



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 CML 19.0022X Issue No: 0 Certificate history:
Issue No. 0 (2019-04-15)

Status: **Current**

Date of Issue: **2019-04-15** Page 1 of 3

Applicant: **Peppers Cable Glands Limited**
Stanhope Road, Camberley, Surrey, GU15 3BT
United Kingdom

Equipment: **SPA, SPB, SPMH and SPHH ranges of Stopping Plugs and AR, ARMM and ARFF
ranges of Adaptors and Reducers**

Optional accessory:

Type of Protection: **Flameproof "db", Increased Safety "eb", Restricted Breathing "nR", Dust Ignition "ta"**

Marking:

SPA, SPB, SPMH and SPHH ranges of Stopping Plugs
Ex db I Mb / Ex eb I Mb
Ex db IIC Gb / Ex eb IIC Gb
Ex nR IIC Gc (Not SPA and SPB ranges)
Ex ta IIIC Da

AR, ARMM and ARFF ranges of Adaptors and Reducers
Ex db I Mb / Ex eb I Mb
Ex db IIC Gb / Ex eb IIC Gb
Ex nR IIC Gc
Ex ta IIIC Da

* Refer to description for ambient

Approved for issue on behalf of the IECEx
Certification Body:

R C Marshall

Position:

Certification Officer

Signature:
(for printed version)

Date:

2019-04-15

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:

Certification Management Limited
Unit 1, Newport Business Park
New Port Road
Ellesmere Port, CH65 4LZ
United Kingdom





IECEX Certificate of Conformity

Certificate No: IECEx CML 19.0022X Issue No: 0
Date of Issue: 2019-04-15 Page 2 of 3
Manufacturer: **Peppers Cable Glands Limited**
Stanhope Road, Camberley, Surrey, GU15 3BT
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 : 2017 Edition:5.0	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/CML/ExTR19.0061/00](#)

Quality Assessment Report:

[GB/SIR/QAR06.0018/09](#)



IECEX Certificate of Conformity

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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

SPA, SPB, SPMH and SPHH ranges of Stopping Plugs

The Stopping Plugs comprise a cylindrical body, partly threaded at one end with a male thread. They are intended to fill unused cable entries in associated apparatus. The Type SPMH and SPHH Stopping Plugs may also be fitted with an optional O-ring seal.

AR, ARMM and ARFF ranges of Adaptors and Reducers

The range of Adaptors and Reducers (Type 'AR') comprise a hollow hexagonal body, partly threaded at each end, one end having a male thread and the other a female thread. The Adaptors and Reducers are used to convert an existing threaded cable entry aperture to a different thread form and/or size. The Adaptors and Reducers may be machined with the threadforms and/or combinations as listed below. Their thread sizes are within the ranges specified but are limited based upon thread combinations certified within the manufacturer's documentation. Adaptors and reducers may also be fitted with an optional O-ring seal.

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.

Annex:

[IECEX CML 19.0022X Iss. 0 Certificate Annex.pdf](#)

Annexe to: IECEx CML 19.0022X Issue 0
Applicant: Peppers Cable Glands Limited
Apparatus: SPA, SPB, SPMH and SPHH ranges of Stopping Plugs
 AR, ARMM and ARFF ranges of Adaptors and Reducers



Product Description

SPA, SPB, SPMH and SPHH ranges of Stopping Plugs

The Stopping Plugs comprise a cylindrical body, partly threaded at one end with a male thread. They are intended to fill unused cable entries in associated apparatus. The Type SPMH and SPHH Stopping Plugs may also be fitted with an optional O-ring seal.

The products are manufactured with the following external profiles and assigned the following prefix type designations:

SPHH Series	Hexagonal head
SPMH Series	Round dome head, with an external hexagonal socket recess
SPA Series	Round head, with an external face hexagonal socket recess
SPB Series	Round head, with an internal face hexagonal socket recess

* SPA and SPB are not certified for restricted breathing applications.

The products are manufactured with the following threadform options:

ISO Metric	ISO 965-1:2013 and ISO 965-3 - M12 to M100
NPT and NPSM	ANSI/ASME B1.20.1:1983 (R2001) - 1/4" to 4"
BSPP	BS EN ISO 228-1 - 1/4" to 4"
BSPT	BS21:1985 - 1/4" to 4"
PG	DIN 40430 – 7 / 9 / 11 / 13.5 / 16 / 21 / 29 / 36 / 42 / 48
PG48F	NF C 68-312
ET conduit	BS 31:1940 - 5/8" to 3

Note: All threads are manufactured in accordance with EN 60079-1:2014 clauses 5.3 and C.2.2 (as applicable).

