



# INSTALLATION INSTRUCTIONS FOR CMP CABLE GLAND TYPES SS2K, SS2K/PB & SS2K/TA

CABLE GLAND FOR USE IN EXPLOSIVE ATMOSPHERES WITH UNARMoured AND BRAID ARMoured CABLE (WITH LEAD SHEATH ON "PB" VERSIONS & TAPE ARMOUR WITH "TA" VERSIONS).

## INCORPORATING EU DECLARATION OF CONFORMITY TO DIRECTIVE 2014/34/EU AND UK STATUTORY REQUIREMENTS SI 2016 No. 1107 (AS AMENDED)



- SS2K** - For use with unarmoured and braided armoured cable
- SS2K/PB** - For use with unarmoured and braided armoured cables with lead sheaths
- SS2K/TA** - For use with tape armour cable

**TECHNICAL DATA**  
**CABLE GLAND TYPE** : SS2K, SS2K/PB & SS2K/TA  
**INGRESS PROTECTION** : IP66, IP67 IP68, NEMA 4X  
**PROCESS CONTROL SYSTEM** : ISO 9001  
 : ISO/IEC 80079-34:2011

**EXPLOSIVE ATMOSPHERES CLASSIFICATION**  
**ATEX CERTIFICATION No** : CML 18ATEX1322X, CML 18ATEX4314X  
**ATEX CERTIFICATION CODE** : Ⓜ I 2G, II 1D, Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da  
 : Ⓜ II 3G Ex nR IIC Gc, Ⓜ IM2 Ex db I Mb, Ex eb I Mb  
 (SS2K/TA is not Ex db IIC Gb)

**UKEX CERTIFICATION No** : I M2 Ex db I Mb / Ex eb I Mb (not SS2K/TA)  
**UKEX CERTIFICATION CODE** : CML 21UKEX1256X, CML 21UKEX4257X  
 : Ⓜ I 2G, II 1D, Ex db IIC Gb, Ex eb IIC Gb, Ex ta IIIC Da  
 : Ⓜ II 3G Ex nR IIC Gc, Ⓜ IM2 Ex db I Mb, Ex eb I Mb  
 (SS2K/TA is not Ex db IIC Gb)

**IECEx CERTIFICATION No** : I M2 Ex db I Mb / Ex eb I Mb (not SS2K/TA)  
**IECEx CERTIFICATION CODE** : IECEx CML 18.0178X  
 : Ex db IIC Gb, Ex eb IIC Gb, Ex nR IIC Gc, Ex ta IIIC Da, Ex db I Mb, Ex eb I Mb  
 (Ex eb IIC Gb / Ex nR IIC Gc / Ex ta IIIC Da only for SS2K/TA)  
**CSA CERTIFICATION No** : 1211841 (SS2K only)  
**CSA CERTIFICATION CODE** : Ex d IIC, Ex e II, Ex nR II, Enclosure Type 4X

### INSTALLATION INSTRUCTIONS

- Installation should only be performed by a competent person using the correct tools. Spanners should be used for tightening. Read all instructions before beginning installation.
- The interface between a cable entry device and its associated enclosure / cable entry will require additional sealing to achieve ingress protection (IP) ratings higher than IP54. The minimum protection level is IP54 for explosive gas atmospheres and IP6X for explosive dust atmospheres. Parallel threads (and tapered threads when using a non-threaded entry) require a CMP sealing washer or integral O-ring face seal (where available) to maintain IP66, 67 and 68 (when applicable). It is the installer's responsibility to ensure the IP rating is maintained at the interface.  
 Note: When fitted to a threaded entry, all tapered threads will automatically provide an ingress protection rating of IP66.
- A CMP earth tag should be used when it is necessary to provide an earth bond connection. CMP earth tags have been independently tested to comply with Category B rating specified in IEC 62444 (there are no ratings stated in IEC 60079-0). Ratings are shown in the associated table. CMP earth tags slip over the cable gland or accessory entry thread from inside/outside the enclosure and must be secured with a locknut (if fitted internally).
- Metric entry threads comply with ISO 965-1 and ISO 965-3 with a 6g tolerance as required by IEC 60079-1:2014. The CMP standard metric thread pitch is 1.5mm for threads up to M7.5, and 2.0mm from M9.0 and above. Special thread pitches between 0.7 – 2.0mm are available on all products on request. See certificate for details of other thread types. NPT threads are in accordance with ASME B1.20.1-2013 gauging to CI 3.2 for external threads. For details of other thread types refer to IECEx certificate.
- Enclosures must be strong enough to support the cable and cable gland assembly. The enclosure surface finish must be smooth and flat to facilitate sealing with an O-ring or Entry Thread Sealing Washer for the required IP rating.
- Enclosure walls must be sufficiently strong enough to support the cable and cable gland assembly. Enclosure entries shall be perpendicular. Any draft angles from the casting/moulding process should have a perpendicular flat spot machined to facilitate sealing with an O-ring or Entry Thread Sealing Washer.
- CMP Products recommends that when using the cable gland with a through-hole, the hole must be circular, free of burrs and the diameter no larger than 0.7mm above the thread major diameter. A suitable CMP Products locknut shall be used to secure the product. See CMP Products catalogue for locknut options
- Cable glands do not have any serviceable parts and are therefore not intended to be repaired.

