



EU Type Examination Certificate CML 19ATEX1330X Issue 3

- 1 Equipment intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU
- 2 Equipment RA** Range of Rotating Adaptors Reducers and Elbows
- 3 Manufacturer Peppers Cable Glands Limited
- 4 Address Stanhope Road, Camberley, Surrey, GU15 3BT, United Kingdom
- 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 6738671, Koopvaardijweg 32, 4906CV Oosterhout The Netherlands, Notified Body Number 2776, in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, 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 to the Directive.

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 EU Type Examination certificate relates only to the design and construction of the specified equipment or component. Further requirements of Directive 2014/34/EU Article 13 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 60079-1:2014 EN 60079-31:2014

EN IEC 60079-7:2015+A1:2018

10 The equipment shall be marked with the following:

〈ξx〉_{I M2}

II 2 G

Ex db IIC Gb Ex eb IIC Gb

Ts = -60°C to +135°C

Ex db I Mb

Ex eb I Mb

IP66 / IP68 (2 m for 24 hours)

ʹξx〉_{II 1 D}

Ex ta IIIC Da

R. C. Marshall Operations Manager





11 Description

The RA** range of rotating adaptors, reducers and elbows are constructed from brass or stainlesssteel hexagonal shape extrusion or block of material machined to form a 90° elbow. The ends are machined to form optional male and female entry thread connections as indicated below:

ADA							1ETR							IN	<u>рі, в</u>	SPP	, BSF	<u>8</u> 1	NPS	IVI						P	G		_							ET			
KEY: = ADAPTOR = REDUCER		M12	M16	M20	M25	M32	M40	M50	M63	M75	M80	M85	1/4"	3/8"	1/2"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"	PG7	PG9	PG11	PG13.5	PG16	PG21	PG29	PG36	PG42	PG48	1/2"	5/8"	3/4"	1"	1-1/4"	1-1/2"	2"	2-1/2"
Т	M12	Α	Α	Α									Α	Α	Α							Α	Α	Α	Α	_						Α	Α	Α					
[M16	R	Α	Α	Α								Α	Α	Α	Α						R	Α	Α	Α							Α	Α	Α	Α				
[M20	R	R	Α	Α	Α							R	Α	Α	Α	Α					R	R	Α	Α	Α	Α					R	R	Α	Α	Α			
З	M25	R	R	R	Α	Α	Α						R	R	R	Α	Α	Α				R	R	R	R	Α	Α	Α				R	R	R	Α	Α	Α		
METRIC	M32	R	R	R	R	Α	Α	Α					R	R	R	R	Α	Α	Α			R	R	R	R	R	Α	Α	Α			R	R	R	R	Α	Α	Α	
Σ	M40	R	R	R	R	R	Α	Α	Α				R	R	R	R	R	Α	Α	Α		R	R	R	R	R	R	Α	Α	Α		R	R	R	R	R	Α	Α	Α
[M50	R	R	R	R	R	R	Α	Α	Α			R	R	R	R	R	R	Α	Α	Α	R	R	R	R	R	R	R	R	Α	Α	R	R	R	R	R	R	Α	Α
[M63	R	R	R	R	R	R	R	Α	Α	Α	Α	R	R	R	R	R	R	R	Α	Α	R	R	R	R	R	R	R	R	R	Α	R	R	R	R	R	R	R	Α
	M75	R	R	R	R	R	R	R	R	Α	Α	Α	R	R	R	R	R	R	R	R	Α	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
	M80	R	R	R	R	R	R	R	R	Α	Α	Α	R	R	R	R	R	R	R	R	Α	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
	M85	R	R	R	R	R	R	R	R	R	Α	Α	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
	M90	R	R	R	R	R	R	R	R	R	R	Α	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
	1/4"	Α	Α	Α									Α	Α	Α							Α	Α	Α	Α							Α	Α	Α					
Σ	3/8"	R	Α	Α	Α								Α	Α	Α	Α						R	Α	Α	Α							R	Α	Α	Α				
Ň	1/2"	R	R	Α	Α	Α							R	Α	Α	Α	Α					R	R	Α	Α	Α	Α					R	R	Α	Α	Α			
ø	3/4"	R	R	R	Α	Α	Α						R	R	R	Α	Α	Α				R	R	R	R	Α	Α	Α				R	R	R	Α	Α	Α		
LdS [1"	R	R	R	R	Α	Α	Α					R	R	R	R	Α	Α	Α			R	R	R	R	R	Α	Α	Α			R	R	R	R	Α	Α	Α	
Р, В	1-1/4"	R	R	R	R	R	Α	Α	Α				R	R	R	R	R	Α	Α	Α		R	R	R	R	R	R	Α	Α	Α		R	R	R	R	R	Α	Α	Α
BSPP, BSPT & NPSM	1-1/2"	R	R	R	R	R	R	Α	Α	Α			R	R	R	R	R	R	Α	Α	Α	R	R	R	R	R	R	R	Α	Α	Α	R	R	R	R	R	R	Α	Α
NPT, I	2"	R	R	R	R	R	R	R	Α	Α	Α	Α	R	R	R	R	R	R	R	Α	Α	R	R	R	R	R	R	R	R	R	Α	R	R	R	R	R	R	R	Α
ž	2-1/2"	R	R	R	R	R	R	R	R	Α	Α	Α	R	R	R	R	R	R	R	R	Α	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
	3"	R	R	R	R	R	R	R	R	R	Α	Α	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
ļ	PG7	Α	Α	Α									Α	Α	Α							Α	Α	Α	Α							Α	Α	Α					
ļ	PG9	Α	Α	Α									Α	Α	Α							Α	Α	Α	Α	Α						R	Α	Α					
ļ	PG11	R	Α	Α	Α								R	Α	Α	Α						R	Α	Α	Α	Α	Α					R	Α	Α	Α		_		
ļ	PG13.5	R	R	Α	Α	Α							R	R	Α	Α	Α					R	R	Α	Α	Α	Α					R	R	Α	Α	Α			
ğ	PG16	R	R	Α	Α	Α	Α						R	R	Α	Α	Α					R	R	R	Α	Α	Α					R	R	Α	Α	Α	<u> </u>		-
-	PG21	R	R	R	Α	Α	Α						R	R	R	Α	Α	Α				R	R	R	R	R	Α	Α				R	R	R	Α	Α	Α	L	
ļ	PG29	R	R	R	R	R	Α	Α	Α				R	R	R	R	Α	Α	Α			R	R	R	R	R	R	Α	Α			R	R	R	R	R	Α	Α	A
ŀ	PG36	R	R	R	R	R	R	Α	Α	Α			R	R	R	R	R	Α	Α	Α		R	R	R	R	R	R	R	Α	Α	Α	R	R	R	R	R	R	Α	A
ŀ	PG42	R	R	R	R	R	R	A	A	A			R	R	R	R	R	R	R	A	Α	R	R	R	R	R	R	R	R	A	Α	R	R	R	R	R	R	A	A
	PG48	R	R	R	R	R	R	R	Α	Α			R	R	R	R	R	R	R	Α	Α	R	R	R	R	R	R	R	R	R	Α	R	R	R	R	R	R	R	Α
ŀ	1/2"	A	Α	A	_				-				Α	Α	A	-			_			Α	Α	A	A							A	Α	A		_	-		-
ŀ	5/8"	A	A	A	A								A	A	A	A						Α	A	A	A							A	A	A			-		-
ŀ	3/4"	R	A	A	A	A			-				R	A	A	A	A	-				R	R	A	A	A	A					R	A	A	A				-
ьŀ	1"	R	R	R	A	A	A	L					R	R	R	A	A	A	L			R	R	R	R	A	A	A	<u> </u>			R	R	R	A	A	A	L_	_
Ш	1-1/4"	R	R	R	R	A	A	A					R	R	R	R	A	A	A			R	R	R	R	R	A	A	A			R	R	R	R	A	A	A	-
ł	1-1/2"	R	R	R	R	R	A	A	A	•			R	R	R	R	R	A	A	A	•	R	R	R	R	R	R	A	A	A	A	R	R	R	R	R	A	A	A
ł	2"	R	R	R	R	R	R	A	A	A		•	R	R	R	R	R	R	A	A	A	R	R	R	R	R	R	R	A	A	A	R	R	R	R	R	R	A	A
ŀ	2-1/2"	R R	A R	A	A	A	R R	R R	R R	R R	R R	R R	R R	A R	A	R R	A R	A R	R R	R R	R R	R R	R R	R	R R	AR													

