9.3 mm and NOT 6.7 mm.
- When selecting IP Washer & Shroud material for use with glands, please be aware of the accessories temperature range to ensure they are suitable
  for the intended installation.



## Cable Gland Type C

(Single Compression Gland for Armoured Cable featuring Dedicated Armour Clamping)

IEC 62444: EN 62444: BS 6121: IP66

Part Numbers:

C	1	W	В	*
	3	Х	S	R
			Λ	



"C" type single compression glands provide a controlled IP and environmental seal on the outer sheath and a detachable armour specific clamping system for wire (W), braid/tape (X) armoured cables. The gland has been tested to IP66 and options are available for use with LSOH cables and extreme temperature applications.

Compliance IFC 62444 . Standards: EN 62444

BS 6121

Certification: ABS Specified ABS Rules

Certificate No. ABS 14-LD463991-1-PDA

IP Rating: IP66

Operating Temperature:

Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C

Materials: Aluminium, Brass or Stainless Steel

Plating: **Electroless Nickel** 

Locknut

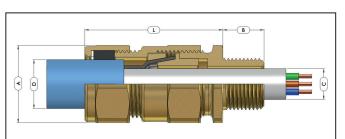
Optional Accessories: Brass (ACBLN) / St Steel (ACSLN) / Aluminium (ACALN)

Earth tag Brass (ACBET) / St Steel (ACSET) / Aluminium (ACALN)

**IP** Washers Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)

Serrated Washer Stainless Steel (ACSSW)

Shrouds PVC (ACSPVC) / PCP (ACSPCP) / LSOH Silicone (ACSSIO)



	mple Part e below for	Numbering C1WB/NP/20/050NPT cdetails)						
	c	Gland featuring armour specific clamping						
	1	Neoprene Seals (1) - Silicone Seals (3)						
	w	SWA (W) / SWB or STA (X)						
	В	Aluminium (A) / Brass (B) / Stainless Steel (S)						
	R	Reduced Bore Seal						
us	C	PVC Shroud (C) - PCP Shroud (P) - LSOH Silicone Shroud (3)						
Options	K <del>-</del> V-H	Locknut, Earth Tag & Nylon (K), Fibre (V) or PTFE (H) IP Washer						
0	S	Including Serrated Washer						
	1	Quantity per kit						
	NP	Nickel Plated						
	20	Gland shell size						
	050NPT	1/2"NPT Male Entry Thread						

	CABLE GLAND SELECTION TABLE															
	Entry Thread Size		Metric		Ca	ble Accep	tance Deta	ils		Armour Acco	mour Acceptance Range		Dimen	sions/Weight (	Metric)	
Gland Size	Entry i	illeau size	Thread Length	Inner Sh	eath [C]	Outer Sh	neath [D]	Reduc	ed [D]	Affilour Acce	F		Across	Across	Weight	Shroud Size
	Metric	NPT	[B]	Min	Max	Min	Max	Min	Max	W	X	Length [L]	Flats [A]	Corners	Kgs	
16	M16 x 1.5	1/2" or 3/4"	16	n/a	8.4	8.4	13.5	4.9	10.3	0.90	0.15-0.35	58	24.0	26.5	0.143	L24
16	M20 x 1.5	1/2" or 3/4"	16	n/a	8.4	8.4	13.5	4.9	10.3	0.90	0.15-0.35	58	24.0	26.5	0.154	L24
205	M20 x 1.5	1/2" or 3/4"	16	n/a	11.7	11.5	16.0	9.4	12.5	0.90-1.25	0.15-0.35	58	24.0	26.5	0.125	L24
20	M20 x 1.5	1/2" or 3/4"	16	n/a	14.0	15.5	21.1	12.0	17.6	0.90-1.25	0.15-0.50	58	30.0	33.0	0.180	L30
25	M25 x 1.5	3/4" or 1"	16	n/a	20.0	20.3	27.4	16.8	23.9	1.25-1.60	0.15-0.50	58	38.0	41.4	0.256	L38
32	M32 x 1.5	1" or 1 1/4"	16	n/a	26.3	26.7	34.0	23.2	30.5	1.60-2.00	0.15-0.55	65	46.0	50.6	0.400	L46
40	M40 x 1.5	1 1/4" or 1 1/2"	16	n/a	32.2	33.0	40.6	28.6	36.2	1.60-2.00	0.20-0.60	72	55.0	60.5	0.649	L55
50S	M50 x 1.5	1 1/2" or 2"	16	n/a	38.2	39.4	46.7	34.8	42.4	2.00-2.50	0.20-0.60	73	65.0	71.5	0.940	L65
50H	M50 x 1.5	1 1/2" or 2"	16	n/a	38.2	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	73	65.0	71.5	0.849	L65
50	M50 x 1.5	2"	16	n/a	44.1	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	73	65.0	71.5	0.707	L65
635	M63 x 1.5	2" or 2 1/2"	19	n/a	50.1	52.1	59.5	47.5	54.8	2.50	0.30-0.80	76	80.0	88.0	1.369	L80
63H	M63 x 1.5	2" or 2 1/2"	19	n/a	50.1	58.4	65.8	53.8	61.2	2.50	0.30-0.80	76	80.0	88.0	1.306	L80
63	M63 x 1.5	2 1/2"	19	n/a	56.0	58.4	65.8	53.8	61.2	2.50	0.30-0.80	76	80.0	88.0	1.123	L80
75S	M75 x 1.5	2 1/2" or 3"	19	n/a	62.0	64.8	72.2	60.2	68.0	2.50	0.30-1.00	82	90.0	99.0	1.661	L90
75H	M75 x 1.5	2 1/2" or 3"	19	n/a	62.0	71.1	78.0	66.5	73.4	2.50	0.30-1.00	82	90.0	99.0	1.553	L90
75	M75 x 1.5	3″	19	n/a	68.0	71.1	78.0	66.5	73.4	2.50	0.30-1.00	82	90.0	99.0	1.310	L90
80	M80 x 2.0	3" or 3 1/2"	25	n/a	72.0	77.0	84.0	71.9	79.4	3.15	0.45-1.00	110	104.0	115.2	2.718	L104
80H	M80 x 2.0	3" or 3 1/2"	25	n/a	72.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	110	104.0	115.2	2.489	L104
85	M85 x 2.0	3" or 3 1/2"	25	n/a	78.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	110	104.0	115.2	2.326	L104
90	M90 x 2.0	3 1/2" or 4"	25	n/a	84.0	88.0	96.0	82.0	91.4	3.15	0.45-1.00	110	114.0	125.7	2.852	L114
90H	M90 x 2.0	3 1/2" or 4"	25	n/a	84.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	110	114.0	125.7	2.629	L114
100	M100 x 2.0	3 1/2" or 4"	25	n/a	90.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	110	114.0	125.7	2.496	L114
								All dime	ensions in	mm						

- Gland size does not necessarily equate to the entry thread size.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer & Shroud material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.



Cable Gland Type C IE

(Single Compression Gland for Armoured Cable featuring Dedicated Armour Clamping and an Integral Earth Connection for HV Cables)

IEC 62444 : EN 62444 : BS 6121 : IP66

Part Numbers:

C	1	W	В	*	*
	3	Х	S	IE	R
			Λ		



"C" type single compression glands provide a controlled IP and environmental seal on the outer sheath and a detachable armour specific clamping system for wire (W), braid/tape (X) armoured cables. The gland has been tested to IP66 and incorporates an Integral Earth, "IE", which allows the gland to be used with HV cables where the fault load is greater than 10.4kA. Options are available for use with LSOH cables and extreme temperature applications.

Compliance IEC 62444 Standards: EN 62444 BS 6121

Certification: ABS Specified ABS Rules

Certificate No. ABS 14-LD463991-1-PDA

IP Rating: IP66

Operating

**Temperature:** Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C

Materials: Aluminium, Brass or Stainless Steel

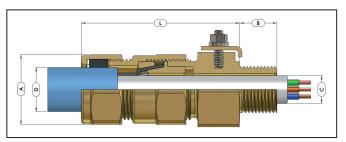
Plating: Electroless Nickel

Optional Locknut Brass (ACBLN) / St Steel (ACSLN) / Aluminium (ACALN)
Accessories:

IP Washers Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)

Serrated Washer Stainless Steel (ACSSW)

Shrouds PVC (ACSPVC) / PCP (ACSPCP) / LSOH Silicone (ACSSIO)



<b>Example Part Numbering</b> (See below for details)							
	С	Gland featuring armour specific clamping					
	1	Neoprene Seals (1) - Silicone Seals (3)					
	W	SWA (W) / SWB or STA (X)					
	В	Aluminium (A) / Brass (B) / Stainless Steel (S)					
	IE	Integral Earth					
	R	Reduced Bore Seal					
ns	C	PVC Shroud (C) - PCP Shroud (P) - LSOH Silicone Shroud (3)					
Options	K-V-H	Locknut & Nylon (K), Fibre (V) or PTFE (H) IP Washer					
0	S	Including Serrated Washer					
	1	Quantity per kit					
	NP	Nickel Plated					
	20	Gland shell size					
	050NPT	1/2"NPT Male Entry Thread					

