



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.: IECEx ITS 17.0046X

Issue No: 0

Certificate history:

Issue No. 0 (2018-03-21)

Status: **Current**

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Date of Issue: **2018-03-21**

Applicant: **CMP Products**
36 Nelson Way,
Nelson Park East,
Cramlington,
Northumberland,
NE23 1WH
United Kingdom

Equipment: **Type PX** cable glands**

Optional accessory:

Type of Protection: **Flameproof Ex d, Increased safety Ex e, Restricted breathing Ex nR and Dust by enclosure Ex ta**

Marking:

IECEX ITS 17.0046X

Ex eb I Mb* / Ex eb IIC Gb

Ex db I Mb* / Ex db IIC Gb

Ex nR IIC Gc

Ex ta IIIC Da

IP66

*Aluminium alloy is not acceptable for Group I applications

-60°C to +85°C

*Approved for issue on behalf of the IECEx
Certification Body:*

P Moss

Position:

Certification Officer

*Signature:
(for printed version)*

Date:

1. This certificate and schedule may only be reproduced in full.
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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:



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Manufacturer: **CMP Products**
36 Nelson Way,
Nelson Park East,
Cramlington,
Northumberland,
NE23 1WH
United Kingdom

Additional Manufacturing location(s):

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 apparatus 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 Edition:7.0	Explosive atmospheres - Part 0: Equipment - General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-15 : 2010 Edition:4	Explosive atmospheres - Part 15: Equipment protection by type of protection "n"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical 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 Report:

[GB/ITS/ExTR17.0054/00](#)

Quality Assessment Report:

[GB/SIR/QAR07.0009/07](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The Type PX** series range of barrier cable glands consist of a male-threaded front entry component, fitted with a barrier tube such that a spigot/combination joint is formed, which is intended to screw into an entry point of its associated enclosure in accordance with relevant codes of practice. The barrier tube is filled with a sealing material that creates a flameproof seal around the cable cores passing through it and is mechanically retained. The front entry component to main body mating thread may be fitted with an optional 'O' ring seal to provide increased ingress protection. Clamping of the armour or braid is effected by a combination of the front entry component and the different optional armour cone and reversible sleeve combinations within the main body being fastened together. An outer seal nut threads onto the main body and creates an environmental seal between the gland and cable outer sheath. The outer seal nut contains an elastomeric sealing ring and a Nylon 6 ferrule.

See Annex for additional information.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- The glands when used for terminating braided cables are only suitable for fixed installations.
- Cables must be effectively clamped to prevent pulling or twisting. The PXB2K, PXB2KX and PXB2KW glands are to be protected from hydraulic fluids, oils, and greases when applied for Group I use.
- When assembled for fitting to flexible conduit, the conduit shall be effectively clamped to prevent twisting and pulling.
- The PX range of cable glands with entry threads smaller than a M25 (or equivalent) size shall not be used for Group I, EPL Mb applications where there is a 'high' risk of mechanical damage.

Annex:

[SFT-IECEX-OP-19f Annex for IECEx Certificate of Conformity 23oct2017.pdf](#)



Annex to IECEx Certificate of Conformity

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Materials of manufacture

- Brass to BS EN 12164:2011 / BS EN 12168:2011 Grade CuZn39Pb3 (CW614N)
- Mild Steel to BS EN 10277-2:2008 Grades 220M07, 230M07 (EN1A) / 220M07Pb, 230M07Pb (EN1APb)
- Stainless Steel to BS EN 10088-3:2014 GRADES 316S11, 316S13, 316S31, 316S33, 316L
- Aluminium to BS EN 573-3:2013 / BS EN 755-1-3:2008 Grade 6082 T6, 6262 T6 BS EN 1706:2010/ BS EN 1676:2010 Grade LM25 TF (Aluminium alloy is not acceptable for Group I 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. 25RPX2KW.
- 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 2779:1986 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 7/1:1994, 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
NPSM ANSI/ASME B1.20.1-1983 gauging to clause 9 for external threads
- Alternative material of manufacture of the ferrule to be the same as the gland material.
- The removal of the outer seal, nut and ferrule, along with the body component manufactured without the external mating thread. The cable gland being suitable for S.W.A armoured cables and is identified within type designation coding.
- The use of the barrier tube and spacer along with the manufacture of the front entry component with a female mating thread, to couple to an alternative main body, skid washer, seal and nut. The latter replacing other component parts. This variant being identified within type designation coding.
- PXSS2K range can be fitted with the outer seal nut from the PX** range as an alternative.
- PX type glands may be fitted with armour cones with alternative diameters to allow the clamping of smaller or larger armour wires.
- Alternative outer seal arrangement to allow the glands to be attached to flexible conduit.
- PX2K** range can be fitted with the outer seal nut assembly from the PKSS2K range as an alternative.
- Cable glands can be supplied with larger entry threads than those detailed, provided the hexagon bar size and across corners dimensions of the entry item also step up to that of another size detailed in this drawing pack or certificate, when selecting larger entry threads, only the entry item can be changed.
- A slower curing RapidEx resin is available in a formulation which allows slower curing for use at higher ambient installation temperatures

