IBExU Institut für Sicherheitstechnik GmbH

An-Institut der TU Bergakademie Freiberg

[1] EC-TYPE EXAMINATION CERTIFICATE

according to Directive 94/9/EC, Annex III

(Translation)



- [2] Equipment and Protective Systems intended for use in Potentially Explosive Atmospheres, Directive 94/9/EC
- [3] EC-Type Examination Certificate Number: IBExU12ATEX1047 U

Component:

Signal lamp Type GHG 41. R

[5] Manufacturer:

Cooper Crouse-Hinds GmbH

[6] Address:

[4]

Neuer Weg-Nord 49 69412 Eberbach GERMANY

- [7] The design of the component mentioned under [4] and any acceptable variations thereto are specified in the schedule to this EC-Type Examination Certificate.
- [8] IBExU Institut für Sicherheitstechnik GmbH, Notified Body number 0637 in accordance with article 9 of the Directive 94/9/EC of the European Parliament and the Council of 23 March 1994, certifies that the component mentioned under [4] has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of components intended for use in potentially explosive atmospheres given in Annex II to the Directive.

 The test results are recorded in the test report IB-12-3-007 of 05 June 2013.
- [9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with EN 60079-0:2012, EN 60079-1:2007, EN 60079-7:2007 and EN 60079-11:2012.
- [10] The sign "U" placed after the certificate number indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This certificate may only be used as a basis for the certification of an equipment or protective system.
- [11] This EC-Type Examination Certificate relates only to the design and construction of the specified component. If applicable, further requirements of this directive apply to the manufacture and supply of this component.
- [12] The marking of the component mentioned under [4] shall include the following:

IBExU Institut für Sicherheitstechnik GmbH

Fuchsmühlenweg 7 - 09599 Freiberg, GERMANY

★ +49 (0) 3731 3805-0 - ♣ +49 (0) 3731 23650

Authorised for certifications -Explosion protection-

By order

(Dr. Wagner)

Institut für Sicherheitstechnik GmbH

Tenn-Nr. 0631

- Seal -(ID no. 0637) Freiberg, 05 June 2013

Certificates without signature and seal are not valid.
Certificates may only be duplicated completely and unchanged. In case of dispute, the German text shall prevail.

Annex

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[13] Annex

[14] to the EC-TYPE EXAMINATION CERTIFICATE IBEXU12ATEX1047 U

[15] Description of the component

The Signal lamp type GHG 41. R is intended for installation in enclosures or control boxes. It consists of a flameproof plastic enclosure with potted lamp body. The electric connection is carried out via screw connector according to type of protection increased safety "e" or intrinsic safety "ia".

Type key

	GHG	41	 R
	1	1	
Manufacturer sign:			
Type of device: —			
Design:			
71805 = LED Lamp in base design			- 10
81806 = LED Lamp for panel mounting			
Voltage range:	26.202		_

R0001 = 20 – 254V AC/DC ["e" Increased safety]
R0002 = 10 – 30V DC ["i" Intrinsically safe design]
R0003 = 12 – 24V AC/DC ["e" Increased safety]

additional variant codes without effect for explosion protection

Thermal data:

- Ambient temperature range: IIB: -60 °C up to +60 °C

IIC: -45 °C up to +60 °C

Max. service temperature: +68 °C

Technical data for type of protection increased safety:

Nominal voltage: 20-254 V AC/DC 12-24 V AC/DC Nominal current: 4-15 mA max. 24 mA

- Rated cross section: 2.5 mm²
- Bolt torque: 2.5 Nm

Technical data type GHG 417 1805 R0002 and GHG 418 1806 R0002 (Ex-i-design):

- Nominal voltage: 10-30 V DC - Nominal current: max. 25 mA

Supply circuit, type of protection intrinsic safety Ex ia IIC / IIB (connection terminals X1 and X2) n only for connection to certified intrinsically safe circuits

- Maximum values: Ui = 30 V DC Ii = 100 mA Pi = 750 mW

Ci≈0 Li≈0

Further details are specified in the operation manual as well as in the documents of the manufacturer which are part of the test report.

[16] Test report

The test results are recorded in the test report IB-12-3-007 of 05 June 2013. The test and information documents are part of the test report and listed there.

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Summary of the test results

The Signal lamp type GHG 41. R fulfils as component the requirements of explosion protection for Equipment Group II, Category 2G, type of protection flameproof enclosure "d" in combination with increased safety "e" and intrinsic safety "ia", respectively.

[17] Special conditions for safe use

 The installation of the Signal lamp in equipment of Category 2G must be tested and certified separately. At this, the thermal parameters have to be verified among others. The service temperature must not exceed 68 °C.

[18] Essential Health and Safety Requirements

Confirmed by compliance with standards (see [9]).

By order

Freiberg, 05 June 2013

(Dr. Wagner)