



[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 **IBExU24ATEX1064 X** | Issue 0

[4] Product: **cable gland**
Type: LevelEx *****, LevelEx TRI ***** and LevelEx AC *****

[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] IBExU Institut für Sicherheitstechnik GmbH, notified body number 0637 in accordance with Article 17 of 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 IB-24-3-0096.

[9] Compliance with the essential health and safety requirements has been assured by compliance with: EN IEC 60079-0:2018, EN 60079-1:2014, EN IEC 60079-7:2015/A1:2018 und EN 60079-31:2014 except in respect of those requirements listed at item [18] of the schedule.

[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. 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:

II 2 G Ex db eb IIC Gb
 II 1 D Ex ta IIC Da

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By order

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(notified body number 0637)

Certificates without signature and seal are not valid. Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Freiberg, 2024-12-05

[13]

Schedule

[14]

Certificate number IBExU24ATEX1064 X | Issue 0

[15]

Description of product

The cable glands type LevelEx *****, LevelEx TRI ***** and LevelEx AC ***** made of stainless steel, brass, brass nickel-plated or brass lead-free is suitable for dust- and watertight potentially explosive atmospheres, especially to introduce permanently installed cables and wires into electrical equipment of the types of protection flameproof enclosure "db", increased safety "eb" and protection by enclosure "ta". Type LevelEx AC ***** is suitable for armored cables and types LevelEx ***** und LevelEx TRI ***** for non-armored cables and wires.

Technical data:

Size of connection thread	LevelEx ***** and LevelEx TRI ***** M16 to M75 NPT 3/8" to NPT 2 1/2"	LevelEx AC ***** M16 to M75 NPT 1/2" to NPT 2 1/2"
Cable diameter	see table below	see tables below
Suited for devices of equipment group II with mechanical risk level	high	
For installing in devices with threaded holes (only for increased safety "e") <ul style="list-style-type: none"> ▪ Plastic, wall thickness ▪ Metal, wall thickness 	≥ 5.0 mm ≥ 3.0 mm	
For installing in devices with through-holes (only for increased safety "e") <ul style="list-style-type: none"> ▪ Plastic, wall thickness ▪ Metal, wall thickness 	≥ 2.0 mm ≥ 1.0 mm	
Operating temperature range	-60 °C to +130 °C	
Suitable for Ex Equipment with reference pressure up to	32.4 bar (test pressure: 48.6 bar)	
Ingress protection	IP66 and IP68 (10 bar, 60 min) in acc. with EN 60529	

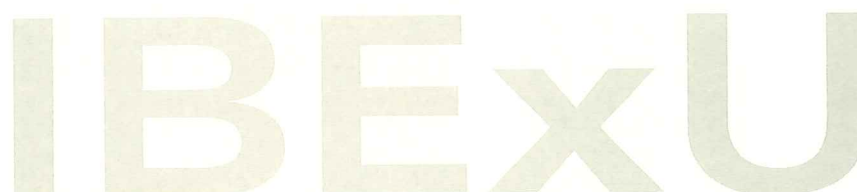
List of variants of types, with different sizes and technical parameters:

Thread size		Sealing range (mm)		Tightening torque
metric	NPT	Max.	Min.	Double nipple and pressure screw
M 16	NPT 3/8"	8.0	3.0	15 Nm
M 16	NPT 3/8"	11.0	7.0	15 Nm
M 20	NPT 1/2"	14.0	8.0	20 Nm
M 25	NPT 3/4"	20.0	12.5	30 Nm
M 32	NPT 1"	26.0	18.5	30 Nm
M 40	NPT 1 1/4"	34.0	26.0	35 Nm
M 50	NPT 2	45.0	33.0	80 Nm
M 63	NPT 2 1/2"	56.0	44.0	80 Nm
M 75		66.0	56.0	100 Nm

