



(1) EC-TYPE-EXAMINATION CERTIFICATE (Translation)

(2) Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres - **Directive 94/9/EC**



(3) EC-type-examination Certificate Number:

PTB 04 ATEX 1017 X

(4) Equipment: Flameproof luminaire, type GHG 87 1...1R...

(5) Manufacturer: COOPER Crouse-Hinds GmbH

(6) Address: Neuer Weg Nord 49, 69412 Eberbach, Germany

(7) This equipment and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

(8) The Physikalisch-Technische Bundesanstalt, notified body No. 0102 in accordance with Article 9 of the Council Directive 94/9/EC 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 confidential report PTB Ex 04-13398.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

EN 50014:1997 + A1 + A2

EN50018:2000

(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 schedule to this certificate.

(11) This EC-type-examination Certificate relates only to the design, examination and tests of the specified equipment in accordance to the 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 2 G EEx d IIC T6

Zertifizierungsstelle Explosionsschutz

Braunschweig, March 15, 2004

By order:

Dr.-Ing. U. Klausmeyer
Regierungsdirektor



(13)

SCHEDULE

(14)

EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 1017 X

(15) Description of equipment

The explosion-proof luminaire of type GHG 87 1...1R..., designed to Flameproof Enclosure "d" type of protection, has an enclosure made from plastic. The enclosure top section consists of the transparent macrolone hood, which is encapsulated in a threaded brass ring. The protective hoods may be given different colours. The enclosure bottom section is made from polyester and accommodates a threaded ring. A flameproof joint is produced between both enclosure sections. When used for emergency lighting, a rescue symbol may be optionally fitted to the enclosure.

Electrical energy supply is either by separately certified connector sockets or cable entries.

The luminaire for mains operation is subject to the following technical data:

Max. wattage - luminous element	Voltage	Ambient temperature	Luminous emittance	With / without rescue symbol
5 W	230 V	-20 °C – + 40 °C	upwards	w/o
5 W	230 V	-20 °C – + 35 °C	upwards	with
5 W	230 V	-20 °C – + 45 °C	downwards	w/o / with
7 W	230 V	-20 °C – + 40 °C	downwards	w/o / with
8 W	230 V	-20 °C – + 40 °C	downwards	w/o / with
5 W flash lamp	230 V	-20 °C – + 45 °C	upwards	w/o

The enclosure may, in addition, incorporate such special fittings as photo-electric switches, photoemissive cells, motion detectors, and the like, in which case the following technical data shall apply:

Max. power dissipation	Max. voltage	Ambient temperature	Luminous emittance	With / without rescue symbol
5 W	230 V	-20 °C – + 40 °C	upwards	without
5 W	230 V	-20 °C – + 45 °C	downwards	without
10 W	230 V	-20 °C – + 40 °C	downwards	without
15 W	230 V	-20 °C – + 30 °C	downwards	without

(16) Test report PTB Ex 04-13398

(17) Special conditions for safe use

There may be restrictions as to the normal position and the ambient temperature as shown in the tables in (15) "Description of equipment".

Additional notes for safe operation

Any components attached or installed (e.g. terminal compartments, bushings, explosion-proof cable entries, connectors) shall be of a technical standard that complies with the specifications on the cover sheet and for which a separate examination certificate has been issued. Any special conditions specified for the components shall be complied with, and the components may have to be included into the type test.

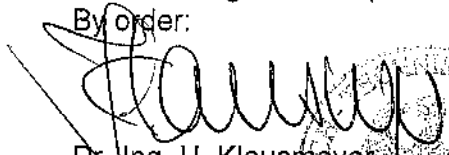
(18) Essential health and safety requirements

Met by compliance with the aforementioned Standards.

Zertifizierungsstelle Explosionsschutz

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1. SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 04 ATEX 1017 X

(Translation)

Equipment: Flameproof luminaire, type GHG 87 1...1R...

Marking:  II 2 G EEx d IIC T6
II 2 D IP 66 T 80 °C

Manufacturer: COOPER Crouse-Hinds GmbH

Address: Neuer Weg Nord 49
69412 Eberbach, Germany

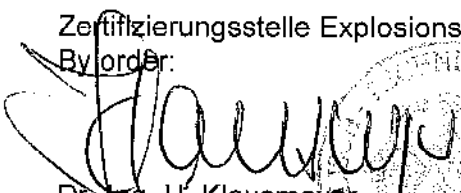
Description of supplements and modifications

The type approval is extended by area II D (dust explosion protection).

Test report: BVS PP 04.2173 EG

Zertifizierungsstelle Explosionsschutz

By order:


Dr.-Ing. U. Klausmeyer
Regierungsdirektor



Braunschweig, January 17, 2005