



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 PTB 14.0021X**

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Certificate history:

Status: **Current**

Issue No: 3

Issue 2 (2018-03-26)

Issue 1 (2016-01-13)

Issue 0 (2015-02-12)

Date of Issue: **2024-02-22**

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

Equipment: **Cable gland type UNI Ex * Dicht ***(*)*****(*) and type UNI Ex Clamping * Dicht *******

Optional accessory:

Type of Protection: **"eb", "tb"**

Marking: **Ex eb IIC Gb**

Ex tb IIIC 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)

22.02.24

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Certificate issued by:

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



Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin



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

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

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 60079-31:2013 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 Report:

DE/PTB/ExTR14.0023/02

Quality Assessment Report:

DE/PTB/QAR10.0003/07



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

Description

The cable gland type UNI Ex * Dicht ***(*)*****(*) and type UNI Ex Clamping * Dicht ***** made of brass, brass nickel-plated, brass lead-free or stainless steel, serves to introduce cables into electrical apparatus of the type of protection Increased Safety "eb" or Protection by Enclosure "tb". The cable gland consists of:

- pressure screw (UNI Ex * Dicht ***(*)*****(*)
- pressure screw with clamping device (UNI Ex Clamping * Dicht *****)
- double nipple with metric, Pg, inch and NPT connection thread in different length
- extended and reduced version and an O-ring (silicone or HNBR).
- sealing component out of TPE, for one hole, multiple holes, splitted or closed.

Accessories are lock nut, earthing cones and earthing cones with IRIS spring and hose connections.

The cable gland is installed in enclosures with through-holes or threaded holes. For through-holes, lock nuts are used.

Technical data and Nomenclature see Annex.

SPECIFIC CONDITIONS OF USE: YES as shown below:

1. Unless the pressure screw with clamping device is used (Type Uni Ex * Clamping Dicht), 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 for the cable gland body.
2. Re-evaluation according to IEC 60079-7, Edition 5.1.

Annex:

[COCA140021X-03.pdf](#)

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

Electrical Apparatus: Cable gland type UNI Ex * Dicht ***(*)*****(*) and
type UNI Ex * Clamping Dicht *****

Description of equipment

The cable gland type UNI Ex * Dicht ***(*)*****(*) and type UNI Ex Clamping * Dicht ***** made of brass, brass nickel-plated, brass lead-free or stainless steel, serves to introduce cables into electrical apparatus of the type of protection Increased Safety "eb" or Protection by Enclosure "tb". The cable gland consists of:

- pressure screw (UNI Ex * Dicht ***(*)*****(*)
- pressure screw with clamping device (UNI Ex Clamping * Dicht *****)
- double nipple with metric, Pg, inch and NPT connection thread in different length
- extended and reduced version and an O-ring (silicone or HNBR).
- sealing component out of TPE, for one hole, multiple holes, splitted or closed.

Accessories are lock nut, earthing cones and earthing cones with IRIS spring and hose connections.

The cable gland is installed in enclosures with through-holes or threaded holes. For through-holes, lock nuts are used.

Technical data

UNI Ex * Dicht ***(*)*****(*) Size of connection thread (Remark: see list of sizes in the nomenclatures of the different variants in the documentation)	M12 to M80 PG 7 to PG 48 1/4" to 3" NPT 3/8" to NPT 2"
Multiple sealing component Bore diameter and distance	Bore diameter < 10 mm, distance 1 mm Bore diameter > 10 mm, distance 2 mm
Cable diameter	5 mm to 70 mm (Remark: see nomenclatures of the different variants in the documentation)
UNI Ex Clamping * Dicht ***** Size of connection thread	M12 to M20 Pg 7 to Pg 13,5 1/4" to 1/2" NPT 3/8 "

Suited for devices of equipment group II with mechanical risk level	Depends on the size, see table below
Mounted in enclosures with clearance holes	$\geq 2 \text{ mm}$
Plastic, wall thickness	$\geq 1 \text{ mm}$
Metal, wall thickness	
Mounted in enclosures with threaded holes	$\geq 5 \text{ mm}$
Plastic, wall thickness	$\geq 3 \text{ mm}$
Metal, wall thickness	
Service temperature	-20 °C to +60 °C
Ingress protection	IP66 and IP68 (5 bar, 30 min) in accordance with EN 60529

UNI Ex * Dicht ***(*)*****(*) Size, Connection thread and head thread				Torque		Mechanical risk level
metric	Pg	Inch	NPT	Connection thread	Head thread	
M 12	Pg 7	G 1/4"		6 Nm	6 Nm	Low
M 16	Pg 9	G 3/8"		8 Nm	8 Nm	Low
M 20	Pg 11 Pg 13,5	G 1/2"	NPT 3/8"	8 Nm	8 Nm	Low
M 25 (22553d...)	Pg 16	G 3/4"	NPT 1/2"	8 Nm	8 Nm	High
M 25 (22528d...)				10 Nm	10 Nm	High
M 32	Pg 21	G 1"	NPT 3/4"	20 Nm	20 Nm	High
M 40	Pg 29	G 1 1/4"	NPT 1"	30 Nm	30 Nm	High
M 50	Pg 36 Pg 42	G 1 1/2"	NPT 1 1/4" NPT 1 1/2"	30 Nm	30 Nm	High
M 63	Pg 48	G 2	NPT 2"	30 Nm	30 Nm	High
M75		G 2 1/2"		50 Nm	50 Nm	High
M80		G 3"		80 Nm	80 Nm	High

