



(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 00 ATEX 3117

(4) Equipment: Control unit of types GHG 41..... R.... and GHG 43..... ..

(5) Manufacturer: CEAG Sicherheitstechnik GmbH

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

(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 00-30073.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:
EN 50 014:1997 EN 50 018:1994 EN 50 019:1994 EN 50 020:1994

(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 and construction of the specified equipment in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this equipment.


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

 **II 2 G EEx e II T6 , EEx e ib IIC T6 , EEx ed IIC T6 or EEx ed ib IIC T6**

Zertifizierungsstelle Explosionsschutz

Braunschweig, September 19, 2000

By order:


Dr.-Ing. U. Engel
Regierungsdirektor



SCHEDULE

(13)

(14) **EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 3117**

(15) Description of equipment

Control units of type GHG 41. R.... consist of the bottom part and the cover with separately approved internal sealing device and they are made of polyamide or of light or non-ferrous heavy metal. Designs of one, two or three units are available. Rail-type webs or top-hat rails intended to take up parts to be built in have been grooved (plastic enclosure) or riveted (metal enclosure) into the bottom of the enclosure. The assembly of control units is possible.

Control units of type GHG 43. R.... consist of the bottom part and the cover with separately approved internal sealing device. They are made of polyamide or of light or non-ferrous heavy metal. Designs of two or four units are available. If an enclosure of this type is made of materials with a surface resistance $\geq 1 \text{ G}\Omega$, it is provided with a warning label.

Attached Ex cable entries are covered by a separate EC-type-examination certificate. Metallic Ex cable entries are incorporated in the grounding system through a metal plate.

Both variants are suitable for permanent installation. If required, components covered by separate EC-type-examination certificates, e.g. pushbuttons, signal lamps, measuring instruments and/or terminals, are built in. Enclosures with two, three or four units can exclusively be used for the installation of terminal blocks of the type of protection increased safety "e" covered by separate EC-type-examination certificates.

The identification with the symbols of the types of protection is to be adapted to the components actually installed.

Identification for the types of protection

fitted with moving-iron ammeter and/or terminals	EEx e II T6
fitted with moving-iron ammeter, terminals / signal lamp / pushbutton	EEx ed IIC T6
fitted with moving-coil ammeter and terminals, if necessary	EEx e ib IIC T6
fitted with moving-coil ammeter, terminals / signal lamp / pushbutton	EEx edib IIC T6

Technical data

Rated voltage:	max. 750 V
Rated current:	max. 16 A
Rated cross-sectional area:	max. 2 x 2,5 mm ² per clamping point
Ambient temperature range, normal:	-20 °C \leq T _{amb} \leq +40 °C
Ambient temperature range, extended:	-55 °C \leq T _{amb} \leq +55 °C
Protection against contact, foreign matter and water:	mind. IP 54 nach EN 60 529: 1991

The electrical data for the built-in components can be gathered from the respective certificates.

When terminals are installed, the following applies:

Rated voltage: max. 750 V (depending on range of working voltage of terminals used)

Rated current, number and cross-section of conductors for type:

GHG 43; size 100 x 245 x 90	supplementary sheet 1
GHG 43; size 100 x 160 x 90	supplementary sheet 2
GHG 41; size 85 x 165 x 78	supplementary sheet 3
GHG 41; size 85 x 125 x 78	supplementary sheet 4

Notes

The control units are suitable for an ambient temperature range from $-20\text{ }^{\circ}\text{C}$ to $+40\text{ }^{\circ}\text{C}$. Suitability for other ambient temperature ranges is made evident by special marking. Only such separately approved sealing devices and built-in and built-on components – covered by a separate EC-type-examination certificate – have been used, which are suitable for these temperatures. Additional hints of the manufacturer must be observed.

The manufacturer's note: "Avoid electrostatic charging. Clean with damp cloth only" must be observed.

(16) Test report PTB Ex 00-30073

(17) Special conditions for safe use

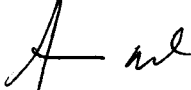
not applicable

(18) Essential health and safety requirements

The type of protection – at least IP 54 – is reached only if the tested sealing devices, cable entries and sealing plugs are properly used.

Zertifizierungsstelle Explosionsschutz

By order:


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