

### INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: IECEx CML 18.0178X

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Certificate history:

Issue 0 (2019-03-26)

Status: Current

Issue No: 1

Date of Issue:

2020-04-20

Applicant:

**CMP Products Ltd** 

Unit 36 Nelson Way, Nelson Park East, Cramlington, Northumberland, NE23 1WH

**United Kingdom** 

Equipment:

Cable Gland Types SS2K\*\*

Optional accessory:

Type of Protection:

Flameproof "db", Increased Safety "eb", Restricted Breathing "nR", Dust Ignition "ta"

Marking:

Ex db I Mb

Ex eb I Mb

Ex db IIC Gb

Ex eb IIC Gb Ex nR IIC Gc

Ex ta IIIC Da

Ta -60°C to +130°C (standard seal) / -20°C to +200°C (high temperature seal)

Approved for issue on behalf of the IECEx

Certification Body:

R C Marshall

Position:

**Certification Officer** 

Signature:

(for printed version)

Date:

2020-04-20

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2. This certificate is not transferable and remains the property of the issuing body.

3. The Status and authenticity of this certificate may be verified by visiting www.iecex.com or use of this QR Code.



Certificate issued by:

Eurofins E&E CML Limited Unit 1, Newport Business Park New Port Road Ellesmere Port, CH65 4LZ United Kingdom







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Date of issue: 2020-04-20 Issue No: 1

Manufacturer: CMP Products Ltd

Unit 36 Nelson Way, Nelson Park East, Cramlington, Northumberland, NE23 1WH

**United Kingdom** 

Additional manufacturing locations:

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEx Quality system requirements. This certificate is granted subject to the conditions as set out in IECEx Scheme Rules, IECEx 02 and Operational Documents as amended

#### STANDARDS:

The equipment and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements

Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"

Edition:7.0

IEC 60079-15:2017 Explosive atmospheres - Part 15: Equipment protection by type of protection "n"

Edition:5.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"

Edition:2

Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

IEC 60079-7:2017 Edition:5.1

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

#### **TEST & ASSESSMENT REPORTS:**

A sample(s) of the equipment listed has successfully met the examination and test requirements as recorded in:

Test Reports:

GB/CML/ExTR19.0052/00 GB/CML/ExTR19.0239/00 GB/CML/ExTR20.0060/00

Quality Assessment Report:

GB/CML/QAR19.0001/00



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#### **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

The SS2K range of cable glands are intended to terminate circular braided or unarmoured cables into enclosures without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice. They consist of a male-threaded front entry component, a main body component and an outer seal actuation nut.

Refer to Annex for full description and conditions of manufacture.

#### SPECIFIC CONDITIONS OF USE: YES as shown below:

Refer to Annex for specific conditions of use.



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### DETAILS OF CERTIFICATE CHANGES (for issues 1 and above) Issue 1

This issue introduced the following change:

1. The introduction of a universal certificate schedule drawing detailing critical parts.

Annex:

IECEx CML 18.0178X Iss 1 Certificate Annex.pdf

Annexe to: IECEx CML 18.0178X Issue 1

Applicant: CMP Products Ltd

Apparatus: Cable Gland Types SS2K\*\*



#### **Description**

The SS2K range of cable glands are intended to terminate circular braided or unarmoured cables into enclosures without compromising the explosion protection provided by the enclosures in accordance with relevant codes of practice. They consist of a male-threaded front entry component, a main body component and an outer seal actuation nut. The front entry component, fitted with an elastomeric sealing ring and a Nylon 6 skid washer, is intended to screw into an entry point of its associated enclosure. The main body component, fitted with a locking ring, threads into the front entry component thereby effecting flameproof and environmental sealing onto the cable inner sheath. The outer seal actuation nut, fitted with an elastomeric sealing ring and a Nylon 6 skid washer, threads into the main body component thereby effecting environmental sealing onto the cable outer sheath. Two versions of the outer seal nut are available to allow alternative sizes of outer sheath to be gripped.

#### SS2K/PB Range

The SS2K/PB range of cable glands is the same as the SS2K range but the front entry component is fitted with an electrical continuity device for use with lead sheathed cable.

#### SS2K/TA Range

The SS2K/TA range of cable glands is identical to the SS2K/PB range but is used to terminate circular cables with a tape armour sheath. It is for use in Ex e applications only.

#### SS2K-FF Range

The SS2K-FF range of cable glands is the same as the SS2K range, but it is fitted with seals suited for use with flat form cables. For use only in Group II applications.