CABLE GLAND SELECTION TABLE																
Gland Size	Entry Thread Size		Metric Thread Length	Cable Acceptance Details					A A A D		Naminal	Dimensions/Weight (Metric)				
				Inner Sheath [C]		Outer Sheath [D]		Reduced [D]		Armour Acceptance Range		Nominal Protrusion Length [L]	Across	Across	Weight	Shroud Size
	Metric	NPT	[B]	Min	Max	Min	Max	Min	Max	W	x	Length [L]	Flats [A]	Corners	Kgs	
16	M16 x 1.5	1/2" or 3/4"	16	n/a	8.4	8.4	13.5	4.9	10.3	0.90	0.15-0.35	72	24.0	26.5	0.237	n/a
16	M20 x 1.5	1/2" or 3/4"	16	n/a	8.4	8.4	13.5	4.9	10.3	0.90	0.15-0.35	72	24.0	26.5	0.248	n/a
205	M20 x 1.5	1/2" or 3/4"	16	n/a	11.7	11.5	16.0	9.4	12.5	0.90-1.25	0.15-0.35	72	24.0	26.5	0.213	n/a
20	M20 x 1.5	1/2" or 3/4"	16	n/a	14.0	15.5	21.1	12.0	17.6	0.90-1.25	0.15-0.50	72	30.0	33.0	0.323	n/a
25	M25 x 1.5	3/4" or 1"	16	n/a	20.0	20.3	27.4	16.8	23.9	1.25-1.60	0.15-0.50	72	38.0	41.4	0.385	n/a
32	M32 x 1.5	1" or 1 1/4"	16	n/a	26.3	26.7	34.0	23.2	30.5	1.60-2.00	0.15-0.55	81	46.0	50.6	0.636	n/a
40	M40 x 1.5	1 1/4" or 1 1/2"	16	n/a	32.2	33.0	40.6	28.6	36.2	1.60-2.00	0.20-0.60	94	55.0	60.5	0.967	n/a
50S	M50 x 1.5	1 1/2" or 2"	16	n/a	38.2	39.4	46.7	34.8	42.4	2.00-2.50	0.20-0.60	95	65.0	71.5	1.383	n/a
50H	M50 x 1.5	1 1/2" or 2"	16	n/a	38.2	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	95	65.0	71.5	1.292	n/a
50	M50 x 1.5	2"	16	n/a	44.1	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	95	65.0	71.5	1.088	n/a
63S	M63 x 1.5	2" or 2 1/2"	19	n/a	50.1	52.1	59.5	47.5	54.8	2.50	0.30-0.80	101	80.0	88.0	2.091	n/a
63H	M63 x 1.5	2" or 2 1/2"	19	n/a	50.1	58.4	65.8	53.8	61.2	2.50	0.30-0.80	101	80.0	88.0	2.132	n/a
63	M63 x 1.5	2 1/2"	19	n/a	56.0	58.4	65.8	53.8	61.2	2.50	0.30-0.80	101	80.0	88.0	1.748	n/a
75S	M75 x 1.5	2 1/2" or 3"	19	n/a	62.0	64.8	72.2	60.2	68.0	2.50	0.30-1.00	107	90.0	99.0	2.463	n/a
75H	M75 x 1.5	2 1/2" or 3"	19	n/a	62.0	71.1	78.0	66.5	73.4	2.50	0.30-1.00	107	90.0	99.0	2.355	n/a
75	M75 x 1.5	3"	19	n/a	68.0	71.1	78.0	66.5	73.4	2.50	0.30-1.00	107	90.0	99.0	2.007	n/a
80	M80 x 2.0	3" or 3 1/2"	25	n/a	72.0	77.0	84.0	71.9	79.4	3.15	0.45-1.00	132	104.0	115.2	3.692	n/a
80H	M80 x 2.0	3" or 3 1/2"	25	n/a	72.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	132	104.0	115.2	3.463	n/a
85	M85 x 2.0	3" or 3 1/2"	25	n/a	78.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	132	104.0	115.2	3.197	n/a
90	M90 x 2.0	3 1/2" or 4"	25	n/a	84.0	88.0	96.0	82.0	91.4	3.15	0.45-1.00	132	114.0	125.7	3.900	n/a
90H	M90 x 2.0	3 1/2" or 4"	25	n/a	84.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	132	114.0	125.7	3.677	n/a
100	M100 x 2.0	3 1/2" or 4"	25	n/a	90.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	132	114.0	125.7	3.404	n/a
	All dimensions in mm															

- Gland size does not necessarily equate to the entry thread size.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- Peppers supplies cable glands with parallel entry threads that conform to the flameproof threaded joint requirements of IEC/EN 60079-1 and other equivalent standards. They usually incorporate a thread run out according to the available machining techniques and will not have a full form thread for the entire length. Peppers Cable Glands Limited will not be held responsible for clients' installations where this has not been taken into account.
- When selecting IP Washer & Shroud material for use with glands, please be aware of the accessories temperature range to ensure they are suitable for the intended installation.



### Product Type AR - (Metallic Adaptors and Reducers)

Part No's:



"AR" Series Certified Adaptors & Reducers provide a method of matching electrical thread forms on Ex equipment whilst maintaining Ex d, Ex e, Ex tb and Ex nR methods of explosion protection. Approved for use in mining (except Aluminium) and surface installations, they maintain IP66 & IP68 for IEC type applications and Class I Division 1 and NEMA 4X for CEC / NEC type applications. All external metric threads are fitted with a nitrile O-ring as standard.

Compliance Standard:

EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31 & 60529

C22.2 (see certificate), UL514B, UL1203, ANSI/UL 60079-0/1/7, ISA 60079-31, UL 50E

Certification:

I M2 II 2GD Exd I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db

II 3G Ex nR IIC Go

Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db / Ex nR IIC Gc **IFCEx** 

Class I Zone 1 Ex d IIC / Ex e IIC / Class II Zone 21 Ex th IIIC CFC -

Class I Division 1, Groups A, B, C & D Canada Class II Division 1, Groups E, F & G

Class III, Enclosure Type 4X

NEC - USA Class I Zone 1 AEx d IIC Gb / AEx e IIC Gb / Class II Zone 21 AEx tb IIIC Db

Class I Division 1, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X

EAC Exd IU / Exd IICU / Exe IU / Exe IIU / ExnR IIU

INMETRO - Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db / Ex nR IIC Gc

**ATEX** 

SAC - China Ex d IIC / Ex e IIC

UKRAINE Exd IU / Exd IICU / Exe IU / Exe IIU

CCoE - India Ex d IIC Gb / Ex e IIC Gc Specified ABS Rules ABS LLOYD'S Enclosure Systems (Part 1B)

**RMRS** Part XI of Rules for sea-going ships (ed.2014)

SIRA 09ATEX1322X & SIRA 09ATEX4323X Certificate No. ATEX

> IECEx SIR 09.0131X IFCF<sub>x</sub> CEC -CSA 2310046

Canada

NFC - USA CSA 2310046

EAC RU C-GB.ГБ06.В.00098 INMETRO - NCC 13.2189 X

SAC - China NEPSI GYJ16.1404X

UA.TR.047.C.0408-13 & 2937 UKRAINE CCoE - India PESO P365300/9 & P365300/12

ABS 14-LD1183401-PDA 10/00056(E1) LLOYD'S 14.02755.315 **RMRS** 

Reducer Adaptor

Example Part Numbering	AR1BF/NP/M20/M25
(Always Quote Male Thread First)	ARTBI / NF / WIZO/ WIZS

AR	Thread converting Adaptor/Reducer					
1	No IP O-ring (0) - Nitrile (1) - Silicone (3)					
В	Brass (B) - Stainless Steel (S) - Aluminium (A)					
F	Ex d & Ex e certification including Marine Approvals					
NP	Nickel Plated					
M20	Male Entry Thread					
M25	Female Entry Thread					
	IP Washers - (N) Nylon (ACNSW) / (V) Fibre (ACFSW) / (H) PTFE (ACPSW)					
Optional	(T) Earth Tag - Brass (ACBET) / St-Steel (ACSET) / Aluminium (ACAET)					
Accessories	(L) Locknut - Brass (ACBLN) / St-Steel (ACSLN) / Aluminium (ACALN)					
	(S) Serrated Washer - Stainless Steel (ACSSW)					

**IP Rating:** IP66 & IP68 (100 metres for 7 days) & NEMA 4X

**Impact** 

20Nm (Aluminium 7Nm) Resistance:

Operating O-ring - None -100°C to +400°C Temperature: O-ring - Nitrile -30°C to +100°C

-60°C to +200°C O-ring - Silicone

Materials: Brass, Stainless Steel or Aluminium Plating: Electroless Nickel

Male and Female Thread References and Size information can be found on page TR-1 of our product catalogue.

Adaptor and Reducer size information is available on pages TR-2 & TR-3 of our product catalogue.

Male and female threads are manufactured in accordance with:

ISO Metric threads to ISO 965-1, ISO 965-3, BS3643 and IEC 60423

NPT and NPS threads are in accordance to ANSI B1.20.1

PG threads to DIN40430

ET threads to Imperial Conduit BS31

ISO Pipe Parallel to ISO 228 and BS2779 (BSPP, G, R, PF & Tpy 6) ISO Pipe Taper to ISO 7-1 and BS21 (BSPT, Gc, Gk, Rk, PT & Kmpy 6)

Assembly instructions must be read prior to installation and adhered to in full.

- For Ex d applications female threads must comply with clause 5.3 of IEC 60079-1. For Ex nR applications parallel entry threads must be installed with a suitable entry thread seal.
- ATEX / IECEx versions are supplied as standard.
- Additional approvals must be requested at time of order.
- Where applicable, the standard O-ring material is nitrile. Other options are available upon request.
- Aluminium versions are not suitable for Group I Mining applications.



## Product Type ARMM & ARFF - (Metallic Adaptors)

Ex d: Ex e: Ex nR: Ex ta: IP66: IP68

Part No's:

Α	R	MM	0	В	F
		FF	1	S	
			3	Α	



"ARMM & ARFF" Series Certified Adaptors provide a method of matching electrical thread forms on Ex equipment whilst maintaining Ex d, Ex e, Ex to and Ex nR methods of explosion protection. Approved for use in mining (except Aluminium) and surface installations, they maintain IP66 & IP68 for IEC type applications and Class I Division 1 and NEMA 4X for CEC type applications. All external metric threads are fitted with a nitrile O-ring as standard.