Type LevelEx AC ***** (brass)							
Gland size	Thread size		External Sealing range (mm)		Tightening torque		
	metric	NPT	Max.	Min.	Pressure screw	Adapter Armoured (Minimum value on Block)*	Double nipple
1407/ 1409/ 1411	M 16	NPT 1/2"	14.0	8.0	20 Nm	20 Nm	30 Nm
2009/ 2014	M 20	NPT 1/2"	20.0	12.5	30 Nm	35 Nm	40 Nm
2616/ 2618/ 2620	M 25	NPT 3/4"	26.0	18.5	30 Nm	70 Nm	40 Nm
3420/ 3425/ 3426	M 32	NPT 1"	34.0	26.0	35 Nm	70 Nm	45 Nm
4528/ 4534	M 40	NPT 1 1/4"	45.0	33.0	80 Nm	100 Nm	90 Nm
5637/ 5644	M 50	NPT 2	56.0	44.0	80 Nm	160 Nm	90 Nm
6644/ 6656	M 63	NPT 2 1/2"	66.0	56.0	100 Nm	160 Nm	110 Nm

*The connection must be fully tightened.

Gland size	Thread size		Internal Sealing range (mm)		Tightening torque
	metric	NPT	Max.	Min.	Double nipple
1407	M 16	NPT 1/2"	6.5	4.0	30 Nm
1409	M 16	NPT 1/2"	9.5	6.5	30 Nm
1411	M 16	NPT 1/2"	10.5	7.0	30 Nm
2009	M 20	NPT 1/2"	9.5	6.5	40 Nm
2014	M 20	NPT 1/2"	14.0	9.0	40 Nm
2616	M 25	NPT 3/4"	15.5	11.5	40 Nm
2618	M 25	NPT 3/4"	18.0	14.0	40 Nm
2620	M 25	NPT 3/4"	20.5	17.0	40 Nm
3420	M 32	NPT 1"	20.5	17.0	45 Nm
3425	M 32	NPT 1"	25.0	20.0	45 Nm
3426	M 32	NPT 1"	26.0	24.0	45 Nm
4528	M 40	NPT 1 1/4"	28.0	24.0	90 Nm
4534	M 40	NPT 1 1/4"	34.0	26.0	90 Nm
5637	M 50	NPT 2	37.0	28.0	90 Nm
5644	M 50	NPT 2	44.0	35.0	90 Nm
6644	M 63	NPT 2 1/2"	44.0	35.0	110 Nm
6656	M 63	NPT 2 1/2"	56.0	44.0	110 Nm



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Type LevelEx AC***** (stainless steel)							
Gland-size	Thread size		External Sealing range (mm)		Tightening torque		
	metric	NPT	Max.	Min.	Pressure screw	Adapter Armoured (Minimum value on Block)*	Double nipple
1407/ 1409/ 1411	M 16	NPT 1/2"	14.0	8.0	20 Nm	35 Nm	30 Nm
2009/ 2014	M 20	NPT 1/2"	20.0	12.5	30 Nm	80 Nm	40 Nm
2616/ 2618/ 2620	M 25	NPT 3/4"	26.0	18.5	30 Nm	100 Nm	40 Nm
3420/ 3425/ 3426	M 32	NPT 1"	34.0	26.0	35 Nm	120 Nm	45 Nm
4528/ 4534	M 40	NPT 1 1/4"	45.0	33.0	80 Nm	100 Nm	90 Nm
5637/ 5644	M 50	NPT 2	56.0	44.0	80 Nm	160 Nm	90 Nm
6644/ 6656	M 63	NPT 2 1/2"	66.0	56.0	100 Nm	220 Nm	110 Nm

*The connection must be fully tightened.

Gland size	Thread size		Internal Sealing range (mm)		Tightening torque
	metric	NPT	Max.	Min.	Double nipple
1407	M 16	NPT 1/2"	6.5	4.0	30 Nm
1409	M 16	NPT 1/2"	9.5	6.5	30 Nm
1411	M 16	NPT 1/2"	10.5	7.0	30 Nm
2009	M 20	NPT 1/2"	9.5	6.5	40 Nm
2014	M 20	NPT 1/2"	14.0	9.0	40 Nm
2616	M 25	NPT 3/4"	15.5	11.5	40 Nm
2618	M 25	NPT 3/4"	18.0	14.0	40 Nm
2620	M 25	NPT 3/4"	20.5	17.0	40 Nm
3420	M 32	NPT 1"	20.5	17.0	45 Nm
3425	M 32	NPT 1"	25.0	20.0	45 Nm
3426	M 32	NPT 1"	26.0	24.0	45 Nm
4528	M 40	NPT 1 1/4"	28.0	24.0	90 Nm
4534	M 40	NPT 1 1/4"	34.0	26.0	90 Nm
5637	M 50	NPT 2	37.0	28.0	90 Nm
5644	M 50	NPT 2	44.0	35.0	90 Nm
6644	M 63	NPT 2 1/2"	44.0	35.0	110 Nm
6656	M 63	NPT 2 1/2"	56.0	44.0	110 Nm

