

Translation

(1) **1. Supplement to the EC-Type Examination Certificate**

(2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC Supplement accordant with Annex III number 6

(3) No. of EC-Type Examination Certificate: **BVS 14 ATEX E 122 X**

(4) Equipment: **Ex-luminaire type ASL57LED-Ex**

(5) Manufacturer: **F. H. Papenmeier GmbH & Co. KG**

(6) Address: **Talweg 2, 58239 Schwerte, Germany**

(7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this supplement.

(8) The certification body of DEKRA EXAM GmbH, notified body no. 0158 in accordance with Article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres, given in Annex II to the Directive. The examination and test results are recorded in the test and assessment report BVS PP 14.2172 EG.


(9) The Essential Health and Safety Requirements are assured by compliance with:

- | | |
|-----------------------------------|------------------------------------|
| EN 60079-0:2012 + A11:2013 | General requirements |
| EN 60079-1:2007 | Flameproof enclosure "d" |
| EN 60079-7:2007 | Increased safety "e" |
| EN 60079-31:2009 | Protection by enclosure "t" |

(10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.

(11) This supplement to the EC-Type Examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to Directive 94/9/EC. Further requirements of the Directive apply to the manufacturing process and supply of this equipment. These are not covered by this certificate.

(12) The marking of the equipment shall include the following:

| | | | |
|---|----------------------------------|-----|--------------------------------|
|  | II 2G Ex d IIC T6 Gb | or | (without terminal compartment) |
| | II 2G Ex d e IIC T6 Gb | and | (with terminal compartment) |
| | II 2D Ex tb IIIC T80°C Db | | (all types) |

DEKRA EXAM GmbH
Bochum, dated 2015-08-07

Signed:

Signed:

Certification body

Special services unit

- (13) Appendix to
- (14) **1. Supplement to the EC-Type Examination Certificate BVS 14 ATEX E 122 X**
- (15) 15.1 Subject and type

Ex-luminaire type ASL57LED-Ex

15.2 Description

The Ex-luminaire type ASL57LED-Ex is designed in type of protection Flameproof Enclosure 'd', optional with terminal compartment in type of protection Increased Safety 'e', for use in areas endangered by gas atmosphere and in type of protection Protection by Enclosure 't' for use in areas endangered by dust atmosphere.

The lamp consists of a tubular housing. This housing is divided in two separated compartments, one as luminaire and the other as power supply compartment. The interconnection between both rooms is realised by use of separately tested and certified cable glands.

The luminaire compartment is closed by a tight potting compound.

The power supply compartment is closed by a lid with a separately certified cable gland or by a lid with a cast-on terminal compartment and a separately certified line bushing.

The connection of the lamp is done by use of the cable gland or by use of the terminal compartment if existing.

In case of direct lead-in into the power supply compartment the used cable gland is either with setting compound or with sealing ring which have been tested for usage with this luminaire. See also clause 15.3 Parameters for details.

Reasons for this supplement:

- Addition of further separately certified cable glands with sealing ring.
- Addition of supply voltage 24 VAC.
- Several minor changes of the construction without influence to the explosion protection.

15.3 Parameters

There are different variants of Ex-luminaires type ASL57LED-Ex which can be identified by the given marking on the type plate.

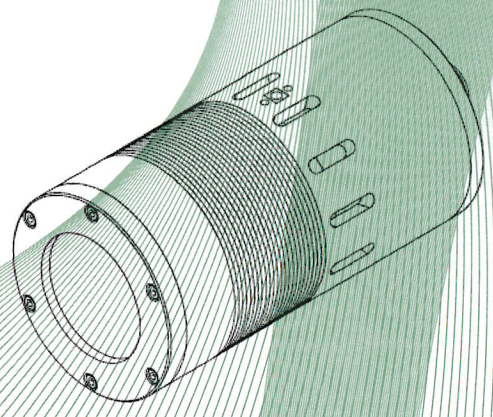
15.3.1 Electrical / Thermal parameters

| U _{rated} | P _{rated} | Lamp | Connection | T-class | T _{surface} | T _{ambient} |
|--------------------|--------------------|---------------|-----------------------|---------|----------------------|-----------------------------------|
| 24 VAC / VDC | 35 W | Cree LED | 'e' compartment Gland | T6 | T80 °C | -20 °C ≤ T _{amb} ≤ 40 °C |
| | | Bridgelux LED | 'e' compartment Gland | | | |
| 110 – 230 VAC | | Cree LED | 'e' compartment Gland | | | |
| | | Bridgelux LED | 'e' compartment Gland | | | |