Compliance Standard: EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31
IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31 & 60529
C22.2 (see certificate), UL514B, UL1203, ANSI/UL 60079-0/1/7, ISA 60079-31, UL 50E

Certification:

I M2 II 2GD Exd I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex ta IIIC Da II

3G Ex nR IIC Go

IECEx Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Go

CEC - Class I Zone 1 Ex d IIC / Ex e IIC / Class II Zone 21 Ex tb IIIC

Canada Class I Division 1, Groups A, B, C & D

Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X

NEC - USA Class I Zone 1 AEx d IIC Gb / AEx e IIC Gb / Class II Zone 21 AEx tb IIIC Db

Class I Division 1, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X

EAC Exd IU / Exd IICU / Exe IU / Exe IIU / ExnR IIU

INMETRO - Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db / Ex nR IIC Gc

3razil

**ATEX** 

SAC - China Ex d IIC / Ex e IIC

UKRAINE Exd IU / Exd IICU / Exe IU / Exe IIU

CCoE - India Ex d IIC Gb / Ex e IIC Gc

ABS Specified ABS Rules

LLOYD'S Enclosure Systems (Part 1B)

RMRS Part XI of Rules for sea-going ships (ed.2014)

Certificate No. ATEX

ATEX SIRA 09ATEX1322X & SIRA 09ATEX4323X

IECEx SIR 09.0131X
CEC - CSA 2310046

Canada

NEC - USA CSA 2310046

EAC RU C-GB.ГБ06.В.00098

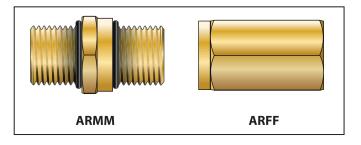
INMETRO - NCC 13.2189 X

Brazil

SAC - China NEPSI GYJ16.1404X

UKRAINE UA.TR.047.C.0408-13 & 2937 CCoE - India PESO P365300/9 & P365300/12

ABS 14-LD1183401-PDA LLOYD'S 10/00056(E1) RMRS 14.02755.315



Example Part Numbering	ARMM1BF/NP/M20/M25

<b>ARMM</b> = Male x Male - <b>ARFF</b> = Female x Female
No IP O-ring (0) - Nitrile (1) - Silicone (3)
Brass (B) - Stainless Steel (S) - Aluminium (A)
Ex d & Ex e certification including Marine Approvals
Nickel Plated
Male or Female Entry Thread
Male or Female Entry Thread

ARFF part numbers will always contain the "0" as this product cannot be fitted with O-rings For ARMM always quote the smallest thread first so the product is an Adaptor not Reducer Accessories are available for ARMM series

IP Rating: IP66 & IP68 (100 metres for 7 days) & NEMA 4X

Impact

Materials:

Resistance: 20Nm (Aluminium 7Nm)

**Operating** O-ring - None -100°C to +400°C **Temperature:** O-ring - Nitrile -30°C to +100°C

> O-ring - Silicone -60°C to +200°C Brass, Stainless Steel or Aluminium

**Plating:** Electroless Nickel

Male and Female Thread References and Size information can be found on page TR-1 of our product catalogue. Adaptor and Reducer size information is available on pages TR-2 & TR-3 of our product catalogue.

Male and female threads are manufactured in accordance with:-

ISO Metric threads to ISO 965-1, ISO 965-3, BS3643 and IEC 60423

NPT and NPS threads are in accordance to ANSI B1.20.1

PG threads to DIN40430

ET threads to Imperial Conduit BS31

ISO Pipe Parallel to ISO 228 and BS2779 (BSPP, G, R, PF & Tpy 6)

ISO Pipe Taper to ISO 7-1 and BS21 (BSPT, Gc, Gk, Rk, PT & Kmpy 6)

- Assembly instructions must be read prior to installation and adhered to in full.
- For Ex d applications female threads must comply with clause 5.3 of IEC 60079-1.
- For Ex nR applications parallel entry threads must be installed with a suitable entry thread seal.
- ATEX / IECEx versions are supplied as standard.
- Additional approvals must be requested at time of order.
- Where applicable, the standard O-ring material is nitrile. Other options are available upon request.
- Aluminium versions are not suitable for Group I Mining applications.



# Product Type SPMH & SPHH - (Metallic Dome Head & Hex Head Stopping Plug)

Ex d: Ex e: Ex nR: Ex tb: IP66:

Part No's:

SP	MH	0	В	F
	HH	1	S	
		3	Α	



"SPMH & SPHH" Series Certified Metallic Stopping (Blanking) Plugs provide a method of sealing unused entries in Ex equipment. They maintain Ex d, Ex e, Ex the and Ex nR methods of protection and IP66, IP68 for IEC type applications. They are Class I Division 1, Class II Division 1, Class II and Class 1 Zone 1 approved for for NEC and CEC type applications whilst also maintaining Type 4X rating.

**Compliance** EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31 & IEC 60529

C22.2 (see certificate), UL514B, UL1203, ANSI/UL 60079-0/1/7, ISA 60079-31, UL 50E

**Certification:** ATEX I M2 II 2GD Exd I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db

II 3G Ex nR IIC Gc

IECEx Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db / Ex nR IIC Gc

CEC - Class I Zone 1 Ex d IIC / Ex e IIC / Class II Zone 21 Ex tb IIIC

Canada Class I Division 1, Groups A, B, C & D Class II Division 1, Groups E, F & G

Class III. Enclosure Type 4X

NEC - USA Class I Zone 1 AEx d IIC Gb / AEx e IIC Gb / Class II Zone 21 AEx tb IIIC Db

Class I Division 1, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X

EAC Exd IU / Exd IICU / Exe IU / Exe IIU / ExnR IIU

INMETRO - Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db / Ex nR IIC Go

Brazil

SAC - China Ex d IIC / Ex e IIC

UKRAINE Exd IU / Exd IICU / Exe IU / Exe IIU

CCoE - India Ex d IIC Gb / Ex e IIC Gc

ABS Specified ABS Rules

LLOYD'S Enclosure Systems (Part 1B)

RMRS Part XI of Rules for sea-going ships (ed.2014)

Certificate No. ATEX SIRA 09ATEX1320X & SIRA 09ATEX4323X

 IECEX
 IECEX SIR 09.0131X

 CEC - Canada
 CSA 2310046

 NEC - USA
 CSA 2310046

 EAC
 RU C-GB.ГБ06.B.00098

 INMETRO NCC 13.2189 X

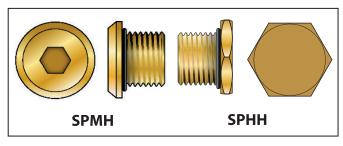
Brazil

SAC - China GYJ16.1406X

UKRAINE UA.TR.047.C.0408-13 & 2937

CCoE - India PESO P365300/7 & P365300/12

ABS 14-LD1183401-PDA LLOYD'S 10/00056(E1) RMRS 14.02755.315



SP	Stopping (Blanking) Plug
МН	Dome (Mushroom) Head (MH) / Hex Head (HH)
1	No IP O-ring (0) - Nitrile (1) - Silicone (3)
В	Brass (B) - Stainless Steel (S) - Aluminium (A)
F	Ex d & Ex e certification including Marine Approvals
NP	Nickel Plated
M20	Male Thread
	IP Washers - (N) Nylon (ACNSW) / (V) Fibre (ACFSW) / (H) PTFE (ACPSW)

SPMH1BF/NP/M20

NP	Nickel Plated
M20	Male Thread
	IP Washers - (N) Nylon (ACNSW) / (V) Fibre (ACFSW) / (H) PTFE (ACPSW)
Optional	(T) Earth Tag - Brass (ACBET) / St-Steel (ACSET) / Aluminium (ACAET)
Accessories	(L) Locknut - Brass (ACBLN) / St-Steel (ACSLN) / Aluminium (ACALN)
	(S) Serrated Washer - Stainless Steel (ACSSW)

IP Rating: IP66 & IP68 (100 metres for 7 days) & NEMA 4X

Impact

Resistance: 20Nm (Aluminium 7Nm)

**Example Part Numbering** 

OperatingO-ring - None $-100^{\circ}$ C to  $+400^{\circ}$ CTemp:O-ring - Nitrile $-30^{\circ}$ C to  $+100^{\circ}$ C

O-ring - Silicone -60°C to +200°C

**Materials:** Brass, Stainless Steel or Aluminium

**Plating:** Electroless Nickel

#### Male threads are manufactured in accordance with:-

- ISO Metric threads to ISO 965-1, ISO 965-3, BS3643 and IEC 60423
- NPT and NPS threads are in accordance to ANSI B1.20.1
- PG threads to DIN40430
- ET threads to Imperial Conduit BS31
- ISO Pipe Parallel to ISO 228 and BS2779 (BSPP, G, R, PF & Tpy 6)
- ISO Pipe Taper to ISO 7-1 and BS21 (BSPT, Gc, Gk, Rk, PT & Kmpy 6)

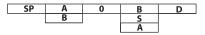
- Assembly instructions must be read prior to installation and adhered to in full.
- For Ex d applications female threads must comply with clause 5.3 of IEC 60079-1.
- For Ex nR applications parallel entry threads must be installed with a suitable entry thread seal.
- ATEX / IECEx versions are supplied as standard.
- Additional approvals must be requested at time of order.
- Where applicable, the standard O-ring material is nitrile. Other options are available upon request.
- Aluminium versions are not suitable for Group I Mining applications.



# Product Type SPA & SPB - (Metallic Stopping Plugs)

Ex d: Ex e: Ex tb: IP66 Class I Div 1: AEx e: AEx tb

Part No's:





"SP" Series Certified Metallic Stopping (Blanking) Plugs provide a method of sealing unused entries in Ex equipment. They maintain Ex d, Ex e and Ex the methods of protection and IP66 for IEC type applications. They are Class I Division 1, Class II Division 1, Class II and Class 1 Zone 1 approved for for NEC and CEC type applications whilst also maintain Type 4X rating.