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Type code:

LevelEx / LevelEx TRI / LevelEx AC	*	*	*	*	*	*	*	*	*	*	*	*
1	2	3	4	5	6	7	8	9	10	11	12	

1	Type designation	LevelEx LevelEx TRI LevelEx AC
2	Part of type designation	Lex LexAC
3	Type of thread	2 = metric, 3 = NPT
4	Connecting thread (code number)	Metric ISO- thread EN 60423 16 = M 16 20 = M 20 25 = M 25 32 = M 32 40 = M 40 50 = M 50 63 = M 63 75 = M 75 NPT- thread ANSI / ASME B1.20.1 038 = NPT 3/8" 012 = NPT 1/2" 01223 = NPT 1/2" 034 = NPT 3/4" 100 = NPT 1" 114 = NPT 1 1/4" 200 = NPT 2" 212 = NPT 2 1/2"
5	Material	VA/316L = stainless steel (Lex), VA = stainless steel (LexAC) ms = brass, nickel-plated, LF = brass lead free
6	code number variant LevelEx and LevelEx TRI	cable diameter (code number): 8 = 8.0 mm – 3.0 mm
7	TRI-spring	tri = AISI 301 triNM = CuSn6 (bronze)
8	AC Cable outer diameter (code number):	Cable diameter (code number): 14 = 14.0 mm – 8.0 mm 20 = 20.0 mm – 12.5 mm 26 = 26.0 mm – 18.5 mm 34 = 34.0 mm – 26.0 mm 45 = 45.0 mm – 33.0 mm 56 = 56.0 mm – 44.0 mm 66 = 66.0 mm – 56.0 mm
	AC Cable inner diameter (code number):	Cable diameter (code number): 07 = 6.5 mm – 4.0 mm 09 = 9.5 mm – 6.5 mm 11 = 10.5 mm – 7.0 mm 14 = 14.0 mm – 9.0 mm 16 = 15.5 mm – 11.5 mm 18 = 18.0 mm – 14.0 mm 20 = 20.5 mm – 17.0 mm 25 = 25.0 mm – 20.0 mm 26 = 26.0 mm – 24.0 mm 28 = 28.0 mm – 24.0 mm 34 = 34.0 mm – 26.0 mm 37 = 37.0 mm – 28.0 mm 44 = 44.0 mm – 35.0 mm 56 = 56.0 mm – 45.0 mm
10	AC-Additional letters for material VA	/316L (LexAC)
11	Kind of insert	HTS = silicone
12	Additional letters for variants	zu (strain relief pressure screw), VA (AISI 303), V4A (AISI 316TI), bl (brass blanc)
Remark: Variant numbers can be unoccupied		

[16] **Test report**

The test results are recorded in the confidential test report IB-24-3-0096 of 2024-11-25.
The test documents are part of the test report and they are listed there.

Summary of the test results

The cable glands type LevelEx *****; LevelEx TRI ***** and LevelEx AC ***** further fulfils the requirements of explosion protection of components for the Equipment groups II and Equipment category 2 G, according to type of protection increased safety "eb", protection by flameproof enclosure "db" as well as for category 1 D in dust ignition protection by enclosure "ta".

[17] **Specific conditions of use**

- When using the pressure screw without a strain-relief pressure screw, only wired cables that are to be installed permanently may be inserted and appropriate strain relief must be provided.
- Degree of protection IP66/IP68 and enclosure type ratings are only attained if the seal and the cable glands are properly assembled. The manufacturer's instructions must be observed.

[18] **Essential health and safety requirements**

In addition to the essential health and safety requirements (EHSRs) covered by the standards listed at item [9], the following are considered relevant to this product, and conformity is demonstrated in the test report: none

[19] **Drawings and Documents**

The documents are listed in the test report.

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Freiberg, 2024-12-05