

## **PRODUCT GUIDE**

Cable Glands & Accessories 2018 Issue 04A

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## 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.



#### 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.



#### ON-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.



#### **COMMITMENT TO QUALITY**

Peppers maintains a quality management system approved to ISO 9001:2015, 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 OHS AS 18001.



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	Pg No.
CR	~	~	×	~	CROCLOCK ®	×	~	~	~	~	×	IP66 / IP68 - NEMA 4X - DELUGE	1
E	~	~	×	~	~	×	~	~	~	~	×	IP66 / IP68 - NEMA 4X	2
С	~	×	×	×	~	×	×	~	×	~	×	IP66 - NEMA 4X	3
A*L	~	×	×	~	×	×	~	~	~	~	×	IP66 / IP68 - NEMA 4X - DELUGE	4
A*LDS	~	×	×	~	×	×	~	~	~	~	×	IP66 / IP68 - NEMA 4X - DELUGE	5
A*RCC	~	×	×	~	×	ROTATING METALLIC CONDUIT	~	~	~	×	×	IP66 / IP68 - DELUGE	6
A*RCM	~	×	×	~	×	ROTATING MALE	~	~	~	~	×	IP66 / IP68 - NEMA 4X - DELUGE	7
A*RCF	~	×	×	~	×	ROTATING FEMALE	~	~	~	~	×	IP66 / IP68 - NEMA 4X - DELUGE	8
A*LCM	~	×	×	~	×	FIXED MALE	~	~	~	~	×	IP66 / IP68 - NEMA 4X - DELUGE	9
A*LCF	~	×	×	~	×	FIXED FEMALE	~	~	~	~	×	IP66 / IP68 - NEMA 4X - DELUGE	10
A8	~	×	×	×	×	×	~	~	~	~	×	IP66 - IP68	11
A8RC	~	×	×	×	×	ROTATING METALLIC CONDUIT	~	~	~	×	×	IP66 - IP68	12
A8CM	~	×	×	×	×	FIXED MALE	~	~	~	~	×	IP66 / IP68 - NEMA 4X	13
A8CF	~	×	×	×	×	FIXED FEMALE	~	~	~	~	×	IP66 / IP68 - NEMA 4X	14
D8X	×	~	×	×	~	×	~	~	~	~	×	IP66 / IP68 - NEMA 4X	15
E8X	~	~	×	×	~	×	~	~	~	~	×	IP66 / IP68 - NEMA 4X	16
E8XCM	~	~	×	×	~	×	~	~	~	×	×	IP66 - IP68	17
E8XCF	~	~	×	×	~	×	~	~	~	×	×	IP66 - IP68	18
PF	~	×	×	×	×	×	×	~	×	~	×	IP66 - IP68	19
CR-C	~	~	~	~	CROCLOCK ®	×	~	~	~	~	×	IP66 / IP68 - NEMA 4X - DELUGE	20
CR-X	×	~	~	~	×	×	~	~	~	~	×	IP66 / IP68 - NEMA 4X - DELUGE	21
CR-U	~	~	~	~	×	×	~	~	~	~	×	IP66 / IP68 - NEMA 4X - DELUGE	22
CR-SM	×	~	~	×	×	MALE UNION	~	~	~	~	×	IP66 / IP68 - NEMA 4X - DELUGE	23
CR-SF	×	~	~	×	×	FEMALE UNION	~	~	~	~	×	IP66 / IP68 - NEMA 4X - DELUGE	24
LT-C	×	~	~	×	×	ROTATING METALLIC CONDUIT	~	~	×	×	×	IP66 - IP68	25
UL-C	~	~	~	×	CROCLOCK ®	×	~	~	~	~	~	IP66 / IP68 - NEMA 4X - DELUGE	26
UL-X	×	~	~	×	×	×	~	~	~	~	×	IP66 / IP68 - NEMA 4X - DELUGE	27
UL-U	~	~	~	×	×	×	~	~	~	~	×	IP66 / IP68 - NEMA 4X - DELUGE	28
Α	~	×	×	~	×	×	×	×	×	×	×	IP66 - IP68	29
E	~	~	×	~	~	×	×	×	×	×	×	IP66 - IP68	30
С	~	×	×	×	~	×	×	×	×	×	×	IP66	31
C*IE	~	×	×	×	~	×	×	×	×	×	×	IP66	32

AR	Metallic Thread Conversion Adaptors & Reducers - Male-Female	33
ARMM / ARFF	Metallic Thread Conversion Adaptors & Reducers - Male-Male & Female-Female	34
SPMH & SPHH	Metallic Stopping Plugs	35
SPA & SPB	Blanking Plugs	36
ACDP	Metallic Breather Drains	37
ARMR / ARFR	Metallic 90 Degree / Right Angle Adaptors	38
CABLE GLAND ACCESSORIES	Locknuts - Earthtags - IP Washers & O-rings - Serrated Washers & Shrouds	39

EXAMPLE PART NUMBERING: CR-1B/NP/20/M20

	CR	Gland featuring "CROCLOCK®", single orientation clamping
	1	Neoprene Seal (1) - Silicone Seal (3) - Neoprene/Lead (2) - Silicone/Lead (4)
	В	Brass (B) - Stainless Steel (S)
	R	Reduced Bore Seal
	С	PVC Shroud (C) - PCP Shroud (P) - LSOH Silicone Shroud (3)
SNO	K-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)
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)
SHROUDS	PVC (ACSPVC) / PCP (ACSPCP) / LSOH Silicone (ACSSIO)

SHKUUDS	PVC (ACSPVC) / PCP (ACSPCP) / ESOH Silicone (ACSSIO)
IP RATING:	IP66 & IP68 (50 metres - 7 Days), Type 4X & DTS01:1991
OPERATING TEMP:	Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C
MATERIALS:	Brass or Stainless Steel
PLATING:	Electroless Nickel

#### PRODUCT DESCRIPTION

PART NUMBERS:

"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 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.

CERTIFICATION

EAC

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

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

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

**ATEX** BAS 01ATEX2271X & SIRA 09ATEX1221X **IECE**x IECEx SIR 07.0099X CEC - Canada CSA 1356011 NEC - USA CSA 2627370 EAC RU C-GB.ГБ06.В.00098 INMETRO - Brazil NCC 13.2185 X NEPSI GYJ16.1402X SAC - China

UKRAINE UA.TR.047.C.0408-13 & 2937 CCoE - India PESO P365300/2 & P365300/14 15-GA4BO-0669X & 15-GA4BO-0670X KCS - Korea

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

			Metric			Cable Accep	tance Details							.,	
Gland size	Entry I	hread Size	Thread	Inner St	neath [C]	Outer St	neath [D]	Reduc	ed [D]	Armour Acceptance	Nominal Protrusion	Dimensions	/Weight (Metri	c Versions)	Shroud
	Metric	NPT	Length [B]	Min	Max	Min	Max	Min	Max	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
20S	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	37.6	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 ½" 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 ½" 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
63S	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	90.0	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	-

CABLE GLAND SELECTION TABLE (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 installation.
- · Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order

### **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





## PRODUCT DESCRIPTION

RMRS

CERTIFICATION

ERENCE NUMBER: 1.2.0

"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 Dusts 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.

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

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

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

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)						
В	Aluminium (A) / Brass (B) / Stainless Steel (S)						
IE	Integral Earth (see page 43)						
F	Multiple Certification						
R	Reduced Bore Seal						
С	PVC Shroud (C) - PCP Shroud (P) - LSOH Silicone Shroud (3)						
K-V-H	Locknut, Earth Tag & Nylon (K), Fibre (V) or PTFE (H) IP Washer						
s	Including Serrated Washer						
1	Quantity per kit						
NP	Nickel Plated						
20	Gland shell size						
050NPT	1/2"NPT Male Entry Thread						
CKNUT	Brass (ACBLN) / Stainless Steel (ACSLN) / Aluminium (ACALN)						
DTH TAG	Brace (ACRET) / Stainless Steel (ACSET) / Aluminium (ACAET)						

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)			
SHROUDS	PVC (ACSPVC) / PCP (ACSPCP) / LSOH Silicone (ACSSIO)			
IP RATING:	IP66 & IP68 (50 metres - 7 days), Type 4X			
OPERATING TEMP:	Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C			
MATERIALS:	Aluminium, Brass or Stainless Steel			

CERTIFICATION:	ATEX	II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da				
Ĕ		II 3G Ex nR IIC Gc				
<u>⊘</u>	IECEx	Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da Class I Zone 1 Ex d IIC / Ex e II				
‡ I	CEC - Canada					
监		Class I Division 2, Groups A, B, C & D				
0		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	Exd IICU / Exe IIU / ExnR IIU				
	INMETRO - Brazil	Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da				
	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 Rule				
	LLOYD'S	Enclosure Systems (Part 1B)				

**ATEX** SIRA 01ATEX1271X & SIRA 09ATEX1221X **IECE**x IECEx SIR 07.0097X

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

ABS 14-LD463991-1-PDA LLOYD'S 10/00056(F1) RMRS 14.02755.315

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PLATING:

EXAMPLE PART NUMBERING: E1WBF/NP/20/050NPT

Fata Thread Circ		Entry Thread Size Metric Cable Acc		ole Accepta	nce Details			Armour Acceptance Range Nominal			Dimensions/Weight (Metric)					
Gland size	Entry I	nread Size	Thread Length	Inner Sh	eath [C]	Outer Sh	neath [D]	Reduc	ed [D]	Armour Acce	plance Hange	Protrusion		Difficitions/ Weight (Weill)		
	Metric	NPT	[B]	Min	Max	Min	Max	Min	Max	w	x	Length [L]	Across Flats [A]	Across Corners	Weight Kgs	Size
16	M16 x 1.5	1/2" or 3/4"	16	3.5	8.4	8.4	13.5	4.9	10.0	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	10.0	0.90	0.15-0.35	58	24.0	26.5	0.154	L24
20S	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	37.6	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 ½" 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 ½" 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 ½"	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 ½"	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

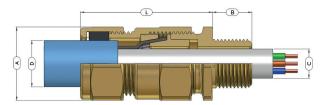
\*For gland size 20 the silicone inner seal has a minimum diameter of 9.3 mm and NOT 6.7mm

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

MATERIAI S

PLATING:

## PRODUCT TYPE C



REFERENCE NUMBER: 1.2.2

-		
	С	Gland featuring armour specific clamping
	1	Neoprene Seal (1) - Silicone Seal (3)
	w	SWA (W) / SWB or STA (X)
	В	Aluminium (A) / Brass (B) / Stainless Steel (S)
	IE	Integral Earth
	Е	Ex e & Ex ta Certification
	R	Reduced Bore Outer Sheath Seal
	С	PVC Shroud (C) - PCP Shroud (P) - LSOH Silicone Shroud (3)
SNOITE	K-V-H	Locknut, Earth Tag & Nylon (K), Fibre (V) or PTFE (H) IP Washer
G	s	Including Serrated Washer
	1	Quantity per kit
	NP	Nickel Plated
	20	Gland shell size
	050NPT	1/2"NPT Male Entry Thread
		,

050NPT 1/2"NPT	1/2"NPT Male Entry Thread								
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) / LSOH Silicone (ACSSIO)								
IP RATING:	IP66, Type 4X								
OPERATING TEMP:	Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C								

Aluminium, Brass or Stainless Steel

#### 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: C 1 W B \* E \* 3 X S IE Α



#### PRODUCT DESCRIPTION

"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.

#### COMPLIANCE STANDARDS

SAC - China

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

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

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

Fx e IIC UKRAINE ExellX CCoE - India Petroleum Rules 2002 (PESO)

ABS 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)

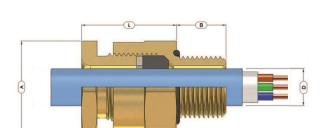
ATEX SIRA 01ATEX1271X **IECE**x IFCFx SIR 07.0097X CFC - Canada CSA 1356011 NFC - USA CSA 2627370 EAC RU C-GB.ГБ06.В.00098 INMETRO - Brazil NCC 13.2186 X SAC - China NEPSI GYJ16.1400X UKRAINE UA.TR.047.C.0408-13 & 2937 CCoE - India PESO P365300/13 ABS 14-LD463991-1-PDA LLOYD'S 10/00056(E1)

14.02755.315

	F 1 - T 10			Cable Acceptance Details							Dimensions/Weight (Metric)					
Gland size	Entry I	nread Size	Thread Length	Inner Sh	neath [C]	Outer SI	heath [D]	Reduc	ced [D]	Armour Acce	otance Hange	Nominal Protrusion	Differisions/ Weight (Wethic)		Shroud Size	
	Metric	NPT	[B]	Min	Max	Min	Max	Min	Max	w	x	Length [L]	Across Flats [A]	Across Corners	Weight Kgs	Size
16	M16 x 1.5	1/2" or 3/4"	16	N/A	8.4	8.4	13.5	4.9	10.0	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	10.0	0.90	0.15-0.35	58	24.0	26.5	0.154	L24
20S	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	37.6	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	36.5	1.60-2.00	0.20-0.60	72	55.0	60.5	0.649	L55
50S	M50 x 1.5	1 ½" 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 ½" 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	M75 x 1.5	2 ½"	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 ½" 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 ½" 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	M80 x 2.0	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	M85 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	M90 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

RMRS

- · 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 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.



ERENCE NUMBER: 2.1.0

	Α	Type of gland featuring controlled displacement sealing				
	2 Neoprene Seals (2) - Silicone (3) - Neoprene/Lead (1) - Silicone/Lead (4)					
	L Peppers Standard Designation					
	B Aluminium (A) / Brass (B) / Stainless Steel (S)					
	F	Multiple Certification				
	С	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	Including Earth Tag				
OPTI	s	Including Serrated Washer				
	1	Quantity per kit				
	NP	Nickel Plated				
	20	Gland shell size				
	M20	M20 x 1.5mm Male Entry Thread				

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)
IP RATING:	IP66 & IP68 (50 metres - 7 Days ), Type 4X
OPERATING TEMP:	Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C
MATERIALS:	Aluminium, Brass or Stainless Steel
PLATING:	Electroless Nickel

#### Single Compression Gland for Armoured and **Unarmoured Cable**

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

#### PART NUMBERS:





PRODUCT DESCRIPTION

"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 rouse 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. The "A" version is designed to accommodate unarmoured and armoured cables where sealing and retention is required only on the outer sheath.

#### **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 C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL514B, UL1203, UL2225, UL50E, ANSI/UL 60079-0/7, ISA 60079-31

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

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

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 FAC 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)

**ATEX** SIRA 01ATEX1272X & SIRA 09ATEX1221X **IECE**x IECEx SIR 07.0096X CFC - Canada CSA 1356011 NEC - USA CSA 2627370 FΔC RU C-GB.F506.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

ABLE	IN mm)
5	SNOI
, ,	MENS
AND	ALLD
ABLEG	•

EXAMPLE PART NUMBERING: A2LBF/NP/20/M20

	Entry Thread Size				otance Details	Nominal	Dime	Shroud		
Gland size			Length			Protrusion	trusion			
	Metric	NPT	[B]	Min	Max	Length [L]	Across Flats [A]	Across Corners	Weight Kgs	Size
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 ½" 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 ½"	19	46.7	56.0	37	80.0	88.0	0.664	L80
75S	M75 x 1.5	2 ½" 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 ½"	25	62.2	72.0	50	104.0	115.2	1.514	L104
85	M85 x 2.0	3" or 3 ½"	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 ½" 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.
- · 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 installation.
- Where approval in addition to ATEX, IECEx and CSA is required, this must be clearly requested at time of enquiry / order.