**Compliance** EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31

**Standard:** IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31 & 60529

C22.2 (see certificate), UL514B, UL1203, ANSI/UL 60079-0/1/7, ISA 60079-31, UL 50E

Certification: ATEX I M2 II 2GD Exd I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb Ex tb IIIC Db II

IECEX Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db CEC - Class I Zone 1 Ex d IIC / Ex e IIC / Class II Zone 21 Ex tb IIIC

Canada Class I Division 1, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X

NEC - USA Class I Zone 1 AEx d IIC Gb / AEx e IIC Gb / Class II Zone 21 AEx tb IIIC Db

Class I Division 1, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X

EAC Exd IU / Exd IICU / Exe IU / Exe IIU / ExnR IIU

INMETRO - Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db Brazil

SAC - China Ex d IIC / Ex e IIC

UKRAINE Exd IU / Exd IICU / Exe IU / Exe IIU

CCoE - India Ex d IIC Gb / Ex e IIC Gc

ABS Specified ABS Rules

LLOYD'S Enclosure Systems (Part 1B)

RMRS Part XI of Rules for sea-going ships (ed.2014)

Certificate No. ATEX SIRA 09ATEX1320X

IECEx SIR 09.0131X
CFC - CSA 2310046

Canada

Brazil

SAC - China NEPSI GYJ16.1406X

UKRAINE UA.TR.047.C.0408-13 & 2937

CCOE - India PESO P365300/7
ABS 14-LD1183401-PDA
LLOYD'S 10/00056(E1)
RMRS 14.02755.315

IP Rating: IP66 & NEMA 4X

Impact Resistance:

20Nm (Aluminium 7Nm)

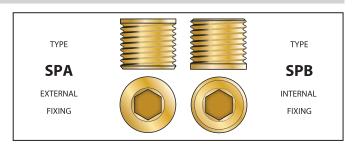
Operating
Temperature:

O-ring - None -100°C to +400°C O-ring - Nitrile -30°C to +100°C

O-ring - Silicone -60°C to +200°C

Materials: Brass, Stainless Steel or Aluminium

Plating: Electroless Nickel



Example Part N	SPA0BD/NP/M20		
SP	Stopping (Blanking) Plug		
Α	Type A External Fixing (A) - Type B Internal Fixing (B)		
0	No IP O-ring		
В	Brass (B) - Stainless Steel (S) - Aluminium (A)		
D	Ex d & Ex e certification including Marine Approvals		
NP	Nickel Plated		
M20	Male Thread		

SPA & SPB Information Table							
ISO METRIC Thread	Hex Socket A/F	Overall Length	Weight	NPT Thread	Hex Socket A/F	Overall Length	Weight
M12	6.0	17.0	0.011	1/4"	6.0	11.2	0.009
M16	8.0	17.0	0.025	3/8"	8.0	11.3	0.030
M20	10.0	17.0	0.035	1/2"	10.0	14.5	0.030
M25	12.0	17.0	0.060	3/4"	12.0	14.8	0.050
M32	12.0	17.0	0.105	1"	12.0	18.5	0.110
M40	14.0	17.0	0.170	1-1/4"	14.0	19.1	0.180
M50	17.0	17.0	0.265	1-1/2"	17.0	19.5	0.250
M63	17.0	17.0	0.450	2"	17.0	20.5	0.430
M75	19.0	17.0	0.600	2-1/2"	19.0	30.5	0.930
M80	22.0	22.0	0.750	3"	22.0	32.1	1.490
M85	22.0	22.0	0.880	3-1/2"	22.0	33.4	2.060
M90	22.0	22.0	0.940	4"	22.0	34.7	2.760
M100	22.0	22.0	1.030	-			
	<u> </u>	All di	mensions in	mm / weigh	t in kgs		

#### Male threads are manufactured in accordance with:-

- ISO Metric threads to ISO 965-1, ISO 965-3, BS3643 and IEC 60423
- NPT and NPS threads are in accordance to ANSI B1.20.1
- PG threads to DIN40430
- ET threads to Imperial Conduit BS31
- ISO Pipe Parallel to ISO 228 and BS2779 (BSPP, G, R, PF & Tpy 6)
- ISO Pipe Taper to ISO 7-1 and BS21 (BSPT, Gc, Gk, Rk, PT & Kmpy 6)

- Assembly instructions must be read prior to installation and adhered to in full.
- For Ex d applications female threads must comply with clause 5.3 of IEC 60079-1.
- ATEX / IECEx versions are supplied as standard.
- Additional approvals must be requested at time of order.
- Aluminium versions are not suitable for Group I Mining applications.



# Product Type ACDP - (Metallic Breather Drain)

Ex e : Ex ta IP66 <u>: AEx e : AEx ta</u>

Part No's:





"ACDP" Series Breather Drains allow the inside of the equipment to breathe with the outside atmosphere and provide a method of effectively draining any moisture from within the equipment. ACDP series Breather Drains maintain Ex e method of protection and IP66 for IEC type applications. A Castellated Locknut and O-ring is supplied with every Breather Drain.

Compliance EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 Standard:

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31 & 60529

C22.2 (see certificate), UL514B, UL1203, ANSI/UL 60079-0/1/7, ISA 60079-31, UL 50E

Certification: I M2 II 2GD Ex eb I Mb / Ex eb IIC Gb / Ex ta IIC Da

> **IECE**x Ex eb I Mb / Ex eb IIC Gb / Ex ta IIC Da Class I Zone 1 Ex e IIC / Class II Zone 21 Ex tb IIIC CEC - Canada

NEC - USA Class I Zone 1 AEx e IIC Gb / Class II Zone 21 AEx tb IIIC Db

EAC Fxe IU / Fxe IIU

INMETRO -Exeb I Mb / Ex eb IIC Gb / Ex ta IIC Da

Brazil

SAC - China Ex e IIC UKRAINE Exe IU / Exe IIU Ex e IIC Gc CCoF - India ABS Specified ABS Rules LLOYD'S Enclosure Systems (Part 1B)

Part XI of Rules for sea-going ships (ed.2014) RMRS

Certificate No. ATEX SIRA09 ATEX3321X

> IECEx SIR 09.0132X **IECE**x CSA 2310046 CFC - Canada NEC - USA CSA 2310046

RU C-GB.ГБ06.В.00098 EAC NCC 13.2189 X

INMETRO -Brazil

SAC - China

UKRAINE UA.TR.047.C.0408-13 & 2937

NEPSI GYJ16.1407X

CCoE - India PESO P365300/8

ABS 14-LD1183401-PDA LLOYD'S 10/00056(F1) 14.02755.315 **RMRS** 

IP Rating: IP66 & NEMA 4X

Impact

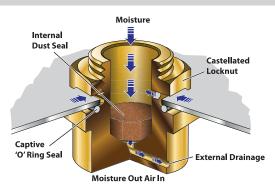
Resistance: 20Nm (Aluminium 7Nm)

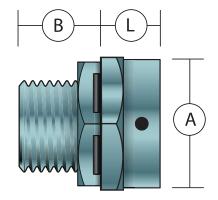
Operating O-ring - None -100°C to +400°C Temperature: O-ring - Nitrile -30°C to +100°C

> -60°C to +200°C O-ring - Silicone

Brass, Stainless Steel or Aluminium Materials:

Plating: Electroless Nickel Flow Rate: 0.25 Litres per Hour





#### **Example Part Numbering** ACDP1BE/NP/M20/10 (See below for details) ACDP Breather Drain c/w Castellated Locknut No IP O-ring (0) - Nitrile (1) - Silicone (3) В Brass (B) - Stainless Steel (S) - Aluminium (A) Ε Ex e certification including Marine Approvals NP Nickel Plated Male Entry Thread M20 10 Entry Thread Length 10mm or 15mm

		Dimen:	sion Data			
Thread Size	A/F	A/C [A]	Length [B]	Length [L]	Weight	
M12 x 1.5	19.0	20.9	10 or 15	12.0	0.032	
M16 x 1.5	24.0	26.4	10 or 15	12.0	0.052	
M20 x 1.5	27.0	29.7	10 or 15	12.0	0.065	
M25 x 1.5	31.8	34.9	10 or 15	12.0	0.097	
M32 x 1.5	37.6	41.3	10 or 15	12.0	0.107	
1/2"NPT	28.6	31.4	15	12.0	0.075	
3/4"NPT	33.0	36.3	15	12.0	0.107	
All dimensions in mm / weight in kgs (for 10mm metric versions)						

- Assembly instructions must be read prior to installation and adhered to in full.
- The ACDP flow rate was obtained from testing in an empty enclosure filled with water. The enclosure had no heat or pressure producing equipment inside. Flow rates in the field may vary depending on operational parameters and surrounding environmental conditions.
- To maintain the specified IP rating, clearance holes must be in accordance with EN 62444 and the entry device should be suitably secured.
- IECEx / ATEX versions are supplied as standard. If additional approvals are required they must be requested at time of order.
- The standard O-ring material is nitrile. Other options are available upon request.
- All Breather Drains are supplied with Castellated locknut as standard.
- Aluminium versions are not suitable for Group I Mining application.



# Product Type ARMR & ARFR - (Metallic 90 Degree / Right Angle Adaptors)

Part No's:

AR	MR	1	В	F
	FR	3	S	
			Α	



"ARMR" & "ARFR" Series Dual Certified Right Angled Adaptors are designed to protect cables when installed in confined spaces where the cable may otherwise be subject to excessive bending and / or stress. The series is available with Male/Female or Female/Female connection threads. They are approved for Ex d, Ex e, Ex ta and Ex nR methods of explosion protection whilst maintaining IP66, IP68 for IEC type applications and Class I Division 1, and NEMA 4X for NEC/CEC type applications. All external parallel threads are fitted with a nitrile O-ring as standard.

