IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Certificate No.: **IECEx CES 17.0029X**

Page 1 of 4

Certificate history:
Issue 2 (2019-05-09)
Issue 1 (2018-06-21)
Issue 0 (2017-07-31)

Status: **Current**

Issue No: 3

Date of Issue: 2021-10-26

Applicant: **Bimed Teknik Aletler Sanayi Ve Ticaret A.Ş.**
S.S Bakir Pirinç Sanayi Sitesi Leylak Caddesi no:16
TR-34524 Beylikdüzü - Istanbul
Turkey

Equipment: **Barrier cable glands, series KBCTA**, KBCTN**, KBCTNLS** (CenTAURUS)**

Optional accessory:

Type of Protection: **Flameproof enclosures ‘d’; increased safety 'e'; Dust ignition protection 't'**

Marking:

For **KBCTA**** *and* **KBCTN**** *types, only:*

Ex db I Mb *and* **Ex eb I Mb**

For all series and types:

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:

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 www.iecex.com or use of this QR Code.

Certificate issued by:

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

IECEx Certificate of Conformity

Manufacturer: **Bimed Teknik Aletler Sanayi Ve Ticaret A.Ş.**
S.S Bakir Pirinç Sanayi Sitesi Leylak Caddesi no:16
TR-34524 Beylikdüzü - Istanbul
Turkey

Additional manufacturing locations:

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 equipment 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 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2013 Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
Edition:2

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with 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 Reports:

IT/CES/ExTR17.0007/00 IT/CES/ExTR17.0007/01 IT/CES/ExTR17.0007/02
IT/CES/ExTR17.0007/03

Quality Assessment Report:

IT/CES/QAR12.0003/08

IECEx Certificate of Conformity

EQUIPMENT:
Equipment and systems covered by this Certificate are as follows:

The Barrier glands **KBCTA**, KBCTN**, KBCTNLS**** series (commercial gland family named CENTAURUS) 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 **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 conductor's 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 gland types KBCTN and KBCTNLS** are designed for non-armoured cables while the Barrier glands type KBCTA** are designed for SWA (steel wire armoured) cables, SWB (steel wire braided) and STA (steel tape armoured) cables.**

The Barrier gland types KBCTN and KBCTA** are designed for Group I and Group II applications while KBCTNLS** is designed for Group II applications only.**

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 **KBCTN**** and **KBCTA**** series have to be protected from hydraulic fluids, oils and greases when applied for Group I (mines) use.

The Barrier cable glands **KBCTA**** series for braided cables (SWB types) and **KBCTNLS**** series are not admitted when applied for Group I (mines) use.

The Barrier cable glands should be installed within the following ambient/service temperature ranges:

- from - 60°C up to + 100°C for models with Silicon flat washers;
- from - 50°C up to + 80°C for models with Fiber flat washers.

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

IECEx Certificate of Conformity

DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Variation 3.1.

The certified Barrier cable glands, series KBCTA**, KBCTN**, KBCTNLS** (CenTAURUS) previously assessed in compliance to IEC 60079-0:2011 Edition 6 and IEC 60079-7:2015 Edition 5, has been re-assessed on the basis of the Standard IEC 60079-0:2017 Edition 7 and IEC 60079-7:2017 Edition 5.1.

Variation 3.2.

Editorial corrections on the clamping range sizes for KBCTA** and KBCTN** type Barrier cable glands.

Variation 3.3.

To the certificated Barrier cable glands types KBCTA** and KBCTN** (CenTAURUS), new KBCTNLS** type has been added.

Annex:

IECEx CES 17.0029X Issue 3 ANNEX - Barrier cable glands KBCTN, KBCTA, KBCTNLS (CenTAURUS).pdf

IECEx Certificate of Conformity

Prot: C1018752

Annex to certificate: **IECEx CES 17.0029X Issue No: 3** of 2021-10-26

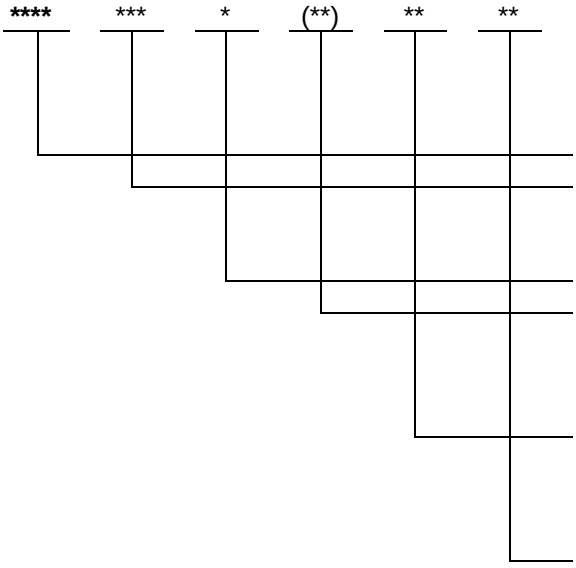
Applicant: **Bimed Teknik Aletler Sanayi Ve Ticaret A.Ş.**
S.S Bakir Pirinç Sanayi Sitesi Leylak Caddesi no:16
TR - 34524 Beylikdüzü – Istanbul (Turkey)