Double Compression Gland designed for use with

Gland featuring controlled displacement sealing

Aluminium (A) / Brass (B) / Stainless Steel (S)

PVC Shroud (C) - PCP Shroud (P) - LSOH Silicone Shroud (3)

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

Brass (ACBET) / St Steel (ACSET) / Aluminium (ACAET)

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

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

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

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

Aluminium, Brass or Stainless Steel

Locknut & Nylon (K), Fibre (V) or PTFE (H) IP Washer

Peppers Standard Designation

Double Sealing

Multiple Certification

Including Earth Tag

Quantity per kit

Nickel Plated

Gland shell size

Including Serrated Washe

M20 x 1.5mm Male Entry Thread

Neoprene Seals (2) - Silicone Seals (3) - Neoprene/Lead (1) - Silicone/Lead (4)

REFERENCE NUMBER: 2.2.0

Y	"A*LD	S" type	DESCR e glands	are c	
		4			
		3		Α	
		2		S	

A 1 L DS B F

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 sheat 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.

#### 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 C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL514B, UL1203, UL2225, UL50E ANSI/UL 60079-0/7, ISA 60079-31

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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 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

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)

**IECE**x

SIRA 01ATEX1272X & SIRA 09ATEX1221X ATEX IECEx SIR 07.0096X

CEC - Canada CSA 1356011 NEC - USA CSA 2627370 RU C-GB, F506, B, 00098 EAC INMETRO - Brazil NCC 13.2012 X SAC - China NEPSI GYJ16.1399X UKRAINE UA.TR.047.C.0408-13 & 2937 CCoF - India PESO P365300/2 & P365300/5 ABS 14-LD463991-1-PDA

LLOYD'S 10/00056(F1) RMRS 14.02755.315

A2LDSBF/NP/20/M20

DS

С

S

NP

20

LOCKNUT

EARTH TAG

IP RATING:

MATERIALS:

PLATING:

OPERATING TEMP:

SERRATED WASHERS

K-V-H

OPTIONS

# (ALL DIMENSIONS IN mm)

Entry Thread Size Gland Size		y Thread Size Metric Cable Acceptance Details Thread Outer Sheath [D] Length		Nominal Protrusion Length [L]	Protrusion Protrusion					
	Metric	NPT	[B]	Min	Max	Metric	Across Flats [A]	Across Corners	Weight Kgs	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
20S	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
50S	M50 x 1.5	1 ½" 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 ½"	19	39.2	50.1	74	80.0	88.0	1.330	L80
63	M63 x 1.5	2 ½"	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 ½"	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 ½" or 4"	25	82.0	90.0	90	114.0	125.7	2.211	L114

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

REFERENCE NUMBER: 2.3.0

Α	Gland featuring controlled displacement sealing							
2	Neoprene Seal (2) - Silicone Seal (3) - Neoprene/Lead (1) - Silicone/Lead (4)							
R	Rotating Conduit Design							
СС	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							

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

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

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

MATERIALS: Aluminium, Brass or Stainless Steel

PLATING: Electroless Nickel

## Single Compression Gland featuring a Freely Rotating Flexible Metallic Conduit Connector

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

### PART NUMBERS:

Α	1	R	СС	В	F
	2			s	
	3			Α	
	4				



#### PRODUCT DESCRIPTION

"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.

#### 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

TION:	ATEX IECEX	II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da II 3 G Ex nR IIC Gc
S	IECEx	Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da
<b>II</b>	E40	E-HIOLI / E III I / E D III I

EXC 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)

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

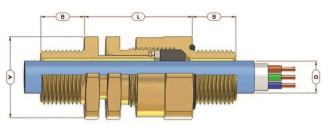
ABS 14-LD463991-1-PDA LLOYD'S 10/00056(E1) RMRS 14.02755.315

Gland & Connector Size	Entry Thread Size		Metric Cable Acceptance Details Thread Outer Sheath [D]		Typical Conduit Diameter		Nominal Protrusion	Dimensions/Weight (Metric Versions)			
	Metric	NPT	Length [B]	Min	Max	I/D	Max O/D	Length [L]	Across Flats [A]	Across Corners	Weight Kgs
12-1	M12 x 1.5	3/8"	16	0.9	5.4	6.8	10.3	35	19.0	20.9	0.051
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
12-2	M12 x 1.5	3/8"	16	0.9	6.0	9.1	14.3	35	19.0	20.9	0.083
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
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
50S-1	M50 x 1.5	1 ½" or 2"	16	28.1	38.2	48.4	55.8	50	65.0	71.5	0.630
50-1	M50 x 1.5	2"	16	33.1	44.1	48.4	55.8	50	65.0	71.5	0.575
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
63-1	M63 x 1.5	2 ½"	19	46.7	53.6	57.5	64.8	50	80.0	88.0	0.900

- 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
- $\bullet\,$  If fit testing is required for specific conduit please contact Peppers.

CABLE GLAND SELECTION TABLE (ALL DIMENSIONS IN mm)

A2RCMBF050NPT/NP/20/M20



REFERENCE NUMBER: 2.3.2

	A	Gland featuring controlled displacement seal
	2	Neoprene Seal (2) - Silicone Seal (3) - Neoprene/Lead (1) - Silicone/Lead (4)
	R	Rotating Conduit Design
	СМ	Male Conduit Connection Thread
	В	Aluminium (A) / Brass (B) / Stainless Steel (S)
	F	Multiple Certification
	050NPT	1/2"NPT Male Conduit Connection Thread
	L	Locknut (material dictated by gland entry thread material)
	N	Including IP Washer, Nylon [N] - Fibre [V] - PTFE [H]
OPTIONS	Т	Including Earth Tag
OPTI	s	Including Serrated Washer
	1	Quantity per kit
	NP	Nickel Plated
	20	Gland Shell Size
	M20	M20 x 1.5mm Male Entry Thread

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)
IP RATING:	IP66 & IP68 (50 metres - 7 Days), Type 4X
OPERATING TEMP:	Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C
MATERIALS:	Brass, Stainless Steel or Aluminium
PLATING:	Electroless Nickel

#### Single Compression Gland with a Freely Rotating Male **Conduit Connection**

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

## A 1 R CM B F













#### PRODUCT DESCRIPTION

PART NUMBERS:

2 3 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, 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 male threaded conduit connection for ease of installation.

#### 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

ATEX

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

II 3G Ex nR IIC Gc

**IECE**x 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)

ATEX SIRA 01ATEX1272X & SIRA 09ATEX1221X IECEx IECEx SIR 07.0096X

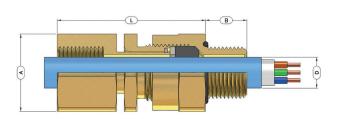
NEC - USA CSA 2627370 EAC RU C-GB.F506.B.00098 INMETRO - Brazil NCC 13.2012 X SAC - China NEPSI GYJ16.1399X UKRAINE UA.TR.047.C.0408-13 & 2937 CCoE - India PESO P365300/2 & P365300/5

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

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Щ	_
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Gland Size	Entry Th	Entry Thread Size		Conduit Connection Thread		Cable Acceptance Outer Sheath [D]		Nominal Protrusion	Dimensions/Weight (Metric Versions)		
	Metric	NPT	Length [B]	Metric	NPT	Min	Max	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 ½" or 2"	16	M50 x 1.5	1 ½" 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 ½"	39.2	50.1	47	80.0	88.0	0.921
63	M63 x 1.5	2 ½"	19	M63 x 1.5	2 ½"	46.7	56.0	47	80.0	88.0	0.825
75S	M75 x 1.5	2 ½" 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 ½"	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 ½"	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

- · 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.



ERENCE NUMBER: 2.3.4

	А	Gland featuring controlled displacement sealing
	2	Neoprene Seal (2) - Silicone Seal (3) - Neoprene/Lead (1) - Silicone/Lead (4)
	R	Rotating Conduit Design
	CF	Female Conduit Connection Thread
	В	Aluminium (A) / Brass (B) / Stainless Steel (S)
	F	Multiple Certification
	050NPT	1/2"NPT Female Conduit Connection Thread
	L	Locknut (material dictated by gland entry thread material)
	N	Including IP Washer, 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 1.5mm Male Entry Thread

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)
IP RATING:	IP66 & IP68 (50 metres - 7 Days), Type 4X
OPERATING TEMP:	Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C
MATERIALS:	Brass, Stainless Steel or Aluminium
PLATING:	Electroless Nickel

#### Single Compression Gland with a Freely Rotating Female **Conduit Connection**

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

## A 1 R CF B F



#### PRODUCT DESCRIPTION

PART NUMBERS:

2 3 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, 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 female threaded conduit connection for ease of installation.

#### 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

II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da **ATEX** II 3G Ex nR IIC Gc **IECE**x 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)

ATEX SIRA 01ATEX1272X & SIRA 09ATEX1221X IECEx IECEx SIR 07.0096X

NEC - USA CSA 2627370 EAC RU C-GB.ГБ06.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

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EXAMPLE PART NUMBERING: A2RCFBF050NPT/NP/20/M20

Gland Size	Entry Thread Size		Metric Thread Length	Conduit Connection Thread		Cable Acceptance Outer Sheath [D]		Nominal Protrusion	Dimensions/Weight (Metric Versions)		
	Metric	NPT	[B]	Metric	NPT	Min	Max	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	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 ¼" or 1 ½"	16	M40 x 1.5	1 ¼" or 1 ½"	23.0	32.2	64	55.0	60.5	0.676
50S	M50 x 1.5	1 ½" or 2"	16	M50 x 1.5	1 ½" 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 ½"	39.2	50.1	68	80.0	88.0	1.307
63	M63 x 1.5	2 ½"	19	M63 x 1.5	2 ½"	46.7	56.0	68	80.0	88.0	1.211
75S	M75 x 1.5	2 ½" or 3"	19	M75 x 1.5	2 ½" 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 ½"	25	M80 x 2.0	3" or 3 ½"	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 ½"	69.0	78.0	85	104.0	115.2	2.437
90	M90 x 2.0	3 ½" or 4"	25	M90 x 2.0	3 ½" or 4"	74.0	84.0	86	114.0	125.7	3.062
100	M100 x 2.0	3 ½" or 4"	25	M100 x 2.0	3 ½" or 4"	82.0	90.0	86	114.0	125.7	2.559

- · 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.

ERENCE NUMBER: 2.4.0

	А	Gland featuring controlled displacement sealing						
	2	Neoprene Seal (2) - Silicone Seal (3) - Neoprene/Lead (1) - Silicone/Lead (4)						
	L	Peppers Standard Designation						
	СМ	Male Conduit Connection Thread						
	В	Brass (B) / Stainless Steel (S) / Aluminium (A)						
	F	Multiple Certification						
	050NPT	1/2"NPT Male Conduit Connection Thread						
	L	Locknut (material dictated by gland entry thread material)						
	N	Including IP Washer, 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 1.5mm Male Entry Thread						

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)
IP RATING:	IP66 & IP68 (50 metres - 7 Days), Type 4X
OPERATING TEMP:	Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C
OPERATING TEMP:	Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C  Aluminium, Brass or Stainless Steel





#### PRODUCT DESCRIPTION

"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.

#### COMPLIANCE STANDARDS:

EAC

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 C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL514B, UL1203, UL2225, UL50E ANSI/UL 60079-0/7, ISA 60079-31

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

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

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

Class II Division 1, Groups E, F & G Class III. Enclosure Type 4X Fxd IICU / Fxe IIU / FxnR 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)

ATEX SIRA 01ATEX1272X & SIRA 09ATEX1221X **IECE**x IECEx SIR 07.0096X

CFC - Canada CSA 1356011 NEC - USA CSA 2627370 EAC RU C-GB.ГБ06.В.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

Gland Size	Entry Thread Size		Metric Thread Length	Conduit Con	Conduit Connection Thread		Cable Acceptance Outer Sheath [D]		Dimensions/Weight (Metric Versions)		
	Metric	NPT	[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	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
20S	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 ¼" or 1 ½"	16	M40 x 1.5	1 ¼" or 1 ½"	23.0	32.2	38	55.0	60.5	0.472
50S	M50 x 1.5	1 ½" or 2"	16	M50 x 1.5	1 ½" 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
63S	M63 x 1.5	2" or 2 ½"	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 ½"	19	M63 x 1.5	2 ½"	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 ½" 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 ½" 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 ½" or 4"	82.0	90.0	48	114.0	125.7	1.757

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

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ERENCE NUMBER: 2.4.1

	A 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								
		B Brass (B) / Stainless Steel (S) / Aluminium (A)						
	F Multiple Certification							
		050NPT	1/2"NPT Female Conduit Connection Thread					
		L	Locknut (material dictated by gland entry thread material)					
		N	Including IP Washer, 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 1.5mm Male Entry Thread					

LOCKNOT	Diass (AODEIN) / Stailless Steel (AOSEIN) / Aluminium (AOAEIN)
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET) / Aluminium (ACAET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)
IP RATING:	IP66 & IP68 (50 metres - 7 Days), Type 4X
OPERATING TEMP:	Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C
MATERIALS:	Aluminium, Brass or Stainless Steel

Electroless Nickel

Brass (ACRLN) / Stainless Steel (ACSLN) / Aluminium (ACALN)

#### 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













#### PRODUCT DESCRIPTION

A 1 L CF B F

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PART NUMBERS:

2

3

4

EAC

"A\*LCF" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust "A LOP" type glands are certified Flameproof EX d, increased safety EX e, Restricted Breatning 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

#### 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 C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL514B, UL1203, UL2225, UL50E ANSI/UL 60079-0/7, ISA 60079-31

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 CEC - Canada

Class I Zone 1 Ex d IIC / Ex e II 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

NFC - 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 Exid IIC / Exie IIC UKRAINE Ex d IIC X / Ex e II X CCoE 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)

ATEX SIRA 01ATEX1272X & SIRA 09ATEX1221X **IECE**x IECEx SIR 07.0096X

CEC - Canada CSA 1356011 NFC - USA CSA 2627370 EAC RU C-GB.ГБ06.В.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

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A2LCFBF050NPT/NP/20/M20

Gland Size	Entry Thread Size		Metric Thread Length	Conduit Connection Thread		Cable Acceptance Outer Sheath [D]		Nominal Protrusion Length [L]	Dimensions/Weight (Metric Versions)		
	Metric	NPT	[B]	Metric	NPT	Min	Max	(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 ¼" or 1 ½"	16	M40 x 1.5	1 1/4" or 1 1/2"	23.0	32.2	56	55.0	60.5	0.625
50S	M50 x 1.5	1 ½" or 2"	16	M50 x 1.5	1 ½" 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 ½"	19	M63 x 1.5	2" or 2 ½"	39.2	50.1	59	80.0	88.0	1.238
63	M63 x 1.5	2 ½"	19	M63 x 1.5	2 ½"	46.7	56.0	59	80.0	88.0	1.142
75S	M75 x 1.5	2 ½" or 3"	19	M75 x 1.5	2 ½" 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 ½"	62.2	72.0	74	104.0	115.2	2.454
85	M85 x 2.0	3" or 3 ½"	25	M85 x 2.0	3" or 3 ½"	69.0	78.0	74	104.0	115.2	2.272
90	M90 x 2.0	3 ½" or 4"	25	M90 x 2.0	3 ½" or 4"	74.0	84.0	74	114.0	125.7	2.643
100	M100 x 2.0	3 ½" or 4"	25	M100 x 2.0	3 ½" or 4"	82.0	90.0	75	114.0	125.7	2.209

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

A8BF/NP/20R/M20

LOCKNUT	Brass (ACBLN) / Stainless Steel (ACSLN)
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)
SERNATED WASHERS	Stall liess Steel (NOSSW)

IP RATING:	IP66 & IP68 (50 metres - 7 Days)
OPERATING TEMP:	Silicone Seals -60°C to +180°C
MATERIALS:	Brass or Stainless Steel
PLATING:	Electroless Nickel

#### Single Compression Gland Designed for Armoured and unarmoured cables

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

#### PART NUMBERS:



EAC



#### PRODUCT DESCRIPTION

"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.

