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 1057

(4) Equipment: Control unit type GHG 6.. ....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 99-19121.

(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 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 G 2 EEx deia/ib[ia/ib] IIC T6 resp. T5

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. U. Klausmeyer
Regierungsdirektor

Braunschweig, September 01, 1999

(13) # SCHEDULE

(14) ## EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1057

(15) Description of equipment

The type GHG 6.. ...R... control unit is composed of enclosures of the type of protection flameproof enclosure "d", optionally with operation rods and/or inspection windows into which the electrical equipment is incorporated.

Direct cable entries, conduit entries (conduit system) or terminal boxes of the type of protection increased safety "e", for which a separate test certificate has been issued, are used for connection.

Electrical data

Rated insulation voltage	up to	275 V	750 V	10 kV
Rated current	max.		630 A	
Rated cross-section	max.		330 mm^2	

If and when required, equipment of the type of protection intrinsic safety "i" is incorporated, for which a separate test certificate has been issued.

The rated values are maximum values, the actual electrical values depend on the electrical equipment incorporated. Within the scope of these maximum permissible values and with due regard to the standards applicable, the manufacturer specifies the final rated values dependent on the system conditions, mode of operation, utilization category, etc. The characteristic values of the intrinsically safe circuits are to be given by the manufacturer on his own responsibility. Further technical details have been specified in the test documents.

The composition of the symbol specifying the type of protection depends on the types of protection of the components used.

(16) Report PTB Ex 99-19121, description (6 sheets), 6 drawings

(17) Special conditions for safe use

The control unit may also be connected via suitable cable entries or conduit entries which meet the requirements of EN 50 018, sections 13.1 and 13.2 and for which a separate certificate has been issued.

Openings which are not used are to be sealed in accordance with EN 50 018, section 11.

Equipment of the type of protection intrinsic safety "i" is to be installed in such a way that the distances, creepage distances and clearances between intrinsically safe circuits and non-intrinsically safe circuits required according to EN 50 020 are complied with.

If the distances required according to EN 50 020 for connection facilities are not ensured by the installation, cables of increased safety "e" quality or fail-safe cables are to be used.

When more than one intrinsically safe circuit is used, the rules for interconnection are to be observed.

(18) Essential health and safety requirements

The tests carried out and their positive results show that the control unit complies with the requirements of Directive 94/9/EC and of the standards stated on the cover sheat.

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. U. Klausmeyer
Regierungsdirektor

Braunschweig, September 01, 1999

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT 24

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

1st S U P P L E M E N T

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

to EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1057

(Translation)

Equipment: Control unit, type GHG 6.. ....R....

Marking:  **II 2 G EEx deia/ib[ia/ib] IIC T6 or T5**

Manufacturer: Copper Crouse-Hinds GmbH

Address: Neuer Weg Nord 49
69412 Eberbach, Germany

Description of supplements and modifications

The control unit, type GHG 6.. ....R.... , may be provided with a protective box heating device to prevent the formation of condensate or when used at temperatures of less than –20 °C.

Ambient temperatures of less than -20 °C to -55 °C are acceptable only in connection with the protective box heater.

When using the control unit in explosive dust atmospheres, the corresponding symbol for the type of protection shall be used.

The type-of-protection symbol is extended to read:

 **II 2 G EEx deia/ib[ia/ib] IIC T6, T5 or T4**
 **II 2 D IP 66 T80°C, T95 °C or T130 °C**

Applied standards

EN 50014: 1997 + A1 + A2
EN 50018: 2000 + A1
EN 50019: 2000
EN 50020: 2002
EN 50281-1-1:1998

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

1st SUPPLEMENT TO EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1057

Explanation of test specifics

If a heater is required, this heater shall be designed such that temperatures will positively not be lower than –20 °C. The safety temperature limiters shall in that case be set and integrated in the control circuit in such a way that the control unit cannot be put into operation at temperatures of less than -20 °C, and that also the overall temperature will remain within the limits permitted for the temperature class, and that the temperatures for the components will not be exceeded.

All Ex-related components of the control unit shall be suited for the complete temperature range – lowest ambient temperature to maximum operating temperature.

Test report: PTB Ex 05-14205

Zertifizierungsstelle Explosionsschutz
By order:

Braunschweig, May 19, 2005

Dr. M. Thedens

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

Physikalisch-Technische Bundesanstalt • Postfach 33 45 • 38023 Braunschweig

Cooper Crouse-Hinds GmbH
z.H. Herrn Setzer
Neuer Weg-Nord 49
69412 Eberbach

Ihr Zeichen:	
Ihre Nachricht vom:	2008-01-30
Mein Zeichen:	3.5-694 /08-Th
	CEAG-001.doc
Meine Nachricht vom:	
Bearbeitet von:	Dr.-Ing. Martin Thedens
Telefondurchwahl:	(0531) 5 92 – 35 10
	(0173) 4 51 97 06
Telefaxdurchwahl:	(0531) 5 92 – 35 05
E-Mail:	Martin.Thedens@ptb.de
	http://www.explosionsschutz.ptb.de
Datum	2008-02-08

T4 Kennzeichnung zu PTB 99 ATEX 1057 Steuereinheit GHG 6 ...

Sehr geehrter Herr Setzer,

vielen Dank für Ihr Schreiben vom 2008-01-30, dass ich am 2008-02-05 erhalten habe.

Die Steuereinheit darf auch mit T4 gekennzeichnet werden, wenn im Rahmen der durchzuführenden thermischen Stückprüfung nachgewiesen, dokumentiert und sichergestellt ist, dass bei dem Einbau einer Ex "e" Heizung, die mit der Temperaturklasse T4 gekennzeichnet ist, die Eignung der verwendeten Materialien und Komponenten bezogen auf die sich im Inneren der Steuereinheit ergebenen Temperaturen überprüft und als geeignet bewertet sind.

Bitte nehmen Sie dieses Schreiben mit in Ihre Zulassungsunterlagen zur o.g. EG-Baumusterprüfbescheinigung auf. Im Rahmen der Fertigungsüberwachung wird die praktische Umsetzung überprüft werden.

Mit freundlichen Grüßen
Im Auftrag

Dr.-Ing. Martin Thedens
Oberregierungsrat

Hausadresse, Lieferanschrift:
Bundesallee 100
38116 Braunschweig
DEUTSCHLAND

Telefon: +49 531 592-0
Telefax: +49 531 592-9292
E-Mail: poststelle@ptb.de
Internet: http://www.ptb.de

Deutsche Bundesbank,
Filiale Dresden (BBk Dresden)
Kto.-Nr.: 850 010 11 BLZ 850 000 00
IBAN: DE 23 8500 0000 0085 0010 11
BIC: MARKDEF1850
VAT-Nr.: DE 811 240 952

PTB Berlin-Charlottenburg
Abbestraße 2-12
10587 Berlin
DEUTSCHLAND