



## (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 97 ATEX 1081 U**

(4) Component: built-in pushbutton type GHG 41. ....R....

(5) Manufacturer: CEAG Sicherheitstechnik GmbH

(6) Address: D-69412 Eberbach

(7) This component 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 component 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 97-17125.

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

**EN 50014:1997**

**EN 50018:1994**

**EN 50019:1994**

(10) The sign "U" placed behind the certificate number indicates that this certificate should not be confounded with certificates issued for equipment or protective systems. This Component Certificate only serves as a basis for the issuing of certificates for equipment or protective systems.

(11) This EC-type-examination Certificate relates only to the design and construction of the specified component in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this component.

(12) The marking of the component shall include the following:

II 2 G EEx de IIC IM 2 EEx de I

Zertifizierungsstelle Explosionsschutz

Braunschweig, December 2, 1997

By order:

(signature)

Dr.-Ing. U. Klausmeyer  
Oberregierungsrat

**3 pages, correct and complete as regards content.**

By order:

Dr.-Ing. Klausmeyer, Braunschweig, August 31, 1998  
Oberregierungsrat



sheet 1/3

## SCHEDULE

- (13)
- (14) **EC-TYPE-EXAMINATION CERTIFICATE No. PTB 97 ATEX 1081 U**

(15) Description of component

The built-in pushbutton of type GHG 41. ....R.... serves as a switching, control or signalling device. Electromechanical or electronic components such as switching contacts, diodes, resistors, potentiometers, fuses or the like are installed in the flameproof enclosure. Connection is through integrated terminals.

Rated insulation voltage .....	up to	500 V	
Rated voltage $U_n$ .....	up to	400 V	400 V
Rated current $I_n$ .....	max.	16 A	4 A
related to utilization category .....		AC-1	AC-11

In accordance with the relevant provisions, rated values other than those stated above are permissible if the making and breaking capacity is complied with; they have been specified by the manufacturer as a function of the mode of operation, utilization category, etc.

Contacts provided .....	two-pole, make and/or break contact
Power loss .....	max. 1 W
Rated cross-section area .....	max. 2,5 mm <sup>2</sup>
Ambient temperature .....	up to - 55 °C to 50 °C

The built-in pushbutton has been designed for thermal stability between -55 °C and 80 °C and can be used in ranges of temperature class T6.

- (16) Report PTB Ex 97-17125  
comprising description (6 sheets), drawing and test record (15 sheets).

(17) Special conditions for safe use

The pushbutton is to be installed in an enclosure which complies with the requirements of a recognized type of protection according to EN 50 014, section 1.2.

If the pushbutton is installed in an enclosure of the type of protection *increased safety "e"* according to EN 50 019, the creepage distances and clearances according to section 4.3, section 4.4 and Table must be complied with.

The component may be used in groups I and II as the requirements of the standard are identical in this case.

## Routine test

The routine test according to EN 50 018, section 16.1.1, need not be carried out as a type test with four times the reference pressure according to section 16.2 was passed.

Compliance with the maximum permissible temperature of the respective temperature class, taking the maximum ambient temperature into account, is to be guaranteed by a routine test according to EN 50 014, section 23.4.6.1, and by the specifications in the test documents.

## (18) Essential health and safety requirements

not applicable

Zertifizierungsstelle Explosionsschutz  
By order:

Braunschweig, December 2, 1997

(signature)

Dr.-Ing. U. Klausmeyer  
Oberregierungsrat