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

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

SAC - China Ex d IIC / Ex e IIC

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

Ex d IIC X / Ex e II X UKRAINE CCoE Petroleum Rules 2002 (PESO) 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)

ATEX SIRA 01ATEX1270X & SIRA 09ATEX1221X

**IECE**x IFCFx SIR 05.0020X NEC - USA CSA 2627370

EAC RU C-GB.ГБ06.В.00098 SAC - China NEPSI GYJ16.1398X INMETRO - Brazil NCC 13.2187 X

UKRAINE UA.TR.047.C.0408-13 & 2937 PESO P365300/2 & P365300/6 CCoE - India

14-LD463991-1-PDA

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

TABLE	N mm)
NOL	SNO
SELEC	MENS
GLAND	ALL
ABLE	

	Entry Thread Size		ISO	Cable Outer Sheath [D]				Nominal	Dimensions/Weight (Metric Versions)			Metric
Gland Size			Thread Length	Width		Thic	Thickness		Dimensions/weight (wethic versions)			Thread Shroud
	Metric	NPT	[В]	Min	Max	Min	Max	Length [L]	Across Flats [A]	Across Corners	Weight Kgs (Metric)	Size
20\$	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

ABS

#### \*\* Size 25mm is only ATEX & IECEx certified.

- · 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.

Single Compression Gland for use with Armoured and Unarmoured Flat Cable, featuring a Rotating Flexible Metallic Conduit Connector

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

## PART NUMBERS:



A 8 RC B F S

#### PRODUCT DESCRIPTION

"ABRC" 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 and armoured cables where sealing and retention is required only on the outer sheath. The gland features a rotating flexible metallic conduit connection.

#### 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

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

ON NO:	ATEX	SIRA 01ATEX1270X & SIRA 09ATEX1221X
CERTIFICATION No:	IECEx	IECEx SIR 05.0020X
CER	INMETRO - Brazil	NCC 13.2187 X
	SAC - China	NEPSI GYJ16.1398X
	CCoE - India	PESO P365300/2 & P365300/6
	LLOYD'S	10/00056(E1)

	B
<b>V</b>	

REFERENCE NUMBER: 3.3.0

		A Gland designed for use with Unarmoured Cables				
		8 Silicone Seal for Flat Cable				
	RC Rotating Metallic Flexible Conduit Connector					
	B Brass (B) / Stainless Steel (S)					
F Multiple Certification		Multiple Certification				
L Locknut (material dictated by gland entry thread material)		Locknut (material dictated by gland entry thread material)				
		N	Including IP Washer, Nylon (N) - Fibre (V) - PTFE (H)			
	T Including Earth Tag  S Including Serrated Washer		Including Earth Tag			
	P	s	Including Serrated Washer			
		1	Quantity per kit			
		NP	Nickel Plated			
		20-1	Gland shell size			
	M20 M20 x 1.5 Male Entry Thread		M20 x 1.5 Male Entry Thread			

LOCKNUT	Brass (ACBLN) / Stainless Steel (ACSLN)
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)
IP RATING:	IP66 & IP68 (50 metres - 7 Days)
OPERATING TEMP:	Silicone Seals -60°C to +180°C

OPERATING TEMP:	Silicone Seals -60°C to +180°C
MATERIALS:	Brass or Stainless Steel
PLATING:	Electroless Nickel

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	Entry Thread Size		Cable Outer Sheath [D]						Nominal	Secretary March March			
Gland Size			Width		Thick	Thickness		Typical Conduit Dia		Dimensions/Weight (Metric)			
	Metric	NPT	Min	Max	Min	Max	I/D	Max O/D	Length [L]	Across Flats [A]	Across 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 x 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 x 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 x 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 x 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	

- · 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.

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Single Compression Gland designed for use with Amoured and

"ABCM" 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 and armoured cables where sealing and retention is required only on the outer sheath and additionally provides a male thread for the connection of conduit.

#### COMPLIANCE STANDARDS:

SAC - China

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

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

II 3G Ex nB IIC Gc **IFCF**<sub>x</sub> Exid IIC Gb / Exie IIC Gb / Exita 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

Ex d IIC / Ex e IIC

Exd IICU / Exe IIU / ExnR IIU

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

Class III, Enclosure Type 4X

UKRAINE Fx d IIC X / Fx e II X CCoE 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)

ATEX SIRA 01ATEX1270X & SIRA 09ATEX1221X

IECEx IECEx SIR 05.0020X NEC - USA CSA 2627370 FAC RU C-GB.F506.B.00098 SAC - China NCC 13.2187 X

NEPSI GYJ16.1398X UKRAINE UA.TR.047.C.0408-13 & 2937 PESO P365300/2 & P365300/6 CCoE - India

14-I D463991-1-PDA ARS LLOYD'S 10/00056(E1) RMRS 14.02755.315

A Gland designed for use with Unarmoured Cables			
	8	Silicone Seal for Flat Cables	
CM Male Conduit Connection Thread			
	Brass (B) / Stainless Steel (S)		
F Multiple Certification			
	M20	M20 x 1.5 Male Conduit Connection Thread	
	L	Locknut (material dictated by gland entry thread material)	
N Including IP Washer, Nylon (N) - Fibre (V) - PTFI		Including IP Washer, Nylon (N) - Fibre (V) - PTFE (H)	
T Including Earth Tag S Including Serrated Washer		Including Earth Tag	
OPT	s s	Including Serrated Washer	
	1	Quantity per kit	
NP Nickel Plated		Nickel Plated	
20 Gland shell size		Gland shell size	
M20 x 1.5 Male Entry Thread			

LOCKNUT	Brass (ACBLN) / Stainless Steel (ACSLN)
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)

IP RATING:	IP66 & IP68 (50 metres - 7 Days), Type 4X
OPERATING TEMP:	Silicone Seals -60°C to +180°C
MATERIALS:	Brass or Stainless Steel
PLATING:	Electroless Nickel

# CABLE GLAND SELECTION TABLE (ALL DIMENSIONS IN mm)

3.3.1

	Entry Th	Entry Thread Size		Connection Thread Options		Cable Outer Sheath [D]					Dimensions/Weight (Metric Versions)		
Gland Size	Elluy III			Connection	nread Options	Wi	fidth Thickness Protrusion		ons/weight (wethor	ivietiic versions)			
	Metric	NPT	Length [B]	Metric	NPT	Min	Max	Min	Max	Length [L]	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"	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

- · 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.

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

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





#### PRODUCT DESCRIPTION

"ABCF" 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 and armoured cables where sealing and retention is required only on the outer sheath and additionally provides a male thread for the connection of conduit.

#### COMPLIANCE STANDARDS:

TIFICATION

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

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 (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 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 01ATEX1270X & SIRA 09ATEX1221X

ATEX

SAC - China

IECEx IECEx SIR 05.0020X NEC - USA CSA 2627370 BUIC-GB [506 B 00098

FAC INMETRO - Brazil NCC 13.2187 X

UKRAINE UA.TR.047.C.0408-13 & 2937 CCoE - India PESO P365300/2 & P365300/6

NEPSI GYJ16.1398X

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

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EFERENCE NUMBER: 3.3.2

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	Α	A Gland designed for use with Unarmoured Cables					
	8	Silicone Seal for Flat Cables					
	CF	Female Conduit Connection Thread					
	B Brass (B) / Stainless Steel (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)					
SINCIFIC	2 T	Including Earth Tag					
	5 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)
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)
IP RATING:	IP66 & IP68 (50 metres - 7 Days), Type 4X
OPERATING TEMP:	Silicone Seals -60°C to +180°C
MATERIALS:	Brass or Stainless Steel

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PLATING:

	Enter Th	Entry Thread Size		Connection Thread Options		Cable Outer Sheath [D]				Nominal	Dimensions/Weight (Metric Versions)		
Gland Size	Entry In					Width		Thickness		Protrusion Length [L]	Differsions/weight (wedic versions)		
	Metric	NPT	Length [B]	Metric	NPT	Min	Max	Min	Max	(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"	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

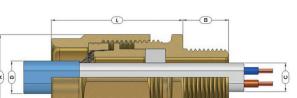
- · Gland size does not necessarily equate to the entry thread size.
- Dimensions (A) & (B) may differ for glands with non metric entry threads. Please refer to our "Thread Reference Tables" for specific dimensions.
- Assembly instructions must be read prior to installation and adhered to in full.
- 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.

Gland designed for use with Armoured Cables

Detachable Clamping for Braid Armour

Silicone Seal for flat cables

PLATING:



## PRODUCT DESCRIPTION

D 8 X B F

PART NUMBERS:

**Armoured Flat Cable** 

"DBX" 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 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

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

IL3G ExinB 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

Single Compression Gland designed for use with

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

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 Fx d IIC / Fx 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)

Brass (B) / Stainless Steel (S) Multiple Certification Locknut (material dictated by gland entry thread material) Including IP Washer, Nylon (N) - Fibre (V) - PTFE (H) Including Earth Tag

NP Nickel Plated

Including Serrated Washer

1/2"NPT Male Entry Thread

Quantity per kit

s

LOCKNUT Brass (ACBLN) / Stainless Steel (ACSLN) EARTH TAG Brass (ACBET) / Stainless Steel (ACSET) IP WASHERS Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW) SERRATED WASHERS Stainless Steel (ACSSW)

IP RATING: IP66 & IP68 (50 metres - 7 Days), Type 4X OPERATING TEMP: Silicone Seals -60°C to +180°C MATERIALS: Brass or Stainless Steel

Electroless Nickel

ATEX SIRA 01ATEX1270X & SIRA 09ATEX1221X

IECEx IECEx SIR 05.0020X NEC - USA CSA 2627370 BU C-GB.F506.B.00098 EAC

SAC - China NCC 13 2187 X INMETRO - Brazil NEPSLGY, 116 1398X

LIKRAINE UA.TR.047.C.0408-13 & 2937 CCoE - India PESO P365300/2 & P365300/6

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

	Cata . Th	Ci	Metric		Cable Inner	Sheath [C]		Cable Oute	er Sheath [D]		Nominal	Dimensions/Weight (Metric Versions)		()
Gland Size	Entry In	Entry Thread Size		Width		Thickness		Width	Thickness	Acceptance		Dimensions/ weight (Metric Versions)		
	Metric	NPT	Length [B]	Min	Max	Min	Max	Max	Max	Range	Length [L]	Across Flats [A]	Across Corners	Weight Kgs
20\$	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

ABS

- · 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.

#### 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

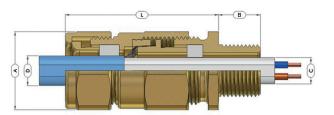
"EBX" type glands are certified Flameproof Ex d, Increased Safety Ex e, Restricted Breathing Ex nR and Dust Protected Ex ta. They are suitable for use in Zone 1 and 2 for Gas Groups IIA, IIB and IIC and additionally for use

in Zones 20, 21 and 22 for Dust Groups IIIA, IIIB and IIIC. Developed for flat cables, they provide controlled



PRODUCT DESCRIPTION





Ex d sealing and have been tested to IP66 and IP68 to 50 metres. The E8X version is designe armoured cables, sealing on the inner and outer sheaths and also incorporates a detachable clamping system.	ed to accommodate
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	

Gland des Silicone S Detachab Brass (B) Multiple C Locknut ( Includina н Including Including s NP

signed for use with Armoured Cables
Seals for flat cables
ole Clamping for Braid Armour
/ Stainless Steel (S)
Certification
(material dictated by gland entry thread material)
IP Washer, Nylon (N) - Fibre (V) - PTFE (H)
Earth Tag
Serrated Washer
per kit
ated
ell size

050NPT 1/2"NPT Male Entry Thread					
LOCKNUT	Brass (ACBLN) / Stainless Steel (ACSLN)				
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)				
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)				
SERRATED WASHERS	Stainless Steel (ACSSW)				
IP RATING:	IP66 & IP68 (50 metres - 7 Days), Type 4X				
OPERATING TEMP:	Silicone Seals -60°C to +180°C				
MATERIALS:	Brass or Stainless Steel				

Electroless Nickel

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

II 3G Ex nB 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

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 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)

ATEX

ABS

SIRA 01ATEX1270X & SIRA 09ATEX1221X

IECEx IECEx SIR 05.0020X NEC - USA CSA 2627370 BUIC-GB [506 B 00098 FAC SAC - China NCC 13 2187 X INMETRO - Brazil NEPSI GYJ16.1398X

UKRAINE UA.TR.047.C.0408-13 & 2937 CCoE - India PESO P365300/2 & P365300/6

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

TABLE	N mm
LECTION	NOISN
LAND SEI	ALL DIME
CABLE G	3

EXAMPLE PART NUMBERING E8XBF/NP/20/050NP

Glan		Entry Thread Size		Metric	Cable Inner Sheath [C]				Cable Outer	Sheath [D]				Dimensions	ensions/Weight (Metric Versions)		
	Gland Size			Thread Length	Wic	ith	Thick	ness	Wic	ith	Thick	ness	Armour Acceptance	Nominal Protrusion	Difficusions	vveignt (ivie	ric versions)
		Metric	NPT	[B]	Min	Max	Min	Max	Min	Max	Min	Max	Range	Length [L]	Across Flats [A]	Across Corners	Weight Kgs (Metric)
	20\$	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

- · 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.

