IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION
IEC Certification System for Explosive Atmospheres

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Certificate No.:	**IECEx PTB 10.0004X**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 2	Issue 1 (2015-12-18) Issue 0 (2010-05-10)
Date of Issue:	2022-03-16		
Applicant:	**Pflitsch GmbH & Co. KG** Ernst-Pflitsch-Straße 1 42499 Hückeswagen **Germany**		
Equipment:	**Cable gland type blueglobe ************, blueglobe AC ************, and blueglobe TRI **************		
Optional accessory:			
Type of Protection:	**Increased Safety, Protection by Enclosure**		
Marking:	Ex eb IIC Gb Ex tb III C Db		

Approved for issue on behalf of the IECEx Certification Body: **Dr.-Ing. Detlev Markus**

Position: **Head of Department "Explosion Protection in Energy Technology"**

Signature: (for printed version)

Date: (for printed version) 27.03.22

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Certificate issued by:

Physikalisch-Technische Bundesanstalt (PTB)
Bundesallee 100
38116 Braunschweig
Germany

Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin

IECEx Certificate of Conformity

Certificate No.: **IECEx PTB 10.0004X**

Date of issue: 2022-03-16

Manufacturer: **Pflitsch GmbH & Co. KG**
Ernst-Pflitsch-Straße 1
42499 Hückeswagen
Germany

Manufacturing locations: **Pflitsch GmbH & Co. KG**
Ernst-Pflitsch-Straße 1
42499 Hückeswagen
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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 Edition:7.0 — Explosive atmospheres - Part 0: Equipment - General requirements

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

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

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 Report:

DE/PTB/ExTR10.0003/02

Quality Assessment Report:

DE/PTB/QAR10.0003/05

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

The cable gland type blueglobe **********, blueglobe AC ********** and blueglobe TRI ********** made of brass, brass nickel-plated or stainless steel, serves to introduce cables into electrical equipment of the type of protection Increased Safety "eb" or Protection by Enclosure "tb". The cable gland consists of:
- pressure screw without clamping device
- sealing insert
- double nipple with short or long thread with an O-ring for the lower part of the thread

Accessories are lock nuts, sealing plugs, a selective screen, an assembly group for amoured cables (AC) and a group for EMC cables with a shield (TRI).

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Only permanently wired cables may be entered. The user shall provide additional clamping of the cable to ensure that pulling is not transmitted to the terminations.
2. Types suitable for a "low" risk of mechanical danger shall be mounted in such a way that they are mechanically protected against impact force.
3. Degree of protection is ensured only if the seals and cable entries are properly fitted. The manufacturer's instructions must be followed.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

1. New material "brass lead-free" (CuZn21Si3P) for the body of the cable gland.
2. The pressure screw may optionally be equipped with a silicone coating.
3. New material (H)NBR for the connecting thread O-ring.
4. Addition of selective screen connection.
5. Updated to current editions of IEC 60079-0 (Ed. 7), IEC 60079-7 (Ed. 5.1), IEC 60079-31 (Ed. 2).
6. Marking is changed to:
   Ex eb IIC Gb
   Ex tb IIIC Db

Annex:

COCA10_0004X-02_1.pdf

Applicant: Pflitsch GmbH & Co. KG
Ernst-Pflitsch-Straße 1
42499 Hückeswagen
Germany

Electrical Apparatus: Cable gland Type blueglobe **********, blueglobe AC ********** and blueglobe TRI **********

Description

The cable gland type blueglobe **********, blueglobe AC ********** and blueglobe TRI ********** made of brass, brass nickel-plated or stainless steel, serves to introduce cables into electrical equipment of the type of protection Increased Safety "eb" or Protection by Enclosure "tb". The cable gland consists of:
- pressure screw without clamping device
- sealing insert
- double nipple with short or long thread with an O-ring for the lower part of the thread

Accessories are lock nuts, sealing plugs, a selective screen, an assembly group for amoured cables (AC) and a group for EMC cables with a shield (TRI).