The equipment comprises of two parts, linked together in which they can rotate whilst are interlocked. Once the parts are linked together, they form a cylindrical flameproof joint coupled with O-ring and snap ring to hold the two parts together. The internal or external threads at each end may be provided with the above thread options and configurations. The assembly is rated for IP66 and IP68 (2 meters for 24 hours) ratings.





The Types and Model numbers of the RA** Range of Rotating Adaptors Reducers and Elbows are as follows:

Туре	Adaptors/Reducers	Туре	Elbow
RAFF	Female to Female	RAFF 90	Female to Female Elbow
RAMF	Male to Female	RAMF 90	Male to Female Elbow
RAMM	Male to Male	RAMM 90	Male to Male Elbow
RAMF	Male to Female	RAMF 90	Male to Female Elbow

Variation 1

This variation introduced the following modifications:

- i. To permit the use of an alternative internal O-ring seal material.
- ii. To permit modifications to the product length to accommodate design requirements for other approvals.
- iii. To recognise minor certification document modifications.

Variation 2

This variation introduced the following modifications:

i. Addition of specific condition of use relating to EPL Mb

Variation 3

This variation introduced the following modifications:

- i. Changes to tolerance dimensions. Reduction of diameters 'K' on F1 and M1 options.
- ii. The option to leave a full hexagon form on components F1 & M1 in brass material.
- iii. Reduction to IPX8 depth and duration.
- iv. Re-introduction of silicone O-ring seal material 714177.