EXAMPLE PART NUMBERING: A8CMBFM20/NP/20/M20

#### 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

#### PART NUMBERS:

CERTIFICATION

FICATION No:





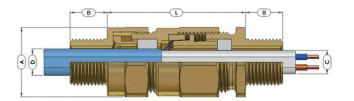












PRODUCT DESCRIPTION

"EBXCM" 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.

#### 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

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

II 3G Ex nR IIC Gc

**IECE**x 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)

ATEX SIRA 01ATEX1270X & SIRA 09ATEX1221X

**IECE**x 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(F1)

	ENCE	

LOCKNUT	Brass (ACBLN) / Stainless Steel (ACSLN)			
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)			
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)			
SERRATED WASHERS	Stainless Steel (ACSSW)			

	,
IP RATING:	IP66 & IP68 (50 metres - 7 Days)
OPERATING TEMP:	Silicone Seals -60°C to +180°C
MATERIALS:	Brass or Stainless Steel
PLATING:	Electroless Nickel

# (ALL DIMENSIONS IN mm)

3.5.1

	Entry Thread Size		and Size Metric	Metric thread Length [B]	Metric	Metric	Metric	Metric	Metric	Conduit Connection		Cable Inner Sheath [C]				Cable Outer Sheath [D]				Nominal	Dimensions/Weight (Metric Versions)		Vi)
Gland	l Entry I	nread Size	Th		read	Wi	dth	Thick	kness	Wie	dth	Thick	kness	Armour Acceptance	Protrusion Length [L]	Dimension	s/weight (wetho	versions)					
0.20	Metric	NPT	Metric		NPT	Min	Max	Min	Max	Min	Max	Min	Max	Range	(Metric)	Across Flats [A]	Across Corners	Weight Kgs (Metric)					
208	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					

- · 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.

ERENCE NUMBER: 3.5.2

## Gland designed for use with Armoured Cables Silicone Seal for flat cables Detachable Clamping for Braid Armour Female Conduit Connection Thread Brass (B) / Stainless Steel (S) Multiple Certification 1/2"NPT Female Conduit Connection Thread Locknut (material dictated by gland entry thread material) Including IP Washer, Nylon (N) - Fibre (V) - PTFE (H) Ν Including Earth Tag Including Serrated Washer Quantity per kit Gland shell size M20 x 1.5 Male Entry Thread

LOCKNUT	Brass (ACBLN) / Stainless Steel (ACSLN)
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)

IP RATING:	IP66 & IP68 (50 metres - 7 Days)			
OPERATING TEMP:	Silicone Seals -60°C to +180°C			
MATERIALS:	Brass or Stainless Steel			
PLATING:	Electroless Nickel			

### 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:













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#### PRODUCT DESCRIPTION

"EBXCF" 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 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

CATION	ATEX	II 1D 2G Ex d IIC Gb / Ex e IIC Gb / Ex ta IIIC Da						
CERTIFICATION:		II 3G Ex nR IIC Gc						
U	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)						

ATEX SIRA 01ATEX1270X & SIRA 09ATEX1221X **IECE**x IECEx SIR 05.0020X INMETRO - Brazil NCC 13.2187 X SAC - China NEPSI GYJ16.1398X PESO P365300/2 & P365300/6 CCoE - India

Seals -60°C to +180°C	LLOYD'S	10/00056(E1)
r Stainless Steel		

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EXAMPLE PART NUMBERING: E8XCFBF050NPT/NP/20/M20

	Enter T	Entry Thread Size		Conduit Connection		Cable Inner Sheath [C]				C	able Outer	Sheath [	[D]		Nominal	Dimension	Dimensions/Weight (Metric Versions)	
Gland Size	Littly Tilleda Oize		Metric Thread Length	Th	Thread		Width		iness	Wie	dth	Thick	kness	Armour Acceptance	Protrusion Length [L]	Dimension	s/weight (wetho	versions)
0.20	Metric	NPT	[B]	Metric	NPT	Min	Max	Min	Max	Min	Max	Min	Max	Range	(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"	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

- · 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.

#### Single Compression Nylon Gland

Ex eb: Ex tb: IP68

#### PART NUMBERS:





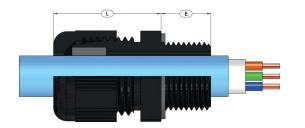












#### PRODUCT DESCRIPTION

"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 STANDARDS:

EN 60079-0, EN 60079-7, EN 60079-31 IEC 60079-0, IEC 60079-7, IEC 60079-31 & IEC 60529

IP RATING:	IP66 & IP68 (50 metres - 30 minutes)							
OPERATING TEMP:	M16-M63 -35C to +95C							
	M12 -20C to +80C							
MATERIALS:	Polyamide							
IMPACT RESISTANCE:	4 Joules							
OPTIONS:	Colour - Black / Blue							
	Industrial Non-Ex version - Omit "E" from part number							
ACCESSORIES:	Nylon Locknut / IP Washers							

ë	ATEX	II 2GD Ex e IIC / Ex tb IIIC
CERTIFICATION	IECEx	Ex eb IIC / Ex tb IIIC
2	EAC	Ex e II
	CEC - Canada	CAN/CSA C22.2
5	NEC - USA	ANSI/UL514B
	VDE	DIN EN 50262 / VDE 0619
	LLOYD'S	Enclosure Systems (Part 1B
	INMETRO	Ex e II

ATEX LCIE 07ATEX6082X/02 IECEx LCI 10.0008X RU C-FR.ГБ05.В.00955 EAC CEC - Canada E306665 NEC - USA E306665

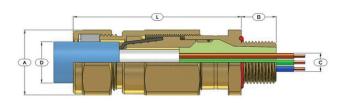
VDE 131210 LLOYD'S 10/00056(E1) INMETRO BR230661-X

	Entry Thread Size		Cable Sea	ling Pango	ISO Thread	Part N	Part Number		Part N	lumber	Dimensions/Weight			
Gland Size		Nominal Protrusion	Oubic ocu	iiig riunge	Length Standard	Standar	d Thread	Length Standard	Long	Thread		Difficusions/ Weight		
		[L]	Min	Max	[E]	Blue	Black	[E]	Blue	Black	Across Flats	Across Corners	Weight 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	

TABLE	N mm)
SELECTION	MENSIONS
ILE GLAND	(ALL D
8	

Gland Size	Entry Thread	Nominal Protrusion	Cable Sea	ling Range	Thread Length	Part No	umber	Dimensions/Weight				
Size	Size	Length [L]	Min	Max	Lengin	Blue	Black	Across Flats	Across Corners	Weight 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		

- · 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.



REFERENCE NUMBER: 4.1.0

	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
	С	PVC Shroud (C) - PCP Shroud (P) - Silicone LSOH Shroud (3)
OPTIONS	K-V-H	Locknut, Earth Tag & Nylon (K), Fibre (V) or PTFE (H) IP Washer
М	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)
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)
SHROUDS	PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)

IP RATING:	IP66 & IP68 (100 metres - 7 Days), Type 4X & DTS01:1991					
OPERATING TEMP:	-60°C to +135°C					
MATERIALS:	Brass or Stainless Steel					
PLATING:	Electroless Nickel					
COMPOUND:	Peppers T-1000 Sealing Compound					
OUTERSEAL:	Silicone LSOH					

#### Double Compression Barrier Gland designed for use with Armoured Cable featuring Peppers CROCLOCK® & T-1000 Compound

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

### PART NUMBERS: C R C \* B \* 2 S R



#### PRODUCT DESCRIPTION

"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 Protected Exita. They are suitable for use in Group I Mining, Zone 1 and 2 for das Groups III., Ill Band III.C and additionally for use in Zones 20, 21 and 22 for Dust Groups III., IllB and III.C. Occasionally referred to as "potting glands", they provide a compound barrier Exit & 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 accentance that allows for a full inspection of the compound fill. The cland 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 sheath cables.

#### 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 60079-15, 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

7110	1/OL 00079-0/1/7, 13/	1000/3-31
<b>∵</b>	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
₫	AIEX	
₹	IFOF.	II 3G Ex nR IIC Gc
윤ᅵ	IECEx	Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da Ex nB IIC Gc
CERTIFICATION	CEC - Canada	Class I Zone 1 Ex d IIC / Ex e II
英	CEC - Canada	
٦		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 / 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
	EAC	Exd IU / Exd IICU / Exe IU /Exe IIU / ExnR IIU
	INMETRO - Brazil	Ex d   Mb / Ex d   IC Gb / Ex e   Mb / Ex e   IC Gb / Ex ta   IIC Da
		Ex nR IIC Gc
	SAC - China	Exd IIC / Exe 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)
ë	ATEX	SIRA 03ATEX1479X & SIRA 09ATEX4124X
ATION No	IECEx	IECEx SIR 07.0098X
임	CEC - Canada	CSA 1356011
-		001 000000

NEC - USA CSA 2627370 RU C-GB.ГБ06.В.00098 EAC INMETRO - Brazil NCC 13.2188 X SAC - China Neosi GYJ16.1401X UKRAINE

UA.TR.047.C.0408-13 & 2937 CCoE - India PESO P365300/4 & P365300/10 14-I D463991A-1-PDA ABS

LLOYD'S 10/00056(E1) RMRS 14.02755.315

CURING TIME:

@ 21°C Conductor termination can be effected after 1 hour. Compound chamber can be fully inspected after 4 hours and the equipment then energised.

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EXAMPLE PART NUMBERING: E8XCFBF050NPT/NP/20/M20

Ш		Entry Thread Size			Cable Acceptance Details									B			
	Gland Size	Entry I	Entry Thread Size		Internal Cable Details			Ca	Cable Outer Sheath seal [D]				Nominal Protrusion	Dimensions/Weight (Metric)			Shroud
		Metric	NPT	Length [B]	Max Number of Cores [C]	Max Ø Over Cores [C]	Max Inner Sheath		ndard		uced	Acceptance Range	Length [L] Metric	Across Flats [A]	Across Corners	Weight Kgs	Size
ш						[-]		Min	Max	Min	Max			· iato į tij	00111010	. tgo	
Ι.	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
	20S	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 ½" 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
Ι.	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 ½"	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 ½" 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 ½"	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 ½"	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
Ι.	90	M90 x 2.0	3 ½" 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 ½" 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

- 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.

Unarmoured Cable featuring Peppers T-1000 Compound

Single Compression Gland designed for use with

REFERENCE NUMBER: 4.2.0

CR-X	Peppers T-1000 Compound (Barrier) Gland designed for use with unarmoured cable
В	Brass (B) / Stainless Steel (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
Т	Including Earth Tag
s	Including Serrated Washer
1	Quantity per kit
NP	Nickel Plated
20	Gland shell size
M20	M20 x 1.5 Male Entry Thread
	B C K-V-H T S 1 NP

LOCKNUT	Brass (ACBLN) / Stainless Steel (ACSLN)
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)
SHROUDS	PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)
IP RATING:	IP66 & IP68 (100 metres - 7 Days), Type 4X & DTS01:1991
OPERATING TEMP:	-60°C to +135°C
MATERIALS:	Brass or Stainless Steel
PLATING:	Electroless Nickel
COMPOUND:	Peppers T-1000 Sealing Compound

#### PRODUCT DESCRIPTION

"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. 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, IIB and IIC. 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 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 60079-15, 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

II 3G Ex nR IIC Gc

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

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

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

Class 1 Division 2, Groups A,B,C and 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

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 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)

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

**ATFX** SIRA 03ATEX1479X & SIRA 09ATEX4124X IECEx SIR 07.0098X **IECEx** CEC - Canada CSA 1356011

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

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

#### CURING TIME

@ 21°C Conductor termination can be effected after 1 hour. Compound chamber can be fully inspected after 4 hours and the equipment then energised.

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Gland size	Entry Thread Size		Metric Thread	Gland Seal Range - Cable Sheath & Cores			Nominal Protrusion	Dimensions/Weight (Metric)			Shroud Size
	Metric	NPT	Length [B]	Max Number of cores [C]	Max Ø Over Cores [C]	Max Outer Sheath [D]	Length [L] Metric	Across Flats [A]	Across Corners	Weight Kgs	
20S	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 ½"	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 ½"	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

- · 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

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	CR-U	Gland with Peppers T-1000 Compound (Barrier) Inner Seal & Silicone LSOH Elastomeric Outer Seal
	В	Brass (B) / Stainless Steel (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
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 Entry Thread
	1 NP 20	Quantity per kit Nickel Plated Gland shell size

LOCKNUT	Brass (ACBLN) / Stainless Steel (ACSLN)
	, ,
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)
SHROUDS	PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)
IP RATING:	IP66 & IP68 (100 metres - 7 Days), Type 4X & DTS01:1991
OPERATING TEMP:	-60°C to +135°C
MATERIALS:	Brass or Stainless Steel
PLATING:	Electroless Nickel
COMPOUND:	Peppers T-1000 Sealing Compound
OUTER SEAL:	Silicone LSOH

#### Double Compression Barrier Gland designed for use with Unarmoured Cable featuring Peppers T-1000 Compound

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

### PART NUMBERS: C R U B s



#### PRODUCT DESCRIPTION

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

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

NEC - 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 Ex d I Mb / Ex d IIC Gb / Ex e 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 Ex d IIC X / Ex e II X CCoE - India Petroleum Rules 2002 (PFSO) 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)

**ATFX** SIRA 03ATEX1479X & SIRA 09ATEX4124X IECEx SIR 07.0098X **IECE**x CEC - Canada CSA 1356011 NEC - USA CSA 2627370 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 ABS 14-LD463991A-1 PDA

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

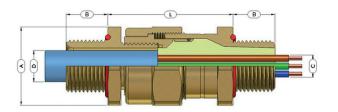
#### CURING TIME

@ 21°C Conductor termination can be effected after 1 hour. Compound chamber can be fully inspected after 4 hours and the equipment then energised.

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	Entry Thread Size		Metric	Metric Cable Acceptance Details			Nominal		Dimensions/Weight (Metric)			
Gland size	Entry In	Liftly Tillead Size		Internal Cable Details		Cable Outer Sheath Seal [D]		Protrusion Length [L]	Dime	ensions/weight (Me	tric)	Shroud Size
	Metric	NPT	Length [B]	Max Number of Cores [C]	Max Ø Over Cores [C]	Min	Max	Metric	Across Flats [A]	Across Corners	Weight Kgs	
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
20S	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
50S	M50 x 1.5	1 ½" 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
63S	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 ½"	19	425	50.0	46.7	56.0	88	80.0	88.0	1.558	EL80
75S	M75 x 1.5	2 ½" 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 ½" or 4"	25	425	75.1	74.1	84.0	123	114.0	125.7	4.063	EL114
100	M100 x 2.0	3 ½" or 4"	25	425	80.5	81.8	90.0	123	114.0	125.7	3.492	EL114

- · 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.



