



## (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 99 ATEX 1044**

(4) Equipment: Energy distribution, switching and control assembly

(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 99-19131.

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

**EN 50014:1997**

**EN 50018:1994**

**EN 50019:1994**

**EN 50028:1987**

**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 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 d e ia/ib m [ia/ib] IIC T4-T6**

Zertifizierungsstelle Explosionsschutz

Braunschweig, December 16, 1999

By order:

Dr.-Ing. U. Klausmeyer  
Regierungsdirektor



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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.

(13)

## SCHEDULE

(14)

### EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1044

(15) Description of equipment

The energy distribution assembly with single or multiple enclosure on the basis of EN 60 439-1 consists of assembled electrical apparatus for which separate certificates have been issued, as follows:

miniature circuit-breaker board GHG 619,  
terminal boxes GHG 74..... ,  
terminal boxes GHG 73. .... ,  
terminal boxes GHG 72. .... ,  
control gear GHG 44.....

For each of these components this test number may be used separately.

The distribution of the energy may basically take place without or with bus system. Relevant technical details are given in the test documents.

Within this combination, apparatus for which separate certificates have been issued and which are compiled in the "List of component variants and their combinations" may be used.

#### Technical data

Rated voltage:	max. 730 V
Rated current:	max. 180 A
Rated cross section:	max. 240 mm <sup>2</sup>
Rated short-circuit current:	max. 47 kA
Rated short-time current : (1 s)	max. 1378 A
Length of one overall unit:	max. 6,8 m
Operating temperature range:	-55 °C to 95 °C, locally up to 125 °C

For combinations with bus systems a temperature of -20 °C must in any case be reached. The rated values are maximum values; the actual values must be equal or smaller and are dependent on the assembly of the single enclosures to form combined enclosures; they are determined by the individual components with the maximum rated values.

## SCHEDULE TO EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1044

The series fuse or protective system must be so selected that the maximum rated current, the maximum rated short-circuit current and the maximum rated short-time current (1 s) are safely cut off.

All components stated in the "List of component variants and their combinations" may be used in the combination. The maximum assemblies and the special conditions of the individual components are to be observed.

(16) Test report PTB Ex 99-19131

(17) Special conditions for safe use

none;

Additional hints for safe use:

The degree of protection (at least IP54) will be achieved only by proper use of the tested seals, flanges and cable and conduit entries as well as the specified assembly of the electrical apparatus for which separate certificates have been issued.

The assembly of the individual enclosures to form combinations or transport units is to be carried out in such a way that IP 54 is achieved. Long enclosure combinations are provided with an auxiliary frame.

The assembly of the separately certified apparatus in enclosures or in enclosure covers is to be carried out in such a way that the mechanical strength and stability of the enclosures is not jeopardized, that creepage distances and clearances are complied with and that the conditions of assembly (electrical data, equipotential bonding, operating temperature range, etc.) from the examination certificates of the individual apparatus are met.

(18) Essential health and safety requirements

According to standards.

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