



## (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 1164**



(4) Equipment: Load, master, motor and safety switch of type GHG 26. .... R ....

(5) Manufacturer: CEAG Sicherheitstechnik GmbH

(6) Address: Neuer Weg Nord 49, 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 00-19265.

(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 de IIC T6**

Zertifizierungsstelle Explosionsschutz

Braunschweig, October 02, 2000

By order:

Dr.-Ing. U. Klausmeyer  
Regierungsdirektor





(13)

## SCHEDULE

(14)

### EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1164

(15)

#### Description of equipment

The load, master, motor and safety switch of type GHG 26. ....R... is composed of one or two enclosures made of plastics, sheet steel or Cu-Ni alloy of the type of protection increased safety "e" with incorporated - separately certified - built-in switch components and, if and when required, one or two auxiliary switches of the type of protection flameproof enclosure "d" and, depending on the enclosure size, with incorporated - separately certified - measuring instruments, pushbuttons, indicating lamps and terminals. Via an additional operating knob, a leading converter can be controlled in front of the cut-off point proper.

Cable entries, for which a separate certificate has been issued, are used for external connection.

#### Technical data

##### **Built-in switch component GHG 26. ....R.... (PTB 99 ATEX 1062 U)**

Utilization category AC 1

Rated voltage  $U_e$  ..... up to 690 V

Rated current  $I_e$  ..... max. 180 A

Utilization category AC 3

Rated voltage  $U_e$  ..... up to 400 V 500 V 690 V

Rated current  $I_e$  ..... max. 180 A 150 A 125 A

Rated cross-section with appertaining terminal end

50 mm<sup>2</sup> for 125 A

70 mm<sup>2</sup> for 150 A

120 mm<sup>2</sup> for 185 A

##### **Built-in switch component GHG 2.. ... R.... (PTB 98 ATEX 1117 U)**

Utilization category AC 1

Rated voltage  $U_e$  ..... up to 690 V

Rated current  $I_e$  ..... max. 20 A

Utilization category AC 3

Rated voltage  $U_e$  ..... up to 400 V 500 V 690 V

Rated current  $I_e$  ..... max. 20 A 16 A 10 A

Utilization category AC 11

Rated voltage  $U_e$  ..... up to 230 V 400 V 590 V

Rated current  $I_e$  ..... max. 8 A 6 A 6 A

sheet 2/3

Utilization category DC 11

Rated voltage $U_e$ .....	up to	24 V	110 V	230 V
Rated current $I_e$ .....	max.	6 A	0,6 A	0,4 A
L/R		60 ms	30 ms	20 ms

Rated cross-section max. 2,5 mm<sup>2</sup> (finely stranded) or 4 mm<sup>2</sup> (single core)

Ambient temperature range: -55 °C to +45 °C

In accordance with the relevant provisions, rated values other than those stated above are permissible if the making and breaking capacity is complied with; they must be specified by the manufacturer, dependent on the mode of operation, utilization category, etc.

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

(16) Test report PTB Ex 00-19265

(17) Special conditions for safe use

none

(18) Essential health and safety requirements

The tests carried out and their positive results show that the load, master, motor and safety switch of type GHG 26. ....R...meets the requirements of Directive 94/9/EC and of the standards stated on the cover sheet.

Zertifizierungsstelle Explosionsschutz

Braunschweig, October 02, 2000

By order:

Dr.-Ing. U. Klausmeyer  
Regierungsdirektor



## 1st SUPPLEMENT

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

to EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1164

(Translation)

Equipment: Load interrupter, master, motor protection and safety switch type GHG 26. .... R ....

Marking:  II 2 G EEx de IIC T6

Manufacturer: CEAG Sicherheitstechnik GmbH

Address: Neuer Weg Nord 49  
69412 Eberbach, Germany

### Description of supplements and modifications

The load interrupter, master, motor protection and safety switch type GHG 26. .... R .... may now also be used in areas where potentially explosive atmospheres with dust/air mixtures may occasionally occur.

Therefore the marking is changed into:


 II 2 G/D EEx de IIC T6 IP66 T 53 °C

Test report: PTB Ex 01-11121

Zertifizierungsstelle Explosionsschutz

By order:

Braunschweig, May 7, 2001

  
Dr.-Ing. U. Klausmeyer  
Regierungsdirektor



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: 15.04.2008  
Unser Zeichen:  
Unsere Nachricht vom:


Bearbeitet von: Dr. Monika Schumann  
Telefondurchwahl: +49 (0) 531-592-3515  
Telefaxdurchwahl: +49 (0) 531-592-3505  
E-Mail: [Monika.Schumann@ptb.de](mailto:Monika.Schumann@ptb.de)

Datum: 6. Juni 2008

**Normengenerationsänderung nach EN 60079-0 ff, EN 61241-0 ff  
Last-, Haupt-, Motor- und Sicherheitsschalter Typ GHG 26. .... R....  
Load interrupter, master, motor protection and safety switch, type GHG 26. .... R....  
PTB 99 ATEX 1164**

Sehr geehrte Frau Frankhauser,

es bestehen keine sicherheitstechnischen Bedenken,  
den Last-, Haupt-, Motor- und Sicherheitsschalter Typ GHG 26. .... R....  
mit folgenden Kennzeichnungen zu versehen:


 II 2 G Ex e d IIC T6

 II 2 D Ex tD A21 IP66 T 80 °C

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

### Translation

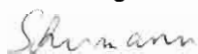
there are no safety-related objections from PTB to mark  
the load interrupter, master, motor protection and safety switch of type GHG 26. .... R....