EFERENCE NUMBER: 4.3.0

	CR-S	Gland with Compound (Barrier) Seal					
	B Brass (B) / Stainless Steel (S)  M Male Back End Configuration						
	20	Gland shell size					
	L	Locknut (material dictated by gland entry thread material)					
	N	Including IP Washer, Nylon (N) - Fibre (V) - PTFE (H)					
OPTIONS	Т	Including Earth Tag					
OPT	S	Including Serrated Washer					
	1	Quantity per kit					
	NP	Nickel Plated					
	M20	M20 x 1.5 Male Entry Thread					
	050NPT	12"NPT Internal Female Connection Thread					

LOCKNUT	Brass (ACBLN) / Stainless Steel (ACSLN)
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)

IP RATING:	IP66 & IP68 (100 metres - 7 Days), Type 4X & DTS01:1991
OPERATING TEMP:	-60°C to +135°C
MATERIALS:	Brass or Stainless Steel
PLATING:	Electroless Nickel
COMPOUND:	Peppers T-1000 Sealing Compound

#### Single Compression Barrier Gland featuring Peppers T-1000 Compound and Male Conduit Connection Thread

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

#### PART NUMBERS:





#### PRODUCT DESCRIPTION

"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.

#### 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 60079-15, IEC 60079-31 & IEC 60529 C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL50

**ATEX** 

IFCFx

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 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 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 UKRAINE Ex d IIC / Ex e IIC Fx d IIC X / Fx 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)

ATEX SIRA 03ATEX1479X & SIRA 09ATEX4124X IECE IECEx SIR 07.0098X CEC - Canada FAC INMETRO - Brazil

SAC - China

CCoE - India

UKRAINE

CSA 1356011 RU C-GB.ГБ06.В.00098 NCC 13.2188 X NEPSI GYJ16.1401X UA.TR.047.C.0408-13 & 2937 PESO P365300/4 & P365300/10

KCS - Korea 15-GA4BO-0665X & 15-GA4BO-0666X ABS 14-LD463991A-1-PDA LLOYD'S 10/00056(F1)

RMRS 14.02755.315

#### CURING TIME

@ 21°C Conductor termination can be effected after 1 hour. Compound chamber can be fully inspected after 4 hours and the equipment then energised.

CABLE GLAND SELECTION TABLE (ALL DIMENSIONS IN mm)

Gland size	Male Entry Thread		Metric Entry Thread Length	Male Conduit Entry Threads		Gland Seal Range - Cable Sheath & Cores			Nominal Protrusion	Dimensions/Weight (Metric)		
	Metric	NPT	[B]	Metric	NPT	Number of Cores [C]	Max Ø Over Cores [C]	Max Outer Sheath [D]	Length [L]	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	45	30.0	33.0	0.224
25	M25 x 1.5	3/4" or 1"	16	M25 x 1.5	3/4" or 1"	60	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	1" or 1 1/4"	80	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	1 ¼" or 1 ½"	130	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 ½"	19	M63 x 1.5	2 ½"	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 ½"	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 ½"	425	69.8	78.0	81	104.0	115.2	2.488
90	M90 x 2.0	3 ½" or 4"	25	M90 x 2.0	3 ½" or 4"	425	75.1	84.0	81	114.0	125.7	3.029
100	M100 x 2.0	3 1/2" or 4"	25	M100 x 2.0	3 ½" or 4"	425	80.5	90.0	81	114.0	125.7	2.825

#### · 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 "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

CR-S Gland with Compound (Barrier) Seal				
B Brass (B) / Stainless Steel (S)				
F Female Back End Configuration				
20	Gland shell size			
L	Locknut (material dictated by gland entry thread material)			
N	Including IP Washer, Nylon (N) - Fibre (V) - PTFE (H)			
Т	Including Earth Tag			
S	Including Serrated Washer			
1	Quantity per kit			
NP	Nickel Plated			
M20	M20 x 1.5 Male Entry Thread			
050NPT	12"NPT Internal Female Connection Thread			
	B F 20 L N T S 1 NP M20			

LOCKNUT	Brass (ACBLN) / Stainless Steel (ACSLN)
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)
IP RATING:	IP66 & IP68 (100 metres - 7 Days), Type 4X & DTS01:1991
OPERATING TEMP:	-60°C to +135°C
MATERIALS:	Brass or Stainless Steel
PLATING:	Electroless Nickel

Peppers T-1000 Sealing Compound

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

## PART NUMBERS: C R S B F



#### PRODUCT DESCRIPTION

"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 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 60079-15, IEC 60079-31 & IEC 60529 C22.2 (see certificate), CAN/CSA 60079-0/1/7, UL50

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

Exd IU / Exd IICU / Exe IU /Exe IIU / ExnR IIU EAC 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 SAC - China Ex d IIC / Ex e IIC UKRAINE Ex d IIC X / Ex e II X CCoE - India Petroleum Rules 2002 (PESO) 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 **IECE**x IECEx SIR 07.0098X CEC - Canada CSA 1356011

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

۸BS 14-LD463991A-1-PDA LLOYD'S 10/00056(E1) RMRS 14.02755.315

#### **CURING TIME**

@ 21°C Conductor termination can be effected after 1 hour. Compound chamber can be fully inspected after 4 hours and the equipment then energised.

Gland size	Metric Male Entry Thread Entry Thread Thread		try Threads Gland Seal Range - Cable Sheath & Cores				Nominal Protrusion	Dimensions/Weight (Metric)				
Gidira 3i20	Metric NPT	Length [B]	Metric	NPT	Number of Cores [C]	Max Ø Over Cores [C]	Max Outer Sheath [D]	Length [L]	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	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 ¼" or 1 ½"	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 ½"	19	M63 x 1.5	2 ½"	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 ½"	25	M80 x 2.0	3" or 3 ½"	425	64.4	72.0	103	104.0	115.2	4.262
85	M85 x 2.0	3" or 3 ½"	25	M85 x 2.0	3" or 3 ½"	425	69.8	78.0	103	104.0	115.2	3.748
90	M90 x 2.0	3 ½" 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	M100 x 2.0	3 ½" or 4"	25	M100 x 2.0	3 ½" or 4"	425	80.5	90.0	104	114.0	125.7	4.103

CABLE GLAND SELECTION TABLE (ALL DIMENSIONS IN mm)

COMPOUND:

- · 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.

Brass (B) / Stainless Steel (S)

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

#### PART NUMBERS:















ERENCE NUMBER: 4.4.0

#### PRODUCT DESCRIPTION

"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 STANDARDS:

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

ght		

OPTIONS	N	Including IP Washer, Nylon (N) - Fibre (V) - PTFE (H)
	Т	Including Earth Tag
	S	Including Serrated Washer
	1	Quantity per kit
	NP	Nickel Plated
	20-1	Gland and Conduit Connection Size
	M20	M20 x 1.5 Male Entry Thread

Locknut (material dictated by gland entry thread material)

Gland featuring Peppers T-1000 Compound and connection for liquid to flexible metallic conduit

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 Da
IECEx	Ex db I Mb / Ex db IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da
INMETRO - Brazil	Ex db I Mb / Ex e I Mb / Ex db IIC Gb / Ex e IIC Gb / Ex ta IIIC Da
SAC - China	Ex db IIC / Ex e IIC
CCoE - India	Petroleum Rules 2002 (PESO)
LLOYD'S	Enclosure Systems (Part 1B)

EXAMPLE PART NUMBERING: LT-CB/NP/20-1/M20

LOCKNUT	Brass (ACBLN) / Stainless Steel (ACSLN)
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)
IP RATING:	IP66 & IP68 (100 metres - 7 Days) & DTS01:1991
OPERATING TEMP:	-60°C to +135°C
MATERIALS:	Brass or Stainless Steel
PLATING:	Electroless Nickel
COMPOUND:	Peppers T-1000 Sealing Compound

#### **CURING TIME:**

@ 21°C Conductor termination can be effected after 1 hour The equipment can be energised after 4 hours.

ATEX SIRA 14ATEX1303X

> IECEx SIR 14.0106X **IECE**x

INMETRO - Brazil NCC 16.0275 X

SAC - China NEPSI GYJ16.1408X

CCoE - India PESO P365300/1

LLOYD'S 10/00056(E1)

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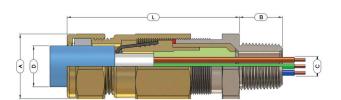
Gland &	Standard En	andard Entry Thread Size		Cable Acceptance Details			Conduit Data [D]		Nominal	Dimension	ns/Weight (Metric V	ersions)
Connection Size	Connection	NPT	Metric Thread Length [B]	Max No .of Cores [C]	Max Ø Over Cores [C]	Max Cable Inner Sheath Ø	Typical Conduit I/D	Max Conduit O/D	Protrusion Length [L]	Across Flats [A]	Across Corners	Weight Kgs
20S-1	M20 x 1.5	1/2" or 3/4"	16	9	5.0	5.0	6.2 - 7.1	11.4 - 12.9	45.0	25.4	28.0	0.180
208-2	M20 x 1.5	1/2" or 3/4"	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	1/2" or 3/4"	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	1/2" or 3/4"	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 1/4"	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 x1.5	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 ½"	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	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

### 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.
- · 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.

## Double Seal Barrier Gland designed for use with Amoured Cable featuring Peppers CROCLOCK® & T-1000 Compound

Class | Div 1 : Class | Div 1 : Class | III Type 4X : Ex d : Ex e : Ex nR : Ex ta : AEx D : AEx e : AEx ta



REFERENCE NUMBER: 4.5.0

		UL-C	Gland featuring "CROCLOCK®", single orientation clamping, Compound (Barrier) Inner Seal & Silicone Elastomeric Outer Seal with Nickel Plated Entry Thread
		В	Brass (B) / Stainless Steel (S)
	<b>σ</b>	R	Reduced Bore Seal Outer Sheath Seal
		С	PVC Shroud (C) - PCP Shroud (P) - Silicone LSOH Shroud (3)
		K-V-H	Locknut, Earth Tag & Nylon (K), Fibre (V) or PTFE (H) IP Washer
	OPT	S	Including Serrated Washer
		1	Quantity per kit
		NP	Nickel Plated
		20	Gland shell size
		075NPT	3/4"NPT Male Entry Thread

LOCKNUT	Brass (ACBLN) / Stainless Steel (ACSLN)
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)
SHROUDS	PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)
IP RATING:	IP66 & IP68 (100 metres - 7 Days), Type 4X, Oil Resistant II & DTS01:1991
OPERATING TEMP:	-60°C to +135°C (-25°C to +85°C for UL applications)
MATERIALS:	Brass or Stainless Steel
PLATING:	Electroless Nickel
COMPOUND:	Peppers T-1000 Sealing Compound
ELASTOMERIC SEAL:	Silicone LSOH

#### CURING TIME:

@ 21°C Conductor termination can be effected after 1 hour The equipment can be energised after 4 hours.

#### PART NUMBERS:





#### PRODUCT DESCRIPTION

"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 20, 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 Able being UL listed for Marine Shipboard Amboard Amoured, 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 STANDARDS:**

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 60079-1, EN 60079-1, EN 60079-1, EN 60079-1, EN 60079-1, EC 60079-1 iEC 60079-1, iEC 60079-1, iEC 60079-1 iEC 6007

U	60079-0, IEC 60078	9-1, 60079-7, IEC 60079-13, IEC 60079-31 & IEC 60329
	UL	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
	NEC - USA	Class I Zone 1 AEx d IIC Gb / AEx e IIC Gb
		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
	ATEX	IM2 II 1D2G ExdIMb/ExdICGb/ExeIMb/ExeICGb
		Ex ta IIIC Da / II 3G Ex nR IIC Gc
	IFCEx	Ex d I Mb / Ex d IIC Gb / Ex e I Mb / Ex e IIC Gb / Ex ta IIIC Da /

 INMETRO - Brazil
 Ex d I Mb / Ex d IIC Gb / Ex e I M

 SAC - China
 Ex d IIC / Ex e IIC

 UKRAINE
 Ex d IIC X / Ex e II X

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 clas

LOYD'S Enclosure Systems (Part 1B)

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

 UL
 E248936

 CEC - Canada
 CSA 70004604

 NEC - USA
 CSA 70004604

 ATEX
 SIRA 09ATEX1066X & SIRA 09ATEX4124X

 IECEX
 IECEX SIR 09.0033X

 EAC
 RU C-GB.FE06.B.00098

 INMETRO - Brazil
 NCC 13.1957 X

 SAC - China
 NEPSI GYJ16.1403X

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

 CC0E - India
 PESO P365300/3 & P365300/10

 ABS
 14-LD463991A-1-PDA

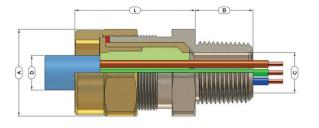
**LLOYD'S** 10/00056(E1) **RMRS** 14.02755.315

	Enter Th	read Size					Ca	able Acceptance	e Details						Dimensi	Dimensions/Weight (Metric)				
Gland	Entry	ireau Size	Metric Thread	NPT Thread		In	ternal Cable Deta	Details Cable Outer Sheath Seal [D]			al [D]		Nominal Protrusion	(NPT Entry Thread Versions)			Shroud			
Size	Metric	NPT	Length [B]	Length [B]	Max of Co	No.	Max Ø	Max Inner Sheath	Star	dard	Red	uced	Acceptance Range	Length [L]	Across	Across	Weight	Size		
						NEC	Over Cores [C]	Sneath	Min	Max	Min	Max			Flats [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		
20S	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		
63S	M63 x 1.5	2 ½"	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		

- 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 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 SELECTION TABLE (ALL DIMENSIONS IN inches)

EXAMPLE PART NUMBERING: UL-CB/NP/20/075NPT



	UL-X	Gland featuring a Compound (Barrier) Inner Seal with Nickel Plated Entry Thread
	В	Brass (B) / Stainless Steel (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
OPTIONS	Т	Including Earth Tag
P	s	Including Serrated Washer
	1	Quantity per kit
	NP	Nickel Plated
	20	Gland shell size
	075NPT	3/4"NPT Male Entry Thread

LOCKNUT	Brass (ACBLN) / Stainless Steel (ACSLN)
EARTH TAG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)
SHROUDS	PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)
IP RATING:	IP66 & IP68 (100 metres - 7 Days), Type 4X, Oil Resistant II & DTS01:1991
OPERATING TEMP:	-60°C to +135°C (-25°C to +85°C for UL applications)
MATERIALS:	Brass or Stainless Steel
PLATING:	Electroless Nickel
COMPOUND:	Peppers T-1000 Sealing Compound

#### PRODUCT DESCRIPTION

"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 STANDARDS:

**ATEX** 

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

UL	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 NEC - USA Class III, Enclosure Type 4X

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

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

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

EAC Exd IU / Exd IICU / Exe IU / Exe IIU / ExnR IIU INMETRO - Brazil Ex d | Mb / Ex d | IC Gb / Ex e | Mb / Ex e | IC Gb / Ex ta | IIC Da / Ex nR | IC 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)

UL E248936 CSA 70004604 CEC - Canada NEC - USA CSA 70004604

**ATEX** SIRA 09ATEX1066X & SIRA 09ATEX4124X **IECE**x IECEx SIR 09.0033X

EAC RU C-GB.ГБ06.B.00098 INMETRO -Brazil NCC 13.1957 X NEPSI GYJ16.1403X SAC - China UKRAINE UA.TR.047.C.0408-13 & 2937 CCoE - India PESO P365300/3 & P365300/10 14-LD463991A-1-PDA ABS LLOYD'S 10/00056(E1) RMRS 14.02755.315

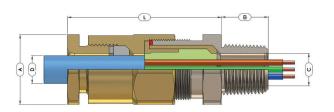
#### CURING TIME:

@ 21°C Conductor termination can be effected after 1 hour. The equipment can be energised after 4 hours

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	Entry Thread Size		Metric	NPT Thread		Cable	Acceptance Deta	ils	Nominal	D (NPT				
Gland Size	Metric	NPT	Thread Length [B]	Length [B]	Max No. of Cores [C] IEC - NEC		Max Ø Over Cores [C]	Max Outer Sheath [D]	Protrusion Length [L]	Across Flats [A]	Across Corners	Weight (lbs)	Shroud Size	
208	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 ½"	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	

- · 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.