#### **Design options**

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. 25RSS2K

#### Materials of manufacture:

SS2K/PB, SS2K/TA, and SS2K-FF Ranges of Cable Glands are manufactured in brass, stainless steel, mild steel & aluminium. All brass manufactured component parts can be optionally nickel plated. All mild steel manufactured components can be optionally zinc plated.













#### **Examples of alternative entry component threadforms:**

- ET(Conduit)
- PG
- BSPP
- BSPT
- ISO
- NPT
- NPSM

Metric entry threads of all model ranges to be manufactured with a pitch between 0.7 mm and 2.0 mm, with 1.5 mm as standard.

The option to manufacture glands with entry threads that are one size up from the nominal quoted gland size.

Alternative material of manufacture of the skid washer to be the same as the gland material.

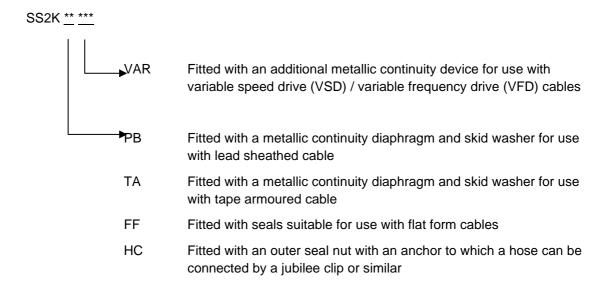
The front entry component may additionally be fitted with a metallic continuity diaphragm and skid washer for use with lead sheathed cable.

The main body component may additionally be fitted with an electrical continuity device for use with variable speed drive (VSD)/variable frequency drive (VFD) cables.

The option to fit a flat blanking disc between the outer seal and the main body to maintain a minimum IP66 ingress protection. The disc to be marked 'Ex e only' is to indicate that the gland is not suitable for use in Ex d applications when it is fitted.

An optional outer seal nut with an anchor to which hose can be connected by a jubilee clip or similar