The gland and seal sizes are determined by the entry thread and cable range sizes. In addition note that not all the information detailed in the table is applicable to both gland types. See individual approval drawings.

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Gland size	Entry thread	Max. no. of cores (RAPID EX)	Max. no. of cores (EP21 22)	Max. Ø over cores (mm)	SWA (mm)		SWA, STA, strip armour, pliable wire armour ¹ & wire braid (mm)		PXSS2K ^{2,3} outer seal sheath range Ø (mm)		PX ^{**3} outer seal sheath range Ø (mm)	
					Min.	Max.	Min.	Max.	Min.	Max.	Min.	Max.
20s/16	M20 x 1.5	21	21	12.6	0.8	1.25	0	0.8	3.1	8.7	6.1	13.2
20s	M20 x 1.5	21	21	12.6	0.8	1.25	0	0.8	6.1	11.7	9.5	15.9
20	M20 x 1.5	21	21	12.6	0.8	1.25	0	0.8	6.5	14.0	12.5	20.9
20L	M20 x 1.5	21	21	12.6	0.8	1.25	0	0.8	10.0	15.9	N/A	N/A
25s	M25 x 1.5	30	30	17.5	1.25	1.6	0	1.1	11.1	20.0	14.0	22.0
25	M25 x 1.5	30	30	17.5	1.25	1.6	0	1.1	11.1	20.0	18.2	26.2
32	M32 x 1.5	50	38	23.6	1.6	2.0	0	1.2	17.0	26.3	23.7	33.9
32L	M32 x 1.5	50	38	23.6	1.6	2.0	0	1.2	20.0	27.4	N/A	N/A
40	M40 x 1.5	59	59	30.0	1.6	2.0	0	1.2	22.0	32.1	27.9	40.4
50s	M50 x 1.5	89	89	36.6	2.0	2.5	0	1.2	29.5	38.2	35.2	46.7
50	M50 x 1.5	89	89	41.0	2.0	2.5	0	1.5	35.6	44.1	40.4	53.1
63s	M63 x 1.5	115	115	47.9	2.0	2.5	0	1.5	40.1	50.1	45.6	59.4
63	M63 x 1.5	115	115	53.7	2.0	2.5	0	1.5	47.2	56.0	54.6	65.9
75s	M75 x 1.5	140	140	59.9	2.0	2.5	0	1.5	52.8	62.0	59.0	72.1
75	M75 x 1.5	140	140	64.3	2.5	3.0	0	1.5	59.1	68.0	66.7	78.5
90	M90 x 2.0	200	200	75.3	3.0	3.5	0	1.6	66.6	79.4	76.2	90.4
100	M100 x 2.0	200	200	85.6	3.15	4.0	0	1.6	76.0	90.9	86.1	101.5

¹ '2KX' and '2K' variants; see below.

² including PX** fitted with alternative outer nut as drawing GA273.

³ Not PXRC variant.

PX*-FF in these sizes only.