CMP Earth Tag Size	Short Circuit Ratings Symmetrical Fault Current (kA) for 1 second
20	3.06
25	4.06
32	5.40
40	7.20
50	10.40
63	10.40
75	10.40

### SPECIAL CONDITIONS FOR SAFE USE

- According to the CEC 22.1-98, Section 18-106 Part 3, Tapered Threads shall have five fully engaged threads and where non-tapered threads are used in Group IIC there must be eight fully engaged threads.

### ACCESSORIES

The following accessories are available from CMP Products, as optional extras, to assist with fixing, sealing and earthing :- Locknut, Earth Tag, Serrated Washer, Entry Thread (I.P.) Sealing Washer, Shroud

CMP Products Limited on its sole responsibility declares that the equipment referred to herein conforms to the requirements of the ATEX Directive 2014/34/EU and UK statutory requirements SI 2016 No. 1107 (as amended). This is shown in the following harmonised/designated standards;  
 EN IEC 60079-0:2018, EN 60079-1:2014, EN IEC 60079-7:2015 + A1:2018, EN IEC 60079-15:2019, EN 60079-31:2014, BS6121:1989, EN 62444:2013

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 17th March 2020

**CE 2776** Notified Body: CML B.V., Koopvaardijweg 32, 4906CV Oosterhout, The Netherlands

**UK CA 2503** Approved Body: Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port, CH65 4LZ

Cable Gland Selection Table

Cable Gland Size	Available Entry Threads (Alternate Metric Thread Lengths Available)					Cable Bedding Diameter		Overall Cable Diameter		Across Flats "D"	Across Corners	Protrusion Length	Combined Ordering Reference (*Brass Metric)			Shroud	Cable Gland Weight (Kgs)		
	Standard		Option			Min	Max	Min	Max				Max	Max	Size			Type	Ordering Suffix
	Metric	Thread Length (Metric)	NPT	Thread Length (NPT)	NPT														
20s16	M20	15.0	1/2"	19.9	3/4"	3.2	8.6	3.2	8.6	24.0	26.4	49.0	20S16	SS2K	1RA	PVC04	0.140		
20S	M20	15.0	1/2"	19.9	3/4"	6.1	11.7	6.1	11.7	24.0	26.4	49.0	20S	SS2K	1RA	PVC04	0.130		
20	M20	15.0	1/2"	19.9	3/4"	6.5	14.0	6.5	14.0	27.0	29.7	54.0	20	SS2K	1RA	PVC05	0.160		
25	M25	15.0	3/4"	20.2	1"	11.1	20.0	11.1	20.0	36.0	39.6	66.0	25	SS2K	1RA	PVC09	0.300		
32	M32	15.0	1"	25.0	1 1/4"	17.0	26.3	17.0	26.3	41.0	45.1	67.0	32	SS2K	1RA	PVC10	0.350		
40	M40	15.0	1 1/4"	25.6	1 1/2"	23.5	32.1	23.5	32.1	50.0	55.0	70.0	40	SS2K	1RA	PVC13	0.500		
50S	M50	15.0	1 1/2"	26.1	2"	31.0	38.2	31.0	38.2	55.0	60.5	65.0	50S	SS2K	1RA	PVC15	0.560		
50	M50	15.0	2"	26.9	2 1/2"	35.6	44.0	35.6	44.0	60.0	66.0	70.0	50	SS2K	1RA	PVC18	0.590		
63S	M63	15.0	2"	26.9	2 1/2"	41.5	49.9	41.5	49.9	70.5	77.6	70.0	63S	SS2K	1RA	PVC21	0.890		
63	M63	15.0	2 1/2"	39.9	3"	47.2	55.9	47.2	55.9	75.0	82.5	71.0	63	SS2K	1RA	PVC23	0.850		
75S	M75	15.0	2 1/2"	39.9	3"	54.0	61.9	54.0	61.9	80.0	88.0	70.0	75S	SS2K	1RA	PVC25	1.020		
75	M75	15.0	3"	41.5	3 1/2"	61.1	67.9	61.1	67.9	84.0	92.4	75.0	75	SS2K	1RA	PVC26	0.990		
90	M90	24.0	3 1/2"	42.8	4"	66.6	79.4	66.6	79.4	108.0	118.8	113.0	90	SS2K	1RA	PVC31	2.990		
100	M100	24.0	4"	44.0	5"	76.0	90.9	76.0	90.9	123.0	134.2	106.0	100	SS2K	1RA	LSF33	3.390		
115	M115	24.0	4"	44.0	5"	86.0	97.9	86.0	97.9	133.4	146.7	128.0	115	SS2K	1RA	LSF34	5.320		
130	M130	24.0	5"	46.8	6"	97.0	114.9	97.0	114.9	152.4	167.6	129.0	130	SS2K	1RA	LSF35	6.350		

