



CESI S.p.A.
Via Rubattino 54
I-20134 Milano - Italy
Tel: +39 02 21251
Fax: +39 02 21255440
e-mail: info@cesi.it
www.cesi.it

Schema di certificazione

CESI-ATEX

[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 19 ATEX 022 X

[4] Product: **Barrier cable glands series 07-9431-2 and 07-9431-3**

[5] Manufacturer: **BARTEC GmbH**

[6] Address: **Max-Eyth-Str. 16 - 97980 Bad Mergentheim (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-B9009955**.

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

EN 60079-0:2012/A11:2013 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 sign "X" is placed after the certificate number, it indicates that the Product is subject to special conditions for safe use specified in the schedule to this certificate.

[11] This EU-TYPE EXAMINATION CERTIFICATE relates only to the design, examination and tests of the specified Product in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this Product. These are not covered by this certificate.

[12] The marking of the Product shall include the following:

I M2 **Ex db I Mb and Ex eb I Mb**
and/or

II 2 GD **Ex db IIC Gb and Ex eb IIC Gb and**
Ex tb IIIC Db
IP66/68

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Date 30th May 2019 - Translation issued the 30th May 2019

Prepared
Adrián Lucas Vagni

Verified
Mirko Balaž

Approved
Roberto Piccin

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CESI S.p.A.
Testing & Certification Division
Business Area Certification
// Responsabile
(Roberto Piccin)



PRD N. 018B
Membro degli Accordi di Mutuo Riconoscimento EA, IAF e ILAC
Signatory of EA, IAF and ILAC Mutual Recognition Agreements

[13]

Schedule

[14] **EU-TYPE EXAMINATION CERTIFICATE n. CESI 19 ATEX 022 X**

[15] **Description of Product**

A Barrier gland is an Ex db cable gland incorporating a compound filled chamber sealing around the individual cores of the cable to maintain the flameproof integrity of the equipment on which it has been fitted.

The Barrier glands **07-9431-3**** and **07-9431-2**** series are suitable for inserting single cable or multiple circular cores 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. The epoxy filling compound type **EXEP epoxy putty** is used to seal cores and gland body together and to clamp the cables to prevent pulling or twisting forces being transmitted to the conductors 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.

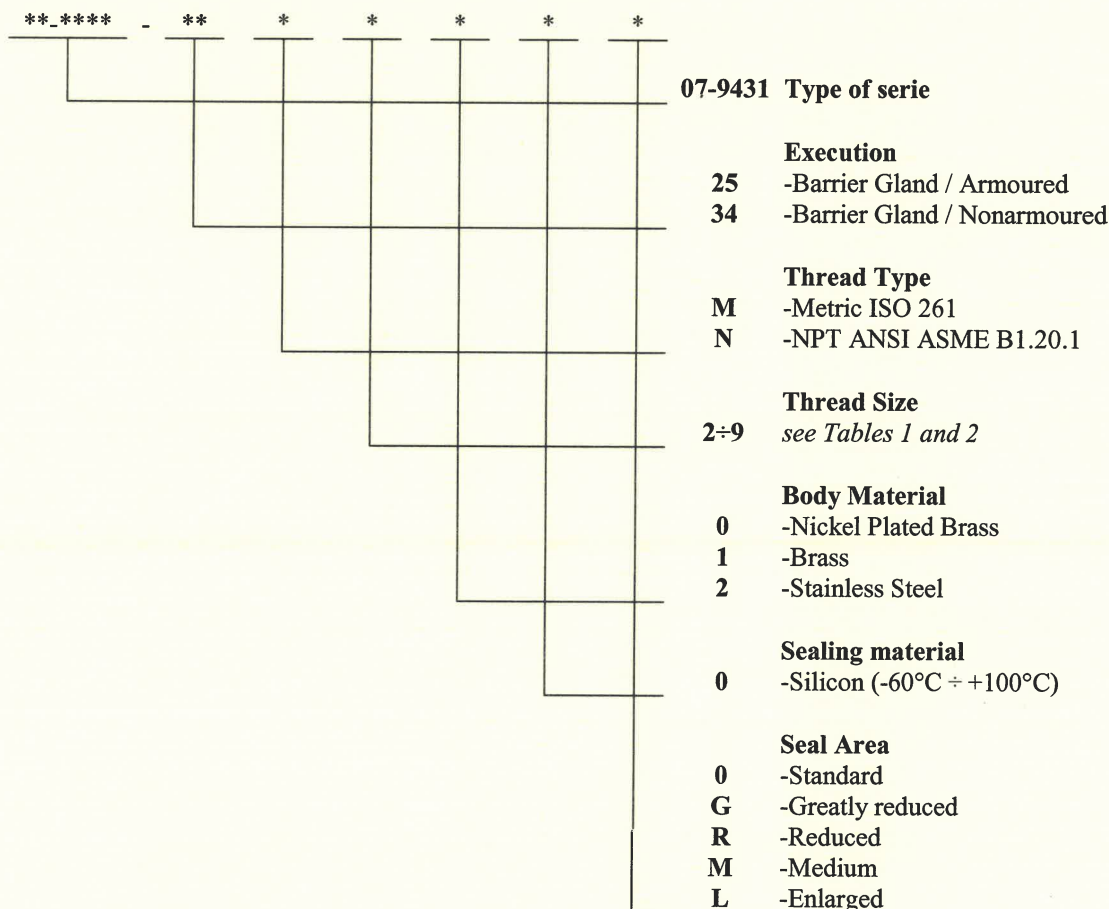
The Barrier glands **07-9431-3**** type are designed for non-armoured cables while the Barrier glands **07-9431-2**** type are designed for steel wire (SWA), steel wire braid (SWB) and steel tape (STA) armoured cables.