REFERENCE NUMBER: 4.6.1

UL-U	Gland featuring a Compound (Barrier) Inner Seal with Nickel Entry Thread
В	Brass (B) / Stainless Steel (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
S T	Including Earth Tag
<b>E</b> s	Including Serrated Washer
1	Quantity per kit
NP	Nickel Plated
20	Gland shell size
075NPT	3/4"NPT Male Entry Thread
1 NP	Quantity per kit Nickel Plated Gland shell size

LOCKNU	Т	Brass (ACBLN) / Stainless Steel (ACSLN)
EARTH TA	AG	Brass (ACBET) / Stainless Steel (ACSET)
IP WASHI	ERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATE	D WASHERS	Stainless Steel (ACSSW)
SHROUD	s	PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)
IP RATIN	G:	IP66 & IP68 (100 metres - 7 Days), Type 4X, Oil Resistant II & DTS01:1991
OPERATI	NG TEMP:	-60°C to +135°C (-25°C to +85°C for UL applications)
MATERIA	LS:	Brass or Stainless Steel
PLATING	:	Electroless Nickel

#### CURING TIME:

Peppers T-1000 Sealing Compound

@ 21°C Conductor termination can be effected after 1 hour The equipment can be energised after 4 hours.

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

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

#### PART NUMBERS:





#### PRODUCT DESCRIPTION

"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 STANDARDS:

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, 60079-15, IEC 60079-31 & IEC 60529

ŧ I	UL	Class I Division 2, Gas Groups ABCD Type 4X
ĺ	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

IECEX Ex d | Mb / Ex d | IC Gb / Ex e | Mb / Ex e | IC Gb / Ex ta | IIC Da / Ex nR | IC Gc

EXC Exd | U / Exd | ICU / Exe | U / Exe | IU / ExnR | IU

EAC EX d IU / EX d IIC U / EX e IU / EX e IIU / EX R 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

 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)

 UL
 E248936

 CEC - Canada
 CSA 70004604

 NEC - USA
 CSA 70004604

 ATEX
 SIRA 09ATEX1066X & SIRA 09ATEX4124X

 IECEX
 IECEx SIR 09.0033X

| REAC | RU C-GB.FG06.B.00098 | REAC | RU C-GB.FG06.B.00098 | RUMETRO -Brazil | NCC 13.1957 X | REAC - China | NEPSI GYJ16.1403X | RUKRAINE | UA.TR.047.C.0408-13 & 2937 | REAC - India | PESO P365300/3 & P365300/10 | REAC - REA

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

	F.1. T.						Cable Acceptar	nce Details [C	]		ı	Dimensions/Weight		
Gland Size	Entry In	read Size	ISO Thread Length	NPT Thread Length	Ca	ble Inne	er Sheath	Cable Oute	er Sheath [D]	Nominal Protrusion		ons)	Shroud Size	
	Metric	NPT	[B]	[B]	Num of Cor IEC -	es [C]	Max Ø Over Cores [C]	Min	Max	Length [L]	Across Flats	Across Corners [A]	Weight Ibs	Gize
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
20S	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 ¼" or 1 ½"	0.630	1.008 - 1.024	130	60	1.134	0.890	1.268	3.543	2.170	2.832	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 ½"	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 ½"	0.748	1.571	425	4	1.969	1.839	2.205	3.937	3.150	3.465	5.309	EL80
75S	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

# CABLE GLAND SELECTION TABLE (ALL DIMENSIONS IN inches)

COMPOUND:

- 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.

Gland featuring controlled displacement sealing

Aluminium (A) / Brass (B) / Stainless Steel (S)

PVC Shroud (C) - PCP Shroud (P) - Silicone LSOH Shroud (3)

Locknut & Nylon (K), Fibre (V) or PTFE (H) IP Washer

Peppers Standard Designation

Including Earth Tag

Quantity per kit

Nickel Plated

Gland shell size

M20 x 1.5mm Male Entry Thread

NP

Including Serrated Washer

Neoprene Seal (2) - Silicone Seal (3) - Neoprene/Lead (1) - Silicone/Lead (4)

#### Single Seal Gland designed for use with Unarmoured Cable

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







REFERENCE NUMBER: 5.1.0

"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 STANDARDS:** IEC 62444

PRODUCT DESCRIPTION

EN 62444 BS 6121

**CERTIFICATION:** ABS Specified ABS Rules

#### CERTIFICATE NO.

ABS 14-LD463991-1-PDA

Brass (ACBLN) / St Steel (ACSLN) / Aluminium (ALALN)
Brass (ACBET) / St Steel (ACSET) / Aluminium (ACAET)
Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
Stainless Steel (ACSSW)
PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)

IP RATING:	IP66 & IP68 (50 metres - 7 Days )
OPERATING TEMP:	Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C
MATERIALS:	Aluminium, Brass, Stainless Steel
PLATING:	Electroless Nickel

CABLE GLAND SELECTION TABLE (ALL DIMENSIONS IN mm)

EXAMPLE PART NUMBERING: A2LB/NP/20/M20

	Entry Th	read Size		Cable Acceptance Details				ions/Weight (Metric V	ersions)	
Gland Size	Liluy III	read Gize	Metric Thread Length	Outer SI	neath [D]	Nominal Protrusion	Billions	Shroud		
Giariu Size	Metric	NPT	[B]	Min	Max	Length [L]	Across Flats [A]	Across Corners	Weight kgs	Size
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 ¼" or 1 ½"	16	23.0	32.2	37	55.0	60.5	0.396	L55
50S	M50 x 1.5	1 ½" 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 ½"	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 ½"	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
110	M110 x 2.0	-	25	87.0	102.0	88	135.0	148.0	2.550	N/A
120	M120 x 2.0	-	25	97.0	112.0	88	145.0	159.0	3.200	N/A
130	M130 x 2.0	-	25	107.0	122.0	88	155.0	170.0	4.750	N/A

#### · 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.

Gland featuring armour specific clamping

Aluminium (A) / Brass (B) / Stainless Steel (S)

PVC Shroud (C) - PCP Shroud (P) - LSOH Silicone Shroud (3)

Locknut, Earth Tag & Nylon (K), Fibre (V) or PTFE (H) IP Washer

SWA (W) / SWB or STA (X)

Integral Earth (see page TR-2)

Reduced Bore Seal

Including Serrated Washer

Quantity per kit

Gland shell size

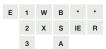
1/2"NPT Male Entry Thread

s

Neoprene Seals (1) - Silicone Seals (3) - Neoprene/Lead (2) - Silicone/Lead (4)

#### **Dedicated Armour Clamping** IEC 62444 : EN 62444 : BS 6121 : IP66 : IP68

#### PART NUMBERS:





#### PRODUCT DESCRIPTION

"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 (M), 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.

**Double Compression Gland for Armoured Cable featuring** 

#### REFERENCE NUMBER: 5.2.0 **COMPLIANCE STANDARDS:** IEC 62444

EN 62444 BS 6121

#### **CERTIFICATION:**

ABS Specified ABS Rules

#### CERTIFICATE NO.

ABS 14-LD463991-1-PDA

OPTIONAL ACCESSORIES:
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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 WASHERS	Stainless Steel (ACSSW)
SHROUDS	PVC (ACSPVC) / PCP (ACSPCP) / Silicone LSOH (ACSSIO)

IP RATING:	IP66 & IP68 (50 metres - 7 Days )
OPERATING TEMP:	Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C
MATERIALS:	Aluminium, Brass or Stainless Steel
PLATING:	Electroless Nickel

# (ALL DIMENSIONS IN mm)

EXAMPLE PART NUMBERING: E1 WB/NP/20/050NPT

	Entry Th	read Size			C	able Accep	tance Detai	ls	Armour Acceptance Range				Dimen			
Gland Size	Metric	NPT	Metric Thread Length [B]	Inner Sh			neath [D]		ced [D]		ptance напде	Nominal Protrusion Length [L]	Across Flats [A]	Across Corners	Weight	Shroud Size
			[6]	Min	Max	Min	Max	Min	Max	W	Х		Fiats [A]	Corners	(lbs)	
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
20S	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	0.15-0.55	58	37.6	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	0.20-0.60	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 ½" or 2"	16	31.5	38.2	39.4	46.7	34.8	42.4	2.00-2.50	0.30-0.80	73	65.0	71.5	0.940	L65
50H	M50 x 1.5	1 ½" 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 ½"	19	49.5	56.0	58.4	65.8	53.8	61.2	2.50	0.30-1.00	76	80.0	88.0	1.123	L80
75S	M75 x 1.5	2 ½" 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 ½" 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 ½"	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 ½"	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 ½" 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 ½" 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
110	M110 x 2.0	-	25	87.0	102.0	100.0	117.0	-	-	3.15	0.45-1.00	185	135.0	148.0	4.190	N/A
120	M120 x 2.0	-	25	97.0	112.0	110.0	127.0	-	-	3.15	0.45-1.00	185	145.0	159.0	5.750	N/A
130	M130 x 2.0	-	25	107.0	122.0	120.0	137.0	-	-	3.15	0.45-1.00	185	155.0	170.0	6.900	N/A

\*For gland size 20 the silicone inner seal has a minimum diameter of 9.3 mm and NOT 6.7mm.

- · 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 SELECTION TABLE (ALL DIMENSIONS IN mm)

EXAMPLE PART NUMBERING: C1WB/NP/20/050NPT



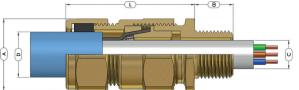
## Single Compression Gland for Armoured Cable featuring Dedicated Armour Clamping

IEC 62444 : EN 62444 : BS 6121 : IP66









	REFERENCE NUMBER: 5.2.2
r specific clamping	
ilianaa Caala (O)	

C Gland featuring armour specific clamping

1 Neoprene Seals (1) - Silicone Seals (3)

W SWA (W) / SWB or STA (X)

B Aluminium (A) / Brass (B) / Stainless Steel (S)

R Reduced Bore Seal

C PVC Shroud (C) - PCP Shroud (P) - LSOH Silicone Shroud (3)

K-V-H Locknut, Earth Tag & Nylon (K), Fibre (V) or PTFE (H) IP Washer

S Including Serrated Washer

1 Quantity per kit

NP Nickel Plated

20 Gland shell size

1/2"NPT Male Entry Thread

#### PRODUCT DESCRIPTION

"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 STANDARDS:

IEC 62444 EN 62444 BS 6121

#### **CERTIFICATION:**

**ABS** Specified ABS Rules

#### CERTIFICATE NO.

ABS 14-LD463991-1-PDA

ACCESSORIES:	LOCKNUT	Brass (ACBLN) / St Steel (ACSLN) / Aluminium (ACALN)
ACCE	EARTH TAG	Brass (ACBET) / St Steel (ACSET) / Aluminium (ACALN)
	IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
	SERRATED WASHERS	Stainless Steel (ACSSW)
	SHROUDS	PVC (ACSPVC) / PCP (ACSPCP) / LSOH Silicone (ACSSIO)
_		
	IP RATING:	IP66
	OPERATING TEMP:	Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C
	MATERIALS:	Aluminium, Brass or Stainless Steel
	PLATING:	Electroless Nickel

	Entry Thread Size				C	Cable Accep	tance Detail	s		Armour Acco	ptance Range		Dimen	sions/Weight (	Metric)	
Gland Size		NOT	Metric Thread Length	Inner Sh	neath [C]	Outer SI	neath [D]	Reduc	ed [D]	Armour Acce	plance Hange	Nominal Protrusion Length [L]	Across	Across	Weight	Shroud Size
	Metric	NPT	[B]	Min	Max	Min	Max	Min	Max	W	X	Lengur [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
20S	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	37.6	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	68.5	53.8	61.2	2.50	0.30-0.80	76	80.0	88.0	1.306	L80
63	M63 x 1.5	2 ½"	19	N/A	56.0	58.4	68.5	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
110	M110 x 2.0	-	25	N/A	102.0	110.0	117.0	N/A	N/A	3.15	0.45-1.00	170	135.0	148.0	4.190	N/A
120	M120 x 2.0	-	25	N/A	112.0	120.0	127.0	N/A	N/A	3.15	0.45-1.00	170	145.0	149.0	5.750	N/A
130	M130 x 2.0	-	25	N/A	122.0	130.0	137.0	N/A	N/A	3.15	0.45-1.00	170	155.0	170.0	6.900	N/A

## • 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.

(I)

Gland featuring armour specific clamping

Aluminium (A) / Brass (B) / Stainless Steel (S)

PVC Shroud (C) - PCP Shroud (P) - LSOH Silicone Shroud (3)

Locknut & Nylon (K), Fibre (V) or PTFE (H) IP Washer

Neoprene Seals (1) - Silicone Seals (3)

SWA (W) / SWB or STA (X)

Integral Earth

С

S

NP

K-V-H

OPTIONS

Reduced Bore Seal

Including Serrated Washer

Quantity per kit

Nickel Plated

Gland shell size

1/2"NPT Male Entry Thread

## 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







#### PRODUCT DESCRIPTION

"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 STANDARDS: IEC 62444

IEC 62444 EN 62444 BS 6121

REFERENCE NUMBER: 5.2.3

#### CERTIFICATION:

**ABS** Specified ABS Rules

#### CERTIFICATE NO.

ABS 14-LD463991-1-PDA

LOCKNUT	Brass (ACBLN) / St Steel (ACSLN) / Aluminium (ACALN)
IP WASHERS	Nylon (ACNSW) / Fibre (ACFSW) / PTFE (ACPSW)
SERRATED WASHERS	Stainless Steel (ACSSW)
SHROUDS	PVC (ACSPVC) / PCP (ACSPCP) / LSOH Silicone (ACSSIO)
	IP WASHERS SERRATED WASHERS

IP RATING:	IP66
OPERATING TEMP:	Neoprene Seals -35°C to +90°C / Silicone Seals -60°C to +180°C
MATERIALS:	Aluminium, Brass or Stainless Steel
PLATING:	Electroless Nickel

# CABLE GLAND SELECTION TABLE (ALL DIMENSIONS IN mm)

EXAMPLE PART NUMBERING: C1WBIE/NP/20/050NPT

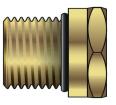
	Entry Thread Size			Cable Acceptance Details								Dimensions/Weight (Metric)			
Gland Size	Metric		Metric Thread Length [B]	Inner Sheath [C]		Outer Sheath [D]		Reduced [D]		Armour Acceptance Range		Nominal Protrusion			
		NPT		Min	Max	Min	Max	Min	Max	w	х	Length [L]	Across Flats [A]	Across Corners	Weight (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
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
20S	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
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
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	0.15-0.55	72	36.7	41.4	0.385
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	0.20-0.60	81	46.0	50.6	0.636
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
50S	M50 x 1.5	1 ½" or 2"	16	N/A	38.2	39.4	46.7	34.8	42.4	2.00-2.50	0.30-0.80	95	65.0	71.5	1.383
50H	M50 x 1.5	1 ½" 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
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
63S	M63 x 1.5	2" or 2 ½"	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
63H	M63 x 1.5	2" or 2 ½"	19	N/A	50.1	58.4	68.5	53.8	61.2	2.50	0.30-0.80	101	80.0	88.0	2.132
63	M63 x 1.5	2 ½"	19	N/A	56.0	58.4	68.5	53.8	61.2	2.50	0.30-1.00	101	80.0	88.0	1.748
75S	M75 x 1.5	2 ½" 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
75H	M75 x 1.5	2 ½" 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
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
80	M80 x 2.0	3" or 3 ½"	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
80H	M80 x 2.0	3" or 3 ½"	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
85	M85 x 2.0	3" or 3 ½"	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
90	M90 x 2.0	3 ½" 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
90H	M90 x 2.0	3 ½" 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
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	3.40

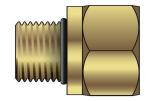
#### Gland size does not necessarily equate to the entry thread size.