Electrical Apparatus: **Barrier cable glands, series KBCTA**, KBCTN**, KBCTNLS** (CenTAURUS)**

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 **KBCTA**, KBCTN**, KBCTNLS**** series (commercial gland family named CENTAURUS) 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 **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 conductor's 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 gland types KBCTN and KBCTNLS** are designed for non-armoured cables while the Barrier glands type KBCTA** are designed for SWA (steel wire armoured) cables, SWB (steel wire braided) and STA (steel tape armoured) cables.**
KBCTNLS type barrier conduit fitting is designed by combining KBCTN type Barrier gland and hoses. The lower part is the same as KBCTN type Barrier gland and upper part is designed for hose mounting. It is comprised by a cap, pressure ring, ferrule, barrier pressure ring bushing, barrier tube, lower body, and O-Ring. All metal and rubber material types which are used in KBCTN and KBCTNLS types are the same.
The Barrier gland types KBCTN and KBCTA** are designed for Group I and Group II applications while KBCTNLS** is designed for Group II applications only.**
The Barrier glands **KBCTN**, KBCTA**, KBCTNLS**** series have an ambient and service temperature range from -60°C up to +100°C, with the limitation from -50°C up to +80°C when supplied with Fiber flat washers.
The Barrier glands standard thread 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 **KBCTN**, **KBCTA**, **KBCTNLS**** 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. The alternative materials Nickel-plated brass or Stainless steel can be supplied on demand.

*Identification of cable glands **KBCTN**, KBCTA**, KBCTNLS**** *series:*



Code that identifies the series:
- **KBCTN**: barrier gland for non-armoured cable
- **KBCTA**: barrier gland for armoured cable
- **KBCTNLS**: barrier hose fitting

Size (*see Table 1 and 2*)

Type of thread:
- **N**: NPT ANSI/ASME B1.20.1
- **M**: ISO 261 pitch 1.5

Thread size (*see Table 1 and 2*)

Manufacturing material:
- **B**: brass
- **BN**: nickel-plated brass
- **X**: stainless steel

Flat washer material:
- **blank**: none
- **WS**: Silicon
- **WF**: Fiber

IECEx Certificate of Conformity

Annex to certificate: **IECEx CES 17.0029X Issue No: 3** of 2021-10-26

Applicant: **Bimed Teknik Aletler Sanayi Ve Ticaret A.Ş.**
S.S Bakir Pirinç Sanayi Sitesi Leylak Caddesi no:16
TR - 34524 Beylikdüzü – Istanbul (Turkey)

Electrical Apparatus: **Barrier cable glands, series KBCTA**, KBCTN**, KBCTNLS** (CenTAURUS)**

Types and thread sizes of cable glands are listed on the following Tables.

Table 1:

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

IECEx Certificate of Conformity

Annex to certificate: **IECEx CES 17.0029X Issue No: 3** of 2021-10-26

Applicant: **Bimed Teknik Aletler Sanayi Ve Ticaret A.Ş.**
S.S Bakir Pirinç Sanayi Sitesi Leylak Caddesi no:16
TR - 34524 Beylikdüzü – Istanbul (Turkey)

Electrical Apparatus: **Barrier cable glands, series KBCTA**, KBCTN**, KBCTNLS** (CenTAURUS)**

Table 2:

Barrier cable glands KBCTNLS series**							
Cable gland size	Thread size		**Cable dia. Ranges** (mm)				**Max. cross sectional area of cores admitted** (mm^2)
	ISO 261 pitch 1.5	**NPT**	**Over multi cores diameter** Max.	**Over single core dia.** Min.	**Over single core dia.** Max.	**Max. No. of cores**	
1S..	M 20	1/2”	9.5	1.5	9.5	9	70.90
	M 20	1/2”	12.0	1.5	12.0	11	113.1
	M 20	1/2”	9.5	1.5	9.5	9	70.90
1..	M 20	1/2”	12.0	1.5	12.0	11	113.10
2S..	M 25	3/4”	9.5	1.5	9.5	9	70.90
2..	M 25	3/4”	12.0	1.5	12.0	11	113.10
2L..	M 25	3/4”	15.0	1.5	15.0	22	176.70
3S..	M 32	1”	15.0	1.5	15.0	22	176.70
3..	M 32	1”	21.5	1.5	21.5	36	363.10
4S..	M 40	1” ¼	21.5	1.5	21.5	36	363.10
4..	M 40	1” ¼	29.0	1.5	29.0	55	660.50
5SM	M 50	-	29.0	1.5	29.0	55	660.50
5M	M 50	-	37.0	1.5	37.0	75	1075.20
5N	-	1” ½	29.0	1.5	29.0	55	660.50
6N	-	2”	37.0	1.5	37.0	75	1075.20

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 for models with Silicon flat washers.
- 50°C up to + 80 °C for models with Fiber flat washers.

Service temperature range:
- 60°C up to + 100 °C for models with Silicon flat washers.
- 50°C up to + 80 °C for models with Fiber flat washers.