The Barrier glands standard threads types are cylindrical ISO Metric 965/1 and ISO 965/3 from M20x1.5 up to M90x1.5. Alternative available threads are tapered NPT ANSI/ASME B1.20.1 from 1/2" up to 3".

To guarantee the IP 66/68 (50 m for 30 min.) degree of protection the Barrier glands **07-9431-3****, **07-9431-2**** series with cylindrical threads employs an O-Ring or a flat washer made of Silicon rubber, while for tapered threads the IP 66/68 degree of protection is achieved with sealant put at least on two complete threads engaged of the threaded coupling.

The Barrier glands are generally made in Brass (CuZn39Pb3 EN 12164) with CW614N grade. The alternative materials Nickel plated brass (CuZn39Pb3 EN 12164) or Stainless steel (type AISI316, AISI304 and AISI303) can be supplied on demand.

Identification of cable glands 07-9431-3**, 07-9431-2** series:



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Schedule

[14] **EU-TYPE EXAMINATION CERTIFICATE n. CESI 19 ATEX 022 X**

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

Table 1:
Barrier cable glands 07-9431-3 series**

Size	Thread size		Cable dia. Ranges (mm)			Max. cross sectional area of cores admitted mm ²
	ISO 261 pitch 1.5	NPT ANSI B1.20.B1	Cable sheath dia. Min. ÷ Max.	Over core dia. Min. ÷ Max.	Max. No. of cores	
2	M 20	1/2"	3.0 – 8.5	1.5 9.5	9	70.90
2	M 20	1/2"	6.0 – 13.0	1.5 9.5	9	70.90
2	M 20	1/2"	8.0 – 15.0	1.5 9.5	9	70.90
2	M 20	1/2"	13.5 – 21.0	1.5 12.0	11	113.10
3	M 25	3/4"	8.0 – 15.0	1.5 9.5	9	70.90
3	M 25	3/4"	13.5 – 21.0	1.5 12.0	11	113.10
3	M 25	3/4"	18.0 – 27.0	1.5 15.0	22	176.70
4	M 32	1"	18.0 – 27.0	1.5 15.0	22	176.70
4	M 32	1"	23.0 – 33.0	1.5 21.5	36	363.10
5	M 40	1" ¼	23.0 – 33.0	1.5 21.5	36	363.10
5	M 40	1" ¼	29.0 – 40.0	1.5 29.0	55	660.50
6	M 50	-	29.0 – 40.0	1.5 29.0	55	660.50
6	M 50	1" ½	35.0 – 48.0	1.5 37.0	75	1075.20
7	M 63	-	35.0 – 48.0	1.5 37.0	75	1075.20
7	M 63	2"	42.0 – 56.0	1.5 46.0	99	1661.90
8	M 75	-	42.0 – 56.0	1.5 46.0	99	1661.90
8	M 75	2" ½	54.0 – 70.0	1.5 58.0	129	2642.10
9	M 90	3"	54.0 – 70.0	1.5 58.0	129	2642.10