Compliance EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 Standard:

IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 60079-15, IEC 60079-31 & 60529

C22.2 (see certificate), UL514B, UL1203, ANSI/UL 60079-0/1/7, ISA 60079-31, UL 50E

Certification: **ATEX** I M2 II 2GD Exd I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex ta IIIC Da

II 3G Ex nR IIC Gc

Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc **IECE**x

Class I Zone 1 Ex d IIC / Ex e IIC / Class II Zone 21 Ex tb IIIC CFC -

Canada Class I Division 1, Groups A, B, C & D Class II Division 1, Groups E, F & G

Class III. Enclosure Type 4X

NEC - USA Class I Zone 1 AEx d IIC Gb / AEx e IIC Gb / Class II Zone 21 AEx th IIIC Db

Class I Division 1, Groups A, B, C & D Class II Division 1, Groups E, F & G Class III, Enclosure Type 4X

EAC Exd IU / Exd IICU / Exe IU / Exe IIU / ExnR IIU

Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc INMETRO -

Brazil

SAC - China Ex d IIC / Ex e IIC

UKRAINE Exd IU / Exd IICU / Exe IU / Exe IIU

CCoE - India Ex d IIC Gb / Ex e IIC Gc Specified ABS Rules ABS Enclosure Systems (Part 1B) LLOYD'S

RMRS Part XI of Rules for sea-going ships (ed.2014)

Certificate No. ATEX SIRA 10ATEX1132U & SIRA 10ATEX4133U

> IECEx SIR 10.0068U **IECE**x CSA 2310046 CFC -

Canada

NEC - USA CSA 2310046

EAC RU C-GB.F506.B.00098 INMETRO - NCC 13.2190 U

Brazil

SAC - China NEPSI GYJ16.1405X

UKRAINE UA.TR.047.C.0408-13 & 2937

CCoE - India PESO P365300/11 ARS 14-I D1183401-PDA 10/00056(E1) LLOYD'S RMRS 14.02755.315

IP Rating: IP66 & IP68 (100 metres for 7 days) & NEMA 4X

Impact

Resistance: 20Nm (Aluminium 7Nm)

O-ring - None Operating -100°C to +400°C Temperature: O-ring - Nitrile -30°C to +100°C

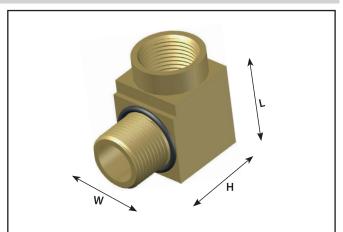
-60°C to +200°C O-ring - Silicone

Materials: Brass, Stainless Steel or Aluminium

Plating: Flectroless Nickel

Notes:

- \* Differing threads and thread forms are available upon request.
- \* 90 Degree Adaptors are approved and available up to size M100.
- \* Aluminium versions are not suitable for Group I Mining application.
- \* When used in an Ex nR application ARMR & ARFR adaptors must be fitted with an appropriate seal.



(See below for de				
ARMR	90 Degree Adaptor Male/Female (Right Angled)			
OR				
ARFR	90 Degree Adaptor Female/Female (Right Angled)			
1	No IP O-ring (0) - Nitrile (1) - Silicone (3) (Only available on ARMR)			
В	Brass (B) - Stainless Steel (S) - Aluminium (A)			
F	Ex d & Ex e certification including Marine Approvals			
NP	Nickel Plated			
M20	Male Entry Thread			
M20	M20 Female Entry Thread			

Size	Bore	Height	Length	Width	
M16 x M16	10.0	38.1	27.0	25.4	
M20 x M20	14.0	38.1	27.0	25.4	
M25 x M25	18.0	44.5	37.0	31.8	
M32 x M32	24.0	50.8	45.0	38.1	
M40 x M40	32.0	63.5	52.0	50.8	
M50 x M50	41.0	72.0	67.0	60.0	
M63 x M63	53.0	90.0	83.0	75.0	
M75 x M75	64.0	102.0	94.0	88.0	
All dimensions in mm					

# Also available in 30 degree and 45 degree configurations



### **Cable Gland Accessories**

A complete range of locknuts, earthtags, IP washers, serrated washers and shrouds.

### **LOCKNUTS**

 $Locknuts\ are\ recommended\ for\ securing\ external\ entry\ threads\ into\ equipment.\ They\ are$ available in various materials such as brass, plated brass, stainless steel, aluminium

	Order Code Example
Brass	ACBLN/M20
Brass Nickel Plated	ACBLN/NP/M20
Stainless Steel	ACSLN/M20
Aluminium	ACALN/M20
Nylon	ACNLN/M20



ISO Thread Dia	Nominal Thickness	Nominal A/F	Nominal A/C	Weight (Kgs/100)	NPT Thread Dia	Nominal Thickness	Nominal A/F	Nominal A/C
M16 x 1.5	4.0	22.0	24.2	0.772	1/2"	3.2	27.0	29.7
M20 x 1.5	4.0	24.0	26.4	0.683	3/4"	4.0	30.5	33.5
M25 x 1.5	4.0	30.0	33.0	1.027	1"	6.4	36.0	39.5
M32 x 1.5	4.0	40.0	44.0	2.020	1-1/4"	6.4	46.0	50.5
M40 x 1.5	4.8	46.0	50.5	2.200	1-1/2"	6.4	55.0	60.6
M50 x 1.5	5.0	65.0	71.5	6.997	2"	6.4	65.0	70.8
M63 x 1.5	6.4	80.0	88.0	12.40	2-1/2"	9.0	90.0	99.0
M75 x 1.5	7.0	90.0	99.0	14.871	3"	9.0	104.8	115.3
M80 x 2	9.0	90.0	99.0	15.140	3-1/2"	10.0	114.3	125.7
M85 x 2	9.0	104.8	115.3	27.518	4"	10.0	140.0	152.0
M90 x 2	9.0	104.8	115.3	23.256	Sizes N	/110 to M13	0, PG7 to PG	48 and
M100 x 2	9.0	114.3	125.7	25.256	BSPP /	BSPT are ava	ilable upon i	request

#### **EARTH TAGS**

Earth tags are recommended for providing an earth bond connection for an entry component into the equipment. Earth tags are available in brass, plated brass, stainless steel and aluminium.

Brass	ACBET/M20
Brass Nickel Plated	ACBET/NP/M20
Stainless Steel	ACSET/M20
Aluminium	ACAET/M20

Peppers Earth tags are compliant with the Category B requirements of EN 50262: 1999

1	00
6	واهر

Dia	Thickness	Centres	Dia	(Kgs/100)	Dia	Thickness	Centres	Dia	
M16	1.5	31.8	6.9	0.746	1/2"	1.5	33.0	6.9	
M20	1.5	33.0	6.9	0.672	3/4"	1.5	36.5	6.9	
M25	1.5	36.5	6.9	0.797	1"	1.5	42.5	11.8	
M32	1.5	42.5	11.8	1.476	1-1/4"	1.5	45.4	13.5	
M40	1.5	45.4	13.5	2.089	1-1/2"	1.5	58.1	13.5	
M50	1.5	58.1	13.5	3.729	2"	1.5	66.8	13.5	
M63	1.5	66.8	13.5	4.898	2-1/2"	1.5	73.0	13.5	
M75	1.5	73.0	13.5	5.220	3"	1.5	90.0	13.5	
M80	1.5	73.0	13.5	4.647	3-1/2"	1.5	112.0	13.5	
M85	2.0	90.0	13.5	7.600	4"	1.5	120.0	13.5	
M90	2.0	90.0	13.5	8.800	Sizes N	1110 to M13	0, PG7 to PG	48 and	
M100	2.0	112.0	13.5	13.800	BSPP / BSPT are available upon request				
		All dimonsi	one in mm - M	loighte are ha	cod on motric	vorcione			

#### **IP WASHERS**

In order to maintain the integrity of an enclosure greater than IP54, washers are recommended to be installed at the gland entry interface.

	Order Code Example	Temperature
Fibre Ny <b>l</b> on PTFE	ACFSW/M20 ACNSW/M20 ACPSW/M20	-40°C to +95°C -40°C to +135°C -200°C to +260°C
Colour Fibre	Metric = Red	NPT = Red



	Dia	Nylon	Fibre	Diameter	(Kgs/100)	Dia	Nylon	Fibre	Diameter	
1	M16	2.00	1.50	25.0	0.116	1/2"	2.0	1.50	30.0	
	M20	2.00	1.50	29.4	0.164	3/4"	2.0	1.50	38.0	
	M25	2.00	1.50	38.1	0.257	1"	2.0	1.50	46.3	
	M32	2.00	1.50	42.5	0.341	1-1/4"	2.0	1.50	55.5	
	M40	2.00	1.50	52.0	0.386	1-1/2"	2.0	1.50	60.0	
	M50	2.00	1.50	65.0	0.594	2"	2.0	1.50	79.4	
	M63	2.00	1.50	79.4	0.794	2-1/2"	2.0	1.50	90.5	
	M75	2.00	1.50	90.5	0.868	3"	2.0	1.50	114.3	
	M80	2.00	1.50	104.8	0.839	3-1/2"	2.0	1.50	114.3	
	M85	2.00	1.50	104.8	0.698	4"	2.0	1.50	146.0	
	M90	2.00	1.50	114.3	0.913	Sizes M110 to M130, PG7 to PG48 and				
	M100	2.00	1.50	114.3	0.512	BSPP / BSPT are available upon request				

#### **SERRATED WASHERS**

Metric = White

Serrated or "shake proof" washers act as an anti-vibration device to prevent the cable gland or other cable entry device and locknut arrangement from loosening. It can also be used as an earth enhancing device on painted enclosures. They are only available in Stainless Steel.

