



## **Type Examination Certificate**

CML 18ATEX4316X Issue 1

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment Cable Gland Types E\*\*
- 3 Manufacturer CMP Products Ltd
- 4 Address Unit 36 Nelson Way, Nelson Park East, Cramlington, Northumberland, NE23 1WH, UK
- 5 The equipment is specified in the description of this certificate and the documents to which it refers.
- 6 CML B.V., Chamber of Commerce No 67386717, Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment intended for use in potentially explosive atmospheres given in Annex II of Directive 2014/34/EU.

The examination and test results are recorded in the confidential reports listed in Section 12.

- 7 If an 'X' suffix appears after the certificate number, it indicates that the equipment is subject to conditions of safe use (affecting correct installation or safe use). These are specified in Section 14.
- 8 This Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Annex VIII apply to the manufacture of the equipment or component and are separately certified.
- 9 Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the confidential report, has been demonstrated through compliance with the following documents:

EN IEC 60079-0:2018

EN IEC 60079-15:2019

10 The equipment shall be marked with the following:

⟨Ēx⟩<sub>II 3G</sub>

Ex nR IIC Gc

 $Ta = -60^{\circ}C \text{ to } +130^{\circ}C^{*}$ 

 $Ta = -20^{\circ}C \text{ to } +200^{\circ}C^{**}$ 

\* When fitted with the standard seal

\*\* When fitted with the high temperature seal

L A Brisk Assistant Certification Manager





#### 11 Description

The E<sup>\*\*</sup> series Type ranges of cable glands consist of a male-threaded front entry component containing an elastomeric sealing ring and a Nylon 6 skid washer which effect flameproof sealing onto the cable inner sheath and is intended to screw into an entry point of its associated enclosure in accordance with relevant codes of practice. The flameproof seal is actuated by an adjoining coupling component. The coupling component is attached to a main body. Their mating thread may be fitted with an optional 'O' ring seal to provide increased ingress protection. Clamping of the armoured or braided cable is effected by a combination of the coupling component, main body and the different optional armour cone and armour sleeve combinations being fastened together. An outer seal nut, containing an elastomeric sealing ring and a Nylon 6 ferrule, threads onto the main body and effects environmental sealing onto the cable outer sheath.

Design options:-

- The option for metric threaded cable entry spigots of all cable gland model series to be manufactured with a thread pitch between 0.7mm and 2.0mm.
- The front entry component may be manufactured with a profiled groove to captivate an 'O' ring seal which locates on the mating face with the associated enclosure. This option having the gland type designation prefixed with the letter R, e.g. 25RE1FW.
- Materials of manufacture:

Brass to EN12168:1998 Grade CuZn39Pb (CW614N) Mild steel to BS EN 10088-3:2005 Grade 220M07Pb Stainless steel to BS EN 10088-3:2005 Grade 316S11, 316S13, 316S31 or 316S33 Aluminium alloy not inferior to grade 6082 to EN755,1-3:1996 or LM25 to BS EN 1676:2010 (Not Group I)

 Alternative entry component thread forms: Metric ISO 965-1, ISO965-3 medium fit (6g) for external threads ET(Conduit) BS 31:1940 (1979), Table A PG DIN 40430:1971 BSPP BS 2779:1973 class A full form for external threads BSPT BS 21:1985 standard threads only as clause 5.4, gauging to clause 5.2 system A ISO ISO 7/1:1982, gauging to ISO 7/2 clause 6.3 for external threads NPT ANSI/ASME B1.20.1-1983 gauging to clause 8.1 for external threads

INPT ANSI/ASIME B1.20.1-1963 gauging to clause 6.1 for external threads

NPSM ANSI/ASME B1.20.1-1983 gauging to clause 9 for external threads

- The option to manufacture glands with entry threads that are one size up from the nominal quoted gland size.
- The use of alternative armour clamping components specified by the cable gland type designation. The various arrangements vary the cable gland suitability for differing armour or braided type cables.
- The use of a component having an alternative profile allowing an integral earthing facility. The type designation identifying the cable gland being fitted with this option.
- The use of metallic continuity diaphragm component specified by the cable gland type designation for use when terminating lead sheathed cables.
- The use of an earthing device component specified by the cable gland type designation for use with variable speed drive (VSD) / variable frequency drive (VFD) cables.
- Alternative material of manufacture of the ferrule to be the same as the gland material.
- The use of seals suitable for flat form cables





