

# 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 1041**



(4) Equipment: Plug-and socket device type GHG 512 .... 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 99-19042.

(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.

(13)

## SCHEDULE

(14)

### EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1041

(15) Description of equipment

The type GHG 512 ... R ... plug-and-socket device serves to connect portable electrical apparatus or to make connections in potentially explosive atmospheres.

The following variants are permissible: transformer plugs (isolating transformer, class of protection II) and an auxiliary or control contact in a wall-mounting socket-outlet.

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 532... V ... plug-and-socket device (Certificate of Conformity PTB No. Ex-85.B.1066) can be used for the wall-mounting socket-outlet and in the coupling.

#### Electrical data

Rated voltage .....	up to	750	V
Rated current.....	max.	32	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	

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 <sup>2</sup>
Coupling .....	max.	4	mm <sup>2</sup>
Wall-mounting socket-outlet ....	max.	4	mm <sup>2</sup>
Main terminals.....	max.	10	mm <sup>2</sup>
Auxiliary terminals .....	max.	2,5	mm <sup>2</sup>

(16) Report PTB Ex 99-19042, description (8 sheets), Annex to the description (11 sheets), 14 drawings

# Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

SCHEDULE TO EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1041

(17) Special conditions for safe use

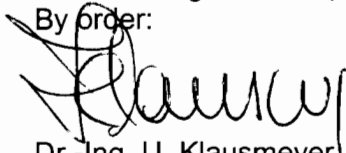
not applicable

(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

By order:



Dr.-Ing. U. Klausmeyer  
Regierungsrat



Braunschweig, September 01, 1999

sheet 3/3

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## 1st SUPPLEMENT

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

to EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1041

(Translation)

Equipment: Plug-and-socket device, type GHG 512 ....R.....

Marking:  II 2 G EEx de IIC T6 or T5

Manufacturer: CEAG SicherheitstechnikGmbH

Address: Neuer Weg Nord 49  
69412 Eberbach, Germany

### Description of supplements and modifications

The wall-mounting socket outlet of type GHG 512 .4.. R.... may also be provided with an auxiliary switch for operation with an intrinsically safe circuit.

### Intrinsically safe auxiliary circuit

Connection to 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 type of protection symbol will change to:

**EEx de [ia] IIC T6 or T5**

### Auxiliary contacts of type of protection Intrinsic Safety "i"

The flush-mounting switches shall be installed in the enclosure in such a way that the clearance and creepage distances required under 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 mechanically fail-safe in accordance with EN 50020.

Should the above clearance requirements not be met, local wiring measures will be accepted only, if an explosion risk can positively be excluded along all the lines.

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

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

### Plug connector

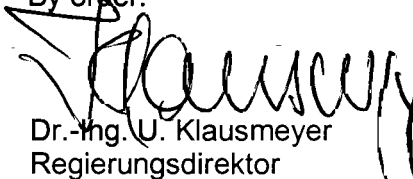
The plug-and-socket device of type GHG 512.... R... is supplemented by plug connector GHG 532 .7.. V.... (old design) of plug-and-socket device GHG 532 .... V.... (former certificate of conformity PTB No. Ex-85.B.1066). Respecting its explosion-protection characteristics, the plug connector is identical in design.

Test report: PTB Ex 02-12242

Zertifizierungsstelle Explosionsschutz

Braunschweig, July 30, 2002

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 1041

(Translation)

Equipment: Plug-and-socket device, type GHG 512 .... R....

Marking:  II 2 G EEx de [ia] IIC T6 or T5 IP 66 T 60 °C


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 512 ....R.... , may also be manufactured with the following modifications:

- 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 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 04-13046

Zertifizierungsstelle Explosionsschutz

By order:

  
Dipl.-Phys. U. Volkel



Braunschweig, April 01, 2004

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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 • Postfach 33 45 • 38023 Braunschweig

Cooper-Crouse Hinds GmbH  
z. Hd. Frau Frankhauser

Neuer Weg Nord 49  
69412 Eberbach

Ihr Zeichen:  
Ihre Nachricht vom: 28.01.2008  
Unser Zeichen: 3 5-587-02/08-Ko  
Unsere Nachricht vom:

Bearbeitet von: Ruth Koch  
Telefondurchwahl: +49 (0) 531-592-3501  
Telefaxdurchwahl: +49 (0) 531-592-3505  
E-Mail: Ruth.koch@ptb.de


Datum: 30.04.2008

**Normengenerationsänderung nach EN 60079-0 ff und EN 61241-0 ff**  
**Change of the standard generation to EN 60079-0 ff and EN 61241-0 ff**  
**Steckvorrichtung Typ GHG 512 .... R....**  
**Plug-and socket device type GHG 512 .... R....**

**PTB 99 ATEX 1041**

Sehr geehrte Frau Frankhauser,  
Dear Mrs. Frankhauser,

die Selbsterklärung zu dem o.g. Gerät auf Übereinstimmung mit den vorgenannten Normen hat die PTB zur Kenntnis genommen und den zugehörigen Prüfungsunterlagen beigefügt.  
Es bestehen keine sicherheitstechnischen Bedenken, das o.g. Gerät mit folgenden Kennzeichnungen zu versehen:


 II 2G Ex de [ia] IIC T6 bzw. T5

 II 2D Ex tD A21 IP66 T80°C

Die Bemessungsspannung wird auf 690 V verringert.

Wir bitten Sie, diese Änderungen bei zukünftigen Ergänzungen mit aufzunehmen.

Your statement relating the above-named equipment concerning the conformity with the aforementioned standards was acknowledged by PTB and added to the related test documentation. There are no safety-related objections from PTB to mark the above mentioned equipment as follows:

 II 2G Ex de [ia] IIC T6 resp. T5

 II 2D Ex tD A21 IP66 T80°C

The Rated Voltage is decreased to 690 V.

We would like to ask you to include this change into the next supplement.

Mit freundlichen Grüßen / Best regards

Im Auftrag / By order



Dr.-Ing. Martin Thedens  
Oberregierungsrat



**Physikalisch-Technische Bundesanstalt**

Braunschweig und Berlin

**Telefax**

an / to

**Cooper Crouse Hinds  
Postfach 1563  
69405 Eberbach****Bitte sofort weiterleiten! Please pass on immediately!**

Postfach 33 45, 38023 Braunschweig, Germany

Hausadresse / Lieferanschrift

Postal address (for deliveries)

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Telefon (0531) 592 0 Zentrale /

Telefon International +49 531 592 0 Operator)

Telefax (0531) 592 92 92 Zentrale /

Telefax International +49 531 592 92 92 Operator)

**z. Hd. / Att.: Herrn Setzer****Telefax: 06271/806-521**

von / from

Org.-Einh. / Org.Unit: 3.51 Name: Wildschütz Telefon: -3518 Datum / Date: 25.05.07 11:05

Telefax Org.-Einh. / Org.Unit: (0531) 592- -3515 Seiten / Pages: 1 (insges. / total)

Rückfragen bei fehlerhafter Übermittlung/In the case of faulty reproduction, please call: 592-3518 oder -3501

Ihre Schreiben vom 2. April 2007

Prüfung auf Explosionsschutz nach 60079-1 ff  
Steckvorrichtung Typ GHG 512 ....R....  
EG-Baumusterprüfbescheinigung PTB 99 ATEX 1041

Sehr geehrter Herr Setzer,

es bestehen keine sicherheitstechnischen Bedenken, die obengenannte Steckvorrichtung auf Grund der Nachprüfungen für den Umgebungstemperaturbereich von  
-25 °C bis 45 °C

einzusetzen.

Diese Ausführung der Steckvorrichtung erhält in die Typenbezeichnung eine geänderte Kennung

GHG 512 ....M....

Sie werden gebeten, diese Änderung in einer künftigen Ergänzung mit aufzunehmen.

Mit freundlichen Grüßen

Im Auftrag

Wildschütz

Translation

Letter from Mr. Wildschütz, PTB, to Mr. Huter, CCH, dated April 2, 2007

Testing of explosion protection to 60079-1 ff

Plug and socket, type GHG 512 ....R....

EC-Type Examination Certificate PTB 99 ATEX 1041

Based on the results of retesting, there are no safety-related objections to the use of the plug and socket named above for an ambient temperature range of  
-25°C to 45°C.

The type code of this version of the plug and sockets has been changed to  
GHG 512 ....M....

You are requested to incorporate this change in any future supplements.