 II 2 G Ex e d IIC T6

 II 2 D Ex tD A21 IP66 T 80 °C

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

Mit freundlichen Grüßen  
Im Auftrag



Dr. Schumann  
Regierungsrätin

# Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

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: 16.07.2008  
Unser Zeichen:  
Unsere Nachricht vom:  
  
Bearbeitet von: Dr. Monika Schumann  
Telefondurchwahl: +49 (0) 531-592-3515  
Telefaxdurchwahl: +49 (0) 531-592-3415  
E-Mail: Monika.Schumann@ptb.de  
  
Datum: 21.07.2008

## Messingflansch (Gr. 0, 1 & 2) und Außenerdung

Sehr geehrte Frau Frankhauser,


es bestehen keine sicherheitstechnischen Bedenken, den Messingflansch (Gr. 0, 1 & 2) und die Außenerdung in folgenden Betriebsmitteln einzusetzen und mit folgender Kennzeichnung zu versehen:

- Sicherheitsschalter Typ GHG 262.... R.... /GHG 263.... R...., PTB 99 ATEX 1161
- Sicherheitsschalter Typ GHG 264.... R...., PTB 00 ATEX 1091

 II 2 G Ex d e ia IIC T6


 II 2 D Ex tD A21 IP66 T80 °C

- Sicherheitsschalter Typ GHG 265.... R.... / GHG 266.... R...., PTB 99 ATEX 1164

 II 2 G Ex d e IIC T6

 II 2 D Ex tD A21 IP66 T80 °C

- Sicherheitsschalter Typ GHG 292.... R.... / GHG 293.... R...., PTB 99 ATEX 1163

 II 2 G Ex d e ia IIC T5 bzw. T6

 II 2 D Ex tD A21 IP66 T80 °C

- Motorschutzschalter Typ GHG 635.1...R...., PTB 99 ATEX 1162

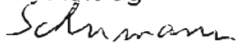
 II 2 G Ex d e IIC T5 bzw. T6

 II 2 D Ex tD A21 IP66 T80 °C

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

Mit freundlichen Grüßen

Im Auftrag



Dr. Schumann  
Regierungsrätin

600 000 9

Hausadresse, Lieferanschrift:  
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38116 Braunschweig  
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Internet: <http://www.ptb.de>

### Achtung! Neue Bankverbindung:

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Landeszentralbank Halle  
Konto: 800 010 00  
BLZ: 800 000 00

PTB Berlin-Charlottenburg  
Abbestraße 2-12  
10587 Berlin  
Deutschland

# Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

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: 16.07.2008  
Unser Zeichen:  
Unsere Nachricht vom:

Bearbeitet von Dr. Monika Schumann  
Telefondurchwahl: +49 (0) 531-592-3515  
Telefaxdurchwahl: +49 (0) 531-592-3415  
E-Mail: Monika.Schumann@ptb.de

Datum: 21.07.2008

## Brass flange (Gr. 0, 1 &2) and earth connector

Dear Ms. Frankhauser,

there are no safety-related objections from PTB to use the brass flange (size 1 & 2) and the earth connector in following apparatus and mark them as follows:

- Safety switch type GHG 262.... R.... /GHG 263.... R...., PTB 99 ATEX 1161
- Safety switch type GHG 264.... R...., PTB 00 ATEX 1091

 II 2 G Ex d e ia IIC T6


 II 2 D Ex tD A21 IP66 T80 °C

- Safety switch type GHG 265.... R.... / GHG 266.... R...., PTB 99 ATEX 1164

 II 2 G Ex d e IIC T6


 II 2 D Ex tD A21 IP66 T80 °C

- Safety switch type GHG 292.... R.... / GHG 293.... R...., PTB 99 ATEX 1163

 II 2 G Ex d e ia IIC T5 bzw. T6

 II 2 D Ex tD A21 IP66 T80 °C

- Safety switch for engines type GHG 635.1...R...., PTB 99 ATEX 1162

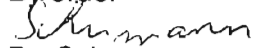
 II 2 G Ex d e IIC T5 bzw. T6

 II 2 D Ex tD A21 IP66 T80 °C

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

With kind regards

By order

  
Dr. Schumann  
Regierungsrätin

600 00 9

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