Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

(1) EU-TYPE EXAMINATION CERTIFICATE
(Translation)

(2) Equipment or Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number:

PTB 06 ATEX 1036 X **Issue: 1**

(4) Product: Cable gland Type blueglobe **********, blueglobe AC ********** and blueglobe TRI **********

(5) Manufacturer: PFLITSCH GmbH & Co. KG

(6) Address: Ernst-Pflitsch-Straße 1, 42499 Hückeswagen, Germany

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

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 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 products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential Test Report PTB Ex 22-11189.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN IEC 60079-0:2018, EN 60079-7:2015/A1:2018, EN 60079-31:2014

(10) If the sign "X" is placed after the certificate number, it indicates that the product is subject to the Specific Conditions of Use specified in the schedule to this certificate.

(11) This EU-Type Examination Certificate relates only to the design and construction 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:

Ex II 2 G Ex eb IIC Gb

Ex II 2 D Ex tb IIIC Db

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, March 16, 2022

Dr.-Ing. D. Markus
Direktor und Professor

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT

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(13) # SCHEDULE

(14) **EU-Type Examination Certificate Number PTB 06 ATEX 1036 X, Issue: 1**

(15) Description of Product

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

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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		

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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

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

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		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	Me-chanical 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

Changes with respect to previous editions

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 hybrid coating.

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3. New material (H)NBR for the connecting thread O-ring.
4. Addition of selective screen connection.
5. Updated to current editions of EN IEC 60079-0:2018, EN 60079-7:2015/A1:2018 and EN 60079-31:2014.
6. Marking is changed to:
   II 2 G Ex eb IIC Gb
   II 2 D Ex tb IIIC Db

(16) Test Report PTB Ex 22-11189

(17) 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.

(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

According to Article 41 of Directive 2014/34/EU, EC-type examination certificates which have been issued according to Directive 94/9/EC prior to the date of coming into force of Directive 2014/34/EU (April 20, 2016) may be considered as if they were issued already in compliance with Directive 2014/34/EU. By permission of the European Commission supplements to such EC-type examination certificates and new issues of such certificates may continue to hold the original certificate number issued before April 20, 2016.

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, March 16, 2022

Dr.-Ing. D. Markus
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