

# Peppers Cable Glands Limited

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## Cable Gland:- Type CR-1



Including type No's:

C	R	*	*	*
		1	B	R
		2	S	
		3		

C	R	D	*	*
			3	B
				S

C	R	O	*	*	*
			3	B	R
				S	

Croclock CR-1 type glands provide a seal on the inner sheath, a seal on the outer sheath and a universal armour clamp for steel wire, steel tape, screened or braided cable. The armour clamp provides an electrical bond between the cable armour and the gland. CR-1 can also be used to terminate unarmoured or lead sheathed cables. CR-1 type glands maintain Flameproof Exd and Increased Safety Exe methods of explosion protection, IP66, IP68 to 25 metres and is deluge resistant. An integral 'O' ring entry thread seal is fitted to metric versions as standard.

COMPLIANCE STANDARD	EN 60079-0, EN 60079-1, EN 60079-7, EN 61241-0, EN 61241-1, IEC 60079-0, IEC 60079-1, IEC 60079-7, IEC 61241-0 & IEC 61241-1																					
CERTIFICATION	<ul style="list-style-type: none"> <li> ATEX II 2 GD, E Exd IIC / E Exe II</li> <li> GOST R-Exd IIC/Exe II</li> <li> CSA Exd IIC/Exe II 4X</li> <li> IECEX Ex d IIC / Ex e II</li> <li> NEPSI Exd IIC / Exe II</li> </ul>																					
CERTIFICATE	BAS01ATEX2271X - Ex Notified Body No. 0518 POCC GB МЛ14.В00030 CSA 1356011 IECEX SIR 07.0099X NEPSI GYJ06189X																					
GLAND MARKING (EXAMPLE)	Peppers GU15 3BT UK CA CR-1B/20/M20 IEC Ex SIR 07.0099X Exd IIC/Exe II/Ex tD A21 IP68 МЛ14 BAS 01ATEX2271X Ex II 2 GD EExd IIC/EEExe II																					
APPLICATION	<p><b>EExd Equipment</b>                      CR-1B type glands will only maintain Flameproof Exd integrity when used with cable that is substantially round and compact with extruded bedding. The cable shall be deemed to be effectively filled. Ref: IEC60079-14:2002 Section 10.4.2</p> <table border="1"> <thead> <tr> <th>Gas Group</th> <th>Internal Ignition Source</th> <th>Enclosure Volume</th> <th>Which Zone</th> <th>Use Type CR-1B Gland</th> </tr> </thead> <tbody> <tr> <td>IIC, IIB, IIA</td> <td>NO</td> <td>Any</td> <td>Zone 1 or 2</td> <td>YES</td> </tr> <tr> <td>IIB, IIA</td> <td>YES</td> <td>Any</td> <td>Zone 2</td> <td>YES</td> </tr> <tr> <td>IIB, IIA</td> <td>YES</td> <td>2 litres or less</td> <td>Zone 1</td> <td>YES</td> </tr> </tbody> </table> <p><b>EExe Equipment</b> Gas Group II, Zones 1 and 2      <b>Other Equipment</b> Ignitable Dust, Zones 21 and 22</p>		Gas Group	Internal Ignition Source	Enclosure Volume	Which Zone	Use Type CR-1B Gland	IIC, IIB, IIA	NO	Any	Zone 1 or 2	YES	IIB, IIA	YES	Any	Zone 2	YES	IIB, IIA	YES	2 litres or less	Zone 1	YES
Gas Group	Internal Ignition Source	Enclosure Volume	Which Zone	Use Type CR-1B Gland																		
IIC, IIB, IIA	NO	Any	Zone 1 or 2	YES																		
IIB, IIA	YES	Any	Zone 2	YES																		
IIB, IIA	YES	2 litres or less	Zone 1	YES																		
INGRESS PROTECTION	IP66 and IP68 @ 25 metres, Enclosure Type 4X, BS EN 60529 & IEC 529 Meets the requirements of DTS01 1991																					
MATERIALS	Brass CZ121 (CR-*B) 316 Stainless Steel (CR-*S)  Inner & outer sheath material: Standard (CR-1) Neoprene, black. Option (CR-3) Silicone, white. Reduced bore outer sheath seal (R) Silicone, red. (CR-**R)  Entry thread seal: Nitrile is supplied with neoprene seal version. Silicone is supplied with silicone seal version																					
VARIATIONS	For Lead Sheath Cables the gland is fitted with a metallic continuity washer: Brass (CR-2B); 316 Stainless Steel (CR-2S) Omission of outer seal: Brass (CR-DB); Stainless Steel (CR-DS) Omission of inner seal [Exe Only]: Brass (CR-OB); Stainless Steel (CR-OS)																					
OPTIONS	THREADS	ISO Metric; NPT; NPS; ISO Pipe Thread (BSP Taper, BSP Parallel); PG																				
	SEALS	Extended operating temperature -60°C to +180°C, halogen free versions: Brass (CR-3B); 316 Stainless Steel (CR-3S)																				
	PLATING	Zinc (ZP); Nickel (NP); Tin (TP); Electroless Nickel (EN)																				
OPERATING TEMPERATURES	Standard Seals -20°C to +85°C Silicone Seals -60°C to +180°C																					

