



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 CES 19.0009X

Issue No: 0

Certificate history:

Issue No. 0 (2019-06-21)

Status: **Current**

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Date of Issue: **2019-06-21**

Applicant: **BARTEC GmbH**
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

Equipment: **Barrier cable glands, series 07-9431-3** and 07-9431-2****

Optional accessory:

Type of Protection: **Flameproof enclosures 'd'; Increased safety 'e'; Dust Ignition protection 't'**

Marking:

Ex db I Mb and Ex eb I Mb

Ex db IIC Gb and Ex eb IIC Gb

Ex tb IIIC Db

IP66/68

Approved for issue on behalf of the IECEx
Certification Body:

Mirko Balaz

Position:

Head of IECEx CB

Signature:
(for printed version)

Date:

21-6-2019

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:

CESI
Centro Elettrotecnico
Sperimentale Italiano S.p.A.
Via Rubattino 54
20134 Milano
Italy

CESI S.p.A.
Testing & Certification Division
Business Area Certification
Il Responsabile

(Roberto Piccin)



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Manufacturer: **BARTEC GmbH**
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
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:

[IT/CES/ExTR19.0010/00](#)

Quality Assessment Report:

[DE/TUN/QAR06.0017/10](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

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 (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 cable glands characteristics are further described in the Annexe of this certificate.

SPECIFIC CONDITIONS OF USE: YES as shown below:

- 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 IEC 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.

Annex:

[IECEx CES 19.0009X Issue 0 ANNEX- Barrier glands_07-9431-.. BARTEC.pdf](#)

Prot: B9012807

Annex to certificate: IECEX CES 19.0009X Issue No.:0 of 2019-06-21

Applicant: BARTEC GmbH
Max-Eyth-Straße 16 - 97980 Bad Mergentheim – Germany

Apparatus: Barrier cable glands, series 07-9431-3** and 07-9431-2**

Description of the equipment:

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 (**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.

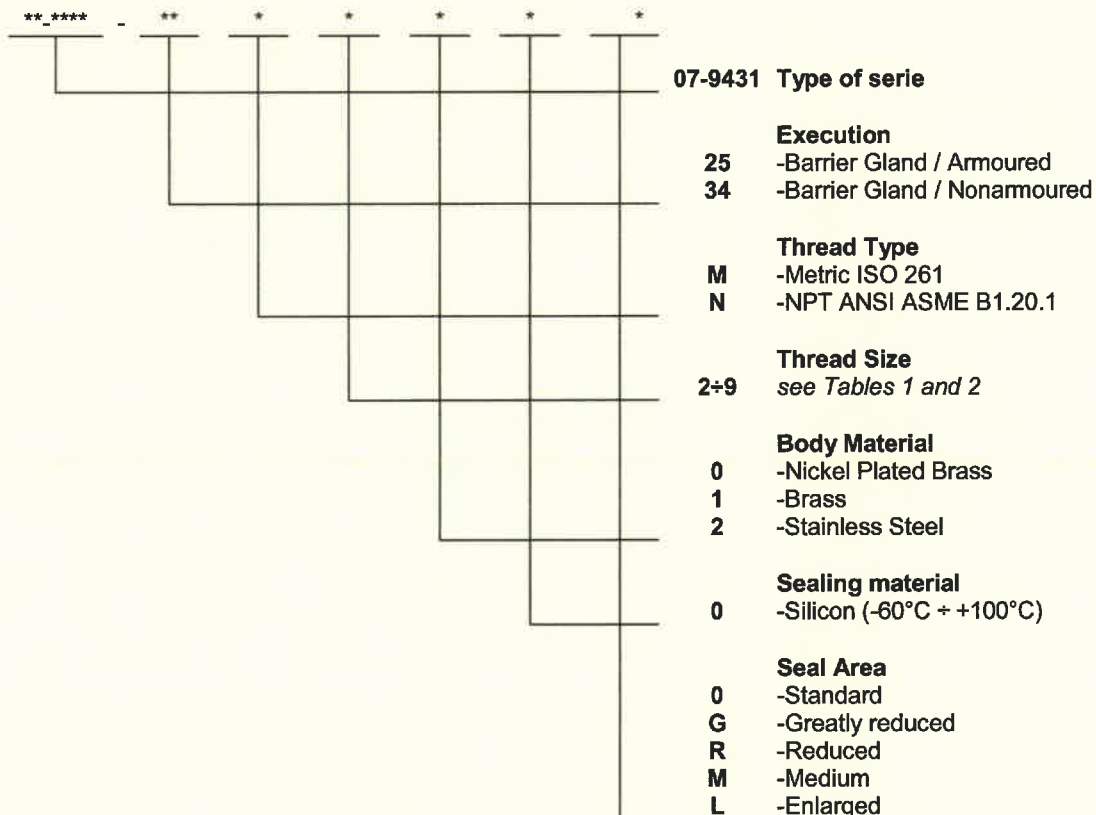
The Barrier glands 07-9431-3** and 07-9431-2** series have an ambient and service temperature range from -60°C up to +100°C.

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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Applicant: BARTEC GmbH

Max-Eyth-Straße 16 - 97980 Bad Mergentheim – Germany

Apparatus: Barrier cable glands, series 07-9431-3** and 07-9431-2**

Description of the equipment (follows)

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. No. of cores	Max. cross sectional area of cores admitted (mm ²)
	ISO 261 pitch 1.5	NPT	Cable sheath dia. Min. ÷ Max.	Over core dia.			
				Min.	Max.		
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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Max-Eyth-Straße 16 - 97980 Bad Mergentheim – Germany

Apparatus: Barrier cable glands, series 07-9431-3** and 07-9431-2**

Table 2:

Barrier cable glands 07-9431-2** series							
Size	Thread size		Cable dia. Ranges (mm)			Max. No. of cores	Max. cross sectional area of cores admitted (mm ²)
	ISO 261 pitch 1.5	NPT	Armour sheath dia. Min. ÷ Max.	Over core dia. Min. Max.			
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

Constructional characteristics

Degree of protection (IEC 60529): IP 66 or IP 68 (50 m for 30 min.).

Ambient temperature range: - 60°C up to +100°C.

Service temperature range: - 60°C up to +100°C.