



# 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](http://www.iecex.com)

Certificate No.: **IECEx BVS 09.0032X** Page 1 of 4 Certificate history:  
Status: **Current** Issue No: 5 Issue 4 (2014-02-19)  
Date of Issue: 2015-03-10 Issue 3 (2013-09-12)  
Applicant: **Cooper Crouse-Hinds GmbH** Issue 2 (2011-09-22)  
Neuer Weg-Nord 49 Issue 1 (2010-12-13)  
69412 Eberbach Issue 0 (2009-09-28)  
Germany  
Equipment: **Wall and ceiling lamp type GHG 86\* \*\*\*\* R 1\* \*\*, alternatively AB05 \*\*\*\*\* 10\* \*\***  
Optional accessory:  
Type of Protection: **Equipment protection by flameproof enclosures "d", Equipment dust ignition protection by enclosure 't'**  
Marking: Ex d IIB T\* Gb  
Ex d IIB + H<sub>2</sub> T\* Gb  
Ex tb III C T\*\*\* °C Db  
IP66

Approved for issue on behalf of the IECEx  
Certification Body:

**H.-Ch. Simanski**

Position:

**Head of Certification Body**

Signature:  
(for printed version)

Date:

\_\_\_\_\_  
\_\_\_\_\_

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Germany

 **DEKRA**  
DEKRA EXAM GmbH



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Manufacturer: **Cooper Crouse-Hinds GmbH**  
Neuer Weg-Nord 49  
69412 Eberbach  
**Germany**

Additional manufacturing locations: **S.C. Cooper Industries**  
Romania S.R.L.  
Zona Industrial NV  
str. III, No.12  
310510 Arad  
**Romania**

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 60079-0:2007-10** Explosive atmospheres - Part 0: Equipment - General requirements  
Edition:5

**IEC 60079-1:2007-04** Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"  
Edition:6

**IEC 60079-31:2008** Explosive atmospheres – Part 31: Equipment dust ignition protection by enclosure 't'  
Edition: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 Report:

[DE/BVS/ExTR09.0047/05](#)

Quality Assessment Reports:

[DE/BVS/QAR11.0006/04](#)

[DE/BVS/QAR11.0009/03](#)



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## **EQUIPMENT:**

Equipment and systems covered by this Certificate are as follows:

### **Description of the equipment**

The lamp type GHG 86\* \*\*\*\* R 1\* \*\*, alternatively 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.

### **Parameters**

See Annex

### **Subject and type**

See Annex

### **SPECIFIC CONDITIONS OF USE: YES as shown below:**

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.



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)**

Modification of the type designation  
Optionally modification of electronic components  
Update of the standard

**Annex:**

[BVS\\_09\\_0032X\\_Cooper\\_Annex\\_issue\\_5\\_n1.pdf](#)



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**Annex**  
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## Subject and type

Wall and ceiling lamp type GHG 86\* \*\*\*\* R 1\* \*\*, alternatively 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



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**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



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

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

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