



(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 01 ATEX 1115

(4) Equipment: Control unit, type GHG 443 35.. R....

(5) Manufacturer: CEAG Sicherheitstechnik

(6) Address: Neuer Weg Nord 49, D-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 01-11185.

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

EN 50014:1997 + A1 + A2

EN 50018:2000

EN 50019:2000

EN 50020:1994

(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, 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 ed ia/ib IIC T6**

Zertifizierungsstelle Explosionsschutz

Braunschweig, November 14, 2001

By order:



Dr.-Ing. U. Klausmeyer
Regierungsdirektor



SCHEDULE

(13)

(14) **EC-TYPE-EXAMINATION CERTIFICATE PTB 01 ATEX 1115**

(15) Description of equipment

The control unit, type GHG 443 35.. R.... , consists of an aluminium enclosure designed to type of protection Increased Safety "e". It may accommodate terminals for intrinsically safe and non-intrinsically safe circuits as well as with control and display elements.

The box area designed for intrinsically safe circuits is marked, e.g. by a light-blue colour.

Connection is by means of explosion-proof cable and conduit entries. Several of these enclosures may be connected in series. All components will be tested and certified with a separate examination certificate.

Technical data

| | | |
|------------------|-------------|--------------------|
| Rated voltage:* | up to | 750 V |
| Rated current:* | max. | 63 A |
| Conductor size:* | max. | 10 mm ² |

**) depending on terminal and explosion-proof elements used*

Ambient temperature range:..... -55 °C to +55 °C

Type of protection: IP 54

The ratings specified are maximum values, actual values will be subject to the electrical equipment used from case to case. Depending on the system conditions, the mode of operation, the utilisation category, etc., the manufacturer will define the definitive ratings which will be within the range of these limiting values and will comply with the relevant standards.

The actual ambient temperature range will depend on the admissible temperature range of the components used from case to case.

The composition of the protection symbol will be based on the types of protection of components actually used.

(16) Test report PTB Ex 01-11185

(17) Special conditions for safe use

None

Notes for installation and use

Equipment of type of protection Intrinsic Safety "i" shall be installed in such a way that the clearance and creepage distances required according to EN 50020 between intrinsically safe and non-intrinsically safe circuits are duly considered.

If system installation and layout does not provide for the clearance requirements for connectors as specified in EN 50020, wiring that meets the quality criteria Increased Safety "e" shall be used, or the wiring shall be of the fail-safe type.

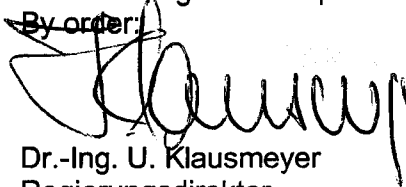
When using more than one intrinsically safe circuit, the regulations for interconnection shall duly be observed.

(18) Essential health and safety requirements

The tests and the favourable results these have produced reveal that the control unit, type GHG 443 35.. R...., meets the requirements of directive 94/9/EC as well as those of the standards quoted on the cover sheet.

Zertifizierungsstelle Explosionsschutz

By order:



Dr.-Ing. U. Klausmeyer
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Braunschweig, November 14, 2001