Note: The Stopping Plugs may be manufactured with other threadforms and pitches, provided that they are in accordance with the applicable requirements of EN 60079-1:2014 clause 5.3 and C.2.2.

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Design Options:

O-Ring seals

O-Ring seal materials fitted to male threadforms may be provided in the following materials to suit the application:

Nitrile
Silicone
Viton
Neoprene
Flurorosilicone
EPDM

Material of manufacture and marking

The Stopping Plugs may be manufactured from the following materials:

Brass	CW614N (CuZn 39Pb3)/ CZ121 3Pb, Ecobrass C69300/ C87850
Aluminium*	AW 6082 T6 AISI 1MgMn
Stainless Steel	1.4404/ 316L S11, 1.4401/ 316 S31, 1.4301/ 304, 1.4305/ 303

*Not suitable for Group I use.

Surface coating

The products may additionally be metal plated with either: Nickel, Zinc or Anodised (0.008 mm thick max.) to suit the application.

Product Type Reference

The product type reference is derived from the following options:

A-B-C-D-E-F	SPMH and SPHH	
A-B-D-E-F	SPA and SPB	
A - Product Type		
SPMH	Mushroom head stopping plug	
SPHH	Hexagon head stopping plug	
SPA	Type A stopping plug	
SPB	Type B stopping plug	
B - IP Seal code		
0	No seal fitted	(-100°C to +400°C)
1	Nitrile O-ring	(-30°C to +100°C)
2	Neoprene O-ring	(-35°C to +90°C)
3	Silicone O-ring	(-60°C to +200°C)
4	Fluorosilicone O-ring	(-55°C to +200°C)
5	Viton O-ring	(-20°C to +180°C)
6	EPDM O-ring	(-50°C to +110°C)
C - Material of manufacture		
A	Aluminium	
B	Brass	
S	Stainless Steel	
D – Protection concept code		
E - Plating		
--	Not plated	
AN	Anodised	
NP	Nickel Plated	
ZP	Zinc	
F- Thread Size		
	Metric	
	NPT / NPSM / BSPT/ BSPP / PG	
	NF C 68-312	
	ET	

* SPA and SPB are not certified for restricted breathing applications.



Degree of protection

The Stopping Plugs, when installed in accordance with the manufacturer's instructions, are capable of providing, with an enclosure on which they are fixed, an ingress protection as defined in the table below.

Plug Type	Entry Hole Type	IP6X	IPX6	IPX8*
SPMH parallel thread	Threaded or Clearance	X	X	
SPHH parallel thread	Threaded or Clearance	X	X	
SPA parallel thread	Threaded	X	X	
SPB parallel thread	Threaded	X	X	
SPMH parallel thread with sealing ring	Threaded or Clearance	X	X	X
SPHH parallel thread with sealing ring	Threaded or Clearance	X	X	X
SPMH tapered thread	Threaded or Clearance	X	X	
SPHH tapered thread	Threaded or Clearance	X	X	
SPA tapered thread	Threaded	X	X	
SPB tapered thread	Threaded	X	X	
SPMH tapered thread with sealing ring	Threaded	X	X	
SPHH tapered thread with sealing ring	Threaded	X	X	
SPMH tapered thread with sealing ring	Clearance	X	X	X
SPHH tapered thread with sealing ring	Clearance	X	X	X

* IPX8 100 m 7 days

When installed in unthreaded clearance holes, SPMH and SPHH stopping plugs shall be secured with an appropriate locknut and installed in accordance with the manufacturer's instructions

Restricted breathing

SPMH and SPHH Stopping Plugs with tapered threads provide a restricted breathing seal.

SPMH and SPHH Stopping Plugs with parallel threads and fitted with appropriate sealing rings provide a restricted breathing seal.

SPMH and SPHH Stopping Plugs with tapered or parallel threads, installed into unthreaded entry holes and fitted with appropriate sealing rings provide a restricted breathing seal.



Notes:

-) Sira 09ATEX1320X, Sira 09ATEX4323X and IECEX SIR 09.0131X is superseded by certificates CML 19ATEX1089X, CML 19ATEX4092X and IECEX CML 19.0022X.
-) The product covered by Issue 0 of this certificate remains identical to that previously covered by
Sira 09ATEX1320X, Sira 09ATEX4323X and IECEX SIR 09.0131X.
-) Where Sira 09ATEX1320X and/or Sira 09ATEX4323X and/or IECEX SIR 09.0131X 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.



