

# Peppers Cable Glands Limited

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## Cable Gland:- Type A2LF

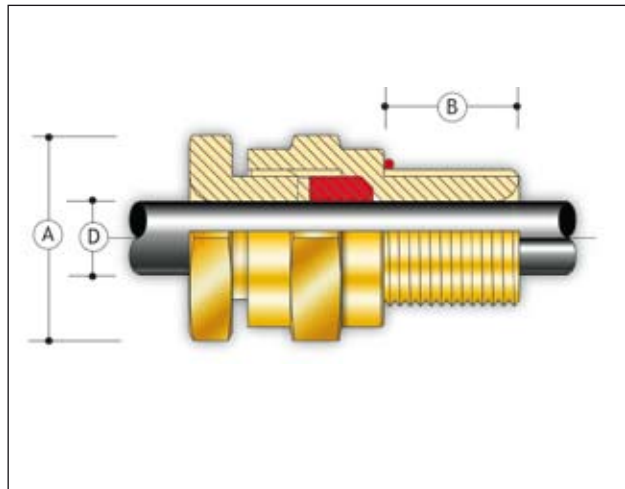


Including type No's:

|   |   |   |   |   |
|---|---|---|---|---|
| A | * | L | * | F |
|   | 2 |   | S |   |
|   | 3 |   | A |   |
|   | 4 |   |   |   |

A2LF type glands provide a single pull resistant seal on the outer sheath of any cable. A2LF type glands maintain Flameproof Exd and Increased Safety Exe methods of explosion protection, IP66 & IP68 to 25 metres. 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           | ATEX II 2 GD, E Exd IIC / E Exe II<br>GOST R-Exd IIC/Exe II<br>CSA Exd IIC/Exe II 4X<br>IECEx Exd IIC / Exe II<br>NEPSI Exd IIC / Exe II  |   |             |                |  |           |                          |                  |            |                |               |    |                  |             |     |          |     |     |        |     |          |     |                  |        |     |
| CERTIFICATE             | SIRA 01ATEX1272X - Ex Notified Body No. 0518<br>POCC GB MJ14.B00030<br>CSA 1356011<br>IECEx SIR 07.0096X<br>NEPSI GYJ06186X   |   |             |                |  |           |                          |                  |            |                |               |    |                  |             |     |          |     |     |        |     |          |     |                  |        |     |
| GLAND MARKING (EXAMPLE) | MJ14 Peppers GU15 3BT UK A2LF/20/M20<br>CA Sira 01ATEX1272X Ex II 2 GD EExd IIC/EEExe II<br>IEC Ex SIR 07.0096X Exd IIC/Exe II/Ex tD A21 IP68   |   |             |                |  |           |                          |                  |            |                |               |    |                  |             |     |          |     |     |        |     |          |     |                  |        |     |
| APPLICATION             | <b>EExd Equipment</b><br>A2LF 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<br><table border="1"> <thead> <tr> <th>Gas Group</th> <th>Internal Ignition Source</th> <th>Enclosure Volume</th> <th>Which Zone</th> <th>Use A2LF Gland</th> </tr> </thead> <tbody> <tr> <td>IIC, IIB, IIA</td> <td>NO</td> <td>2 litres or less</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><br><b>EExe Equipment</b> Gas Group II, Zones 1 and 2<br><b>Other Equipment</b> Ignitable Dust, Zones 21 and 22 |   |             |                |  | Gas Group | Internal Ignition Source | Enclosure Volume | Which Zone | Use A2LF Gland | IIC, IIB, IIA | NO | 2 litres or less | 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 A2LF Gland |  |           |                          |                  |            |                |               |    |                  |             |     |          |     |     |        |     |          |     |                  |        |     |
| IIC, IIB, IIA           | NO  | 2 litres or less  | 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  |   |             |                |  |           |                          |                  |            |                |               |    |                  |             |     |          |     |     |        |     |          |     |                  |        |     |
| MATERIALS               | Brass CZ121 (A2LF)<br>316 Stainless Steel (A2LSF)<br>Aluminium Alloy (A2LAF)<br>Outer sheath seal material:<br>Standard (A2L) Neoprene, black. Option (A3L) Silicone, white.<br>Integral entry thread seal: Nitrile is supplied with neoprene outer seal version. Silicone is supplied with silicone outer seal version   |   |             |                |  |           |                          |                  |            |                |               |    |                  |             |     |          |     |     |        |     |          |     |                  |        |     |
| VARIATIONS              | For lead sheath cables the gland is fitted with a metallic continuity washer:<br>Brass (A4LF); 316 Stainless Steel (A4LSF)  |   |             |                |  |           |                          |                  |            |                |               |    |                  |             |     |          |     |     |        |     |          |     |                  |        |     |
| 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:<br>Brass (A3LF); 316 Stainless Steel (A3LSF) |             |                |  |           |                          |                  |            |                |               |    |                  |             |     |          |     |     |        |     |          |     |                  |        |     |
|                         | PLATING   | Zinc (ZP); Nickel (NP); Tin (TP); Electroless Nickel (EN)   |             |                |  |           |                          |                  |            |                |               |    |                  |             |     |          |     |     |        |     |          |     |                  |        |     |
| OPERATING TEMPERATURES  | Standard Seals -20°C to +85°C<br>Silicone Seals -60°C to +180°C   |   |             |                |  |           |                          |                  |            |                |               |    |                  |             |     |          |     |     |        |     |          |     |                  |        |     |