Technical data

Suited for devices of equipment group II with mechanical risk level	Depends on the size, see table below
Suitable for cable diameter	Depends on the size of the thread, from 2.5 mm to 77 mm, see table below
Mounted in enclosures with clearance holes Plastic, wall thickness Metal, wall thickness	 ≥ 2 mm ≥ 1 mm
Mounted in enclosures with threaded holes Plastic, wall thickness Metal, wall thickness	 ≥ 5 mm ≥ 3 mm
Service temperature	−20 °C to +60 °C
Ingress protection	IP66 and IP68 in accordance with EN 60529

blueglobe ********** and blueglobe TRI **************

Nomenclature

blueglobe (TRI)	*	*	*	*	*	*	*	*	*	*	*
1	2	3	4	5	6	7	8	9	10	11	12

1	Type designation	blueglobe blueglobe TRI
2	Part of type designation	bg
3	Selective screen option (type blueglobe)	SS
4	Type of thread	2 = metric 8 = metric 15mm long
5	Connecting thread (code number)	**Metric ISO- thread EN 60423** 10 = M10 12 = M12 16 = M16 20 = M20 25 = M25 32 = M32 40 = M40 50 = M50 63 = M63 75 = M75 85 = M85
6	Material	VA = AISI 303, V4A = AISI 316Ti; ms = brass, nickel-plated, LF = brass lead free
7	Option without inlet (type blueglobe; blueglobe TRI)	Code number 5 = 5.0 – 3.0 6 = 6.0 – 3.0 8 = 8.0 – 5.0 11 = 11.0 – 7.0 14 = 14.0 – 9.0 20 = 20.0 – 16.0 25 = 25.0 – 20.0 32 = 32.0 – 26.0 42 = 42.0 – 35.0 54 = 54.0 – 46.0 65 = 65.0 – 58.0 77 = 77.0 – 70.0
8	Clamping range total screen Clamping range selective screen (type blueglobe SS)	Code number M20 **11-7** 11.0 – 7.0 3.5 – 1.5 M25 **12-10** 12.0 – 10.0 5.0 – 2.0 M25 **16-12** 16.0 – 12.0 5.0 – 2.0 M32 **16-12** 16.5 – 12.5 5.0 – 2.0 M32 **20-16** 20.5 – 16.5 5.0 – 2.0
9	TRI spring (type blueglobe TRI)	tri
10	Explosion protection – Type of protection: Ex eb and Ex tb	ex
11	Additional letters for material AISI 316L	/316L
12	Pressure screw silicone coated (option)	/sc
13	Additional letters for variants	Accessories not relevant for explosion protection, for example dust cover for transport
Remark: Variant numbers can be unoccupied		

Torque, degree of protection, mechanical risk level and sealing range

Thread size	Torque Pressure screw and double nipple	Cable diameter with inlet	Cable diameter without inlet	IP	Mechanical risk level
M10	3 Nm	3.0 – 2.5	6.0 – 3.0	IP66	low
M12	4 Nm – 5Nm	5.0 – 3.0	8.0 – 5.0	IP66, IP68	low
M16	8 Nm	7.0 – 5.0	11.0 – 7.0	IP66, IP68	low
M20	6 Nm – 10 Nm	9.0 – 6.0	14.0 – 9.0	IP66, IP68	high
M25	15 Nm	16.0 – 12.0	20.0 – 16.0	IP66, IP68	high
M32	14 Nm – 15 Nm	20.0 – 16.0	25.0 – 20.0	IP66, IP68	high
M40	20 Nm	26.0 – 21.0	32.0 – 26.0	IP66, IP68	high
M50	30 Nm	35.0 – 32.0	42.0 – 35.0	IP66, IP68	high
M63	35 Nm	46.0 – 42.0	54.0 – 46.0	IP66, IP68	high
M75	80 Nm	58.0 – 55.0	65.0 – 58.0	IP66, IP68	high
M85	100 Nm – 150 Nm	70.0 – 66.0	77.0 – 70.0	IP66, IP68	high