- 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.

EXAMPLE PART NUMBERING: AR1BF/NP/M20/M25





Reducer

Adaptor

REFERENCE NUMBER: 7.1.0

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)
(T) Earth Tag - Brass (ACBET) / St-Steel (ACSET) / Aluminium (ACAET)
(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
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

Male and Female Thread References and Size information can be found on page 40 of this product catalogue. Adaptor and Reducer size information is available on pages 41 + 42 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)

#### **Metallic Adaptors and Reducers**

Ex d: Ex e: Ex nR: Ex tb: IP66: IP68 Class I Div 1: AEx d: AEx e: AEx tb

#### PART NUMBERS:

CERTIFICATION





#### PRODUCT DESCRIPTION

"AR" Series Certified Adaptors & Reducers 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 / NEC type applications. All external metric threads are fitted with a nitrile O-ring as standard.

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

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

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 Fxd IU / Fxd IICU / Fxe IU / Fxe IIU / FxnR IIU

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

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)

ATEX SIRA 09ATEX1322X & SIRA 09ATEX4323X

**IECE**x IECEx SIR 09.0131X

CEC - Canada CSA 2310046

NEC - USA CSA 2310046

RU C-GB.ГБ06.B.00098

INMETRO - Brazil NCC 13.2189 X

SAC - China NEPSI GYJ16.1404X UKRAINE UA.TR.047.C.0408-13 & 2937

PESO P365300/9 & P365300/12

14-LD1183401-PDA ABS

LLOYD'S 10/00056(F1) RMRS 14.02755.315

CCoE - India

- 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.





### **ARMM**

### **ARFF**

EFERENCE NUMBER: 7.1.1

ARMM or ARFF	ARMM = Male x Male - ARFF = Female x Female
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 or Female Entry Thread
M25	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
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

Male and Female Thread References and Size information can be found on page 40 of this product catalogue. Adaptor and Reducer size information is available on pages 41 + 42 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)

### **Metallic Adaptors**

Ex d : Ex e : Ex nR : Ex ta : IP66 : IP68 : Class I Div 1 : AEx e : AEx ta

# PART NUMBERS: A R MM 0 B F FF 1 S

















3 A

PRODUCT DESCRIPTION
"ARMM & ARFF" Series Certified Adaptors 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 type applications. All external metric threads are fitted with a nitrile O-ring as standard.

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

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 nB 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

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

> 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

 $\textbf{INMETRO - Brazil} \quad \text{Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db / Ex nR IIC Gc} \\$ 

SAC - China Ex d IIC / Ex e IIC

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

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)

ATEX SIRA 09ATEX1322X & SIRA 09ATEX4323X

IECEx IECEx SIR 09.0131X CFC - Canada CSA 2310046 NEC - USA CSA 2310046

EAC RU C-GB.ГБ06.В.00098

INMETRO - Brazil NCC 13.2189 X

SAC - China NEPSI GYJ16.1404X

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

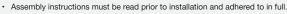
CCoE - India PESO P365300/9 & P365300/12

10/00056(F1)

ABS 14-LD1183401-PDA

RMRS 14.02755.315

LLOYD'S

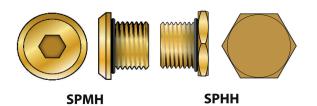


- For Ex d applications female threads must comply with clause 5.3 of IEC 60079-1.
- For Ex nR applications parallel entry threads must be installed with a suitable entry thread seal.
- ATEX / IECEx versions are supplied as standard.
- Additional approvals must be requested at time of order.
- Where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

INFORMATION

EXAMPLE PART NUMBERING: SPMH1BF/NP/M20

# PRODUCT TYPE SPMH & SPHH



REFERENCE NUMBER: 7.2.0

Stopping (Blanking) Plug Dome (Mushroom) Head (MH) / Hex Head (HH) No IP O-ring(0) - Nitrile (1) - Silicone (3) Brass (B) - Stainless Steel (S) - Aluminium (A) Ex d & Ex e certification including Marine Approvals NP Nickel Plated Male Thread

IP Washers - (N) Nylon (ACNSW) / (V) Fibre (ACFSW) / (H) PTFE (ACPSW) (T) Earth Tag - Brass (ACBET) / St-Steel (ACSET) / Aluminium (ACAET) (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
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

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

# SPHH & SPMH DIMENSIONAL DATA

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"	41.3	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"	70.0	32.9	0.814
M75	90.0	22.0	0.777	2-1/2"	80.0	46.4	1.671
M80	90.0	28.0	1.050	3"	106.4	49.5	2.652
M85	106.4	28.0	1.225	3-1/2"	114.3	50.8	3.566
M90	106.4	28.0	1.326	4"	127.0	52.0	4.602
M100	114.3	28.0	1.680				

All dimensions in mm / weight in kgs Head Diameter = Minimum 5.5mm larger than the major thread diameter.

### Metallic Dome Head & Hex Head Stopping Plugs

Ex d: Ex e: Ex nR: Ex tb: IP66: IP68: Class I Div 1: AEx e: AEx ta

# PART NUMBERS:





### PRODUCT DESCRIPTION

"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 tb 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 maintain Type 4X rating.

### COMPLIANCE STANDARDS

NEC - USA

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

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

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

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

Class I Division 1, 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 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

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

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

SAC - China Ex d IIC / Ex e IIC Exd IU / Exd IICU / Exe IU / Exe IIU UKRAINE

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

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

SIRA 09ATEX1320X & SIRA 09ATEX4323X ATEX

**IECE**x IECEx SIR 09.0131X CFC - Canada CSA 2310046 NEC - USA CSA 2310046 FΔC RU C-GB.ГБ06.В.00098 INMETRO - Brazil NCC 13.2189 X SAC - China NEPSI GYJ16.1406X

UKRAINE UA.TR.047.C.0408-13 & 2937 CCoE - India PESO P365300/7 & P365300/12 ABS 14-LD1183401-PDA

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LLOYD'S

RMRS

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	1.255	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				

- 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.

### **Metallic Stopping Plugs**

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



TYPE

**SPB** 

INTERNAL

**FIXING** 



### PRODUCT DESCRIPTION

"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 to 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 NEC and CEC type applications whilst also maintain Type 4X rating.

### COMPLIANCE STANDARDS:

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

SP	Stopping (Blar	nking) Plug			
А	Type A Externa	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				
IP RATING:		IP66 & NEMA 4X			
OPERATING TEMPERATURE:		O-ring - None -100°C to +400°C			

# 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

TYPE

SPA

**EXTERNAL** 

**FIXING** 

EXAMPLE PART NUMBERING: SPA0BD/NP/M20

MATERIALS:

PLATING:

- 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)

Ë	ATEX	I M2 II 2GD Exd I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb
CENTIFICATION		Ex tb IIIC Db II
į	IECEx	Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db II
-	CEC - Canada	Class I Zone 1 Ex d IIC / Ex e IIC / Class II Zone 21 Ex tb IIIC
5		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 - Brazil	Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex tb IIIC Db
	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)

ATFX SIRA 09ATEX1320X IECEx IECEx SIR 09.0131X CEC - Canada CSA 2310046 NEC - USA CSA 2310046 FAC RU C-GB.F506.B.00098 INMETRO - Brazil NCC 13.2189 X SAC - China NEPSI GYJ16.1406X UKRAINE UA.TR.047.C.0408-13 & 2937 DA

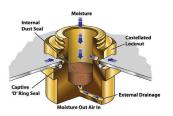
CCoE - India	PESO P365300/7
ABS	14-LD1183401-PD
LLOYD'S	10/00056(E1)
RMRS	14.02755.315

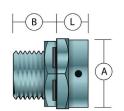
ISO Metric Thread	Hex Socket A/F	Overall Length	Weight	NPT Thread	Hex socket A/F	Overall Length	Weight
M12	6.0	17.0	0.011	1/4"	6.0	11.2	0.009
M16	8.0	17.0	0.025	3/8"	8.0	11.3	0.030
M20	10.0	17.0	0.035	1/2"	10.0	14.5	0.030
M25	12.0	17.0	0.060	3/4"	12.0	14.8	0.050
M32	12.0	17.0	0.105	1"	12.0	18.5	0.110
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				

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- 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





ACDP	Breather Drain c/w Castellated Locknut
1	No IP O-ring (0) - Nitrile (1) - Silicone (3)
В	Brass (B) - Stainless Steel (S) - Aluminium (A)
E	Ex e certification including Marine Approvals
NP	Nickel Plated
M20	Male Entry Thread
10	Entry Thread Length 10mm or 15mm

IP RATING:	IP66 & NEMA 4X
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
FLOW RATE:	0.25 Litres per Hour

### Metallic Breather Drain

### Ex e: Ex ta IP66: AEx e: AEx ta

### PART NUMBERS:





### PRODUCT DESCRIPTION

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

Ö	ATEX IECEX CEC - Canada NEC - USA EAC	I M2 II 2GD Ex eb I Mb / Ex eb IIC Gb / Ex ta IIC Da
Ķ	IECEx	Ex eb I Mb / Ex eb IIC Gb / Ex ta IIC Da
Ĭ	CEC - Canada	Class I Zone 1 Ex e IIC / Class II Zone 21 Ex tb IIIC
Ĭ	NEC - USA	Class I Zone 1 AEx e IIC Gb / Class II Zone 21 AEx tb IIIC Db
S	EAC	Exe IU / Exe IIU

INMETRO - Brazil Exeb | Mb / Ex eb | IC Gb / Ex ta | IC Da

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

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

ATEX SIRA09 ATEX3321X IECEx IECEx SIR 09.0132X CEC - Canada CSA 2310046 NEC - USA CSA 2310046 FAC RU C-GB.F506.B.00098 INMETRO - Brazil NCC 13.2189 X SAC - China NEPSI GYJ16.1407X UKRAINE UA.TR.047.C.0408-13 & 2937 CCoE - India PESO P365300/8 ABS 14-LD1183401-PDA LLOYD'S 10/00056(E1)

14.02755.315

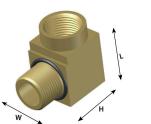
Thread Size	A/F	A/C [A]	Length [B]	Length [L]	Weight
M12 x 1.5	19.0	20.9	10 or 15	12.0	0.032
M16 x 1.5	24.0	26.4	10 or 15	12.0	0.052
M20 x1.5	27.0	29.7	10 or 15	12.0	0.065
M25 x 1.5	31.8	34.9	10 or 15	12.0	0.097
M32 x 1.5	37.6	41.3	10 or 15	12.0	0.107
1/2" NPT	28.6	31.4	15	12.0	0.075
3/4" NPT	33.0	36.3	15	12.0	0.107

RMRS

- · 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.

### Metallic 90 Degree / Right Angle Adaptors

Ex d: Ex e: Ex nR: Ex ta: IP66: IP68: Class I Div 1: AEx d: AEx e: AEx tb



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)
E	Ex d & Ex e certification including Marine Approvals
NP	Nickel Plated
M20	Male Entry Thread
M20	Female Entry Thread

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

ALSO AVAILABLE IN 30 DEGREE AND 45 DEGREE CONFIGURATIONS

### PART NUMBERS: AR MR 1 B F FR 3 S

PRODUCT DESCRIPTION
"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 STANDARDS:** EN 60079-0, EN 60079-1, EN 60079-7, EN 60079-15, EN 60079-31 C2

	JL514B, UL1203, ANSI/UL 60079-0/1/7, ISA 60079-31, UL 50E
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
IECEx	Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc
CEC - Canada	Class I Zone 1 Ex d IIC / Ex e IIC / Class II Zone 21 Ex tb IIIC
	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 - Brazil	Ex d I Mb / Ex d IIC Gb / Exe I Mb / Ex e IIC Gb / Ex ta IIIC Da / Ex nR IIC Gc
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)
ATEX	SIRA 10ATEX1132U & SIRA 10ATEX4133U
IECEx	IECEx SIR 10.0068U
CEC - Canada	CSA 2310046

NEC - USA CSA 2310046 EAC RU C-GB.ГБ06.В.00098 INMETRO - Brazil NCC 13.2190 U SAC - China NEPSI GYJ16.1405X

UKRAINE UA.TR.047.C.0408-13 & 2937 PESO P365300/11 CCoE - India ABS 14-LD1183401-PDA LLOYD'S 10/00056(E1) RMRS 14.02755.315

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EXAMPLE PART NUMBERING: ARMR1BF/NP/M20/M20

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 xM25	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

- · 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.



### A COMPLETE RANGE OF LOCKNUTS, EARTHTAGS, IP WASHERS, SERRATED WASHERS AND SHROUDS

### REFERENCE NUMBER: 7.5.0

### 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 and nylon.



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

Note: Dimensions shown are only applicable to metallic locknuts and are subject to change without notice.