- The use of an O ring seal between the body and the entry item to provide a deluge seal.
- Alternative outer seal arrangement to allow the glands to be fitted to flexible conduit.
- The option to fit a blanking disc between the outer seal and the main body to maintain a minimum IP66 rating. The disc is to be marked 'Ex e only' to indicate that the gland is not suitable for Ex d applications when the disc is fitted.

| Gland<br>size | Entry<br>thread | Entry<br>thread<br>'B' version | Entry<br>thread<br>'C' version | Inner seal<br>sheath range Ø<br>(mm) |       | SWA (mm) |      | SWA, STA, strip<br>armour, pliable<br>wire armour* &<br>wire braid (mm) |     | Outer seal<br>sheath range Ø<br>(mm) |       |
|---------------|-----------------|--------------------------------|--------------------------------|--------------------------------------|-------|----------|------|---|-----|--------------------------------------|-------|
|               |                 |                                |                                | Min                                  | Max   | Min      | Max  | Min   | Max | Min                                  | Max   |
| 16            | M16 x 1.5       | -                              | -                              | 3.1                                  | 8.6   | 0.8      | 1.25 | 0   | 0.8 | 6.1                                  | 13.2  |
| 20s/16        | M20 x 1.5       | M25 x 1.5                      | -                              | 3.1                                  | 8.6   | 0.8      | 1.25 | 0   | 0.8 | 6.1                                  | 13.2  |
| 20s16/20s     | M20 x 1.5       | M25 x 1.5                      | M16 x 1.5                      | 3.1                                  | 8.6   | 0.8      | 1.25 | 0   | 0.8 | 9.5                                  | 15.9  |
| 20s           | M20 x 1.5       | M25 x 1.5                      | M16 x 1.5                      | 6.1                                  | 11.6  | 0.8      | 1.25 | 0   | 0.8 | 9.5                                  | 15.9  |
| 20s/20        | M20 x 1.5       | M25 x 1.5                      | -                              | 6.1                                  | 11.6  | 0.8      | 1.25 | 0   | 0.8 | 12.5                                 | 20.9  |
| 20            | M20 x 1.5       | M25 x 1.5                      | -                              | 6.5                                  | 13.9  | 0.8      | 1.25 | 0   | 0.8 | 12.5                                 | 20.9  |
| 20/25s        | M20 x 1.5       | M25 x 1.5                      | -                              | 6.5                                  | 13.9  | 1.25     | 1.6  | 0   | 1.1 | 14.0                                 | 22.0  |
| 20/25         | M20 x 1.5       | M25 x 1.5                      | -                              | 6.5                                  | 13.9  | 1.25     | 1.6  | 0   | 1.1 | 18.2                                 | 26.2  |
| 25s           | M25 x 1.5       | M32 x 1.5                      | -                              | 11.1                                 | 19.9  | 1.25     | 1.6  | 0   | 1.1 | 14.0                                 | 22.0  |
| 25            | M25 x 1.5       | M32 x 1.5                      | -                              | 11.1                                 | 19.9  | 1.25     | 1.6  | 0   | 1.1 | 18.2                                 | 26.2  |
| 25/32         | M25 x 1.5       | M32 x 1.5                      | -                              | 11.1                                 | 19.9  | 1.6      | 2.0  | 0   | 1.2 | 23.7                                 | 33.9  |
| 32            | M32 x 1.5       | M40 x 1.5                      | -                              | 17.0                                 | 26.2  | 1.6      | 2.0  | 0   | 1.2 | 23.7                                 | 33.9  |
| 32/40         | M32 x 1.5       | M40 x 1.5                      | -                              | 17.0                                 | 26.2  | 1.6      | 2.0  | 0   | 1.2 | 27.9                                 | 40.4  |
| 40            | M40 x 1.5       | M50 x 1.5                      | -                              | 22.0                                 | 32.1  | 1.6      | 2.0  | 0   | 1.2 | 27.9                                 | 40.4  |
