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 06 ATEX 1031 X

(4) Equipment: Plug-in connector, type GHG 572 ....R....

(5) Manufacturer: Cooper Crouse-Hinds GmbH

(6) Address: Neuer Weg Nord 49, 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 06-16136.

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

EN 60079-0: 2004 **EN 60079-1:2004** **EN 60079-7: 2004**

(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 Ex de IIC T6

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. M. Thedens
Regierungsrat

Braunschweig, October 31, 2006

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.

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(13) # SCHEDULE

(14) ## EC-TYPE-EXAMINATION CERTIFICATE PTB 06 ATEX 1031 X

(15) Description of equipment

The plug-in connector, type GHG 572 ....R...., with plug connector, appliance connector, coupling, flange-mounting socket outlet and angle unit is to provide for cable connection in potentially explosive areas. It comes as a metal version for Flameproof Enclosure and Increased Safety type of connection, and as a plastic version for Increased Safety type of protection.

Offset pin assignment (30 degree offset with reference to the thicker ground terminal) ensures that only plugs and socket outlets of the same identification code can be used together.

Connection is by means of integrated terminals connected to cage clamps or by means of crimp termination or prefabricated connection wiring (unconnected cable end, single conductors).

For adequate connection of the cable and proper installation, due regard shall be given to the instructions for operation.

Electrical data

Crimp termination	**Cage clamp**	**Connecting cable**
Rated voltage ..... up to	400 V	
Rated current *) ..... max.	16 A	1.0 A
Utilization category	AC-1	AC 1/DC 1

*) depending on conductor size and contact (3 x 16 A, 2 x 1 A or 6 x 1 A)

Provided the making and breaking capacities defined in the relevant regulations 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.

Number of plug-in contacts	6 +1
Rated cross section	
Crimp termination	0.75 mm² to 2.5 mm²
Cage clamp	0.5 mm² to 1.5 mm²
Connecting cable	1.0 mm² to 2.5 mm²
Ambient temperature max. for temperature class	T6
Plastic version	-20 °C to 40 °C
Metal version	-55 °C to 40 °C
Metal version, I_{th} max. 1 A	-55 °C to 75 °C
Plastic version, I_{th} max. 1 A;	-20 °C to 75 °C

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(16) Test report PTB Ex 06-16136

(17) Special conditions for safe use

The elements of the plug-in connector are prefabricated with single cores cable or they are provided with crimp termination or cage clamp for connection at site. For adequate connection of the cable and proper installation, due regard shall be given to the instructions for operation.

The single cores of the plug-in connector shall be installed to provide for permanent wiring and adequate protection against mechanical damage. The quality of the connecting cable shall be such that it complies with the local thermal and mechanical requirements.

Should the single cores be connected in the potentially explosive area, a terminal compartment shall be used which meets the requirements of an approved type of protection in accordance with EN 60079-0, section 1.

The metal versions of the flange-mounting socket outlet, appliance connector, and angle unit may be installed in the walls of enclosures designed to Flameproof Enclosure "d" or Increased Safety "e" type of protection. For selection criteria and installation conditions, reference is made to the notes furnished with the operating instructions.

The tapped holes of flameproof enclosures receiving the flange-mounting socket outlet, the appliance connector, or the angle unit with their screw thread shall meet the minimum requirements as set forth in EN 60079-1, section 5.3 (table 3).

If the reference pressure exceeds 20 bar, the Ex-d flange-mounting socket outlet, Ex-d appliance connector, and metal angle unit have to be included in the type test of EN 60079-1, section 15.1.3 (overpressure test) of the corresponding operator/apparatus.

The flange-mounting socket outlet and the appliance connector have to be fixed in the electrical apparatus in such a way that rotation and accidental loosening will be prevented.

The plastic versions of the flange-mounting socket outlet, appliance connector, and angle unit have to be installed in the walls of enclosures designed to Increased Safety "e" type of protection.

When using terminal compartments designed to Increased Safety "e" type of protection in compliance with EN 60079-7, the clearance and creepage distances specified in section 4.4, section 4.5 and table 1 must be maintained.

Equipotential bonding and earthing shall be safeguarded by the way the metal versions of the flange-mounting socket outlet, appliance connector and/or angle unit are connected with the complete system.

In the non-plugged condition, the connector and appliance connector must not be alive.

The flange-type socket outlet, the appliance connector, and the angle unit, as well as the terminal compartment the wall of which they are fitted into, are considered to be sub-units as defined in directive 94/9/EC (see ATEX guideline, July 2005, section 3.7.5). The sub-units have to be completed by the responsible person.

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The plug-in connector is made up of two or more parts requiring proper installation. The operating instructions account for this fact in a special way. The instructions for assembly have to be carefully followed to ensure safe operation.

The operator/user shall be informed of the Special Conditions in a suitable form.

(18) Essential health and safety requirements

Met by compliance with the afore-mentioned Standards.

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. M. Thedens
Regierungsrat

Braunschweig, October 31, 2006

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Braunschweig und Berlin

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Cooper-Crouse Hinds GmbH
z. Hd. Frau Schölch

Neuer Weg Nord 49
69412 Eberbach

Ihr Zeichen:	
Ihre Nachricht vom:	07.10.2008
Unser Zeichen:	3.51-5259/08-Ko
Unsere Nachricht vom:	
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Datum:	03. Dezember 2008

Normengenerationsänderung nach EN 60079-0 ff
Change of the standard generation to EN 60079-0 ff
Steckverbinder Typ GHG 572 ....R....
Plug-in connector type GHG 572 ....R....

PTB 06 ATEX 1031 X

Sehr geehrte Frau Schölch,
Dear Mrs. Schölch,

die Selbsterklärung zu den o.g. Geräten auf Übereinstimmung mit den vorgenannten Normen hat die PTB zur Kenntnis genommen und den zugehörigen Prüfungsunterlagen beigefügt. Das Ergebnis der Checkliste hat als maximale Maßnahme A ergeben. Auf Grundlage der vorhandenen EG-Baumusterprüfbescheinigung, der gültigen QS-Mitteilung und der Checkliste kann für das Gerät bzw. die Komponente weiterhin die EG-Konformitätserklärung ausgestellt werden.

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. As a result of this checklist the measure A shall be carried out. On the basis of the existing EC-Type Examination Certificate, the valid Quality Assessment Notification and this checklist, you may continue to issue the EC-Declaration of Conformity for the equipment.

Mit freundlichen Grüßen / Best regards
Im Auftrag / By order

Dr.-Ing. Martin Thedens
Oberregierungsrat

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