



(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 06 ATEX 1017 X



(4) Equipment: Photo cell, type GHG 640 9601 R

(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 06-15317.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 60079-0:2004 **EN 60079-1:2004**

(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 2G Ex d IIC T6

Zertifizierungsstelle Explosionsschutz

By order:

Braunschweig, April 27, 2006

Dr.-Ing. U. Klausmeyer
Direktor und Professor



(13)

SCHEDULE

(14)

EC-TYPE-EXAMINATION CERTIFICATE PTB 06 ATEX 1017 X

(15) Description of equipment

Flameproof photocell of type GHG 640 9601 R..., designed to be screwed into enclosures which correspond to one of the types of protection listed in EN 60079-0, e.g. Increased Safety or Flameproof Enclosure.

Technical data

Rated voltage	max. 250 V
Rated current	max. 10 A
Power dissipation	max. 1 W

Provided the values specified – and the relevant regulations – are complied with, elements other than those indicated may be mounted.

Insulated-wire cross section	1.5 mm ²
Temperatures at the place of installation	-20...+70 °C
Degree of protection	IP 66
Screw thread	M 22 x 1.5 or 1"NPT

(16) Test report PTB Ex 06-15317

(17) Special conditions for safe use

- 1) The photo cell shall be screwed (and connected) into an enclosure that corresponds to one of the types of protection listed in EN 60079-0, e.g. Increases Safety or Flameproof Enclosure.
- 2) The photo cell shall be mounted in such a way that rotation and accidental loosening will be prevented.
- 3) The admissible temperature range at the place of installation, with the photo cell operated under rated conditions, has been fixed at -20 to +70°C. Due regard shall be given to the ambient temperature accepted as a maximum, and any extraneous heat / thermal conduction.
- 4) When **mounted in enclosures of Flameproof Enclosure** type of protection, the photo cell shall be included in the type test made for the enclosure concerned in compliance with EN 60079-1, section 15.1.3 (overpressure test), if the reference pressure of the enclosure exceeds 20 bar.

The tapped holes receiving the photo cell with its screw thread shall meet the minimum requirements (minimum depth of engagement and minimum number of engaged threads) as set forth in EN 60079-1, tables 3 and 4.

- 5) When **mounted in enclosures of Increased Safety** type of protection, due care shall be taken to make sure that the minimum degree of protection (IP) of the enclosure and its mechanical strength will not be affected.

(18) Essential health and safety requirements

Met by compliance with the afore-mentioned Standards.

Zertifizierungsstelle Explosionsschutz

By order:



Dr.-Ing. U. Klausmeyer
Direktor und Professor

Braunschweig, April 27, 2006

1st SUPPLEMENT

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

to EC-TYPE-EXAMINATION CERTIFICATE PTB 06 ATEX 1017 X

(Translation)

Equipment: Photo cell, type GHG 640 9601 P.

Marking:  II 2G Ex d IIC T6

Manufacturer: Cooper Crouse Hinds GmbH

Address: Neuer Weg Nord 49, 69412 Eberbach, Germany

Description of supplements and modifications

The photo cell has been modified as follows:

1. The temperature range at the place of installation is re-defined and will now be -40 ... +70°C.
2. The acceptable power dissipation is extended as a function of the temperature range.

Ambient temp. at place of installation	Max. acceptable power dissipation
-40 to +70°C	1 W
-40 to +60°C	2 W
-40 to +50°C	3 W

3. The type name is extended to include the definition of the power dissipation; the marking is extended to additionally show the ambient temperature range.

The new type name is: **GHG 640 9601 P.**

Applied standards

EN 60079-0:2004

EN 60079-1:2004

Test report: PTB Ex 06-16247

~~Zertifizierungsstelle~~ Explosionsschutz

By order:

Dr.-Ing. U. Klausmeyer
Direktor und Professor

Braunschweig, August 30, 2006

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EC-type-examination Certificates without signature and official stamp shall not be valid. The certificates may be circulated only without alteration. Extracts or alterations are subject to approval by the Physikalisch-Technische Bundesanstalt. In case of dispute, the German text shall prevail.