| 40/50s        | M40 x 1.5       | M50 x 1.5                      | -                              | 22.0                                 | 32.1  | 2.0      | 2.5  | 0   | 1.5 | 35.2                                 | 46.7  |
| 50s           | M50 x 1.5       | M63 x 1.5                      | -                              | 29.5                                 | 38.1  | 2.0      | 2.5  | 0   | 1.5 | 35.2                                 | 46.7  |
| 50s/50        | M50 x 1.5       | M63 x 1.5                      | -                              | 29.5                                 | 38.1  | 2.0      | 2.5  | 0   | 1.5 | 40.4                                 | 53.1  |
| 50            | M50 x 1.5       | M63 x 1.5                      | -                              | 35.6                                 | 44.0  | 2.0      | 2.5  | 0   | 1.5 | 40.4                                 | 53.1  |
| 50/63s        | M50 x 1.5       | M63 x 1.5                      | -                              | 35.6                                 | 44.0  | 2.0      | 2.5  | 0   | 1.5 | 45.6                                 | 59.4  |
| 63s           | M63 x 1.5       | M75 x 1.5                      | -                              | 40.1                                 | 49.9  | 2.0      | 2.5  | 0   | 1.5 | 45.6                                 | 59.4  |
| 63s/63        | M63 x 1.5       | M75 x 1.5                      | -                              | 40.1                                 | 49.9  | 2.0      | 2.5  | 0   | 1.5 | 54.6                                 | 65.9  |
| 63            | M63 x 1.5       | M75 x 1.5                      | -                              | 47.2                                 | 55.9  | 2.0      | 2.5  | 0   | 1.5 | 54.6                                 | 65.9  |
| 63/75s        | M63 x 1.5       | M75 x 1.5                      | -                              | 47.2                                 | 55.9  | 2.0      | 2.5  | 0   | 1.5 | 59.0                                 | 72.1  |
| 75s           | M75 x 1.5       | M90 x 2.0                      | -                              | 52.8                                 | 61.9  | 2.0      | 2.5  | 0   | 1.5 | 59.0                                 | 72.1  |
| 75s/75        | M75 x 1.5       | M90 x 2.0                      | -                              | 52.8                                 | 61.9  | 2.5      | 3.0  | 0   | 1.5 | 66.7                                 | 78.5  |
| 75            | M75 x 1.5       | M90 x 2.0                      | -                              | 59.1                                 | 67.9  | 2.5      | 3.0  | 0   | 1.5 | 66.7                                 | 78.5  |
| 75/90         | M75 x 1.5       | M90 x 2.0                      | -                              | 59.1                                 | 67.9  | 3.0      | 3.5  | 0   | 1.6 | 76.2                                 | 90.4  |
| 90            | M90 x 2.0       | M100 x 2.0                     | -                              | 66.6                                 | 79.9  | 3.0      | 3.5  | 0   | 1.6 | 76.2                                 | 90.4  |
| 90/100        | M90 x 2.0       | M100 x 2.0                     | -                              | 66.6                                 | 79.9  | 3.15     | 4.0  | 0   | 1.6 | 86.1                                 | 101.5 |
| 100           | M100 x 2.0      | M115 x 2.0                     | -                              | 76.0                                 | 90.9  | 3.15     | 4.0  | 0   | 1.6 | 86.1                                 | 101.5 |
| 100/115       | M100 x 2.0      | M115 x 2.0                     | -                              | 76.0                                 | 90.9  | 3.15     | 4.0  | 0   | 1.6 | 101.5                                | 110.3 |
| 115           | M115 x 2.0      | M130 x 2.0                     | -                              | 86.0                                 | 97.9  | 3.15     | 4.0  | 0   | 1.6 | 101.5                                | 110.3 |
| 115/130       | M115 x 2.0      | M130 x 2.0                     | -                              | 86.0                                 | 97.9  | 3.15     | 4.0  | 0   | 1.6 | 110.2                                | 123.3 |
| 130           | M130 x 2.0      | -                              | -                              | 97.0                                 | 114.9 | 3.15     | 4.0  | 0   | 1.6 | 110.2                                | 123.3 |