|                    |  |
|--------------------|--|
| <b>ACCESSORIES</b> | <p>Locknut - Brass (ACBLN); 316 Stainless Steel (ACSLN); Aluminium (ACALN)<br/> Earth Tag - Brass (ACBET), 316 Stainless Steel (ACSET); Aluminium (ACAET)<br/> IP Washer - Nylon (ACNSW); Red Fibre (ACFSW)<br/> Serrated Lock Washer - 316 Stainless Steel (ACSSW), Galvanised Steel (ACGSW)<br/> Shroud - PVC (ACSPVC); PCP (ACSPCP); Low Smoke Zero Halogen (ACSSIO)</p> <p>Gland and accessory kits:<br/> CK1 - includes gland, locknut, integral IP 'O' ring and PVC shroud<br/> K1 - includes gland, locknut, integral IP 'O' ring and PCP 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>A2LF CK1/ZP/20S/M20</b><br/> <b>A2LF:</b><br/> A*LF - Gland type and body material (Brass)<br/> *2** - Seal material (Neoprene)</p> <p><b>CK1</b> - Supplied complete with accessories (PVC Shroud)<br/> <b>ZP</b> - Zinc plating<br/> <b>20s</b> - Gland size with regards to cable acceptance range<br/> <b>M20</b> - Entry thread</p> |
|----------------------------|--|

| Gland Size | Entry Threads |                  | Entry Thread Length<br>[B] | Max Across Corners<br>[A] | Max Protrusion Length | Gland Seal Range        |      | Shroud Size |
|------------|---------------|------------------|----------------------------|---------------------------|-----------------------|-------------------------|------|-------------|
|            | Metric        | NPT/BSP          |                            |                           |                       | Cable Outer/Lead Sheath |      |             |
|            |               |                  |                            |                           |                       | Min                     | Max  |             |
| 16         | M20           | 1/2" or 3/4"     | 16                         | 28.0                      | 33.0                  | 4.0                     | 8.4  | L24         |
| 20s        | M20           | 1/2" or 3/4"     | 16                         | 28.0                      | 33.0                  | 7.2                     | 11.7 | L24         |
| 20         | M20           | 1/2" or 3/4"     | 16                         | 33.0                      | 33.0                  | 9.6                     | 14.0 | L30         |
| 25         | M25           | 3/4" or 1"       | 16                         | 41.4                      | 33.0                  | 13.5                    | 20.0 | L38         |
| 32         | M32           | 1" or 1 1/4"     | 16                         | 50.6                      | 33.0                  | 19.5                    | 26.3 | L46         |
| 40         | M40           | 1 1/4" or 1 1/2" | 16                         | 60.5                      | 37.0                  | 23.0                    | 32.2 | L55         |
| 50s        | M50           | 1 1/2" or 2"     | 16                         | 71.5                      | 37.0                  | 28.2                    | 38.2 | L65         |
| 50         | M50           | 2"               | 16                         | 71.5                      | 37.0                  | 33.2                    | 44.1 | L65         |
| 63s        | M63           | 2" or 2 1/2"     | 19                         | 88.0                      | 37.0                  | 39.3                    | 50.1 | L80         |
| 63         | M63           | 2 1/2"           | 19                         | 88.0                      | 37.0                  | 46.7                    | 56.0 | L80         |
| 75s        | M75           | 2 1/2" or 3"     | 19                         | 99.0                      | 37.0                  | 52.3                    | 62.0 | L90         |
| 75         | M75           | 3"               | 19                         | 99.0                      | 37.0                  | 58.1                    | 68.0 | L90         |
| 80         | M80 x 2       | 3" or 3 1/2"     | 25                         | 115.2                     | 50.0                  | 62.3                    | 72.0 | L104        |
| 85         | M85 x 2       | 3" or 3 1/2"     | 25                         | 115.2                     | 50.0                  | 69.1                    | 78.0 | L104        |
| 90         | M90 x 2       | 3 1/2" or 4"     | 25                         | 125.7                     | 50.0                  | 74.1                    | 84.0 | L114        |
| 100        | M100 x 2      | 3 1/2" or 4"     | 25                         | 125.7                     | 50.0                  | 82.0                    | 90.0 | L114        |

**All Dimensions are in Millimetres**

**NOTES:**

- Suitable only for fixed installations. The cable must be clamped near the gland to prevent pulling and twisting
- 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 A2LF 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

<http://www.cableglands.com>