AR, ARMM and ARFF ranges of Adaptors and Reducers

The range of Adaptors and Reducers (Type 'AR') comprise a hollow hexagonal body, partly threaded at each end, one end having a male thread and the other a female thread. The Adaptors and Reducers are used to convert an existing threaded cable entry aperture to a different thread form and/or size. The Adaptors and Reducers may be machined with the threadforms and/or combinations as listed below. Their thread sizes are within the ranges specified but are limited based upon thread combinations certified within the manufacturer's documentation. Adaptors and reducers may also be fitted with an optional O-ring seal.

The products are manufactured with the following threadform options:

ISO Metric	ISO 965-1:2013 and ISO 965-3 - M16 to M100
NPT and NPSM	ANSI/ASME B1.20.1:1983 (R2001) - ¼" to 4"
BSPP	BS EN ISO 228-1 - ¼" to 4"
BSPT	BS21:1985 - ¼" to 4"
PG	DIN 40430 – 7 / 9 / 11 / 13.5 / 16 / 21 / 29 / 36 / 42 / 48
PG48F	NF C 68-312

Note: All threads are manufactured in accordance with EN 60079-1:2014 clauses 5.3 and C.2.2 (as applicable).

Note: The Stopping Plugs may be manufactured with other threadforms and pitches, provided that they are in accordance with the applicable requirements of EN 60079-1:2014 clause 5.3 and C.2.2.

Design Options:

O-Ring seals

O-Ring seal materials fitted to male thread forms may be provided in the following materials to suit the application:

Nitrile
Silicone
Viton
Neoprene
Flurorosilicone
EPDM



Material of manufacture and marking

The Stopping Plugs may be manufactured from the following materials:

Brass	CW614N (CuZn 39Pb3)/ CZ121 3Pb, Ecobrass C69300/ C87850
Aluminium*	AW 6082 T6 AISI 1MgMn
Stainless Steel	1.4404/ 316L S11, 1.4401/ 316 S31, 1.4301/ 304, 1.4305/ 303

*Not suitable for Group I use

Surface coating

The products may additionally be metal plated with either: Nickel, Zinc or Anodised (0.008 mm thick max.) to suit the application.

Product Type Reference

The product type reference is derived from the following options:

A-B-C-D-E-F-G		
A - Product Type		
AR	Adaptor/Reducer Type	
ARMM		
ARFF		
B - IP Seal code		
0	No seal fitted	(-100°C to +400°C)
1	Nitrile O-ring	(-30°C to +100°C)
2	Neoprene O-ring	(-35°C to +90°C)
3	Silicone O-ring	(-60°C to +200°C)
4	Fluorosilicone O-ring	(-55°C to +200°C)
5	Viton O-ring	(-20°C to +180°C)
6	EPDM O-ring	(-50°C to +110°C)
C - Material of manufacture		
A	Aluminium	
B	Brass	
S	Stainless Steel	
D – Protection concept code		
E - Plating		
--	Not plated	
AN	Anodised	
NP	Nickel Plated	
ZP	Zinc	
F - Male thread (female for ARFF) size and type		
G - Female thread (male for ARMM) size and type		

Degree of protection

The Adaptors and Reducers, when installed in accordance with the manufacturer's instructions, are capable of providing, with an enclosure on which they are fixed, an ingress protection rating of IP 66.

The Adaptors and Reducers with parallel threads and fitted with sealing rings, when installed in accordance with the manufacturer's instructions, are capable of providing, with an enclosure on which they are fixed, an ingress protection rating of IP 66 / IPX8 to 100 m for 7 days.

The Adaptors and Reducers with tapered threads, fitted with sealing rings and installed in clearance holes, when installed in accordance with the manufacturer's instructions, are capable of providing, with an enclosure on which they are fixed, an ingress protection rating of IP 66 / IPX8 to 100 metres for 7 days

Restricted breathing

AR, ARMM and ARFF Adaptors and Reducers with tapered threads provide a restricted breathing seal.

AR, ARMM and ARFF Adaptors and Reducers with parallel threads and fitted with appropriate sealing rings provide a restricted breathing seal.