Dimensions are displayed in millimetres unless otherwise stated

\* Codes shown are for SS2K glands, for SS2K/PB add "PB" e.g. 20SS2KPB1RA, for SS2K/TA add "TA" e.g. 20SS2KTA1RA

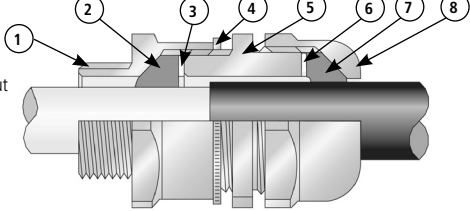


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FI430		
Certification	Revision	Revision
UKEX	0	04/21
IFS	14	12/23
ATEX / IECEx	8	04/19
CSA / CSAus	7	-

**INSTALLATION INSTRUCTIONS FOR CMP CABLE GLAND TYPES SS2K, SS2K/PB & SS2K/TA**

**CABLE GLAND COMPONENTS - It is not necessary to dismantle the cable gland any further than illustrated below**

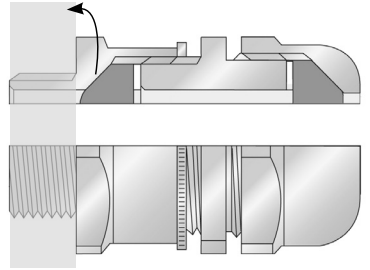
- |   |                   |   |
|---|-------------------|---|
| 1. Entry Item                               | 6. Skid Washer    |  |
| 2. Seal                                     | 7. Outer Seal     |   |
| 3. Skid Washer (Star Washer in PB versions) | 8. Outer Seal Nut |   |
| 4. Lock Ring                                |                   |   |
| 5. Main Item                                |                   |   |

**PLEASE READ ALL INSTRUCTIONS CAREFULLY BEFORE BEGINNING THE INSTALLATION**

The SS2K and SS2K/PB cable gland can be used with all types of unarmoured cable and braid armoured cable where the braid is terminated inside the enclosure. The inner seal is used to provide a flameproof seal and cable anchor and the outer seal provides further anchoring and an additional environmental seal. An electrical earth connection is automatically made to the cable lead sheath through the star washer when "PB" versions are used, or to the tape when "TA" versions are used.

**NOTE: There is no need to dismantle the cable gland prior to installation**

1. Fit the gland into the equipment and fully tighten the entry item (1).

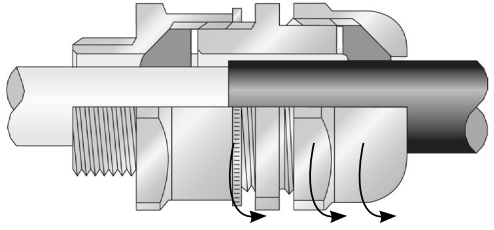


If installed in a clearance hole, fit a locknut and tighten.

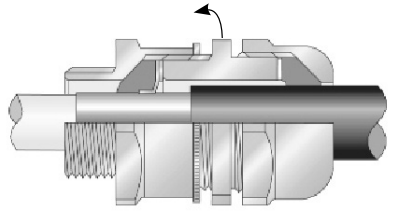
2. Determine the conductor length required to suit the geometry of the equipment and prepare the cable accordingly. Remove the outer sheath where required to reveal the insulated conductors, lead sheath, or tape where applicable.



3. Ensure the seals (2) and (7) are in a relaxed state by slackening the locking ring (4), main item (5) and outer seal nut (8) if necessary.



4. Pass the cable through the gland to the desired position. Tighten the main item (5) into the entry item (1) until the seal is felt to make contact with the cable and then tighten one further turn using a spanner. An electrical earth will automatically be made against lead sheath, or tape armour cable through the star washer (3).



Note: "PB" version shown

5. Tighten the outer seal nut (8) until the outer seal (7) contacts the cable and then tighten one full turn further using a spanner. Tighten the lock ring (4) against the entry item. This completes the installation.