The gland and seal sizes are determined by the entry thread and cable range take sizes:

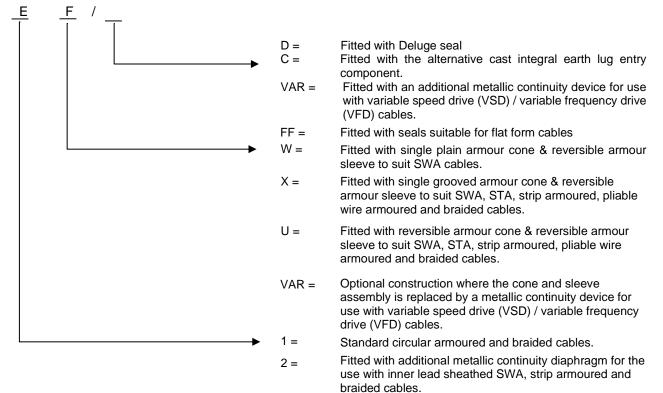




E\*-FF in these sizes only:

| Gland size | Entry thread 'B'<br>version |           | Cable inner seal sheath range–(mm) |            | Cable outer seal sheath range (mm) |            |  |
|------------|-----------------------------|-----------|------------------------------------|------------|------------------------------------|------------|--|
|            |                             |           | Min                                | Max        | Min                                | Max        |  |
| 20s        | M20 x 1.5                   | M25 x 1.5 | 4.0 x 6.2                          | 6.8 x 11.7 | 4.4 x 7.8                          | 6.8 x 11.7 |  |
| 20         | M20 x 1.5                   | M25 x 1.5 | 5.7 x 8.0                          | 8.7 x 13.5 | 4.4 x 10.9                         | 8.7 x 16.0 |  |

### Type designation code:



Notes:

- Sira certificate Sira 13ATEX4077X is superseded by CML certificate CML 18ATEX4316X.
- The product covered by Issue 0 of this certificate remains identical to that previously covered by Sira 13ATEX4077X.
- Where Sira 13ATEX4077X is specified in other product certification, or other technical specifications, this certificate reference for the product shall be used in its place; updating of the other product certificate or technical specification is not required.

### Variation 1

This variation introduces the following modifications:

- i. To update size 20s16/20s and 20s to include an M16 entry thread option.
- ii. To update the Conditions of Manufacture.
- iii. To update IEC 60079-15 to EN IEC 60079-15





#### 12 Certificate history and evaluation reports

| Issue | Date        | Associated report | Notes                       |  |  |
|-------|-------------|-------------------|-----------------------------|--|--|
| 0     | 11 Dec 2018 | R12060B/00        | Prime CML certificate issue |  |  |
| 1     | 28 Mar 2024 | R17537A/00        | Introduction of Variation 1 |  |  |

Note: Drawings that describe the equipment or component are listed in the Annex.

#### 13 Conditions of Manufacture

The following conditions are required of the manufacturing process for compliance with the certification.

- i. Where the product incorporates certified parts or safety critical components, the manufacturer of the product defined on this certificate shall continually monitor these parts/components for any modifications introduced by the manufacturer(s) of these constituent parts. If the manufacturer of any constituent part introduces any changes which affect the compliance of the certified product that is the subject of this certificate, the manufacturer is required to have this certificate updated.
- ii. The size 20s16/20s and 20s cable gland with an M16 entry thread shall not be manufactured in aluminium.

#### 14 Specific Conditions of Use (Special Conditions)

The following conditions relate to safe installation and/or use of the equipment.

- i. The glands when used for terminating braided cables are only suitable for fixed installations. Cables must be effectively clamped to prevent pulling or twisting.
- ii. When the cable glands are supplied with an entry thread that is one size up from the nominal gland size, designated with the letter 'B' after the gland size, e.g. 32B\*\*\*\*, they shall not be used with any adaptor device.
- iii. When assembled for fitting to flexible conduit, the conduit shall be effectively clamped to prevent twisting and pulling.

# **Certificate Annex**

| Certificate Number | CML 18ATEX4316X        |
|--------------------|------------------------|
| Equipment          | Cable Glands Types E** |
| Manufacturer       | CMP Products Ltd       |



The following documents describe the equipment or component defined in this certificate:

### Issue 0

| Drawing No | Sheets | Rev | Approved date | Title                                |
|------------|--------|-----|---------------|--------------------------------------|
| GA355      | 1 of 1 | 01  | 11 Dec 2018   | E Type Series General<br>Arrangement |
| SCH0321    | 1 of 1 | 00  | 11 Dec 2018   | Inner seal details                   |
| SCH0322    | 1 of 1 | 00  | 11 Dec 2018   | Outer seal details                   |
| SCH0323    | 1 of 1 | 00  | 11 Dec 2018   | Armour clamp details                 |

#### Issue 1

| Drawing No | Sheets | Rev | Approved date | Title                                |
|------------|--------|-----|---------------|--------------------------------------|
| GA355      | 1 of 1 | 03  | 28 Mar 2024   | E Type Series General<br>Arrangement |