

# E1W

## CAPTIVE COMPONENT GLAND®

### for Steel and Aluminium Armoured Cable



#### Features and Benefits

- For indoor and outdoor use.
- Two-piece handling, no loose parts.
- Freely rotating captive cone and inspectible cone ring, providing an armour clamp and earth bond without twisting the armour wire.
- Patented disconnect system for armour clamp inspection. Factory fitted captive elastomeric inner seal for Built-in Safety™. Seals on both the inner and outer sheath of the cable to IP65/66/68.
- Precision manufactured from high-quality brass (Nickel Plated) available in aluminium or stainless steel 316/316L on request.
- Complete with thread sealing gasket and with a heavy-duty locknut.

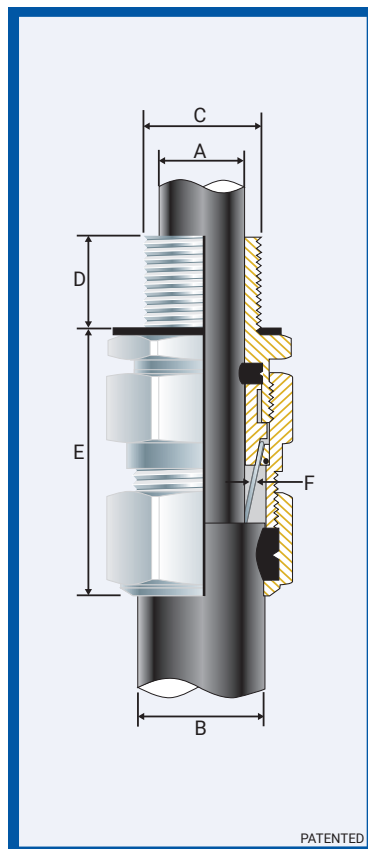


#### Technical Data

|                       |                                                                                          |
|-----------------------|------------------------------------------------------------------------------------------|
| Type:                 | E1W                                                                                      |
| Gland Material:       | Brass (Nickel Plated), BS 2874, EN 12164, Aluminium ASTM BS221, Stainless Steel 316/316L |
| Seal Material:        | Thermoset Elastomer or Silicone on request                                               |
| Cable Type:           | Steel Wire Armour and Aluminium Armour Wire                                              |
| Armour Clamping:      | Rotating Captive Cone and Inspectible Cone Ring                                          |
| Sealing Area:         | Inner Sheath and Outer Sheath                                                            |
| Optional Accessories: | Adaptor, Reducer, Earth Tag, Locknut, Serrated Washer and Shroud                         |

#### Standards and Certifications

|                             |                                                                          |                                                                                           |
|-----------------------------|--------------------------------------------------------------------------|-------------------------------------------------------------------------------------------|
| Mechanical Properties:      | Impact Category 8<br>Anchorage Type D                                    |                                                                                           |
| Electrical Properties:      | Category A (no earth tag)<br>Category B (with earth tag)                 |                                                                                           |
| Continuous Operating Temp:  | -65°C to +120°C                                                          |                                                                                           |
| Conformance:                | Standard:                                                                | Certification:                                                                            |
| Design Standards            | BS 6121:Part 1<br>EN 50262<br>IEC/BS EN 62444<br>SANS 62444<br>SANS 1213 | CML 14CA364<br>CML 14CA364<br>CML 14CA364<br>MASC 22-9012<br>MASC 18-2047, SANS 2109/4596 |
| IP66/68 100m - Parallel     | IEC 60529                                                                | CML 15Y728, MASC 22-9015                                                                  |
| IP65 - Tapered              | IEC 60529                                                                |                                                                                           |
| Marine ABS                  | IEC 60529, IEC 62444                                                     | 25-0167207-PDA                                                                            |
| DNV                         | IEC 60529, BS 6121, IEC 62444                                            | TAE000000Z                                                                                |
| EMC Compatible              | EN 55011, A1, EN 55022                                                   | SGS EMC305079/1                                                                           |
| London Underground Approval | BS EN 62444                                                              | LU 3043                                                                                   |