12 Certificate history and evaluation reports

Issue	Date	Associated report	Notes
0	06 Sep 2019	R12052A/00	Issue of Prime Certificate
1	18 Feb 2020	R13039A/00	Introduction of Variation 1
2	21 May 2020	R12052A/01	Inclusion of additional specific condition of use
3	14 Dec 2021	R14802A/00	Introduction of Variation 3

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

13 Conditions of Manufacture

None





14 Specific Conditions of Use (Special Conditions)

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

- i. The Adaptors, Reducers, and Elbows are manufactured with a cylindrical joint between the entry body and threaded ferrule. This joint shall not be repaired.
- ii. The Adaptors, Reducers, and Elbows shall not be used outside their service temperature range of -60°C to +135°C.
- iii. The Adaptors, Reducers, and Elbows, when used in Group I (mining) applications, shall be mounted in a location with low risk of mechanical damage.

Certificate Annex

Certificate NumberCML 19ATEX1330XEquipmentRA** Range of Rotating Adaptors Reducers and ElbowsManufacturerPeppers Cable Glands Limited



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

Issue 0

Drawing No	Sheets	Rev	Approved date	Title
PCG/ATX/RAFF	1 to 3	1	06 Sep 2019	RA – Series Rotating Adaptors & Reducers Female – Female
PCG/ATX/RAFF 90	1 to 3	1	06 Sep 2019	RA 90 – Series Rotating Adaptors & Reducers Female – Female
PCG/ATX/RAMF	1 to 3	1	06 Sep 2019	RA – Series Rotating Adaptors & Reducers Male – Female
PCG/ATX/RAMF 90	1 to 3	1	06 Sep 2019	RA 90 – Series Rotating Adaptors & Reducers Male – Female
PCG/ATX/RAMM	1 to 3	1	06 Sep 2019	RA – Series Rotating Adaptors & Reducers Male – Male
PCG/ATX/RAMM 90	1 to 3	1	06 Sep 2019	RA 90 – Series Rotating Adaptors & Reducers Male – Male
PCG/OR	1 of 1	15	06 Sep 2019	O-Ring Seal – CR & UL Barrier Cable Glands and RA Range Internal O-ring Seal
PCG/ATX/ARSNPRG	1 of 1	1	06 Sep 2019	Snap Ring
PCG/MATS/SB	1 of 1	5	06 Sep 2019	Standard Materials ATEX Certified Glands Using "M", "V" AND "N" Components

Issue 1

Drawing No	Sheets	Rev	Approved date	Title
PCG/ATX/RAFF	1 to 3	2	18 Feb 2020	RA – Series Rotating Adaptors & Reducers Female – Female Options
PCG/ATX/RAFF 90	1 to 3	2	18 Feb 2020	RA 90 – Series Rotating Adaptors & Reducers Female – Female Options
PCG/ATX/RAMF	1 to 3	2	18 Feb 2020	RA – Series Rotating Adaptors & Reducers Male – Female Options
PCG/ATX/RAMF 90	1 to 3	2	18 Feb 2020	RA 90 – Series Rotating Adaptors & Reducers Male – Female Options
PCG/ATX/RAMM	1 to 3	2	18 Feb 2020	RA – Series Rotating Adaptors & Reducers Male – Male Options
PCG/ATX/RAMM 90	1 to 3	2	18 Feb 2020	RA 90 – Series Rotating Adaptors & Reducers Male – Male Options

Certificate Annex

Certificate Number	CML 19ATEX1330X	/
Equipment	RA** Range of Rotating Adaptors Reducers and Elbows	
Manufacturer	Peppers Cable Glands Limited	



Drawing No	Sheets	Rev	Approved date	Title
PCG/AROR	1 of 1	1	18 Feb 2020	Accessory Component – O-Ring Seal – RA Range Internal O-ring Seals
PCG/ATX/ARSNPRG	1 of 1	2	18 Feb 2020	Snap Ring

Issue 2

No additional documents

Issue 3

Drawing No	Sheets	Rev	Approved date	Title
PCG/ATX/RAFF	1 to 3	3	14 Dec 2021	RA - Series Rotating Adaptors & Reducers Female - Female
PCG/ATX/RAFF 90	1 to 3	3	14 Dec 2021	RA 90 - Series Rotating Adaptors & Reducers Female - Female
PCG/ATX/RAM	1 to 3	3	14 Dec 2021	RA - Series Rotating Adaptors & Reducers Male - Female
PCG/ATX/RAMF 90	1 to 3	3	14 Dec 2021	RA 90 - Series Rotating Adaptors & Reducers Male - Female
PCG/ATX/RAMM	1 to 3	3	14 Dec 2021	RA - Series Rotating Adaptors & Reducers Male - Male
PCG/ATX/RAMM 90	1 to 3	3	14 Dec 2021	RA 90 - Series Rotating Adaptors & Reducers Male – Male
PCG/AROR	1 of 1	2	14 Dec 2021	Accessory Component – O-Ring Seal – RA Range Internal O-ring Seals