

## Translation

# (1) 3<sup>rd</sup> 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 014 X**
- (4) Equipment: **Wall and ceiling lamp type GHG 86\* \*\*\*\* R 1\* \*\*, alt. AB05 \*\*\*\* 10\* \*\***
- (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 09.2092 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 enclosures "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 IIB T\* Gb**      **or**  
**II 2G Ex d IIB + H<sub>2</sub> T\* Gb**  
**II 2D Ex tb IIIC T\*\*\* °C Db**  
**IP66**  
(\*) See "parameters"

DEKRA EXAM GmbH  
Bochum, dated 2015-02-27

Signed: Simanski

Certification body

Signed: Dr. Wittler

Special services unit



- (13) Appendix to
- (14) **3<sup>rd</sup> Supplement to the EC-Type Examination Certificate  
BVS 09 ATEX E 014 X**
- (15) 15.1 Subject and type

Wall and ceiling lamp type GHG 86\* \*\*\*\* R 1\* \*\*, alt. AB05 \*\*\*\*\* 10\* \*\*

Asterisk

- |     |   |
|-----|---|
| 1   | Variant                                 |
| 1   | For group IIB + H <sub>2</sub>          |
| 2   | For group IIB                           |
| 2   | Luminaire                               |
| 1   | High-pressure sodium vapour lamp (NAV)  |
| 2   | High-pressure mercury vapour lamp (HQL) |
| 3   | Bulb                                    |
| 4   | Energy-saving lamp                      |
| 5   | LED                                     |
| 3   | Rated voltage                           |
| 1   | 230 V                                   |
| 2   | 120 V                                   |
| 4   | Entry thread left                       |
| 1   | M20 x 1.5                               |
| 2   | M25 x 1.5                               |
| 3   | NPT 1/2"                                |
| 4   | NPT 3/4"                                |
| 9   | Special thread                          |
| 5   | G 1/2"                                  |
| 6   | G 3/4"                                  |
| 5   | Entry thread right                      |
| 1   | M20 x 1.5                               |
| 2   | M25 x 1.5                               |
| 3   | NPT 1/2"                                |
| 4   | NPT 3/4"                                |
| 9   | Special thread                          |
| 5   | G 1/2"                                  |
| 6   | G 3/4"                                  |
| 6   | LED power                               |
| 0   | No LED                                  |
| 1   | 14 W                                    |
| 2   | 24 W                                    |
| 3   | < 32 W                                  |
| 7-8 | Not Ex-relevant                         |

## 15.2 Description

### Description of the modification

Modification of the type designation

Optionally modification of electronic components

### Description of the equipment

The wall and ceiling lamp type GHG 86\* \*\*\*\* R 1\* \*\*, alt. AB05 \*\*\*\*\* 10\* \*\* is designed for use as a wall and ceiling lamp. It is manufactured to meet the requirements of the type of protection 'Flameproof Enclosure' for use in areas endangered by gas and 'Protection by Enclosure' for areas endangered by combustible dusts.

The lamp consists of a metal enclosure bottom and a glass cover glued to a metal frame which is equipped with guards. The LED modules inserted onto the cooler of the lamp are supplied by the associated LED driver module.

## 15.3 Parameters

Rated voltage

AC 230 V  
AC 120 V

Type AB 05	Marking of the standard	Luminaire	Ambient temperature range
GHG 861 11.. R 10 ..	Ex d IIB + H <sub>2</sub> T4 Gb	HS . (NAV) 70 W	-20 °C to 40 °C
GHG 861 11.. R 10 ..	Ex d IIB + H <sub>2</sub> T4 Gb	HS . (NAV) 70 W	-20 °C to 55 °C**
GHG 861 21.. R 10 ..	Ex d IIB + H <sub>2</sub> T4 Gb	HM . (HQL) 80 W	-20 °C to 40 °C
GHG 861 21.. R 10 ..	Ex d IIB + H <sub>2</sub> T4 Gb	HM . (HQL) 80 W	-20 °C to 55 °C**
GHG 861 31.. R 10 ..	Ex d IIB + H <sub>2</sub> T4 Gb	Bulb 40 W	-20 °C to 40 °C
GHG 861 31.. R 10 ..	Ex d IIB + H <sub>2</sub> T4 Gb	Bulb 40 W	-20 °C to 55 °C
GHG 861 31.. R 10 ..	Ex d IIB + H <sub>2</sub> T4 Gb	Bulb 60 W	-20 °C to 40 °C
GHG 861 31.. R 10 ..	Ex d IIB + H <sub>2</sub> T4 Gb	Bulb 60 W	-20 °C to 55 °C
GHG 861 31.. R 10 ..	Ex d IIB + H <sub>2</sub> T4 Gb	Bulb 100 W	-20 °C to 40 °C
GHG 861 31.. R 10 ..	Ex d IIB + H <sub>2</sub> T3 Gb	Bulb 200 W	-20 °C to 40 °C**
GHG 861 41.. R 10 ..	Ex d IIB + H <sub>2</sub> T4 Gb	Energy saving lamp	-20 °C to +55 °C

