



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 IBE 24.0018X | Page 1 of 4 | <u>Certificate history:</u> Issue 0 (2024-12-05) |
| Status: | Current | Issue No: 1 | |
| Date of Issue: | 2025-06-06 | | |
| Applicant: | PFLITSCH GmbH & Co. KG Ernst-Pflitsch-Straße 1 - Nord 1 42499 Hückeswagen Germany | | |
| Equipment: | Cable glands type LevelEx *****, LevelEx TRI ***** and LevelEx AC ***** | | |
| Optional accessory: | | | |
| Type of Protection: | Increased safety "eb", flameproof enclosure "db" and protection by enclosure "ta" | | |
| Marking: | Ex db eb IIC Gb Ex ta IIIC Da | | |

Approved for issue on behalf of the IECEx
Certification Body:

Dr.-Ing. Peter Cimalla

Position:

Deputy Head of department Certification Body

Signature:
(for printed version)

Date:
(for printed version)

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Certificate issued by:

IBExU Institut für Sicherheitstechnik GmbH
Fuchsmühlenweg 7
09599 Freiberg
Germany





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

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 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

IEC 60079-31:2022 Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure "t"
Edition:3.0

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:

DE/IBE/ExTR24.0023/00

DE/IBE/ExTR24.0023/01

Quality Assessment Report:

DE/IBE/QAR25.0001/00



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EQUIPMENT:

Equipment and systems covered by this Certificate are as follows:

see Annex

SPECIFIC CONDITIONS OF USE: YES as shown below:

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.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

The Quality Assessment Report has been replaced.

Annex:

[Annex_IECEx_IBE_24.0018X_01.pdf](#)



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General product information:

The cable glands type LevelEx *****, LevelEx TRI ***** and LevelEx AC ***** made of stainless steel, brass, brass nickel-plated or brass lead-free serve for introducing permanently installed cables into electrical equipment of the types of protection flameproof enclosure "db", increased safety "eb" and protection by enclosure "ta".

The cable gland LevelEx ***** consists of:

- pressure screw (brass, brass nickel-plated, brass lead-free or stainless steel)
- pressure sleeve (PFA or PTFE)
- sealing ring (silicone)
- double nipple with metric or NPT thread (brass, brass nickel-plated, brass lead-free or stainless steel)
- connection thread O-ring (silicone)

The cable gland LevelEx TRI ***** consists of:

- pressure screw (brass, brass nickel-plated, brass lead-free or stainless steel)
- pressure sleeve (PFA or PTFE)
- sealing ring (silicone)
- double nipple with metric or NPT thread (brass, brass nickel-plated, brass lead-free or stainless steel)
- TRI spring (stainless steel or bronze)
- connection thread O-ring (silicone)

The cable gland LevelEx AC ***** consists of:

- pressure screw (brass, brass nickel-plated, brass lead-free or stainless steel)
- pressure sleeve (PFA or PTFE)
- sealing ring (silicone)
- intermediate connection LevelEx armoured (brass, brass nickel-plated, brass lead-free or stainless steel)
- intermediate connection Klemm AC (brass, brass nickel-plated, brass lead-free or stainless steel)
- intermediate connection O-ring (silicone)
- sealing ring (silicone)
- double nipple with metric or NPT thread (brass, brass nickel-plated, brass lead-free or stainless steel)
- connection thread O-ring (silicone)

Accessory is a lock nut.



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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 thicknessMetal, 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 thicknessMetal, 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:

| Types LevelEx ***** and LevelEx TRI ***** | | | | |
|---|------------|--------------------|------|----------------------------------|
| 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 |



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| 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 | cable outer diameter 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 |
| 9 | 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 |



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| | | |
|---|---------------------------------------|--|
| | | 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 | | |