#### Installation Standards

- AS/NZS 3000
- BS 7671
- IEC 60364-5-54
- BS 6121-5
- BS 7430
- SANS 0142

| Product Code | Gland Size Reference | Metric Entry Thread |         | NPT Entry Thread |         | Cable Detail |         |         |         | Max Length 'E' | Armour Dia |         | Hexagonal Detail |            | Install Torque Value Nm |
|--------------|----------------------|---------------------|---------|------------------|---------|--------------|---------|---------|---------|----------------|------------|---------|------------------|------------|-------------------------|
|              |                      | 'C'                 | Min 'D' | 'C'              | Min 'D' | Min 'A'      | Max 'A' | Min 'B' | Max 'B' |                | Min 'F'    | Max 'F' | Max 'Flats'      | Max 'Crns' |                         |
| 051800-16    | 00-16ss              | M16x1.5             | 10      | -                | -       | 3.0          | 8.5     | 8.0     | 13.5    | 52.0           | 0.90       | 0.90    | • 24.0           | 27.0       | 35.0                    |
| 051800       | 00-20ss              | M20x1.5             | 10      | ½                | 15      | 3.0          | 8.5     | 8.0     | 13.5    | 52.0           | 0.90       | 0.90    | • 24.0           | 27.0       | 35.0                    |
| 0518-0       | 0-20s                | M20x1.5             | 10      | ½                | 15      | 7.0          | 12.0    | 11.5    | 16.0    | 52.0           | 0.90       | 1.25    | • 24.0           | 27.0       | 35.0                    |
| 051801       | 1-20                 | M20x1.5             | 10      | ½/¾              | 15      | 11.0         | 15.0    | 14.5    | 20.5    | 56.0           | 0.90       | 1.25    | 27.0             | 30.0       | 35.0                    |
| 051822       | 2s-25s               | M25x1.5             | 10      | ¾/1              | 15/19   | 11.0         | 17.5    | 16.0    | 24.5    | 65.0           | 1.25       | 1.60    | 35.0             | 39.0       | 50.0                    |
| 051802       | 2-25                 | M25x1.5             | 10      | ¾/1              | 15/19   | 14.0         | 20.0    | 20.5    | 26.5    | 65.0           | 1.25       | 1.60    | 35.0             | 39.0       | 50.0                    |
| 051833       | 3s-32s               | M32x1.5             | 10      | 1 1/4            | 19      | 15.0         | 22.0    | 23.0    | 30.5    | 65.0           | 1.60       | 2.00    | 42.0             | 47.0       | 70.0                    |
| 051803       | 3-32                 | M32x1.5             | 10      | 1 1/4            | 19      | 19.0         | 26.5    | 26.5    | 33.5    | 65.0           | 1.60       | 2.00    | 42.0             | 47.0       | 70.0                    |
| 051844       | 4s-40s               | M40x1.5             | 15      | 1 ¼/1 ½          | 19/21   | 22.0         | 31.5    | 30.0    | 39.5    | 80.0           | 1.60       | 2.00    | 52.0             | 59.0       | 90.0                    |
| 051804       | 4-40                 | M40x1.5             | 15      | 1 ¼/1 ½          | 19/21   | 26.0         | 34.0    | 33.0    | 42.5    | 80.0           | 1.60       | 2.00    | 52.0             | 59.0       | 90.0                    |
| 051855       | 5s-50s               | M50x1.5             | 15      | 1 ½/2            | 21      | 29.0         | 38.0    | 34.0    | 47.5    | 95.0           | 2.00       | 2.50    | 65.0             | 73.0       | 100.0                   |
| 051805       | 5-50                 | M50x1.5             | 15      | 1 ½/2            | 21      | 34.0         | 44.5    | 42.5    | 52.5    | 95.0           | 2.00       | 2.50    | 65.0             | 73.0       | 100.0                   |
| 051866       | 6s-63s               | M63x1.5             | 15      | 2 2/2            | 30      | 38.0         | 50.0    | 45.5    | 60.5    | 116.0          | 2.00       | 2.50    | 80.0             | 90.0       | 120.0                   |
| 051806       | 6-63                 | M63x1.5             | 15      | 2 2/2            | 30      | 44.0         | 56.5    | 52.5    | 65.5    | 116.0          | 2.00       | 2.50    | 80.0             | 90.0       | 120.0                   |
| 051877       | 7s-75s               | M75x1.5             | 15      | 2 ½/3            | 32      | 50.0         | 62.0    | 57.0    | 72.5    | 127.0          | 2.50       | 3.15    | 96.0             | 102.0      | 120.0                   |
| 051807       | 7-75                 | M75x1.5             | 15      | 2 ½/3            | 32      | 56.0         | 67.5    | 65.5    | 78.0    | 127.0          | 2.50       | 3.15    | 96.0             | 102.0      | 120.0                   |
| 051808       | 8-80                 | M80x2.0             | 20      | 3                | 32      | 68.0         | 74.0    | 78.0    | 82.0    | 120.0          | 2.50       | 3.15    | 96.0             | 102.0      | 120.0                   |
| 051899       | 9s-90s               | M90x2.0             | 20      | 3 3/2            | 32/33   | 66.0         | 75.0    | 73.0    | 86.5    | 142.0          | 3.00       | 3.50    | 111.0            | 125.0      | 120.0                   |
| 051809       | 9-90                 | M90x2.0             | 20      | 3 3/2            | 32/33   | 74.0         | 81.5    | 82.0    | 91.0    | 142.0          | 3.00       | 3.50    | 111.0            | 125.0      | 120.0                   |
| 051810       | 10-100               | M100x2.0            | 20      | 3 ¾/4            | 33/34   | 81.0         | 91.0    | 90.0    | 100.0   | 142.0          | 3.00       | 3.50    | 125.0            | 141.0      | 120.0                   |
| 051811       | 11-110               | M110x2.0            | 20      | 4                | 34      | 86.0         | 98.0    | 100.0   | 114.0   | 142.0          | 3.00       | 4.00    | 135.0            | 152.0      | 120.0                   |
| 051812       | 12-120               | M120x2.0            | 20      | -                | -       | 96.0         | 103.0   | 103.0   | 118.0   | 142.0          | 3.00       | 4.00    | 140.0            | 158.0      | 120.0                   |
| 051813       | 13-130               | M130x2.0            | 20      | -                | -       | 100.0        | 115.0   | 113.0   | 124.0   | 165.0          | 3.00       | 4.00    | 146.0            | 164.0      | 120.0                   |

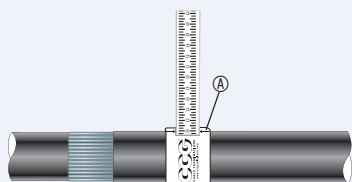
All dimensions except NPT are in mm.