Gland size	Entry thread	Entry thread 'B' version	PXSS2K seal sheath range (mm)		Other PX* 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

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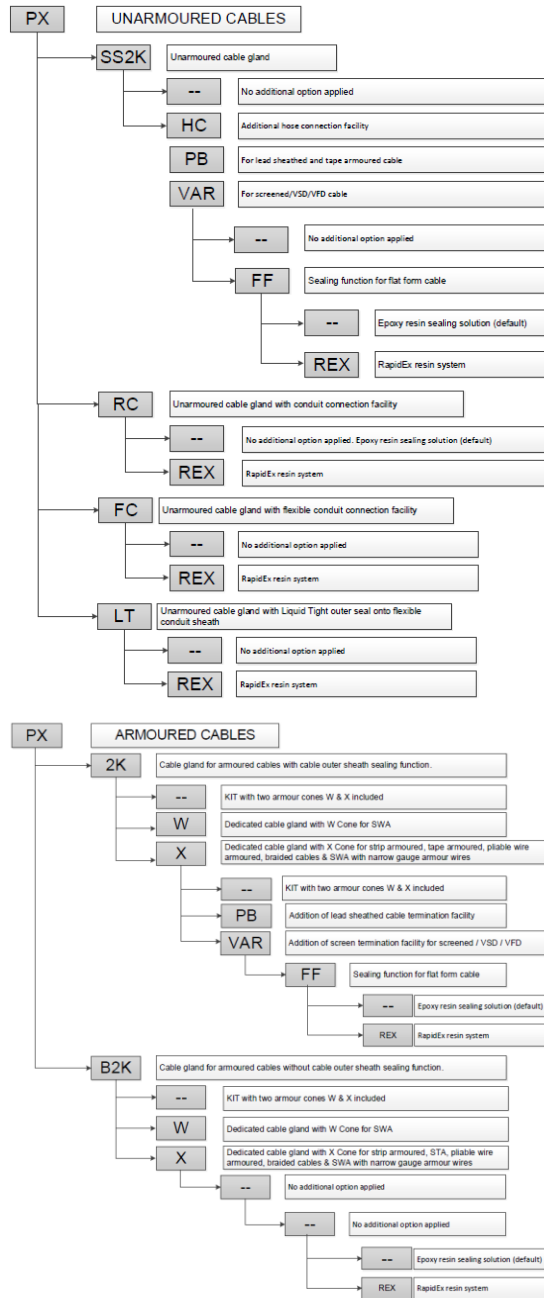
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Certificate No:	IECEX ITS 17.0046X	Issue No. 0
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Type designation code;





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Technical Documents			
Title:	Drawing No.:	Rev. Level:	Date:
PXFC-LT GA	GA207	03	19/02/2018
PX2K, PX2KW, PX2KX GENERAL ARRANGEMENT	GA352	01	19/02/2018
PXRC GA Drawing	GA353	01	19/02/2018
PXSS2K, PXSS2K COMBINATION GLAND AND PXSS2K-HC GA	GA354	01	19/02/2018
OUTER SEAL DETAILS	SCH0322	02	18/08/2017
PX & PXSS2K ENTRY ITEM DETAILS	SCH0327	01	18/08/2017
RESIN DIAPHRAGM SEAL	SCH0388	00	17/11/2014
TMCX COMPOUND TUBES - NPT	SCH0395	02	14/08/2017
TMCX COMPOUND TUBE - METRIC	SCH0396	02	14/08/2017
CABLE GLAND TYPES PX2K, PX2KW, PX2KX & PB VARIANTS (2 pages)	FI546	0	01/2018
CABLE GLAND TYPES PX2KREX, PX2KWREX, PX2KXREX & PB VARIANTS (2 pages)	FI547	1	01/2018
CABLE GLAND TYPE PXRC (2 pages)	FI560	0	01/2018
CABLE GLAND TYPE PXLT (2 pages)	FI561	0	1/18
CABLE GLAND TYPE	FI562	0	01/18

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PXSS2K (2 pages)			
CABLE GLAND TYPE PXLTREX (2 pages)	FI566	0	1/18
CABLE GLAND TYPE PXRC-REX (2 pages)	FI565	0	01/18
CABLE GLAND TYPE PXSS2K-REX (2 pages)	FI567	0	01/18
CABLE GLAND TYPE PXSS2KHCREX (2 pages)	FI571	0	1/18
CABLE GLAND TYPE PXSS2KHC (2 pages)	FI572	0	1/18

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