

Translation

(1) 2nd Supplement to the Type Examination Certificate

- (2) Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC
- (3) No. of Type Examination Certificate: **BVS 09 ATEX E 147**
- (4) Equipment: **Fluorescent light fitting type nLL* 08 0**/** ***
- (5) Manufacturer: **Cooper Crouse-Hinds GmbH**
- (6) Address: **Neuer Weg-Nord 49, 69412 Eberbach, 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 certifies that this equipment has been found to comply with the Essential Health and Safety Requirements relating to the design of Category 3 equipment 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 09.2180 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 60079-7:2007 | Increased Safety 'e' |
| EN 60079-11:2007 | Intrinsic Safety 'i' |
| EN 60079-15:2010 | Equipment protection by type of protection 'n' |
| EN 60079-18:2009 | Encapsulation 'm' |
| 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 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 3G Ex nA * IIC T4 Gc
II 3D Ex tc IIIC T80°C Dc

* The marking of the different variants will be completed by the types of protection of the variable built in components. See also clause 15.1) *Subject and type* for a complete listing of the differences

DEKRA EXAM GmbH
Bochum, dated 2014-11-13

Signed: Simanski

Certification body

Signed: Dr. Wittler

Special services unit

- (13) Appendix to
- (14) **2nd Supplement to the Type Examination Certificate
BVS 09 ATEX E 147**
- (15) 15.1 Subject and type

Fluorescent light fitting type nLL* 08 0**/** *

<u>Asterisk</u>	<u>Description</u>
1.	Material of enclosure
K	: Plastic enclosure
M	: Pole mounted light (Plastic enclosure)
S	: Stainless steel enclosure
2. - 5.	Power and quantity of lamp
18/18	: 2x 18 W
36	: 1x 36 W
36/36	: 2x 36 W
58	: 1x 58 W
58/58	: 2x 58 W
6.	Features
w/o	: Standard
CG-S	: With CG-S module for connection to central battery system
N	: Emergency light with internal or external battery

Additional types of protection caused by used components:

Luminaire switch (Ex d, Ex e), CG-S module (Ex e, Ex ib and Ex mb), Electronic ballast EVG09 (Ex d and Ex e) and the battery box (Ex d, Ex ib and Ex mb)

15.2 Description

The fluorescent light fitting type nLL* 08 0**/** * is an explosion-protected electrical apparatus that accommodates single or twin fluorescent lamps with socket G13 to provide lighting in potentially explosive atmospheres of zone 2 and zone 22.

The electronic ballast type 3 P 2** 08 0 /08 1 according to TÜV 12 ATEX 105421 U is used as ballast for the lamp type nLL* 08 0**/** *. As an alternative, the separately certified ballast EVG09 according to BVS 09 ATEX E 054 U may be installed which is suitable for use in zone 1.

The lamps may be replaced inside the potentially explosive atmosphere if the fluorescent light fitting is equipped with a separately certified light switch that meets the requirements of the type of protection Flameproof Enclosure. Either this switch disconnects the lamp at all poles when opening the fluorescent light fitting or the voltage of the fluorescent light fitting is set to zero before opening. The variant without a light switch contains a relevant warning on the outside of the enclosure.

Suitable lamps to be used are fluorescent tubes of type T8.

The fluorescent light fitting enclosure consists of either glass-mat reinforced polyester or of stainless steel; the light-permitting diffuser is made of polycarbonate. The surrounding groove of the protective cover contains a self-adhesive gasket.

The fluorescent light fitting type nLL* 08 0**/** CG-S is equipped with a CG-S module according to PTB 04 ATEX 2110 U which connects to a central battery system.

The fluorescent light fitting type nLL* 08 0**/** N is either equipped with one battery consisting of five NiCd-cells of 4Ah connected in series, unless the separately certified battery box type eB* * (BVS 09 ATEX 044 X) is used which is flanged on and supplied with either a battery type U or one of type P, providing 4 Ah or 7 Ah, respectively.

The types of protection for zone 1 listed in the marking are stated on the type label due to the components built into the luminaire.