GHG 861 5.. R 11..	Ex d IIB + H <sub>2</sub> T6 Gb	LED Unit 14 W	-20 °C to 55 °C
GHG 861 5.. R 12..	Ex d IIB + H <sub>2</sub> T6 Gb	LED Unit 24 W	-20 °C to 40 °C
GHG 861 5.. R 12..	Ex d IIB + H <sub>2</sub> T5 Gb	LED Unit 24 W	-20 °C to 55 °C
GHG 861 5.. R 13..	Ex d IIB + H <sub>2</sub> T6 Gb	LED Unit 32 W	-20 °C to 40 °C
GHG 861 5.. R 13..	Ex d IIB + H <sub>2</sub> T5 Gb	LED Unit 32 W	-20 °C to 55 °C

GHG 862 11.. R 10 ..	Ex d IIB T4 Gb	HS . (NAV) 70 W	-55 °C to 40 °C
GHG 862 11.. R 10 ..	Ex d IIB T4 Gb	HS . (NAV) 70 W	-55 °C to 55 °C**
GHG 862 21.. R 10 ..	Ex d IIB T4 Gb	HM . (HQL) 80 W	-55 °C to 40 °C
GHG 862 21.. R 10 ..	Ex d IIB T4 Gb	HM . (HQL) 80 W	-55 °C to 55 °C**
GHG 862 31.. R 10 ..	Ex d IIB T4 Gb	Bulb 40 W	-55 °C to 40 °C
GHG 862 31.. R 10 ..	Ex d IIB T4 Gb	Bulb 40 W	-55 °C to 55 °C
GHG 862 31.. R 10 ..	Ex d IIB T4 Gb	Bulb 60 W	-55 °C to 40 °C
GHG 862 31.. R 10 ..	Ex d IIB T4 Gb	Bulb 60 W	-55 °C to 55 °C
GHG 862 31.. R 10 ..	Ex d IIB T4 Gb	Bulb 100 W	-55 °C to 40 °C
GHG 862 31.. R 10 ..	Ex d IIB T3 Gb	Bulb 200 W	-55 °C to 40 °C**
GHG 862 5.. R 13..	Ex d IIB T4 Gb	Energy saving lamp	-55 °C to 55 °C

GHG 862 5... R 11...	Ex d IIB T6 Gb	LED Unit 14 W	-55 °C to 55 °C
GHG 862 5... R 12...	Ex d IIB T6 Gb	LED Unit 24 W	-55 °C to 40 °C
GHG 862 5... R 12...	Ex d IIB T5 Gb	LED Unit 24 W	-55 °C to 55 °C
GHG 862 5... R 13...	Ex d IIB T6 Gb	LED Unit 32 W	-55 °C to 40 °C
GHG 862 5... R 13...	Ex d IIB T5 Gb	LED Unit 32 W	-55 °C to 55 °C

GHG 86. 11... R 10...	Ex tb IIIC T135°C Db IP66	HS . (NAV) 70 W	-55 °C to 40 °C
GHG 86. 11... R 10...	Ex tb IIIC T135°C Db IP66	HS . (NAV) 70 W	-55 °C to 55 °C**
GHG 86. 21... R 10...	Ex tb IIIC T135°C Db IP66	HM . (HQL) 80 W	-55 °C to 40 °C
GHG 86. 21... R 10...	Ex tb IIIC T135°C Db IP66	HM . (HQL) 80 W	-55 °C to 55 °C**
GHG 86. 31... R 10...	Ex tb IIIC T135°C Db IP66	Bulb 40 W	-55 °C to 40 °C
GHG 86. 31... R 10...	Ex tb IIIC T135°C Db IP66	Bulb 40 W	-55 °C to 55 °C
GHG 86. 31... R 10...	Ex tb IIIC T135°C Db IP66	Bulb 60 W	-55 °C to 40 °C
GHG 86. 31... R 10...	Ex tb IIIC T135°C Db IP66	Bulb 60 W	-55 °C to 55 °C
GHG 86. 31... R 10...	Ex tb IIIC T135°C Db IP66	Bulb 100 W	-55 °C to 40 °C
GHG 86. 31... R 10...	Ex tb IIIC T200°C Db IP66	Bulb 200 W	-55 °C to 40 °C**
GHG 86. 41... R 10...	Ex tb IIIC T100°C Db IP66	Energy saving lamp	-55 °C to 55 °C

GHG 86. 5... R 11...	Ex tb IIIC T80°C Db IP66	LED Unit 14 W	-55 °C to 55 °C
GHG 86. 5... R 12...	Ex tb IIIC T80°C Db IP66	LED Unit 24 W	-55 °C to 40 °C
GHG 86. 5... R 12...	Ex tb IIIC T100°C Db IP66	LED Unit 24 W	-55 °C to 55 °C
GHG 86. 5... R 13...	Ex tb IIIC T80°C Db IP66	LED Unit 32 W	-55 °C to 40 °C
GHG 86. 5... R 13...	Ex tb IIIC T100°C Db IP66	LED Unit 32 W	-55 °C to 55 °C

\*\* For these variants heat-resistant cable glands and cables have to be used.

(16) Test and Assessment Report

BVS PP 09.2092 EC as of 2015-02-27

(17) Special conditions for safe use

In order to seal the flameproof compartment special a screw and washer assembly has to be used of strength category A4-70. Further information can be found in the instructions.

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, 2015-02-27  
BVS-Sit/Ma A 20140591



Certification body



Special services unit