Table 2:
Barrier cable glands 07-9431-2 series**

Size	Thread size		Cable dia. Ranges (mm)			Max. cross sectional area of cores admitted mm ²
	ISO 261 pitch 1.5	NPT ANSI B1.20.B1	Armour sheath dia. Min. ÷ Max.	Over core dia. Min. ÷ Max.	Max. No. of cores	
2	M 20	1/2"	3.0 – 8.5	1.5 9.5	9	70.90
2	M 20	1/2"	6.0 – 13.0	1.5 9.5	9	70.90
2	M 20	1/2"	8.0 – 15.0	1.5 9.5	9	70.90
2	M 20	1/2"	13.5 – 21.0	1.5 12.0	11	113.10
3	M 25	3/4"	8.0 – 15.0	1.5 9.5	9	70.90
3	M 25	3/4"	13.5 – 21.0	1.5 12.0	11	113.10
3	M 25	3/4"	18.0 – 27.0	1.5 15.0	22	176.70
4	M 32	1"	18.0 – 27.0	1.5 15.0	22	176.70
4	M 32	1"	23.0 – 33.0	1.5 21.5	36	363.10
5	M 40	1" ¼	23.0 – 33.0	1.5 21.5	36	363.10
5	M 40	1" ¼	29.0 – 40.0	1.5 29.0	55	660.50
6	M 50	-	29.0 – 40.0	1.5 29.0	55	660.50
6	M 50	1" ½	35.0 – 48.0	1.5 37.0	75	1075.20
7	M 63	-	35.0 – 48.0	1.5 37.0	75	1075.20
7	M 63	2"	42.0 – 56.0	1.5 46.0	99	1661.90
8	M 75	-	42.0 – 56.0	1.5 46.0	99	1661.90
8	M 75	2" ½	54.0 – 70.0	1.5 58.0	129	2642.10
9	M 90	3"	54.0 – 70.0	1.5 58.0	129	2642.10

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Schedule

[14] **EU-TYPE EXAMINATION CERTIFICATE n. CESI 19 ATEX 022 X**

Constructional characteristics

Degree of protection (EN 60529): IP 66 or IP 68 (50 m for 30 min.).
 Ambient/Service temperature range: - 60 up to + 100 °C.

[16] **Report n. EX-B9009955**

Routine tests

None

[17] **Special conditions for safe use**

- The coupling of the Barrier 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 Barrier cable glands are mounted.
- The Barrier cable glands shall be mounted at the electrical apparatus in such a way that accidental rotation and loosening will be prevented.
- When the cores will be fitted inside the sealing pot by filling compound, the mounting should guarantee a sufficient quantity of compound around each single core to ensure the clamping of the cemented joint. This shall be done as indicated in the manufacturer instructions.
- The Barrier cable glands 07-9431-3** and 07-9431-2** series have to be protected from hydraulic fluids, oils and greases when applied for Group I (mines) use.
- The Barrier cable glands should be installed within the following ambient/service temperature range: from - 60°C up to + 100°C.
- The degree of protection IP 66/68 according to the EN 60529 standard will be guaranteed for the Barrier cable glands if the holes into which they are mounted are suitably sealed. To this scope the correct positioning of the gaskets (for cylindrical threads) or the application of sealant on the threads (for tapered threads), shall be done as indicated in the manufacturer instruction.

[18] **Essential Health and Safety Requirements**

Compliance with the EHSR has been assured by compliance to the following standards:

EN 60079-0: 2012	Explosive atmospheres – Part 0: Equipment - General requirements;
EN 60079-0/A11: 2013	Explosive atmospheres – Part 0: Equipment - General requirements;
EN 60079-1: 2014	Explosive atmospheres – Part 1: Equipment protection by flameproof enclosure “d”;
EN 60079-7: 2015	Explosive atmospheres – Part 7: Equipment protection by increased safety “e”;
EN 60079-31: 2014	Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure “t”.

[19] **Descriptive documents (prot. EX- B9009963)**

- 01-9431-6B0001 Technical Note (8 sheets) rev.0	dated 15.05.2019
- 01-9431-6N0001 Safety, Maintenance and Mounting Instructions (13 sheets) rev.0	dated 15.05.2019
- 01-9431-650001 Barrier cable gland dimension table for 07-9431-2 (1 sheet) rev.0	dated 15.05.2019
- 01-9431-650002 Barrier cable gland dimension table for 07-9431-2 (1 sheet) rev.0	dated 15.05.2019
- 01-9431-650003 Barrier cable gland dimension table for 07-9431-3 (1 sheet) rev.0	dated 15.05.2019
- 01-9431-650004 Barrier cable gland dimension table for 07-9431-3 (1 sheet) rev.0	dated 15.05.2019
- 01-9431-6A0001 Group I, Group II and Group III Marking information for 07-9431-2 and 07-9431-3 Barrier Glands (1 sheet) rev.0	dated 15.05.2019
- 01-9431-6A0002 Group II and Group III Marking information for 07-9431-2 and 07-9431-3 Barrier Glands (1 sheet) rev.0	dated 15.05.2019
- 01-9431-6A0003 Group I Marking information for 07-9431-2 and 07-9431-3 Barrier Glands (1 sheet) rev.0	dated 15.05.2019

One copy of all documents is kept in CESI files.

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