The reasons for this supplement are:

- Replacement of the electronic ballast made by Hadler by a certified electronic ballast type 3 P 2** 08 0 /08 1 according to TÜV 12 ATEX 105421 U
- The permissible ambient temperature ranges have been adjusted to the requirements of the new electronic ballast
- Removal of the fluorescent tubes type T10 and T12
- Minor mechanical change

15.3 Parameters

Type of luminaire	Electronic ballast	Feed-through wiring		Rated voltage	Frequency	Ambient temperature
		with	w/o			
Standard nLL 08						
nLL* 08 018/18	EVG Luxtronic 2x18W	x	x	220V - 240V AC 220V - 240V DC	50 / 60Hz 0Hz	-25 °C - +55 °C
nLL* 08 036	EVG Luxtronic 1x36W	x	x	220V - 240V AC 220V - 240V DC	50 / 60Hz 0Hz	-25 °C - +55 °C
nLL* 08 036/36	EVG Luxtronic 2x36W	x	x	220V - 240V AC 220V - 240V DC	50 / 60Hz 0Hz	-25 °C - +55 °C
nLL* 08 058	EVG Luxtronic 1x58W	x	x	220V - 240V AC 220V - 240V DC	50 / 60Hz 0Hz	-25 °C - +50 °C
nLL* 08 058/58	EVG Luxtronic 2x58W	x	x	220V - 240V AC 220V - 240V DC	50 / 60Hz 0Hz	-25 °C - +45 °C
nLL* 08 018/18	EVG 09 218	x	x	110V - 254V AC 110V - 250V DC	50 / 60Hz 0Hz	-25 °C - +50 °C ¹ -25 °C - +55 °C ²
nLL* 08 036	EVG 09 136	x	x	110V - 254V AC 110V - 250V DC	50 / 60Hz 0Hz	-25 °C - +50 °C ¹ -25 °C - +55 °C ²
nLL* 08 036/36	EVG 09 236	x	x	110V - 254V AC 110V - 250V DC	50 / 60Hz 0Hz	-25 °C - +50 °C ¹ -25 °C - +55 °C ²
nLL* 08 058	EVG 09 158	x	x	220V - 254V AC 220V - 250V DC	50 / 60Hz 0Hz	-25 °C - +55 °C
nLL* 08 058/58	EVG 09 258	x	----	220V - 254V AC 220V - 250V DC	50-60Hz 0Hz	-25 °C - +40 °C
nLL* 08 058/58	EVG 09 258	----	x	220V - 254V AC 220V - 250V DC	50-60Hz 0Hz	-25 °C - +45 °C

¹ Temperature range for rated voltage $U_N \leq 220$ V

² Temperature range for rated voltage $U_N > 220$ V

Type of luminaire	Electronic ballast	Feed-through wiring		Rated voltage	Frequency	Ambient temperature
		with	w/o			
Emergency light nLL. 08 N - internal battery 4Ah						
nLL* 08 018/18 N	VE/EVG Luxtronic 2x18W 1,5h		x	220V - 240V AC	50 / 60Hz	-25 °C - +45 °C
nLL* 08 018/18 N	VE/EVG Luxtronic 2x18W 3,0h		x	220V - 240V AC	50 / 60Hz	-25 °C - +45 °C
nLL* 08 036/36 N	VE/EVG Luxtronic 2x36W 1,5h		x	220V - 240V AC	50 / 60Hz	-25 °C - +45 °C
Emergency light nLL. 08 N - external battery 4Ah						
nLL* 08 018/18 N	VE/EVG Luxtronic 2x18W 1,5h	x	x	220V - 240V AC	50 / 60Hz	-25 °C - +45 °C
nLL* 08 018/18 N	VE/EVG Luxtronic 2x18W 3h	x	x	220V - 240V AC	50 / 60Hz	-25 °C - +45 °C
nLL* 08 036/36 N	VE/EVG Luxtronic 2x36W 1,5h	x	x	220V - 240V AC	50 / 60Hz	-25 °C - +40 °C
Emergency light nLL. 08 N - external battery 7 Ah						
nLL* 08 036/36 N	VE/EVG Luxtronic 2x36W 3h	x		220V - 240V AC	50 / 60Hz	-25 °C - +40 °C
Emergency light nLL. 08 CG-S						
nLL* 08 018/18 CG-S	EVG 09 218 + CG-S	x	x	220V - 254V AC 195V - 250V DC	50 / 60Hz 0Hz	-25 °C - +50 °C
nLL* 08 036/036 CG-S	EVG 09 236 + CG-S	x	x	220V - 254V AC 195V - 250V DC	50 / 60Hz 0Hz	-25 °C - +50 °C
nLL* 08 058/058 CG-S	EVG 09 258 + CG-S	x		220V - 254V AC 195V - 250V DC	50 / 60Hz 0Hz	-25 °C - +40 °C
nLL* 08 058/058 CG-S	EVG 09 258 + CG-S		x	220V - 254V AC 195V - 250V DC	50 / 60Hz 0Hz	-25 °C - +45 °C

