



[1] **EU-TYPE EXAMINATION CERTIFICATE**

[2] **Equipment or Protective System intended for use in potentially explosive atmospheres**
Directive 2014/34/EU

[3] **EU-Type Examination Certificate number:**
CESI-15-ATEX-02-X

[4] **Product:** Cable glands CG, CGU, MCGU and CGA, IP Exd

IPH

CESI S.p.A.
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ATEX

[6] **Address:** Erhewer 13-15

(Germany)

[7] This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

[8] CESI, notified body n. 0722 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and Council of 26 February 2014, certifies that this Product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of Product intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential report n. EX-B8004734.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 60079-0: 2012 EN 60079-1: 2014 EN 60079-7: 2015 EN 60079-31: 2014

except in respect of those requirements listed at item 18 of the Schedule.

[10] If the name of the client appears after the certificate number, it indicates that the Product is intended for use in a specific location.

[Handwritten signature]
CESI S.p.A.
Business Area Certification
II Responsible
[Handwritten signature]
(Roberto Piccini)

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[15] **Description of equipment**

The series of cable glands with trade mark **Rose Systemtechnik GmbH** is composed by the following types: **CGU.., MCGU.., CGA.. and CGA..LT..** cable glands.

The cable glands series **CGU.., MCGU.., CGA.. and CGA..LT..** are suitable for inserting circular cables into Ex db enclosures having threaded entries and Ex eb or Ex tb enclosures having either threaded or plane entries. Attachment of the glands to an enclosure is by means of the male threaded portion on the male body.

An elastomeric inner sealing ring is used in each gland type to facilitate sealing between the cable and gland body and to clamp the cable to prevent pulling or twisting forces being transmitted to the conductor connections. Ingress protection of IP66/68 (50 m for 30 min.) is maintained when the glands are installed in accordance with the manufacturer's instructions.

The types **CGU.. and MCGU..** glands are designed for non-armoured cables and are comprised of a male body, inner sealing ring, pressure ring and cap. When the cap is screwed onto the male body, the pressure ring comprises the lower sealing ring onto the outer sheath of the cable and realizes the clamping.

The Standard types **CGA.. and CGA..LT..** cable glands are suitable for steel wire armoured cables. They are comprised of a male body, lower sealing ring, grounding cone, swivel braid retainer, middle body, upper sealing ring and cap. When the middle body is screwed onto the male body the cable wire armour is clamped between the swivel braid retainer and the grounding cone and the lower sealing ring is compressed onto the inner sheath

of the cable. Sealing of the cable outer sheath is facilitated by the inner sealing ring which is compressed onto

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Service temperature ranges:

Models with sealing rings made of Chloroprene rubber:

- 40 ÷ + 100 °C for types CGA., CGU.;
- 40 ÷ + 80 °C for type MCGU.;
- 40 ÷ + 80 °C for type CGA..LT..

Models with sealing rings made of Silicon rubber:

- 60 ÷ + 130 °C for types CGA., CGU.;
- 60 ÷ + 80 °C for type MCGU.;
- 60 ÷ + 80 °C for type CGA..LT..

CGA.. models made of Aluminium alloy:

up to + 80 °C.

Types for **Group I** (mines) execution:

up to + 80 °C.

Type	Exec.	Materials	Seals	Temperature
CGA.	Group I	Brass, Nickel plated brass	Chloroprene	-40°C ÷ +80°C
		Stainless steel	Silicon	-60°C ÷ +80°C
		Galvanised steel	All seals	-20°C ÷ +80°C
CGA..	Group IIC	Brass, Nickel plated brass	Chloroprene	-40°C ÷ +100°C
		Stainless steel	Silicon	-60°C ÷ +130°C
			Chloroprene	-40°C ÷ +80°C

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Identification of cable glands CGA., CGU., and MCGU. types:

