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Cable Gland:- Type E1WF



Part of our ATEX Gland Range
 2006 Catalogue Page 1.2.0

E1WF family of glands provide a seal on the inner sheath, a seal on the outer sheath and a specific 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. E2*F can be used to terminate lead sheathed cables. E1WF family of glands maintain Flameproof Exd and Increased Safety Exe methods of explosion protection, IP66 and IP67.

DESIGN STANDARD	EN50014:1998, EN50018:2000, EN50019:2000 and EN 50281-1-1:1998																						
CERTIFICATION	ATEX II 2 GD, E Exd IIC / E Exe II GOST R-Exd IICU/Exe IIU IECEx Ex d IIC / Ex e II NEPSI Exd IIC / Exe II																						
CERTIFICATE	SIRA 01ATEX1271X - Ex Notified Body No. 0518 POCC GB 05.B00482 IECEx SIR 05.0020X NEPSI GYJ06187X																						
GLAND MARKING	CENELEC and ATEX Example: Peppers GU15 3BT UK E1WF SIZE/THREAD XX SIRA 01ATEX1271X II 2GD IP67 EExdIIC / EExe II (XX = Year Code)																						
APPLICATION	EExd Equipment E1WF 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																						
	<table border="1"> <thead> <tr> <th>Gas Group</th> <th>Internal Ignition Source</th> <th>Enclosure Volume</th> <th>Which Zone</th> <th>Use E1WF 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>	Gas Group	Internal Ignition Source	Enclosure Volume	Which Zone	Use E1WF 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	EExe Equipment Gas Group II, Zones 1 and 2	Other Equipment Ignitable Dust, Zones 21 and 22
Gas Group	Internal Ignition Source	Enclosure Volume	Which Zone	Use E1WF 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 IP67																						
MATERIALS	Brass CZ121 (E1WF) 316 Stainless Steel (E1WSF) Inner & outer sheath seal material: Standard (E1) Neoprene, black. Option (E3) Silicone, white. Reduced bore outer sheath seal (R) Silicone, red. (E1WFR).																						
VARIATIONS	For lead sheath cables the gland is fitted with a metallic continuity washer: Brass (E2WF); 316 Stainless Steel (E2WSF). Integral Earth version for HV applications: Brass (E1WIEF); 316 Stainless Steel (E1WIESF) Omission of outer seal: Brass (D1WF); 316 Stainless Steel (D1WSF)																						
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 (E3WF); 316 Stainless Steel (E3WSF)																					
	CLAMPS	SWA steel wire armour (E1WF) SWB woven steel wire armour (E1XF) STA steel tape armour (E1ZF)																					
	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																						

ACCESSORIES	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); PCP (ACSPCP); Low Smoke Zero Halogen (ACSSIO) Gland and accessory kits: CK1 - includes gland, locknut, earthtag, fibre IP washer and PVC shroud K1 - includes gland, locknut, earthtag, nylon IP washer and PCP shroud E3WFK1 - includes brass gland, brass locknut, brass earthtag, IP washer and zero halogen shroud
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EXAMPLE PART NUMBER	Sample: E1WF R CK1/ZP/20S/M20 E1WF: E*WF - Gland type, armour type (SWA) and body material (Brass) *1** - Seal material (Neoprene) R - Reduced bore outer seal CK1 - Supplied complete with accessories (PVC Shroud) ZP - Zinc plating 20s - Gland size with regards to cable acceptance range M20 - Entry thread
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Gland Size	Entry Threads		Entry Thread Length [B]	Max Across Corners [A]	Max Protrusion Length	Gland Seal Range						Armour Acceptance Range		Shroud Size
						Cable Inner Sheath [C]		Cable Outer Sheath [D]						
						Standard		Reduced (R)						
	Metric	NPT/BSP				Min	Max	Min	Max	Min	Max	W	XZ	
16	M20	1/2" or 3/4"	16	26.5	58.0	4.0	8.4	8.4	13.5	4.9	10.0	0.90	0.15-0.35	L24
20s	M20	1/2" or 3/4"	16	26.5	58.0	8.0	11.7	11.5	16.0	9.4	12.5	0.90-1.25	0.15-0.35	L24
20	M20	1/2" or 3/4"	16	33.0	58.0	6.7	14.0	15.5	21.1	12.0	17.6	0.90-1.25	0.15-0.50	L30
25	M25	3/4" or 1"	16	41.4	58.0	13.0	20.0	20.3	27.4	16.8	23.9	1.25-1.60	0.15-0.50	L38
32	M32	1" or 1 1/4"	16	50.6	65.0	19.0	26.3	26.7	34.0	23.2	30.5	1.60-2.00	0.15-0.55	L46
40	M40	1 1/4" or 1 1/2"	16	60.5	72.0	25.0	32.2	33.0	40.6	28.6	36.2	1.60-2.00	0.20-0.60	L55
50s	M50	1 1/2" or 2"	16	71.5	73.0	31.5	38.2	39.4	46.7	34.8	42.4	2.00-2.50	0.20-0.60	L65
50	M50	2"	16	71.5	73.0	36.5	44.1	45.7	53.2	41.1	48.5	2.00-2.50	0.30-0.80	L65
63s	M63	2" or 2 1/2"	19	88.0	76.0	42.5	50.1	52.1	59.5	47.5	54.8	2.50	0.30-0.80	L80
63	M63	2 1/2"	19	88.0	76.0	49.5	56.0	58.4	65.8	53.8	61.2	2.50	0.30-0.80	L80
75s	M75	2 1/2" or 3"	19	99.0	82.0	54.5	62.0	64.8	72.2	60.2	68.0	2.50	0.30-1.00	L90
75	M75	3"	19	99.0	82.0	60.5	68.0	71.1	78.0	66.5	73.4	2.50	0.30-1.00	L90
80	M80 x 2	3" or 3 1/2"	25	115.2	110.0	62.2	72.0	77.0	84.0	-	-	3.15	0.45-1.00	L104
80H	M80 x 2	3" or 3 1/2"	25	115.2	110.0	62.2	72.0	79.6	90.0	-	-	3.15	0.45-1.00	L104
85	M85 x 2	3" or 3 1/2"	25	115.2	110.0	69.0	78.0	79.6	90.0	75.0	85.4	3.15	0.45-1.00	L104
90	M90 x 2	3 1/2" or 4"	25	125.7	110.0	74.0	84.0	88.0	96.0	-	-	3.15	0.45-1.00	L114
90H	M90 x 2	3 1/2" or 4"	25	125.7	110.0	74.0	84.0	92.0	102.0	-	-	3.15	0.45-1.00	L114
100	M100 x 2	3 1/2" or 4"	25	125.7	110.0	82.0	90.0	92.0	102.0	87.4	97.4	3.15	0.45-1.00	L114

All Dimensions are in Millimetres

NOTES:

- Gland Size does not necessarily equate to the entry thread size
- "W" refers to the wire diameter in a steel wire armoured cable
- "XZ" refers to the wire diameter in a woven steel wire armoured cable or the tape thickness in a steel tape armoured cable
- E3*F gland size 20, the silicone inner seal only seals to a minimum of 11.0mm and NOT 6.7mm
- 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 E1WF 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