(16) Test and Assessment Report

BVS PP 09.2180 EG as of 2014-11-13

(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, 2014-11-13
BVS-Kir/Ma A 20140416



Certification body




Special services unit

Translation

(1) 2nd 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 162**
- (4) Equipment: **Fluorescent light fitting type nLL* 08 0**/** ***
- (5) Manufacturer: **Cooper Crouse-Hinds GmbH**
- (6) Address: **Neuer Weg-Nord 49, 69412 Eberbach, 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 10.2029 EG.
- (9) The Essential Health and Safety Requirements are assured by compliance with:
- EN 60079-0:2009 General requirements**
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 2D Ex tb IIIC T80°C Db**

DEKRA EXAM GmbH
Bochum, dated 2014-11-12

Signed: Simanski

Certification body

Signed: Dr. Wittler

Special services unit

- (13) Appendix to
- (14) **2nd Supplement to the EC-Type Examination Certificate
BVS 09 ATEX E 162**
- (15) 15.1 Subject and type

Fluorescent light fitting type nLL* 08 0**/** *

<u>Asterisk</u>	<u>Description</u>
1.	Material of enclosure
K	: Plastic enclosure
M	: Pole mounted light (Plastic enclosure)
S	: Stainless steel enclosure
2. - 5.	Power and quantity of lamp
18/18	: 2x 18 W
36	: 1x 36 W
36/36	: 2x 36 W
58	: 1x 58 W
58/58	: 2x 58 W
6.	Features
w/o	: Standard
CG-S	: With CG-S module for connection to central battery system
N	: Emergency light with internal or external battery

15.2 Description

The fluorescent light fitting type nLL* 08 0**/** * is an explosion-protected electrical apparatus that accommodates single or twin fluorescent lamps with socket G13 to provide lighting in potentially explosive atmospheres of zone 21.

The electronic ballast type 3 P 2** 08 0' /08 1 according to TÜV 12 ATEX 105421 U is used as ballast for the lamp type nLL* 08 0**/** *. As an alternative, the separately certified ballast EVG09 according to BVS 09 ATEX E 054 U may be installed which is suitable for use in zone 1.

The lamps may be replaced inside the potentially explosive atmosphere if the fluorescent light fitting is equipped with a separately certified light switch that meets the requirements of the type of protection Flameproof Enclosure. Either this switch disconnects the lamp at all poles when opening the fluorescent light fitting or the voltage of the fluorescent light fitting is set to zero before opening. The variant without a light switch contains a relevant warning on the outside of the enclosure.

Suitable lamps to be used are fluorescent tubes of type T8.

The fluorescent light fitting enclosure consists of either glass-mat reinforced polyester or of stainless steel; the light-permitting diffuser is made of polycarbonate. The surrounding groove of the protective cover contains a self-adhesive gasket.

The fluorescent light fitting type nLL* 08 0**/** CG-S is equipped with a CG-S module according to PTB 04 ATEX 2110 U which connects to a central battery system.

The fluorescent light fitting type nLL* 08 0**/** N is either equipped with one battery consisting of five NiCd-cells of 4Ah connected in series, unless the separately certified battery box type eB* * (BVS 09 ATEX 044 X) is used which is flanged on and supplied with either a battery type U or one of type P, providing 4 Ah or 7 Ah, respectively.

The reasons for this supplement are:

- Replacement of the electronic ballast made by Hadler by a certified electronic ballast type 3 P 2** 08 0' /08 1 according to TÜV 12 ATEX 105421 U
- The permissible ambient temperature ranges have been adjusted to the requirements of the new electronic ballast
- Removal of fluorescent tubes type T10 and T12
- Minor mechanical change