<b>ACCESSORIES</b>	<p>Locknut - Brass (ACBLN); 316 Stainless Steel (ACSLN)  Earth Tag - Brass (ACBET), 316 Stainless Steel (ACSET)  IP Washer - Nylon (ACNSW); Red Fibre (ACFSW)  Serrated Lock Washer - 316 Stainless Steel (ACSSW), Galvanised Steel (ACGSW)  Shroud - PVC (ACSPVC)</p> <p>Gland and accessory kits:  K1 - includes gland, locknut, earthtag, integral IP 'O' ring and PVC shroud</p> <p>Note: Glands with non metric threads are supplied with flat IP washers.</p>
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<b>EXAMPLE PART NUMBER</b>	<p>Sample: <b>CR-1B R K1/ZP/20S/M20</b>  <b>CR-1:</b>  CR-* - Gland type  **1 - Seal material (Neoprene)</p> <p><b>B</b> - Body material (Brass)  <b>R</b> - Reduced bore outer seal  <b>K1</b> - Supplied complete with accessories (PVC Shroud)  <b>ZP</b> - Zinc plating  <b>20s</b> - Gland size with regards to cable acceptance range  <b>M20</b> - Entry thread</p>
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Gland Size	Entry Threads		Entry Thread Length	Max Across Corners	Max Protrusion Length	Gland Seal Range						Armour Acceptance Range	Shroud Size
						Cable Inner Sheath [C]		Cable Outer Sheath [D]					
	Min	Max						Standard		Reduced (R)			
	Metric	NPT/BSP	[B]	[A]			Min	Max	Min	Max			
16	M20	1/2" or 3/4"	16	28.0	78.0	3.4	8.4	9.0	13.5	6.7	10.3	0.15 - 1.25	L24
20s	M20	1/2" or 3/4"	16	28.0	78.0	7.2	11.7	12.9	16.0	9.4	12.5	0.15 - 1.25	L24
20	M20	1/2" or 3/4"	16	33.0	78.0	9.4	14.0	15.5	21.1	12.0	17.6	0.15 - 1.25	EL30
25	M25	3/4" or 1"	16	41.4	90.0	13.5	20.0	20.3	27.4	16.8	23.9	0.15 - 1.60	EL38
32	M32	1" or 1 1/4"	16	50.6	105.0	19.5	26.3	26.7	34.0	23.2	30.5	0.15 - 2.00	EL46
40	M40	1 1/4" or 1 1/2"	16	60.5	113.0	23.0	32.2	33.0	40.6	28.6	36.2	0.20 - 2.00	EL55
50s	M50	1 1/2" or 2"	16	71.5	125.0	28.1	38.2	39.4	46.7	34.8	42.4	0.30 - 2.50	EL65
50	M50	2"	16	71.5	125.0	33.1	44.1	45.7	53.2	41.1	48.5	0.30 - 2.50	EL65
63s	M63	2" or 2 1/2"	19	88.0	125.0	39.2	50.1	52.1	59.5	47.5	54.8	0.30 - 2.50	EL80
63	M63	2 1/2"	19	88.0	125.0	46.7	56.0	58.4	65.8	53.8	61.2	0.30 - 2.50	EL80
75s	M75	2 1/2" or 3"	19	99.0	131.0	52.1	62.0	64.8	72.2	60.2	68.0	0.30 - 2.50	EL90
75	M75	3"	19	99.0	131.0	58.0	68.0	71.1	78.0	66.5	73.4	0.30 - 2.50	EL90
80	M80 x 2	3" or 3 1/2"	25	115.2	170.0	62.2	72.0	77.0	84.0	-	-	0.45 - 3.15	L104
80H	M80 x 2	3" or 3 1/2"	25	115.2	170.0	62.2	72.0	79.6	90.0	-	-	0.45 - 3.15	L104
85	M85 x 2	3" or 3 1/2"	25	115.2	170.0	69.0	78.0	79.6	90.0	75.0	85.4	0.45 - 3.15	L104
90	M90 x 2	3 1/2" or 4"	25	125.7	170.0	74.0	84.0	88.0	96.0	-	-	0.45 - 3.15	L114
90H	M90 x 2	3 1/2" or 4"	25	125.7	170.0	74.0	84.0	92.0	102.0	-	-	0.45 - 3.15	L114
100	M100 x 2	3 1/2" or 4"	25	125.7	170.0	82.0	90.0	92.0	102.0	87.4	97.4	0.45 - 3.15	L114

All Dimensions are in mm

**NOTES:**

- Gland Size does not necessarily equate to the entry thread size
- Integral entry thread seal option is not available for glands with tapered entry threads. IP washers can be supplied if required
- Please note that dimensions (A) and (B) may differ for glands with non-Metric entry threads. Please refer to our thread data tables for specific dimensions
- Unless otherwise stated ISO Metric entry threads have a 1.5mm pitch
- For Flameproof Exd applications the female thread into which the gland is to be fitted must comply with clause 5.3 of EN 50018:2000 (clause 5.3 IEC 79-1) and an engagement of at least 5 full threads must be achieved for parallel threads and should be achieved for tapered threads
- Where CR-1 type glands are fitted into non-metallic Increased Safety Exe enclosures they must be included within the earth circuit of the system
- The user should seek expert advice if intending to combine flammable gases and combustible dusts in one environment/ installation
- Full assembly instructions are supplied with glands, the instructions must be read prior to installation and adhered to in full
- When used to terminate unarmoured cable, the gland is suitable only for fixed installations. The cable must be clamped near the gland to prevent pulling and twisting.
- In order to maintain an IP rating greater than IP54, when used in a clearance hole, a suitable IP washer is required.
- Peppers supplies cable glands with parallel entry threads which conform to the flameproof threaded joint requirements of IEC 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 will not be held responsible for clients' installations where this has not been taken into account.