NPT = White

Order Code Example ACSSW/M20

Stainless Steel

PTFE



	Thickness	Diameter	(Kgs/100)		Thickness	0/0
M16	1.2	25.5	0.262	1/2"	1.5	35.5
M20	1.4	32.5	0.560	3/4"	1.5	43.5
M25	1.5	37.5	0.675	1"	1.5	52.0
M32	1.5	48.0	1.042	1-1/4"	1.5	59.5
M40	1.5	60.0	1.730	1-1/2"	1.5	71.0
M50	1.5	71.0	2.154	2"	1.5	87.0
M63	1.5	87.0	3.259	2-1/2"	1.5	102.0
M75	1.5	102.0	4.189	3"	1.5	125.0
M80	1.5	120.0	6.880	3-1/2"	1.5	140.0
M85	1.5	120.0	6.550	4"	1.5	155.0
M90	1.5	125.0	6.233	C: M110 +- M	120	
M100	1.5	140.0	7.985	Sizes M110 to M	130 are availabl	e upon request

Weight

Nominal

ISO Thread Dia

Outside

#### **O-RINGS**

Please note: IP flat washers and O-rings cannot be used in conjunction with one another

O-rings fitted on Glands as standard can be removed and replaced by a flat washer if required.

O-rings procured from other sources and fitted to Peppers glands will invalidate the IP certification.

Peppers Item Reference	Seal Material	Code	Temperature
ORN	Nitrile	1	-30°C to +100°C
ORS	Silicone	3	-60°C to +200°C



NPT Thread Dia

#### **SHROUDS**

Peppers manufacture a range of shrouds in various materials to complement our complete range of glands. Materials available are Polyvinylchloride (PVC), Polychloroprene (PCP) & Low Smoke Halogen Free Silicone (LS0H).

Please note that the shrouds are manufactured to fit our glands and will not necessarily fit other manufacturer's products.

The shroud sizes are detailed on each of the product pages.



Order Code Example

PVC ACSPVC/L24 PCP ACSPCP/L24 LS0H ACSSIO/L24

Temperature

Nominal

-25°C to +70°C -30°C to +100°C -60°C to +200°C

Please note where glands have a larger than standard entry thread the standard shroud will not fit over the gland hexagon body section



### **Technical Information**

10.0	4000	Refe	4000	a Ta	0.00

Thread Type	Thread	Peppers Reference	Pitch	TPI	Major Dia	Thread Length	Max Clearance Hole Dia
	M16	M16	1.50	16.93	15.97	16.0	16.7
	M20	M20	1.50	16.93	19.97	16.0	20.7
63	M25	M25	1.50	16.93	24.97	16.0	25.7
ISO Metric IEC 60423	M32	M32	1.50	16.93	31.97	16.0	32.7
9	M40	M40	1.50	16.93	39.97	16.0	40.7
<u>ŭ</u>	M50	M50	1.50	16.93	49.97	16.0	50.7
ric	M63	M63	1.50	16.93	62.97	19.0	63.7
Леt	M75	M75	1.50	16.93	74.97	19.0	75.7
ō	M80	M80	2.00	12.70	79.97	25.0	80.7
<u>sı</u>	M85	M85	2.00	12.70	84.97	25.0	85.7
	M90	M90	2.00	12.70	89.97	25.0	90.7
	M100	M100	2.00	12.70	99.97	25.0	100.7

Thread Type	Thread	Peppers Reference	Pitch	TPI	Major Dia	Thread Length	Max Clearance Hole Dia
	1/2"	050NPT	1.81	14.0	21.34	19.9	22.04
	3/4"	075NPT	1.81	14.0	26.67	20.1	27.37
0.1	1″	100NPT	2.20	11.5	33.40	25.0	34.10
1.2	1-1/4"	125NPT	2.20	11.5	42.16	25.6	42.86
<u>8</u>	1-1/2"	150NPT	2.20	11.5	48.26	26.0	48.96
NS	2″	200NPT	2.20	11.5	60.33	26.9	61.03
NPT ANSI B1.20.1	2-1/2"	250NPT	3.18	8.0	73.03	39.9	73.73
₽	3″	300NPT	3.18	8.0	88.90	41.5	89.60
	3-1/2"	350NPT	3.18	8.0	101.60	42.8	102.30
	4"	400NPT	3.18	8.0	114.30	44.0	115.00

Thread Type	Thread	Peppers Reference	Pitch	TPI	Major Dia	Thread Length	Max Clearance Hole Dia
	1/2"	050NPS	1.81	14.0	20.90	19.9	21.60
	3/4"	075NPS	1.81	14.0	26.26	20.2	26.96
0.7	1"	100NPS	2.20	11.5	32.84	25.0	33.54
1.2	1-1/4"	125NPS	2.20	11.5	41.61	25.6	42.31
8	1-1/2"	150NPS	2.20	11.5	47.68	26.0	48.37
S.	2"	200NPS	2.20	11.5	59.72	26.9	60.42
NPS ANSI B1.20.1	2-1/2"	250NPS	3.18	8.0	72.16	39.9	72.86
₽	3"	300NPS	3.18	8.0	88.06	41.5	88.76
	3-1/2"	350NPS	3.18	8.0	100.78	42.8	101.48
	4"	400NPS	3.18	8.0	113.43	44.0	114.13

Thread Type	Thread	Peppers Reference	Pitch	TPI	Major Dia	Thread Length	Max Clearance Hole Dia
	PG7	PG7	1.27	20.0	12.50	16.0	13.20
	PG9	PG9	1.41	18.0	15.20	16.0	15.90
0	PG11	PG11	1.41	18.0	18.60	16.0	19.30
PG DIN 40430	PG13.5	PG13.5	1.41	18.0	20.40	16.0	21.10
40	PG16	PG16	1.41	18.0	22.50	16.0	23.20
_ ≧	PG21	PG21	1.59	16.0	28.30	16.0	29.00
19	PG29	PG29	1.59	16.0	37.00	16.0	37.70
_	PG36	PG36	1.59	16.0	47.00	16.0	47.70
	PG42	PG42	1.59	16.0	54.00	16.0	54.70
	PG48	PG48	1.59	16.0	59.30	16.0	60.00

		TOUINI 3	3.10	0.0	113.73	U.TT.U	117.13
Thread Type	Thread	Peppers Reference	Pitch	TPI	Major Dia	Thread Length	Max Clearance Hole Dia
	1/2"	050BSP	1.81	14.0	20.96	19.9	21.66
	3/4"	075BSP	1.81	14.0	26.44	20.2	27.14
e   79  PF)	1″	100BSP	2.31	11.0	33.25	25.0	33.95
27 8	1-1/4"	125BSP	2.31	11.0	41.91	25.6	42.61
	1-1/2"	150BSP	2.31	11.0	47.80	26.0	48.50
Pipe R/7 I	2"	200BSP	2.31	11.0	59.61	26.9	60.31
	2-1/2"	250BSP	2.31	11.0	75.18	39.9	75.88
150 150 (BSF	3"	300BSP	2.31	11.0	87.88	41.5	88.58
	3-1/2"	350BSP	2.31	11.0	100.33	42.8	101.03
	4"	400BSP	2.31	11.0	113.03	44.0	113.73

Thread Type	Thread	Peppers Reference	Pitch	TPI	Major Dia	Thread Length	Max Clearance Hole Dia
	1/2"	050BST	1.81	14.0	20.96	19.9	21.66
	3/4"	075BST	1.81	14.0	26.44	20.2	27.14
e - C	1″	100BST	2.31	11.0	33.25	25.0	33.95
₩ 2 %	1-1/4"	125BST	2.31	11.0	41.91	25.6	42.61
F 8 8	1-1/2"	150BST	2.31	11.0	47.80	26.0	48.50
Pipe R/7 PT 8	2"	200BST	2.31	11.0	59.61	26.9	60.31
ISO Pi ISO R (BSP	2-1/2"	250BST	2.31	11.0	75.18	39.9	75.88
<u>s</u> = 0	3″	300BST	2.31	11.0	87.88	41.5	88.58
	3-1/2"	350BST	2.31	11.0	100.33	42.8	101.03
	4"	400BST	2.31	11.0	113.03	44.0	113.73

Glands are available with Metric or NPT threads as standard. All other thread forms are manufactured to order

# **SPMH & SPHH Dimensional Data**

		SI	PHH Inform	nation Tab	le		
ISO METRIC Thread	A/F	Overall Length	Weight	NPT Thread	A/F	Overall Length	Weight
M12	19.0	20.5	0.024	1/4"	20.0	19.1	0.029
M16	23.4	20.5	0.032	3/8"	24.0	19.3	0.045
M20	27.0	21.0	0.049	1/2"	27.9	24.4	0.076
M25	31.8	21.0	0.078	3/4"	33.0	24.7	0.118
M32	37.6	21.0	0.134	1"	41.2	30.0	0.225
M40	47.2	21.5	0.218	1-1/4"	50.0	31.1	0.379
M50	57.2	21.5	0.333	1-1/2"	57.2	31.5	0.499
M63	69.9	22.0	0.544	2"	69.9	32.9	0.814
M75	90.0	22.0	0.777	2-1/2"	82.5	46.4	1.671
M80	90.0	28.0	1.050	3"	106.4	49.5	2.652
M85	104.8	28.0	1.225	3-1/2"	114.3	50.8	3.566
M90	104.8	28.0	1.326	4"	127.0	52.0	4.602
M100	114.3	28.0	1.680				
		All din	nensions in m	m / weight ii	n kgs		