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blueglobe AC **********

Nomenclature

blueglobe AC	*	*	*	*	*	*	*	*	*	*	*
1	2	3	4	5	6	7	8	9	10	11	12

1	Type designation	blueglobe AC
2	Type of thread AC adapter	2 = metric 8 = metric 15mm long
3	Size of thread AC adapter	**Metric ISO- thread EN 60423** 20 = M20 25 = M25 32 = M32 40 = M40 50 = M50 63 = M63 75 = M75 85 = M85
4	Part of type designation	bg
5	Type of thread	2 = metric 8 = metric 15mm long
6	Connecting thread (code number)	**Metric ISO- thread EN 60423** 10 = M10 12 = M12 16 = M16 20 = M20 25 = M25 32 = M32 40 = M40 50 = M50 63 = M63 75 = M75 85 = M85
7	Material	VA = AISI 303, V4A = AISI 316Ti; ms = brass, nickel-plated, LF = brass lead free
8	AC: Armoured Cables	Clamping range steel wire armour (code number): 11 = KM 11/ 8 13 = KM 13/11 15 = KM 15/13 17 = KM 17/14 23 = KM 23/19 27 = KM 27/23 31 = KM 31/27 36 = KM 36/31 40 = KM 40/34 46 = KM 46/40 51 = KM 51/45 61 = KM 61/55 70 = KM 70/60 78 = KM 78/70
9	Explosion protection – Type of protection: Ex eb and Ex tb	ex
10	Additional letters for material AISI 316L	/316L
11	Pressure screw silicone coated (option)	/sc
12	Additional letters for variants	Accessories not relevant for explosion protection, for example dust cover for transport
Remark: Variant numbers can be unoccupied		

Torque, degree of protection, mechanical risk level and sealing range

Thread size	Torque Pressure screw and double nipple	Cable diameter without inlet	Cable diameter with inlet	Clamping range armour	IP	Mechanical risk level
M20	10 Nm / 15 Nm	14.0 – 9.0		13.0 – 9.0	IP66, IP68	high
M20	10 Nm / 15 Nm	20.0 - 16.0	16.0 - 12.0	15.0 - 10.0	IP66, IP68	high
M25	15 Nm / 15 Nm	20.0 – 16.0		17.0 - 14.0	IP66, IP68	high
M32	25 Nm / 15 Nm	25.0 – 20.0		23.0 – 19.0	IP66, IP68	high
M32	25 Nm / 15 Nm	32.0 - 26.0	26.0 - 21.0	27.0 - 23.0	IP66, IP68	high
M40	20 Nm / 20 Nm	32.0 - 26.0		31.0 - 28.0	IP66, IP68	high
M50	50 Nm / 30 Nm	42.0 - 35.0	35.0 - 32.0	36.0 - 30.0	IP66, IP68	high
M50	50 Nm / 30 Nm	42.0 - 35.0		40.0 - 34.0	IP66, IP68	high
M63	50 Nm / 35 Nm	54.0 – 46.0	46.0 – 42.0	46.0 – 39.0	IP66, IP68	high
M63	50 Nm / 35 Nm	54.0 – 46.0		51.0 – 45.0	IP66, IP68	high
M75	80 Nm / 80 Nm	65.0 – 58.0	58.0 – 54.0	61.0 – 50.0	IP66, IP68	high
M85	100 Nm / 100 Nm	77.0 – 70.0	70.0 – 65.0	70.0 – 60.0	IP66, IP68	high
M85	100 Nm / 100 Nm	77.0 – 70.0	70.0 – 65.0	74.0 – 70.0	IP66, IP68	high

Specific Conditions of Use

1. Only permanently wired cables may be entered. The user shall provide additional clamping of the cable to ensure that pulling is not transmitted to the terminations.
2. Types suitable for a "low" risk of mechanical danger shall be mounted in such a way that they are mechanically protected against impact force.
3. Degree of protection is ensured only if the seals and cable entries are properly fitted. The manufacturer's instructions must be followed.