• When manufactured in Aluminium, Hex will be 27 Across Flats and 30 Across Corners.

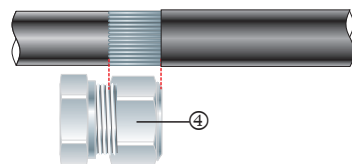
CCG reserves the right to make alterations to the technical data, dimensions, designs and products available without notice. The illustrations cannot be considered binding. Please contact CCG for assistance.

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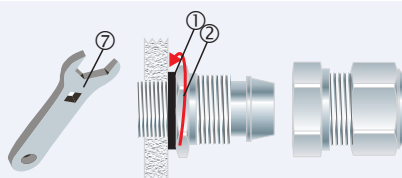
### E1W CAPTIVE COMPONENT GLAND<sup>®</sup>



1. For accurate sizing, use a CCG Dimension Tape <sup>Ⓐ</sup> on the inner and outer cable sheath.



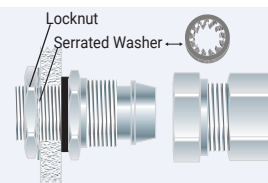
2. Cut back the cable outer sheath to expose the armour to a length not more than the outer nut <sup>④</sup>.



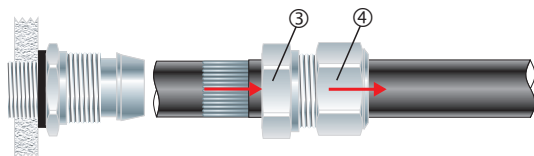
3. To maintain IP66/68, ensure the gasket <sup>①</sup> is in place. Screw the inner <sup>②</sup> into the apparatus. Tighten the inner <sup>②</sup>, to installation torque using a CCG Spanner <sup>⑦</sup>.

Alternative installation through an unthreaded entry.

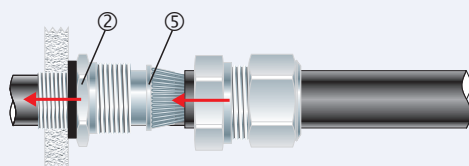
If the apparatus is untapped use a locknut.



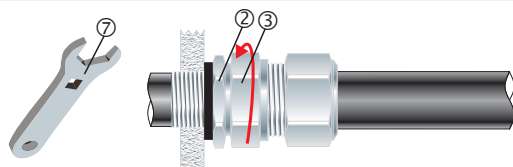
If the gland has NPT entry threads fitted to a threaded entry then IP68 (2m) can be achieved by applying one of the following tested and approved grease types to the thread:- Renolit Lubrene CA700 or LX220 EP2, Renolit LC-WP2 or Moly LX2, or Dow Corning 4 Electrical Compound.



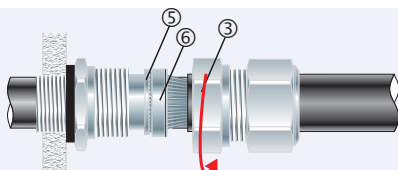
4. Pass the outer nut <sup>④</sup> and the body <sup>③</sup> over the cable.



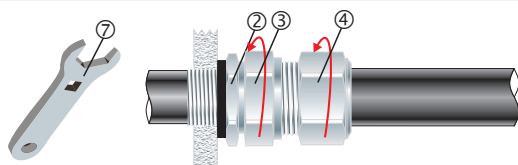
5. Pass cable end through the inner <sup>②</sup> and splay the armour wires over the cone <sup>⑤</sup>.



6. Tighten the body <sup>③</sup> onto the inner <sup>②</sup> until hand tight, then tighten with a CCG Spanner <sup>⑦</sup> with  $\frac{3}{4}$  turn to lock the armour between the cone <sup>⑤</sup> and the cone ring <sup>⑥</sup>.



7. Unscrew the body <sup>③</sup>. Check that the armour has locked between the cone <sup>⑤</sup> and the cone ring <sup>⑥</sup>. (O-Rings on the cone <sup>⑤</sup> and cone ring <sup>⑥</sup> are sacrificial)



8. Tighten the body <sup>③</sup> onto the inner <sup>②</sup> to the installation torque using a CCG Spanner <sup>⑦</sup>. Tighten the outer nut <sup>④</sup> to produce a moisture proof seal by turning until the seal makes contact with the outer sheath of cable and then turn one full turn.