		SP	MH Infor	mation Tak	ole		
ISO METRIC Thread	Hex Socket A/F	Overall Length	Weight	NPT Thread	Hex Socket A/F	Overall Length	Weight
M12	6.0	21.5	0.020	1/4"	6.0	20.6	0.027
M16	8.0	21.5	0.032	3/8"	8.0	20.8	0.041
M20	10.0	21.5	0.049	1/2"	10.0	25.4	0.062
M25	12.0	21.5	0.078	3/4"	12.0	25.7	0.125
M32	12.0	21.5	0.134	1"	12.0	30.5	0.202
M40	14.0	21.5	0.218	1-1/4"	14.0	31.1	0.337
M50	17.0	21.5	0.333	1-1/2"	17.0	31.5	0.451
M63	17.0	21.5	0.544	2"	17.0	32.4	0.743
M75	19.0	21.5	0.777	2-1/2"	19.0	45.4	1.499
M80	22.0	25.5	1.050	3"	22.0	47.0	2.310
M85	22.0	25.5	1.225	3-1/2"	22.0	48.3	3.133
M90	22.0	25.5	1.326	4"	22.0	49.5	4.086
M100	22.0	25.5	1.680				

All dimensions in mm / weight in kgs

Head Diameter = Minimum 5.5mm larger than the major thread diameter



## AR Series Metallic Adaptor & Reducers - Size Reference

MALE SIZE					ı	METR	IC FEI	MALE	SIZE	S				
Metric	M16	M20	M25	M32	M40	M50	M63	M75	M80	M85	M90	M100	M110	M120
M16	A01	A01												
M20	R02	A02	A03	A05										
M25	R05	R05	A04	A05	A06									
M32	R07	R07	R07	A05	A06	A08								
M40	R09	R09	R09	R09	A07	A08	A11							
M50	R12	R12	R12	R12	R12	A09	A11	A12						
M63	R14	R14	R14	R14	R14	R14	A11	A12	A13	A14				
M75	R16	A12	A13	A14	A14	A15								
M80	R16	A12	A13	A14	A14	A15								
M85	R17	R17	A13	A14	A14	A15								
M90	R17	R17	R17	A14	A14	A15	A16							
M100	R18	R18	R18	R18	R18	A15	A16	A17						
M110	R19	R19	R19	R19	R19	R19	A16	A17						
M120	R20	R20	R20	R20	R20	R20	R20	A17						
NPT														
1/2"	R01*	A01*	A03	A05										
3/4"	R03*	R03*	A03*	A05	A06									
1″	R06*	R06*	R06*	A05*	A06	A08								
11⁄4″	R08*	R08*	R08*	R08*	A06*	A08	A11							
1½″	R10*	R10*	R10*	R10*	R10*	A08*	A11	A12						
2″	R13	R13	R13	R13	R13	R13	A11	A12	A13	A14				
21/2"	R15	A12	A13	A14	A14									
3″	R16*	R16*	A13*	A14	A14	A15	A16	A17						
3 ½"	R17*	R17*	R17*	R17*	R17*	A15	A16	A17						
4"	R19*	R19*	R19*	R19*	R19*	R19*	A16	A17						
5″	R21*	R21*	R21*	R21*	R21*	R21*	R21*	R21*						
PG														
PG9	A01	A01												
PG11	A01	A02	A03											
PG13.5	R02	A02	A03	A05										
PG16	R04	A03	A03	A05										
PG21	R07	R07	A05	A05	A06									
PG29	R08	R08	R08	R08	A06	A08								
PG36	R11	R11	R11	R11	R11	A08	A11							
PG42	R13	R13	R13	R13	R13	A10	A11	A12						
PG48	R14	R14	R14	R14	R14	R14	A11	A12						

			N	PT FE	MAL	E SIZE	S			
	3/4"					2/½"			4"	
A18										
A19	A20	A22								
R05	A21	A22	A23							
R07	R07	A22	A23	A24						
R09	R09	R09	A23	A24	A26					
R12	R12	R12	R12	A24	A26	A27				
R14	R14	R14	R14	R14	A26	A27				
R16	R16	R16	R16	R16	R16	A28	A29	A30		
R16	R16	R16	R16	R16	R16	R16	A29	A30		
R17	R17	R17	R17	R17	R17	R17	A29	A30		
R17	R17	R17	R17	R17	R17	R17	A29	A30	A31	
R18	R18	R18	R18	R18	R18	R18	R18	A30	A31	
R19	R19	R19	R19	R19	R19	R19	R19	R19	A31	A3
R20	R20	R20	R20	R20	R20	R20	R20	R20	A32	A3
A18*	A20	A22								
R03*	A20*	A22	A23							
R06*	R06*	A22*	A23	A24						
R08*	R08*	R08*	A23*	A24	A26					
R10*	R10*	R10*	R10*	A24*	A26	A27				
R13	R13	R13	R13	R13	A26	A27	A29			
R15	R15	R15	R15	R15	R15	A27	A29	A30		
R16*	R16*	R16*	R16*	R16*	R16*	R16*	A29	A30	A31	
R17*	R17*	R17*	R17*	R17*	R17*	R17*	R17*	A30	A31	
R19*	R19*	R19*	R19*	R19*	R19*	R19*	R19*	R19*	A31	A3
R21*	R21*	R21*	R21*	R21*	R21*	R21*	R21*	R21*	R21*	A3
A18										
A19	A20									
A19	A20	A22								
A20	A20	A22								
R07	A22	A22	A23							
R08	R08	A23	A23	A24						
R11	R11	R11	A24	A24	A26					
R13	R13	R13	R13	R13	A26	A27				
R14	R14	R14	R14	R14	A26	A27				

Adaptor Reducer ADAPTORS AND REDUCERS WITH NPT MALE THREADS ARE DESIGNED TO BE USED IN THREADED ENTRIES. IF REQUIRED WITH A SEALING WASHER FOR USE IN CLEARANCE HOLES WITH A LOCKNUT THESE ITEMS CAN BE MANUFACTURED FROM A LARGER HEXAGON SIZE TO PROVIDE A SUITABLE SEALING FACE.



# **AR Series Metallic Adaptor & Reducers - Size Reference & Dimensions**

MALE SIZE					PG FEM <i>i</i>	ALE SIZES				
Metric	PG7	PG9	PG11	PG13.5	PG16	PG21	PG29	PG36	PG42	PG48
M16	R01	A01	A01	A01						
M20	R02	R02	A02	A02	A02	A04				
M25	R05	R05	R05	R05	A04	A04	A06			
M32	R07	R07	R07	R07	R07	A05	A06	A08		
M40	R09	R09	R09	R09	R09	R09	A07	A08	A10	
M50	R12	R12	R12	R12	R12	R12	R12	A09	A10	A11
M63	R14	R14	R14	R14	R14	R14	R14	R14	R14	A11
M75	R16	R16	R16	R16	R16	R16	R16	R16	R16	R16
M80	R16	R16	R16	R16	R16	R16	R16	R16	R16	R16
M85	R17	R17	R17	R17	R17	R17	R17	R17	R17	R17
M90	R17	R17	R17	R17	R17	R17	R17	R17	R17	R17
M100	R18	R18	R18	R18	R18	R18	R18	R18	R18	R18
M110	R19	R19	R19	R19	R19	R19	R19	R19	R19	R19
M120	R20	R20	R20	R20	R20	R20	R20	R20	R20	R20
NPT										
1/2"	R01*	R01*	A01*	A01*	A02	A04				
3/4"	R03*	R03*	R03*	R03*	A03*	A04	A06			
1″	R06*	R06*	R06*	R06*	R06*	A05*	A06	A08		
1¼"	R08*	R08*	R08*	R08*	R08*	R08*	A06*	A08	A10	
11/2"	R10*	R10*	R10*	R10*	R10*	R10*	R10*	A08*	A10	A11
2"	R13	R13	R13	R13	R13	R13	R13	R13	R13	A11
2½"	R15	R15	R15	R15	R15	R15	R15	R15	R15	R15
3″	R16*	R16*	R16*	R16*	R16*	R16*	R16*	R16*	R16*	R16*
3 ½"	R17*	R17*	R17*	R17*	R17*	R17*	R17*	R17*	R17*	R17*
4"	R19*	R19*	R19*	R19*	R19*	R19*	R19*	R19*	R19*	R19*
5″	R21*	R21*	R21*	R21*	R21*	R21*	R21*	R21*	R21*	R21*
PG										
PG9	A01	A01	A01	A01						
PG11	A01	A01	A01	A01	A02	A04				
PG13.5	R02	R02	A02	A02	A02	A04				
PG16	R04	R04	R04	A03	A03	A04				
PG21	R07	R07	R07	R07	R07	A05	A06			
PG29	R08	R08	R08	R08	R08	R08	A07	A08		
PG36	R11	R11	R11	R11	R11	R11	R11	A08	A10	A11
PG42	R13	R13	R13	R13	R13	R13	R13	R13	A10	A11
PG48	R14	R14	R14	R14	R14	R14	R14	R14	R14	A11

						А	DAPTOR	rs.									
Metric x Metric / Metric x PG / PG x Metric / PG x PG																	
AR Adaptor Details	A1	A2	A3	A4	A5	A6	A7	A8	A9	A10	A11	A12	A13	A14	A15	A16	A17
A/F Dim (Min)	23.4	27.0	30.0	31.8	37.6	44.5	47.2	55.9	57.2	61.2	69.9	90.2	104.8	104.8	114.3	120.7	140.0
A/C Dim (Min)	25.7	29.7	33.0	35.0	41.4	48.9	51.9	61.5	62.9	67.3	76.8	99.2	99.2	115.3	125.7	132.8	154.0
Nominal Protrusion Length *	22.5	22.5	22.5	22.5	22.5	22.5	22.5	23.5	23.5	23.5	23.5	23.5	29.0	29.0	29.0	29.0	29.0