#### Type designation code:





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

| Gland size | Entry<br>thread | Entry thread<br>'B' version | Cable inner seal<br>sheath range Ø<br>(mm) |       | Cable outer seal<br>sheath range Ø<br>(mm) |       | Alternative outer seal sheath range Ø (mm) |       |
|------------|-----------------|-----------------------------|--|-------|--|-------|--|-------|
|            |                 |                             | Min.                                       | Max.  | Min.                                       | Max.  | Min.                                       | Max.  |
| 16         | M16 x 1.5       | -                           | 3.2  | 8.7   | 3.1  | 8.7   | 6.1  | 13.2  |
| 20s/16     | M20 x 1.5       | M25 x 1.5                   | 3.2  | 8.7   | 3.1  | 8.7   | 6.1  | 13.2  |
| 20s16/20s  | M20 x 1.5       | M25 x 1.5                   | 3.2  | 8.7   | 6.1  | 11.7  | 9.5  | 15.9  |
| 20s        | M20 x 1.5       | M25 x 1.5                   | 6.1  | 11.7  | 6.1  | 11.7  | 9.5  | 15.9  |
| 20s/20     | M20 x 1.5       | M25 x 1.5                   | 6.1  | 11.7  | 6.5  | 14.0  | 12.5                                       | 20.9  |
| 20         | M20 x 1.5       | M25 x 1.5                   | 6.5  | 14.0  | 6.5  | 14.0  | 12.5                                       | 20.9  |
| 20/25      | M20 x 1.5       | M25 x 1.5                   | 6.5  | 14.0  | 11.1                                       | 20.0  | 18.2                                       | 26.2  |
| 25         | M25 x 1.5       | M32 x 1.5                   | 11.1                                       | 20.0  | 11.1                                       | 20.0  | 18.2                                       | 26.2  |
| 25/32      | M25 x 1.5       | M32 x 1.5                   | 11.1                                       | 20.0  | 17.0                                       | 26.3  | 23.7                                       | 33.9  |
| 32         | M32 x 1.5       | M40 x 1.5                   | 17.0                                       | 26.3  | 17.0                                       | 26.3  | 23.7                                       | 33.9  |
| 32/40      | M32 x 1.5       | M40 x 1.5                   | 17.0                                       | 26.3  | 22.0                                       | 32.2  | 27.9                                       | 40.4  |
| 40         | M40 x 1.5       | M50 x 1.5                   | 23.5                                       | 32.2  | 22.0                                       | 32.2  | 27.9                                       | 40.4  |
| 40/50s     | M40 x 1.5       | M50 x 1.5                   | 23.5                                       | 32.2  | 29.5                                       | 38.2  | 35.2                                       | 46.7  |
| 50s        | M50 x 1.5       | M63 x 1.5                   | 31.0                                       | 38.2  | 29.5                                       | 38.2  | 35.2                                       | 46.7  |
| 50s/50     | M50 x 1.5       | M63 x 1.5                   | 31.0                                       | 38.2  | 35.6                                       | 44.1  | 40.4                                       | 53.1  |
| 50         | M50 x 1.5       | M63 x 1.5                   | 35.6                                       | 44.1  | 35.6                                       | 44.1  | 40.4                                       | 53.1  |
| 50/63s     | M50 x 1.5       | M63 x 1.5                   | 35.6                                       | 44.1  | 40.1                                       | 50.1  | 45.6                                       | 59.4  |
| 63s        | M63 x 1.5       | M75 x 1.5                   | 41.5                                       | 50.0  | 40.1                                       | 50.1  | 45.6                                       | 59.4  |
| 63s/63     | M63 x 1.5       | M75 x 1.5                   | 41.5                                       | 50.0  | 47.2                                       | 56.0  | 54.6                                       | 65.9  |
| 63         | M63 x 1.5       | M75 x 1.5                   | 47.2                                       | 56.0  | 47.2                                       | 56.0  | 54.6                                       | 65.9  |
| 63/75s     | M63 x 1.5       | M75 x 1.5                   | 47.2                                       | 56.0  | 52.8                                       | 62.0  | 59.0                                       | 72.1  |
| 75s        | M75 x 1.5       | M90 x 2.0                   | 54.0                                       | 62.0  | 52.8                                       | 62.0  | 59.0                                       | 72.1  |
| 75s/75     | M75 x 1.5       | M90 x 2.0                   | 54.0                                       | 62.0  | 59.1                                       | 68.0  | 66.7                                       | 78.5  |
| 75         | M75 x 1.5       | M90 x 2.0                   | 61.1                                       | 68.0  | 59.1                                       | 68.0  | 66.7                                       | 78.5  |
| 75/90      | M75 x1.5        | M90 x 2.0                   | 61.1                                       | 68.0  | 66.6                                       | 79.4  | 76.2                                       | 90.4  |
| 90         | M90 x 2.0       | M100 x 2.0                  | 66.6                                       | 80.0  | 66.6                                       | 79.4  | 76.2                                       | 90.4  |
| 90/100     | M90 x 2.0       | M100 x 2.0                  | 66.6                                       | 80.0  | 76.0                                       | 91.0  | 86.1                                       | 101.5 |
| 100        | M100 x 2.0      | M115 x 2.0                  | 76.0                                       | 91.0  | 76.0                                       | 91.0  | 86.1                                       | 101.5 |
| 100/115    | M100 x 2.0      | M115 x 2.0                  | 76.0                                       | 91.0  | 86.0                                       | 98.0  | 101.5                                      | 110.3 |
| 115        | M115 x 2.0      | M130 x 2.0                  | 86.0                                       | 98.0  | 86.0                                       | 98.0  | 101.5                                      | 110.3 |
| 115/130    | M115 x 2.0      | M130 x 2.0                  | 86.0                                       | 98.0  | 97.0                                       | 115.0 | 110.2                                      | 123.3 |
| 130        | M130 x 2.0      | Not available               | 97.0                                       | 115.0 | 97.0                                       | 115.0 | 110.2                                      | 123.3 |



#### Cable sizes for the SS2K-FF range only

| Gland size | Entry<br>thread | Entry thread<br>'B' version | Cable inner sea<br>(m | al sheath range<br>m) | 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            | 4.0 x 6.2                          | 6.8 x 11.7 |  |
| 20         | M20 x 1.5       | M25 x 1.5                   | 5.7 x 8.0             | 8.7 x 13.5            | 5.7 x 8.0                          | 8.7 x 13.5 |  |

#### Notes:

- IECEx SIR 13.0024X is superseded by this certificate.
- The product covered by Issue 0 of this certificate remains identical to that previously covered by IECEx SIR 13.0024X.
- Where Sira IECEx SIR 13.0024X 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.

#### **Conditions of Manufacture**

None.

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

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

i. 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.