15.3.2 Miscellaneous parameters

Degree of protection

IP65 / IP67





15.3.3 Cable gland (without setting compound)

| Type | Certificate | Clamping range [mm] |
|--------------------|---------------------|---------------------|
| RST Alpha X | IMQ 08 ATEX 021 X | 3-12 |
| HSK-INOX-PVDF-Ex-d | KEMA 99 ATEX 6968 X | 7-12 |

15.3.4 Supply line (together with cable gland according to clause 15.3.3)

| Type | Cross section | Diameter [mm] | Min. length [m] |
|--------------------------|------------------------|---------------|-----------------|
| Sinothem 110 H05GG-7 | 3x 1.5 mm ² | 8.6 | 1 |
| Sillflex UR AWG18 | 5x 1.0 mm ² | 10.3 | 1 |
| Ölflex Heat 180 H05SS-F | 3x 1.5 mm ² | 8.9 | 1 |
| Ölflex Classic 110 Black | 3x 1.5 mm ² | 10.2 | 1 |

(16) Test and assessment report

BVS PP 14.2172 EG as of 2015-08-07

(17) Special conditions for safe use

Fasteners with a screw quality of A2-70 minimum have to be used for the closing of the flameproof enclosures.

The lengths of the flameproof joints are in parts longer and the gaps of the flameproof joints are in parts smaller than the values of table 2 of EN 60079-1:2007. For information of the dimensions of the flameproof joints contact the manufacturer.

We confirm the correctness of the translation from the German original.
In the case of arbitration only the German wording shall be valid and binding.

DEKRA EXAM GmbH
44809 Bochum, 2015-08-07
BVS-Kir/Ar A 20150634

Certification body

Special services unit





Translation

EC-Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (3) No. of EC-Type Examination Certificate: **BVS 14 ATEX E 122 X**
- (4) Equipment: **Ex-luminaire type ASL57LED-Ex**
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- (9) The Essential Health and Safety Requirements are assured by compliance with:
 - EN 60079-0:2012 General requirements**
 - EN 60079-1:2007 Flameproof enclosure "d"**
 - EN 60079-7:2007 Increased Safety "e"**
 - EN 60079-31:2009 Protection by Enclosure "t"**
- (10) If the sign "X" is placed after the certificate number, it indicates that the equipment is subject to special conditions for safe use specified in the appendix to this certificate.
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|--|----------------------------------|-----|-----------------------------|
| | II 2G Ex d IIC T6 Gb | or | (w/o terminal compartment) |
| | II 2G Ex d e IIC T6 Gb | and | (with terminal compartment) |
| | II 2D Ex tb IIIC T80°C Db | | (all types) |

DEKRA EXAM GmbH
Bochum, dated 2014-07-30

Signed: Schumann

Signed: Dr. Wittler

Certification body

Special services unit

- (13) Appendix to
- (14) **EC-Type Examination Certificate
BVS 14 ATEX E 122 X**
- (15) 15.1 Subject and type

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15.3 Parameters

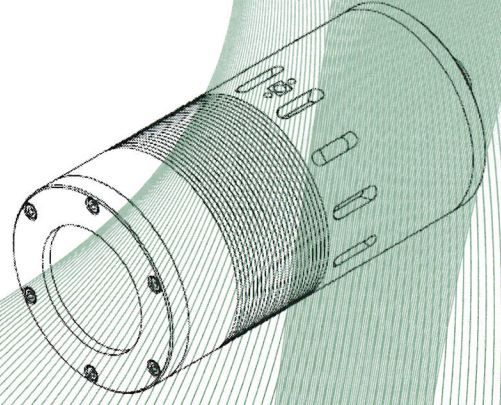
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Electrical / Thermal parameters

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|--------------------|--------------------|---------------|-----------------|---------|----------------------|-----------------------------------|
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| | | | Gland | | | |
| | | Bridgelux LED | 'e' compartment | | | |
| | | | Gland | | | |
| 110 – 230 VAC | | Cree LED | 'e' compartment | | | |
| | | | Gland | | | |
| | | Bridgelux LED | 'e' compartment | | | |
| | | | Gland | | | |

Miscellaneous parameters

Degree of protection IP 65





(16) Test and Assessment Report

BVS PP 14.2172 EG as of 2014-07-30

(17) Special conditions for safe use

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DEKRA EXAM GmbH
44809 Bochum, 2014-07-30
BVS-Kir/Ma A20130898

Certification body

Special services unit