


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 09 ATEX E 169**
- (4) Equipment: **Luminaire type ESL55LED-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 10.2008 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
 - EN 60079-0:2009 General requirements**
 - EN 60079-1:2007 Flameproof enclosure "d"**
 - 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**
II 2D Ex tb IIIC T80°C Db

DEKRA EXAM GmbH
 Bochum, dated 24th April 2013

Signed: Simanski

Signed: Dr. Wittler

 Certification body

 Special services unit

- (13) Appendix to
- (14) **1. Supplement to the EC-Type Examination Certificate
BVS 09 ATEX E 169**
- (15) 15.1 Subject and type

Luminaire type ESL55LED-Ex

15.2 Description

The luminaire type ESL55LED-Ex consists of a stainless steel enclosure and is suitable for use in both gas and dust hazardous areas of categories 2G and 2D. The luminaire serves the purpose of monitoring objects and of remote-controlling procedural processes in reactors, apparatuses, containers etc. Inside the luminaire, the input voltage is adjusted to the operating voltage of the LED illuminants by means of a power board.

The lid and the ring flange are provided with an o-ring.

Reason for this supplement is the update to the current standards, the addition of two more variants of luminaires (24 V and 120-230 V with 6-times LED) and the optional use of cable entries with sealing rings and cables according to the list in clause "parameters".

15.3 Parameters

15.3.1 Electrical parameters

15.3.1.1 3-times LED

Voltage	Power
24 V AC/DC	15 W
120 - 230 V AC/DC	15 W

15.3.1.2 6-times LED

Voltage	Power
24 V AC/DC	20 W
120 - 230 V AC/DC	20 W

15.3.2 Thermal parameters

Ambient temperature range	-20 °C ... 40 °C
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15.3.3 Cable entries (non-potted technique)

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 Cables (together with cable entries according to 15.3.3)

Type	Cross section	Diameter [mm]	Cable length min. [m]
Sinotherm 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

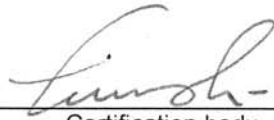
BVS PP 10.2008 EG as of 24th April 2013

(17) Special conditions for safe use

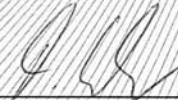
None

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, 24th April 2013
BVS-Kir/Ma A 20120430



Certification body



Special services unit



Translation

EC-Type Examination Certificate

- (1)
- (2) **- Directive 94/9/EC -**
Equipment and protective systems intended for use
in potentially explosive atmospheres
- (3) **BVS 09 ATEX E 169**
- (4) **Equipment:** Luminaire type ESL55LED-Ex
- (5) **Manufacturer:** F.H. Papenmeier GmbH & Co. KG
- (6) **Address:** 58239 Schwerte, Germany
- (7) The design and construction of this equipment and any acceptable variation thereto are specified in the appendix to this type examination certificate.
- (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 10.2008 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
- EN 60079-0:2006 General requirements
 - EN 60079-1:2007 Flameproof Enclosure
 - EN 61241-0:2006 General requirements
 - EN 61241-1:2004 Protection by Enclosures
- (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 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
II 2D Ex tD A21 IP67 T80°C

DEKRA EXAM GmbH

Bochum, dated 6th January 2010

Signed: Simanski

Signed: Dr. Eickhoff

Certification body

Special services unit

(13) Appendix to

(14) **EC-Type Examination Certificate**

BVS 09 ATEX E 169

(15) 15.1 Subject and type
Luminaire type ESL55LED-Ex

15.2 Description

The luminaire type ESL55LED-Ex consists of a stainless steel enclosure and is suitable for use in both gas and dust hazardous areas of categories 2G and 2D. The luminaire serves the purpose of monitoring objects and of remote-controlling procedural processes in reactors, apparatuses, containers etc. Inside the luminaire, the input voltage is adjusted to the operating voltage of the LED illuminants by means of a power board.

Category 2G:

The luminaire type ESL55LED-Ex is manufactured according to the type of protection Flameproof Enclosure 'd'.

Category 2D:

The luminaire type ESL55LED-Ex is manufactured according to the type of protection Protection by Enclosures 'tD'.

15.3 Parameters

15.3.1 Electrical data

15.3.1.1 24V-version

Input voltage		AC/DC	24	V
Power	max.		15	W

15.3.1.2 120V up to 230V-version

Input voltage		AC/DC	120 - 230V	
Power	max.		15	W

15.3.2 Thermal data

Ambient temperature range	$-20^{\circ}\text{C} \leq T_a \leq +40^{\circ}\text{C}$
Temperature class	T6
Max. surface temperature	$\leq 80^{\circ}\text{C}$

(16) Test and assessment report
BVS PP 10.2008 EG as of 06.01.2010

(17) Special conditions for safe use
None

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.

44809 Bochum, 10.02.2010
BVS-Kr/Ld/Ar E 0131/10

DEKRA EXAM GmbH



Certification body

Special services unit