****	*	***	*	(**)	**	*	-	**	
									Code that identifies the type: - CGA : cable gland for armoured or shielded cable; - MCGU : cable gland for non-armoured cable; - CGU : cable gland for non-armoured cable.
									Code that identifies the type (<i>CGA. only</i>) - Blank : standard (<i>for armoured cables only</i>) - U : universal (<i>for armoured or shielded cables</i>) - O : offshore (<i>for shielded cables only</i>)
									Size (<i>see Table 1, 2 and 3 and</i>).
									Type of thread: - N : NPT ANSI/ASME B1.20.1 - S : NPSM ANSI/ASME B1.20.1 - P : PG DIN 40430 (<i>assessed for Ex eb protection mode only</i>) - M : ISO 261 pitch 1.5 - C : GAS ISO 228-1
									Thread size (<i>see Table 1, 2 and 3</i>)
									Manufacturing material: - A : aluminium alloy (<i>CGA. type, M25 up to M75 sizes only</i>) - B : brass - BN : nickel-plated brass - X : stainless steel - Z : galvanized carbon steel
									Seals material: - C : Chloroprene (Neoprene) - S : Silicon rubber
									Flat washer: - Blank : none - WC : with flat washer in Chloroprene (Neoprene) - WS : with flat washer in Silicon rubber - WF : with flat washer in Fiber

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Types and thread sizes of cable glands are listed on the followings Table 1, Table 2 and Table 3.

Table 1:

CGA..					
Cable glands		Thread size		Cable Dia. ranges (mm)	
Type	Size	NPT	ISO pitch 1.5	Inner sheath	Armour sheath
CGA	OS	1/4"	M 12	2.4	2.55

Note: Aluminium alloy available from M25x1.5 (1/2"NPT) up to M75x1.5 (2 1/2"NPT) sizes only.

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Table 2:



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Table 3:

MCGU..				
Cable glands		Thread size		Cable Dia. ranges (mm)
Type	Size	NPT	ISO pitch 1.5	
MCGU	01M2..	3/8"	M 16	3-8.5
MCGU	01LM1..	3/8"	M 16	6-9
MCGU	01LM2..	3/8"	M 16	9-12
MCGU	1M1..	1/2"	M 20	6-9
MCGU	1M2..	1/2"	M 20	9-12
MCGU	1LM1..	1/2"	M 20	8.5-11.5
MCGU	1LM2..	1/2"	M 20	11.5-14.5
MCGU	2SM1..	3/4"	M 25	6-9
MCGU	2SM2..	3/4"	M 25	9-12

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Table 4

CGA..LT.. and CGAU..LT..						
Cable glands		Thread size			Cable Dia. ranges (mm)	
Type	Size	NPT	ISO pitch 1.5	ISO pitch 2.0	Inner sheath	Armour sheath
CGA..LT	1	1/2"	M 20	-	8.5-14.5	12-20
CGA..LT	2X	3/4"	M 25	-	8.5-14.5	12-20
CGA..LT	2	3/4"	M 25	-	8.5-16	12-21
CGA..LT	3X	1"	M 32	-	8.5-16	12-21
CGA..LT	9	3" 1/2	-	M 90	70-82	78-90

[16] Report n. EX- B8004734.

Routine tests

None.

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[17] **Special conditions for safe use (X)**

- The coupling of the cable glands with the enclosures shall be made as indicated by the manufacturer in the documents annexed to this certificate in order to respect the type of protection of the electrical apparatus on which cable glands are mounted.

The cable glands shall be mounted on the electrical enclosures in such a way that accidental rotation and

loosening will be prevented.

The GGA, GGA-IT and MGGH cable glands types have to be protected from hydraulic fluids, oils and

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Descriptive documents, follow:

- Drawing RA3-CGU (NPT) (1 sheet)			0.26
- Drawing RA3-MCGU (M) (1 sheet)			0.26
- Drawing RA3-MCGU (NPT) (1 sheet)			0.26
- Drawing RA4-14-IEC.55 (1 sheet)			0.26
- Drawing RA4-14-IEC.56 (1 sheet)			0.26
- Drawing RA4-14-IEC.57 (1 sheet)			0.26
- Drawing RA3-14-IEC.61 (1 sheet)			0.26
- Drawing RA3-14-IEC.62 (1 sheet)			0.26
- Drawing RA4-14-IEC.63 (1 sheet)			0.26
- Drawing RA3-14-IEC.64 (1 sheet)			0.26
- Drawing RA4-14-IEC.65 (1 sheet)			0.26
- Drawing RA3-14-IEC.68 (1 sheet)			0.26
- Drawing RA3-IEC.69 (1 sheet)			0.26
- Drawing RA3-IEC.61 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-IEC.62 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA3-IEC.64 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-14-IEC.LT09 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-14-IEC.LT09 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.04 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.06 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.07 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.08 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.53 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.55 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.56 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.57 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.60 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.63 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.65 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.68 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.70 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.71 (1 sheet)	rev.00	dated	2017.10.26
- Drawing RA4-IEC.72 (1 sheet)	rev.00	dated	2017.10.26