AR, ARMM and ARFF Adaptors and reducers with tapered or parallel threads, installed into unthreaded entry holes and fitted with appropriate sealing rings provide a restricted breathing seal.

Arrangements

The following arrangements are permitted:

Sizes marked * have a larger hexagon size where a sealing washer is required.



		Female Thread									
		PG									
		PG9	PG11	PG13.5	PG16	PG21	PG29	PG36	PG42	PG48	
Male Thread	Metric	M16	A	A	A						
		M20	R	A	A	A	A				
		M25	R	R	R	A	A	A			
		M32	R	R	R	R	A	A	A		
		M40	R	R	R	R	R	A	A	A	
		M50	R	R	R	R	R	R	A	A	A
		M63	R	R	R	R	R	R	R	R	A
		M75	R	R	R	R	R	R	R	R	R
		M80	R	R	R	R	R	R	R	R	R
		M85	R	R	R	R	R	R	R	R	R
		M90	R	R	R	R	R	R	R	R	R
		M100	R	R	R	R	R	R	R	R	R
	NPT / NPSM / BSPT / BSPP	1/2"	R*	A*	A*	A					
		3/4"	R	R	R	A	A	A			
		1"	R	R	R	R	A	A	A		
		1 1/4"	R	R	R	R	R	A	A	A	
		1 1/2"	R	R	R	R	R	R	A	A	A
		2"	R	R	R	R	R	R	R	R	A
		2 1/2"	R	R	R	R	R	R	R	R	R
		3"	R	R	R	R	R	R	R	R	R
		3 1/2"	R	R	R	R	R	R	R	R	R
	4"	R	R	R	R	R	R	R	R	R	
	PG	PG9	A	A	A	A					
		PG11	A	A	A	A	A				
		PG13.5	R	A	A	A	A				
		PG16	R	R	A	A	A	A			
		PG21	R	R	R	R	A	A	A		
		PG29	R	R	R	R	R	A	A	A	
		PG36	R	R	R	R	R	R	A	A	A
		PG42	R	R	R	R	R	R	R	A	A
		PG48	R	R	R	R	R	R	R	R	A



Notes:

-) Sira 09ATEX1322X, Sira 09ATEX4323X and IECEx SIR 09.0131X are superseded by certificates CML 19ATEX1089X, CML 19ATEX4092X and IECEx CML 19.0022X.
-) The product covered by Issue 0 of this certificate remains identical to that previously covered by Sira 09ATEX1322X, Sira 09ATEX4323X and IECEx SIR 09.0131X.
-) Where Sira 09ATEX1322X and/or Sira 09ATEX4323X and/or IECEx SIR 09.0131X 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

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

- i. Aluminium devices shall not be marked with any information indicating that they are suitable for Group I use.

Specific Conditions of Use (Special Conditions)

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

- i. The stopping plugs shall not be used in conjunction with an adaptor or reducer when installed in a flameproof enclosure.
- ii. The threaded entry component threads without interface O-ring seals that are installed in explosive dust atmospheres, within threaded entries, shall only be fitted into enclosures that have either:
 -) Parallel entries that ensure that a minimum of 5 full threads of contact will be maintained in accordance with clause 5.1.2 of EN 60079-31:2014.
 -) Tapered entries that ensure that a minimum of 3.5 full threads of contact will be maintained in accordance with clause 5.1.2 of EN 60079-31:2014.
- iii. When no seal is fitted and the stopping plug is installed in an increased safety (Ex e) enclosure, the user shall ensure that a minimum degree of protection IP54 is maintained.
- iv. Where Stopping Plugs without sealing rings are installed in protection by enclosure (Ex t) equipment for use in explosive dust atmospheres, they may only be fitted into enclosures offering a minimum of 5 full threads, in accordance with IEC 60079-31:2008 clause 5.1.1.
- v. Adaptors and Reducers shall not to be used for the direct inter-connection of enclosures.
- vi. Only one adaptor or reducer is to be used with any single cable entry on the associated equipment.
- vii. The products are approved for a temperature range at their point of mounting based upon the interface seal:

0	No seal fitted	(-100°C to +400°C)
1	Nitrile O-ring	(-30°C to +100°C)
2	Neoprene O-ring	(-35°C to +90°C)
3	Silicone O-ring	(-60°C to +200°C)
4	Fluorosilicone O-ring	(-55°C to +200°C)
5	Viton O-ring	(-20°C to +180°C)
6	EPDM O-ring	(-50°C to +110°C)