

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin



(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 1039

(4) Equipment: Plug-and socket device type GHG 511 R....

(5) Manufacturer: CEAG Sicherheitstechnik GmbH

(6) Address: 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 99-19088.

(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) 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 ed IIC T6 resp. T5**

Zertifizierungsstelle Explosionsschutz

Braunschweig, September 01, 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.

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

(13)

SCHEDULE

(14)

EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1039

(15) Description of equipment

The type GHG 511 ... R ... plug-and-socket device serves to connect portable electrical apparatus or to make connections in potentially explosive atmospheres.

The following variant is permissible: transformer plugs (isolating transformer, class of protection II).

Staggered grooves guarantee that only plugs or socket outlets of identical rated voltage will be used together. Mechanical marking ensures that the plugs of the type GHG 531... V ... plug-and-socket device (Certificate of Conformity PTB No. Ex-85.B.1115) can be used for the wall-mounting socket-outlet and in the coupling.

Electrical data

Plug-and-socket device, five-pole

Rated voltage	up to	500	V
Rated current.....	max.	16	A
Utilization category		AC-3	

Plug-and-socket device, four-pole

Rated voltage	up to	690	V
Rated current.....	max.	16	A
Utilization category		AC-3	

Plug-and-socket device, three-pole

Rated voltage	up to	400	V
Rated current.....	max.	16	A
Utilization category		AC-3	

Transformer plug

Rated voltage, primary.....	up to	250	V
Rated voltage, secondary	up to	42	V
Power consumption	max.	65	VA
Miniature fuse.....		0.5	A
Temperature class.....		T 5	

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SCHEDULE TO EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1039

In accordance with the relevant provisions, rated values other than those stated above are permissible, provided the making and breaking capacity is complied with. They have been specified by the manufacturer, dependent on the mode of operation, utilization category etc.

Nominal frequency..... up to	400	Hz
Rated cross-section		
Plug..... max.	2.5	mm ²
Coupling..... max.	4	mm ²
Wall-mounting socket-outlet max.	4	mm ²

(16) Report PTB Ex 99-19088, description (8 sheets), Annex to the description (11 sheets), 11 drawings

(17) Special conditions for safe use

not applicable

(18) Essential health and safety requirements

The tests carried out and their positive results show that the plug-and-socket device meets the requirements of Directive 94/9/EC and of the standards stated on the cover sheet.

Zertifizierungsstelle Explosionsschutz

Braunschweig, September 01, 1999

By order:


Dr.-Ing. U. Klausmeyer
Regierungsrat



1st SUPPLEMENT
 according to Directive 94/9/EC Annex III.6
to CONFORMITY STATEMENT PTB 99 ATEX 1039
(Translation)

Equipment: Plug-and-socket device, type GHG 513 R....

Marking: II 2 G EEx de IIC T6 resp. T5

Manufacturer: CEAG Sicherheitstechnik GmbH

Address: Neuer Weg Nord 49
 D-69412 Eberbach

Description of supplements and modifications

The plug-and-socket device of type GHG 513.... R.... is supplemented by an extra-low-voltage version.

Electrical data

Rated insulating voltage	up to	60 V		
Rated voltage	up to	50 V	50 V	50 V
Rated current	max.	16 A	16 A	10 A
Utilisation category		AC-3	DC-1	DC-11

Provided the making and breaking capacities are met, rated values other than those specified above are acceptable and will be defined by the manufacturer on the basis of the operating mode, utilisation category, etc.

Rated frequency	up to	400 Hz
Rated cross-section	max.	2.5 mm ² finely stranded 4 mm ² stranded
Ambient temperature		-55 °C to 55 °C

Test report: PTB Ex 00-19253

Zertifizierungsstelle Explosionsschutz

Braunschweig, January 15, 2001

By order:



Dr.-Ing. U. Klausmeyer
 Regierungsdirektor

2nd SUPPLEMENT

according to Directive 94/9/EC Annex III.6

to EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1039

(Translation)

Equipment: Plug-and-socket device, type GHG 511R.....

Marking:  II 2 G EEx de IIC T6 or T5

Manufacturer: CEAG SicherheitstechnikGmbH

Address: Neuer Weg Nord 49
D-69412 Eberbach, Germany

Description of supplements and modifications

The wall-mounting socket outlet, type GHG 511.4.. R...., may also be provided with an auxiliary switch for operation with an intrinsically safe circuit.

Intrinsically safe auxiliary circuit

Connection at terminals 3(11), 4(12), and 1 for intrinsically safe circuits EEx [ia] IIC T6 or T5

Only for connection to certified intrinsically safe circuits.

When using the intrinsically safe auxiliary circuit, the protection symbol will change to:

EEx de [ia] IIC T6 or T5

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

Plug connector

The plug-and-socket device, type GHG 511.... R... , is supplemented by plug connector GHG 531 .7.. V.... (old design) of plug-and-socket device GHG 531 V.... (old Certificate of Conformity PTB No. Ex.85.B.1115), which has the same explosion-proof characteristics.

Test report: PTB Ex 02-11086

Zertifizierungsstelle Explosionsschutz

Braunschweig, May 13, 2002

By order:


Dr.-Ing. U. Klausmeyer
Regierungsdirektor



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3rd SUPPLEMENT
according to Directive 94/9/EC Annex III.6
to EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1039
(Translation)

Equipment: Plug-and-socket device, type GHG 511 R....

Marking:  **II 2 G EEx de [ia] IIC T6 or T5**

Manufacturer: Cooper Crouse-Hinds GmbH previously CEAG Sicherheitstechnik GmbH

Address: Neuer Weg Nord 49
69412 Eberbach, Germany

Description of supplements and modifications

The plug-and-socket device, type GHG 51.R.... , may also be manufactured with the following modifications:

- The flange of the type GHG 511 8...R.... socket outlet may also be made from material CuZn 15. This type comes complete with a captive protective cap.
- If the current rating is reduced to 3 A, the plug-and-socket device may be used in ambient temperatures of up to 70 °C. A similar correlation between intermediate values is accepted. Users shall be informed of such values in an adequate form.
- For special voltage ratings, the mechanical characterization 1h, 8h and 12h will be used.
4-pole < 690 V
5-pole < 500 V
3-pole < 400 V
- The plug-and-socket device is supplemented by the plug of type GHG 54. 23..R.... .
- The plug-and-socket device may also be used in the hazardous area "dust". In that case, the marking is as follows:

 **II 2 G/D EEx ed [ia] IIC T6 or T5 IP 66 T 60 °C**

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

Test report: PTB Ex 04-13042

Zertifizierungsstelle Explosionsschutz
By order:

Braunschweig, April 01, 2004


Dipl.-Phys. U. Völkel