15.3 Parameters

Type of luminaire	Electronic ballast	Feed-through wiring		Rated voltage	Frequency	Ambient temperature
		with	w/o			
Standard nLL 08						
nLL* 08 018/18	EVG Luxtronic 2x18W	x	x	220V - 240V AC 220V - 240V DC	50 / 60Hz 0Hz	-25 °C - +55 °C
nLL* 08 036	EVG Luxtronic 1x36W	x	x	220V - 240V AC 220V - 240V DC	50 / 60Hz 0Hz	-25 °C - +55 °C
nLL* 08 036/36	EVG Luxtronic 2x36W	x	x	220V - 240V AC 220V - 240V DC	50 / 60Hz 0Hz	-25 °C - +55 °C
nLL* 08 058	EVG Luxtronic 1x58W	x	x	220V - 240V AC 220V - 240V DC	50 / 60Hz 0Hz	-25 °C - +50 °C
nLL* 08 058/58	EVG Luxtronic 2x58W	x	x	220V - 240V AC 220V - 240V DC	50 / 60Hz 0Hz	-25 °C - +45 °C
nLL* 08 018/18	EVG 09 218	x	x	110V - 254V AC 195V - 250V DC	50 / 60Hz 0Hz	-25 °C - +50 °C ¹ -25 °C - +55 °C ²
nLL* 08 036	EVG 09 136	x	x	110V - 254V AC 195V - 250V DC	50 / 60Hz 0Hz	-25 °C - +50 °C ¹ -25 °C - +55 °C ²
nLL* 08 036/36	EVG 09 236	x	x	110V - 254V AC 195V - 250V DC	50 / 60Hz 0Hz	-25 °C - +50 °C ¹ -25 °C - +55 °C ²
nLL* 08 058	EVG 09 158	x	x	220V - 254V AC 220V - 250V DC	50 / 60Hz 0Hz	-25 °C - +55 °C
nLL* 08 058/58	EVG 09 258	x		220V - 254V AC 220V - 250V DC	50-60Hz 0Hz	-25 °C - +40 °C
nLL* 08 058/58	EVG 09 258		x	220V - 254V AC 220V - 250V DC	50-60Hz 0Hz	-25 °C - +45 °C

¹ Temperature range for rated voltage $U_N \leq 220$ V

² Temperature range for rated voltage $U_N > 220$ V

Type of luminaire	Electronic ballast	Feed-through wiring		Rated voltage	Frequency	Ambient temperature
		with	w/o			
Emergency light nLL. 08 N - internal battery 4Ah						
nLL* 08 018/18 N	VE/EVG Luxtronic 2x18W 1,5h		x	220V - 240V AC	50 / 60Hz	-25 °C - +45 °C
nLL* 08 018/18 N	VE/EVG Luxtronic 2x18W 3,0h		x	220V - 240V AC	50 / 60Hz	-25 °C - +45 °C
nLL* 08 036/36 N	VE/EVG Luxtronic 2x36W 1,5h		x	220V - 240V AC	50 / 60Hz	-25 °C - +45 °C
Emergency light nLL. 08 N - external battery 4Ah						
nLL* 08 018/18 N	VE/EVG Luxtronic 2x18W 1,5h	x	x	220V - 240V AC	50 / 60Hz	-25 °C - +45 °C
nLL* 08 018/18 N	VE/EVG Luxtronic 2x18W 3h	x	x	220V - 240V AC	50 / 60Hz	-25 °C - +45 °C
nLL* 08 036/36 N	VE/EVG Luxtronic 2x36W 1,5h	x	x	220V - 240V AC	50 / 60Hz	-25 °C - +40 °C
Emergency light nLL. 08 N - external battery 7 Ah						
nLL* 08 036/36 N	VE/EVG Luxtronic 2x36W 3h	x		220V - 240V AC	50 / 60Hz	-25 °C - +40 °C
Emergency light nLL. 08 CG-S						
nLL* 08 018/18 CG-S	EVG 09 218 + CG-S	x	x	220V - 254V AC 195V - 250V DC	50 / 60Hz 0Hz	-25 °C - +50 °C
nLL* 08 036/036 CG-S	EVG 09 236 + CG-S	x	x	220V - 254V AC 195V - 250V DC	50 / 60Hz 0Hz	-25 °C - +50 °C
nLL* 08 058/058 CG-S	EVG 09 258 + CG-S	x		220V - 254V AC 195V - 250V DC	50 / 60Hz 0Hz	-25 °C - +40 °C
nLL* 08 058/058 CG-S	EVG 09 258 + CG-S		x	220V - 254V AC 195V - 250V DC	50 / 60Hz 0Hz	-25 °C - +45 °C

(16) Test and Assessment Report

BVS PP 10.2029 EG as of 2014-11-12

(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, 2014-11-12
BVS-Kir/Ma A20140418



Certification body



Special services unit