UNI Ex Clamping * Dicht ***** Size, Connection thread and head thread				Torque			Mechanical risk level
metric	Pg	Zoll	Inch	Connection thread	Head thread	Clamping device	
M 12	Pg 7	G 1/4"		6 Nm	6 Nm	1 Nm	Low
M 16	Pg 9	G 3/8"		8 Nm	8 Nm	1 Nm	Low
M 20	Pg 11 Pg 13,5	G 1/2"	NPT 3/8"	8 Nm	8 Nm	1 Nm	Low

Nomenclature UNI Ex * Dicht

UNI Ex	*	Dicht	*	*	*	*	*	*	*	*	*	*	*
1	2	3	4	5	6	7	8	9	10	11	12	13	14

1	Type designation	UNI Ex
2	Part of type designation	e.g. HF, IRIS
3	Part of type designation	Dicht
4	Type edition	(multiple metric, multiple PG)
5	Type of thread	4. Variant plastic hoses 6. Variant Metal protection hoses 1 = Pg / Inch, 2 = metric, 3 = NPT, 8 = metric long
6	Connecting thread (code number)	<p>Pg- thread DIN 40430</p> <p>49 = PG 7 53 = PG 16 50 = PG 9 54 = PG 21 51 = PG 11 55 = PG 29 52 = PG 13,5 56 = PG 36</p> <p>Metric ISO- thread EN 60423</p> <p>12 = M 12 32 = M 32 16 = M 16 40 = M 40 20 = M 20 50 = M 50 25 = M 25</p> <p>Inch- thread DIN EN ISO 228-1</p> <p>014 = 1/4" 100 = 1" 038 = 3/8" 114 = 1 1/4" 012 = 1/2" 112 = 1 1/2" 034 = 3/4"</p> <p>NPT- thread ANSI / ASME B1.20.1</p> <p>038 = NPT 3/8 012 = NPT 1/2 034 = NPT 3/4 100 = NPT 1 114 = NPT 1 1/4 200 = NPT 2</p>
7	Head thread (code number)	<p>Pg-thread DIN 46320</p> <p>49 = PG 7 52 = PG 13,5 55 = PG 29 50 = PG 9 53 = PG 16 56 = PG 36 51 = PG 11 54 = PG 21</p>
8	Material	st = stainless steel, d = brass, nickel-plated, LF = brass, lead-free
9	Kind of insert	m = multiple code of clamping part for hose connecting (e.g. 2316)
10	Cable diameter, cable dimension (code number):	<p>cable diameter (code number):</p> <p>7 = 6,5 mm – 5,0 mm 34 = 34,0 mm – 30,0 mm 8 = 8,0 mm – 6,0 mm 36 = 36,0 mm – 33,0 mm 9 = 9,5 mm – 7,0 mm 40 = 40,0 mm – 37,0 mm 11 = 10,5 mm – 8,0 mm 44 = 44,0 mm – 40,0 mm 13 = 13,0 mm – 10,0 mm 47 = 47,0 mm – 43,0 mm 16 = 15,5 mm – 12,0 mm 52 = 52,0 mm – 46,0 mm 18 = 18,0 mm – 15,0 mm 55 = 55,0 mm – 52,0 mm 21 = 21,0 mm – 18,0 mm 57 = 57,0 mm – 51,0 mm 25 = 25,0 mm – 21,0 mm 58 = 58,0 mm – 55,0 mm 28 = 28,0 mm – 25,0 mm 64 = 64,0 mm – 59,0 mm 32 = 32,0 mm – 28,0 mm 70 = 70,0 mm – 64,0 mm</p>

		Multiple 1x1,5 mm, 2x3 mm, 3x4 mm, 4x6 mm 5x6,5 mm, 6x2,5 mm, 6x10 mm, 3x12 mm, 4x13 mm List of VDE-cores Sample with 3 holes: VDE E152im1x1,5/2x2/1x9 Minimum bore diameter 1,0mm Maximum bore diameter 40,0mm The list is only an excerpt of the possible multiple sealing inserts.
11	earthing cones	S00 to S23
12	splittable sealing insert	geschl.
13	Explosion protected	Type of protection, ex-12
14	Additional letters for material	zu, V4A, bl, tri, /HT, SW24
Remark: Variant numbers can be unoccupied		

Nomenclature UNI Ex Clamping * Dicht

UNI Ex Clamping	*	Dicht	*	*	*	*	*	*	*	*	*	*
1	2	3	4	5	6	7	8	9	10	11	12	13

1	Type designation	UNI Ex Clamping
2	Blank	
3	Part of type designation	Dicht
4	Type of thread	M = metric
5	Type of thread	2 = metric
6	Connecting thread (code number)	Metric ISO-thread EN 60423 12 = M 12 16 = M 16 20 = M 20
7	Head thread (code number)	Pg-thread DIN 46320 49 = PG 7 51 = PG 11 50 = PG 9 52 = PG 13,5
8	Material	st = stainless steel, d = brass, nickel-plated, LF = brass, lead-free
9	Kind of insert	Blank
10	Cable diameter (code number):	cable diameter (code number): 7 = 6,5 mm – 5,0 mm 8 = 8,0 mm – 6,0 mm 9 = 9,5 mm – 7,0 mm 11 = 10,5 mm – 8,0 mm 13 = 13,0 mm – 10,0 mm
11	Blank	Blank
12	Explosion protection	ex = Ex e
13	Additional letter for material	V4A, bl, zu



Specific conditions of use

1. Unless the pressure screw with clamping device is used (Type Uni Ex * Clamping Dicht), 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.
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