Metric x NPT / NPT x NPT / PG x NPT																
AR Adaptor Details	A18	A19	A20	A21	A22	A23	A24	A25	A26	A27	A28	A29	A30	A31	A32	A33
A/F Dim (Min)	23.4	27.0	30.0	31.8	37.6	47.2	55.9	57.2	69.9	80.0	90.2	104.8	114.3	127.0	133.0	160.0
A/C Dim (Min)	25.7	29.7	33.0	35.0	41.4	51.9	61.5	62.9	76.9	88.0	99.2	115.3	125.7	139.7	146.3	176.0
Nominal Protrusion Length **	26.0	26.0	26.0	26.0	31.0	31.0	32.0	32.0	32.0	44.4	44.4	46.0	47.3	48.5	48.5	53.7

REDUCERS																					
Metric / NPT / PG																					
AR Reducer Details	R01	R02	R03	R04	R05	R06	R07	R08	R09	R10	R11	R12	R13	R14	R15	R16	R17	R18	R19	R20	R21
A/F Dim (Min)	23.4	27.0	27.9	30.0	31.8	34.9	37.6	44.5	47.2	52.1	55.9	57.2	61.2	69.9	80.0	90.2	104.8	114.3	120.7	133.4	146.0
A/C Dim (Min)	25.7	29.7	30.7	33.0	35.0	38.4	41.4	48.9	51.9	57.3	61.5	62.9	67.3	76.8	88.0	99.2	115.3	125.7	132.8	146.7	160.7
Nominal Protrusion Length **	12.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	10.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	11.0	12.0	12.0

<sup>\*</sup> Stated nominal protrusion lengths do not take into account if any form of IP seal (o-ring / washer) is used in conjunction with the entry thread

<sup>\*\*</sup> Due to the nature of tapered threads the nominal protrusion length may be further away from the enclosure wall than the stated figure



#### **Technical Information**

#### **Ingress Protection**

It is essential when selecting cable glands and / or accessories to ensure that the products will maintain the IP rating of the equipment and the integrity of the installation. All Peppers' products have been tested in accordance with the requirements of IEC 60529 and as such the pressure applied during the IPX8 testing is a static pressure.

Please note that clearance holes must be drilled in accordance with EN 50262 table 1 and any gland without an integral O-ring must have a suitable IP washer fitted in order to maintain greater than IP54. If in doubt about the installation please contact Peppers for installation guidance.

### **Integral Earth Glands**



Cable Glands with an integral earth connection are recommended for use with high voltage systems. The earth connection on these glands has been successfully tested in accordance with the 43kA short-circuit test specified in BS 6121, Part 5, 1992.

Ex Standards do not cover the requirements of cable glands for HV cable. BS6121 Part 5 Section 4.6.2 for non integral earth connections suggests that if the short circuit for 1 second is more than 10.4 kA we then revert to section 4.6.3 "Integral Earth Connection" where the short circuit rating for 1 second is between 26 & 43kA.

#### **Bi-Metallic Corrosion**

Bi-metallic Corrosion (or Galvanic Corrosion) is the process by which metals, when in contact with each other, oxidize or corrode. In order for Bi-metallic Corrosion to occur there are three conditions that must exist or the process of corrosion will not begin:-

- There must be two electrochemically dissimilar metals present but not necessarily in direct contact with each other.
- There must be an electrically conductive path between the two metals.
- There must be an electrolyte to allow the metal ions to conduct along the provided path from the more anodic metal to the more cathodic metal.

If any one of these three conditions does not exist, bi-metallic corrosion will not occur.

### **Temperature Classification**

The equipment must be selected so that its maximum surface temperature will not reach the ignition temperature of any gas or vapour that may be present.

Generally, T-class is based on fault conditions or, at the very least, worst case normal operating conditions. When selecting equipment, the T-class must be below the auto-ignition temperature of the gas.

As glands do not generate heat they are classified as passive and not subject to a T rating.

# Thread Standard/Gauging

ISO M IEC 60423, 6g fit - M16 to M75 1.5mm pitch, M80 to M130 2.0mm pitch

NPT ANSI/ASME B1.20.1, 1983, Gauging to Clause 8

NPSM ANSI/ASME B1.20.1, 1983, Gauging to Clause 9

BSPT BS21, 1985 (ISO 7/1), Standard Threads Only (Clause 5.4), Gauging to Clause 5a, System A

BSPP BS EN ISO 228-1:2003, Class A Full Form External Threads

PG DIN 40430, 1971

### Installation

Installation of cable glands intended for use in an explosive atmosphere should only be carried out by competent personnel, skilled in the installation of cable glands and in accordance with the appropriate national or international standards and/or codes of practice. Cable Glands should not be installed whilst circuits are live and should only be installed in accordance with the provided assembly instructions. Cable Gland components are not interchangeable with other manufacturers and any modification to the cable gland will invalidate the certification.

### **Material Specifications**

Peppers use a standard range of materials and finishes that are in accordance with the following specification:-

Brass to EN12164, EN12165 & EN12168 Grade CW614N

Stainless Steel to EN 10088-3 Grade 316L

Aluminium to BS EN 573-3 Grade AW6082 T6 & AW6262

Electroless Nickel Plating in accordance with BS EN ISO 4527

### **EMC**

Terminations suitable for EMC protection can be made using armoured cables with our armour clamping glands. Following tests, Peppers has been informed by ERA Technology Ltd that our glands do not significantly reduce the ability of an enclosure to which they are attached to withstand electromagnetic interference. We conclude that the effectiveness of a cable entry in EMC terms will generally be limited by the cable, including the cable armour or screen. Braid screens are not necessarily the most effective means of EMC protection. Tape armours can give the best results. Since a Peppers cable gland makes a 360° clamp on cable armour, it will not inhibit the EMC protection of the cable entry.

The cable gland standard BS EN 50262 states that cable glands are EMC neutral. This is taken to mean that cable glands are neither affected by electro-magnetic radiation nor will cause any electro-magnetic interference in other equipment.

### Peppers T-1000 Compound

PEPPERS T-1000 COMPOUND is a hand-mixable, UL-approved, epoxy putty sealing compound that mixes easily in minutes and cures in one hour to provide water, dust and vapour-tight seals for cable fittings and electrical connectors. PEPPERS T-1000 COMPOUND is in a handy concentric putty stick form with the curing agent encapsulated in the contrasting colour base material. Its dough-like consistency eliminates drips and runs for a "no mess" application with no tools required for use. PEPPERS T-1000 COMPOUND cures to a hard rigid material that is resistant to hydrocarbons, ketones, esters and alcohols with excellent adhesion to most substrates including metals and ceramics.

PEPPERS T-1000 COMPOUND complies with the Underwriters Laboratory requirements for sealing compounds, Class I, Groups A, B, C and D; Class II, Groups E, F and G, in cable sealing fittings or lead seals for use in hazardous locations, UL File E334661. The product complies with Class I requirements following exposure to acetone, ammonium hydroxide, ethyl acetate, acetic acid, ASTM Reference Fuel C, benzene, hexane, furfural, 2-nitropropane, methanol, methylethyl ketone, ethylenedichloride and diethylether. For additional health and safety information please consult the available Material Safety Data Sheet.



#### **HEALTH & SAFETY**

When used and installed as recommended within the assembly instructions provided, Peppers Cable Glands products will not cause any danger or hazard to the health or safety of persons, animals or property. The products should be installed by suitably trained / skilled personnel and in full accordance with the relevant legislative regulations (including the UK's wiring regulations) and the accepted rules for the industry concerned.

#### WARNING

Peppers' cable glands should not be used within any application other than those specified for each product, unless Peppers Cable Glands issue a statement in writing that the product is suitable for the specified application. For further information on each product, we refer you to the specific assembly instructions and General Arrangement drawings, which are available on request. Using the links on our web site, catalogue pages and instructions may be downloaded. Peppers Cable Glands Limited take no responsibility for any damage, injury or other consequential loss caused where the glands are not installed or used according to our instructions.

#### **HAZARDOUS AREA INSTALLATION**

When selecting equipment for use in hazardous areas the appropriate national or international standards or codes of practice must be considered.

#### GENERAL SUITABILITY FOR THE INSTALLATION ENVIRONMENT

Peppers' cable glands are designed for normal industrial environments with regard to temperature, humidity and vibration. Construction materials include steel, brass, aluminium alloys, neoprene, nitrile and silicone rubbers. To minimise galvanic corrosion, the metallic gland components are made from similar materials. Material compatibility under chemical corrosion or attack by aggressive substances must be considered before installation.

#### **SPARE PARTS**

The nature of the product is such that spare parts are not applicable. If part of a gland needs to be replaced for any reason, the user should refer back to the manufacturer and seek advice. No special tools are required for the commissioning and servicing of our products.

#### **DIMENSIONAL DATA**

The dimensions shown within this catalogue may vary due to material availability.

#### **CE CONFORMITY**

Copies of Peppers CE declarations regarding LVD, EMC and ATEX directives are available upon request. BS EN 50262 classification with regard to mechanical and electrical properties of cable glands is available upon request.

### **RoHS / WEEE DIRECTIVES**

Peppers Cable Glands can confirm that its full product range either complies or is outside the scope of these directives. Further documentation is available upon request.

#### DISCLAIMER

Whilst every care has been taken in the compilation of this catalogue, and every attempt made to present up-to-date and accurate information, we cannot guarantee that inaccuracies will not occur. Peppers Cable Glands Ltd will not be held responsible for any loss, damage or inconvenience caused as a result of any inaccuracy or errors. If you discover any information in our pages which you believe to be inaccurate or inappropriate, please notify us by e-mailing sales@peppers.co.uk.

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Full terms and conditions of sale are available upon request.





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