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
M12 x 1.5	2.5	17.0	18.7	0.30				
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	M110 to M13	0, PG7 to PG4	8 and
M100 x 2	9.0	114.3	125.7	25.256	BSPP / BSPT are available upon reques			equest

### **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.



	Order Code Example
Brass Brass Nickel Plated Stainless Steel Aluminium	ACBET/M20 ACBET/MP/M20 ACSET/M20 ACAET/M20

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

ISO Thread Dia	Nominal Thickness	Nominal Centres	Bolt Hole Dia	Weight (Kgs/100)	NPT Thread Dia	Nominal Thickness	Nominal Centres	Bolt Hole Dia	
M12	1.5	31.8	6.9						
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	Sizes M110 to M130, PG7 to PG48 and			
M100	2.0	112.0	13.5	13.800	BSPP/ BSPT are available upon request			quest	

### **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.

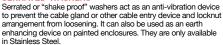


	Order Code Example	Temperature
Fibre	ACFSW/M20	-40°C to +95 °C
Nylon	ACNSW/M20	-40°C to +135 °C
PTFE	ACPSW/M20	-200°C to +260 °C

Colour		
Fibre Nylon	Metric = Red Metric = Red	NPT = Red NPT = White
PTFE	Metric = White	NPT = White

ISO Thread Dia	Thickness Nylon	Thickness Fibre	Outside Diameter	Weight (Kgs/100)	NPT Thread Dia	Thickness Nylon	Thickness Fibre	Outside Diameter		
M12	2.00	1.50	24.0	0.079						
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



	Order Code Example
Stainless Steel	ACSSW/M20

All dimensions in mm - Weights are based on metric versions

ISO Thread Dia	Nominal Thickness	Outside Diameter	Weight (Kgs/100)	NPT Thread Dia	Nominal Thickness	Nominal O/D
M12	1.0	20.25	0.137			
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	M90 1.5 125.0		6.233	Sizes M	vailable	
M100	1.5	140.0	7.985	upon request		



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



Peppers manufacture a range of shrouds in various materials to complement 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.

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

	Order Code Example	Temperature
PVC	ACSPVC/L24	-25°C to +70 °C
PCP	ACSPCP/L24	-30°C to +100 °C
LS0H	ACSSIO/L24	-60°C to +200 °C



## THREAD REFERENCE TABLES

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
	M25	M25	1.50	16.93	24.97	16.0	25.7
	M32	M32	1.50	16.93	31.97	16.0	32.7
823	M40	M40	1.50	16.93	39.97	16.0	40.7
ISO Metric IEC 60423	M50	M50	1.50	16.93	49.97	16.0	50.7
) Metric	M63	M63	1.50	16.93	62.97	19.0	63.7
)SI	M75	M75	1.50	16.93	74.97	19.0	75.7
	M80	M80	2.00	12.70	79.97	25.0	80.7
	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
	1"	100NPT	2.20	11.5	33.40	25.0	34.10
	1-1/4"	125NPT	2.20	11.5	42.16	25.6	42.86
I B1.20.	1-1/2"	150NPT	2.20	11.5	48.26	26.0	48.96
NPT ANSI B1.20.1	2"	200NPT	2.20	11.5	60.33	26.9	61.03
z	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	115.0
,							

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
	1"	100NPS	2.20	11.5	32.84	25.0	33.54
-	1-1/4"	125NPS	2.20	11.5	41.61	25.6	42.31
I B1.20.	1-1/2"	150NPS	2.20	11.5	47.68	26.0	48.87
NPS ANSI B1.20.1	2"	200NPS	2.20	11.5	59.72	26.9	60.42
z	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
	PG11	PG11	1.41	18.0	18.60	16.0	19.30
	PG13.5	PG13.5	1.41	18.0	20.40	16.0	21.10
DIN 40430	PG16	PG16	1.41	18.0	22.50	16.0	23.20
PG DI	PG21	PG21	1.59	16.0	28.30	16.0	29.00
	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

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
	1"	100BSP	2.31	11.0	33.25	25.0	33.95
ے <del>۔</del> د	1-1/4"	125BSP	2.31	11.0	41.91	25.6	42.61
PARALL BS2779 3, R&PF	1-1/2"	150BSP	2.31	11.0	47.80	26.0	48.50
ISO PIPE PARALLEL ISO R/7 BS2779 (BSPPP,G, R&PF)	2"	200BSP	2.31	11.0	59.61	26.9	60.31
)SI	2-1/2"	250BSP	2.31	11.0	75.18	39.9	75.88
	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
	1"	100BST	2.31	11.0	33.25	15.0	33.95
	1-1/4"	125BST	2.31	11.0	41.91	25.6	42.61
TAPER 7 BS21 & GK)	1-1/2"	150BST	2.31	11.0	47.80	26.0	48.50
ISO PIPE TAPER ISO R/7 BS21 (BSPT & GK)	2"	200BST	2.31	11.0	59.61	26.9	60.31
-	2-1/2"	250BST	2.31	11.0	75.18	39.9	75.88
	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  $\frac{1}{2}$ 



MALE SIZE						Mga	DIO ES	MALEA	1750					
							RIC FE							
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								
1 1/4"	R08*	R08*	R08*	R08*	A06*	A08	A11							
1 ½"	R10*	R10*	R10*	R10*	R10*	A08*	A11	A12						
2"	R13	R13	R13	R13	R13	R13	A11	A12	A13	A14				
2 ½"	R15	A12	A13	A14	A14									
3"	R16*	R16*	A13*	A14	A14	A15	A16	A17						
3 ½"	R17*	R17*	R17*	R17*	A17*	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						

1/2		NPT FEMALE SIZES												
A19	1/2"	3/4"	1"	1 1/4"	1 ½"	2"	2 ½"	3"	3 ½"	4"	5"			
R05         A21         A22         A23         A24 <td>A18</td> <td></td>	A18													
R07	A19	A20	A22											
R09	R05	A21	A22	A23										
R12         R12         R12         R12         A24         A26         A27 <td>R07</td> <td>R07</td> <td>A22</td> <td>A23</td> <td>A24</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	R07	R07	A22	A23	A24									
R14         R14         R14         R14         R14         R14         R16         R29         A30            R17         R17         R17         R17         R17         R17         R17         R17         R29         A30         A31           R17         R17         R17         R17         R17         R17         R17         R17         A29         A30         A31           R18         R19	R09	R09	R09	A23	A24	A26								
R16         R29         A30         A30         A30         A30         A30         A30         A30         A30         A31         A30         A31         A33         A31         A31         A33         A31         A31         A33         A31         A33         A34         A34 <td>R12</td> <td>R12</td> <td>R12</td> <td>R12</td> <td>A24</td> <td>A26</td> <td>A27</td> <td></td> <td></td> <td></td> <td></td>	R12	R12	R12	R12	A24	A26	A27							
R16         R16         R16         R16         R16         R16         R16         R29         A30         A30           R17         R17         R17         R17         R17         R17         R17         R29         A30         A31           R17         R17         R17         R17         R17         R17         R17         R17         R29         A30         A31           R18         R18         R18         R18         R18         R18         R18         R18         R30         A31           R19         R19         R19         R19         R19         R19         R19         R19         R19         R31         A31         A33           R20         R20         R20         R20         R20         R20         R20         R20         R20         A22         A33         A24         A26         A27         A20         A22         A23         A24         A26         A27         A29         A30         A31         A33         A34         A34         A26         A27         A29         A30         A31         A34         A34         A34         A34         A34         A34         A34         A34	R14	R14	R14	R14	R14	A26	A27							
R17         R17         R17         R17         R17         R17         R17         R17         R29         A30         A31           R18         R30         A31         A33           R20         A32         A33           A18*         A20         A22         A23         A24         A26         A27         A29         A30         A34         A24         A26         A27         A29         A30         A31         A33         A34         A24         A26         A27         A29         A30         A31         A34         A24         A26         A27         A29         A30         A31	R16	R16	R16	R16	R16	R16	A28	A29	A30					
R17         R17         R17         R17         R17         R17         R17         R17         A29         A30         A31           R18         R31         A31         A31           R19         A31         A33           R20         R20         R20         R20         R20         R20         R20         R20         A32         A33           A18*         A20         A22         A23         A24         A26         A27         A29         A30         A31           R06*         R06*         A22*         A23         A24         A26         A27         A29         A30         A31           R10*         R10*         R10*         A24*         A26         A27         A29         A30         A31           R15         R15         R15         R15         R15         R16*         R16*         R29	R16	R16	R16	R16	R16	R16	R16	A29	A30					
R118         R18         R30         A31           R19	R17	R17	R17	R17	R17	R17	R17	A29	A30					
R19         R31         A33           R20         R20         R20         R20         R20         R20         R20         R20         R20         A32         A33           A18*         A20         A22         A23         A24         A26         A27         A27         A28         A28         A24         A26         A27         A29         A28         A24         A26         A27         A29         A30         A31         A31         A33         A34         A26         A27         A29         A30         A31         A34         A26         A27         A29         A30         A31         A34         A26         A27         A29         A30         A31         A34         A34         A26         A27         A29         A30         A31         A34         A34         A26         A27         A29         A30         A31         A34	R17	R17	R17	R17	R17	R17	R17	A29	A30	A31				
R20         A32         A33           A18*         A20         A22         A23         A24         A24         A26         A27         A27         A28         A24         A26         A27         A29         A28         A24         A26         A27         A29         A30         A31         A33         A33         A34         A26         A27         A29         A30         A31         A33         A34         A34*         A26         A27         A29         A30         A31         A33         A34         A34*         A26         A27         A29         A30         A31         A34*         A34*         A34*         A36*         A27         A29         A30         A31         A34*         A34*         A34*         A34*         A34*         A34*         A34*         A34*	R18	R18	R18	R18	R18	R18	R18	R18	A30	A31				
A18* A20 A22	R19	R19	R19	R19	R19	R19	R19	R19	R19	A31	A33			
R03*         A20*         A22         A23 </td <td>R20</td> <td>R20</td> <td>R20</td> <td>R20</td> <td>R20</td> <td>R20</td> <td>R20</td> <td>R20</td> <td>R20</td> <td>A32</td> <td>A33</td>	R20	R20	R20	R20	R20	R20	R20	R20	R20	A32	A33			
R03*         A20*         A22         A23 </td <td></td>														
R06*         R06*         A22*         A23         A24                                                                                                   <	A18*	A20	A22											
R08*         R08*         R08*         A23*         A24         A26	R03*	A20*	A22	A23										
R10°         R10°         R10°         R24°         A26         A27	R06*	R06*	A22*	A23	A24									
R13         R13         R13         R13         R13         R26         A27         A29         A30           R15         R15         R15         R15         R15         R16         R27         A29         A30         A31           R16*         R16*         R16*         R16*         R16*         R16*         R29         A30         A31           R17*         R19*         R21*         R21* <td>R08*</td> <td>R08*</td> <td>R08*</td> <td>A23*</td> <td>A24</td> <td>A26</td> <td></td> <td></td> <td></td> <td></td> <td></td>	R08*	R08*	R08*	A23*	A24	A26								
R15         R15         R15         R15         R15         R15         R27         A29         A30         A31           R16*         R16*         R16*         R16*         R16*         R16*         R16*         A29         A30         A31           R17*         R19*         R21*         A33           A18         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4         4	R10*	R10*	R10*	R10*	A24*	A26	A27							
R16*         R17*         R17*         R17*         R30         A31         A31         A31         A31         A31         A31         A31         A31         A33         A31         A31         A33         A33         A33         A31         A33         A33         A33         A31         A33         A33         A34         A33         A33         A34         A33         A34         A34         A34         A34         A34         A33         A34         A34<	R13	R13	R13	R13	R13	A26	A27	A29						
R17*         R19*         R19*         R19*         R19*         R19*         R19*         R19*         R19*         A31         A33           R21*         A33           A18         A20         A20         A22         A22         A22         A22         A22         A22         A23         A22         A23         A24	R15	R15	R15	R15	R15	R15	A27	A29	A30					
R19* R19* R19* R19* R19* R19* R19* R19*	R16*	R16*	R16*	R16*	R16*	R16*	R16*	A29	A30	A31				
R21* R21* R21* R21* R21* R21* R21* R21*	R17*	R17*	R17*	R17*	R17*	R17*	R17*	R17*	A30	A31				
A18  A19 A20  A19 A20 A22  A20 A20 A22  R07 A22 A22 A23	R19*	R19*	R19*	R19*	R19*	R19*	R19*	R19*	R19*	A31	A33			
A19 A20 A19 A20 A22 A20 A20 A22 R07 A22 A22 A23	R21*	R21*	R21*	R21*	R21*	R21*	R21*	R21*	R21*	R21*	A33			
A19 A20 A19 A20 A22 A20 A20 A22 R07 A22 A22 A23														
A19 A20 A22  A20 A20 A22  R07 A22 A22 A23	A18													
A20 A20 A22 R07 A22 A22 A23	A19	A20												
R07 A22 A22 A23	A19	A20	A22											
	A20	A20	A22											
R08 R08 A23 A23 A24	R07	A22	A22	A23										
	R08	R08	A23	A23	A24									
R11 R11 R11 A24 A24 A26	R11	R11	R11	A24	A24	A26								
R13 R13 R13 R13 R13 A26 A27	R13	R13	R13	R13	R13	A26	A27							
R14 R14 R14 R14 R14 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.



MALE SIZE	PG FEMALE 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				
1 1/4"	R08*	R08*	R08*	R08*	R08*	R08*	A06*	A08	A10			
1 ½"	R10*	R10*	R10*	R10*	R10*	R10*	R10*	A08*	A10	A11		
2"	R13	R13	R13	R13	R13	R13	R13	R13	R13	A11		
2 ½"	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		

	ADAPTORS																
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 Adaptor 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 Protusion 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.



### **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.
- ${\boldsymbol{\cdot}}$  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/GUAGING

- 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 SPECIFICATION**

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.
- · 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.



# BARRIER GLANDS CABLE CONDUIT BARRIER GLANDS WATER CONDUIT CABLE CR-S-M BARRIER GLANDS WATER WAT

### SO HOW DO YOU CONNECT TWO Ex d - FLAMEPROOF ENCLOSURES?

Most installations do not call for enclosures to be connected together but what do you do if you need to connect two (or more) Ex d enclosures within a Zone 1 hazardous area?

Traditional practice has been to use compound barrier glands mounted at the entry of both enclosures with a length of cable or conduit. In the event of an ignition or explosion inside one of the enclosures this practice prevents the transmission of the explosion to the other enclosure. Whilst this will maintain the integrity of the installation it carries significant cost implications.

Peppers can now provide a substantially more cost effective solution for this type of installation. Peppers CR-S\*M range of barrier glands can now be installed directly between two Ex d enclosures. Tested in accordance with IEC / EN 60079-1 the gland is capable of maintaining the integrity of the installation having passed pressure and sealing tests from both directions to simulate the event of an explosion in either enclosure. Supplied with two male threads, the gland allows conductors to pass through the compound ensuring that a flameproof seal is maintained for each enclosure. In the event of an explosion within the enclosure the CR-S\*M gland will prevent any transmission to the second enclosure or the surrounding atmosphere.



### **HEALTH & SAFETY**

When used and installed as recommended within the assembly instructions provided, Peppers Cable Glands Ltd 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.

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### WARNING

Peppers' cable glands should not be used within any application other than those specified for each product, unless Peppers Cable Glands Ltd 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 Ltd 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 Ltd 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.



### **TERMS & CONDITIONS**

Full terms and conditions of sale are available upon request.

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