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 1031 U

(4) Component: Built-in switch type GHG 263 .... R .....

(5) Manufacturer: CEAG Sicherheitstechnik GmbH

(6) Address: D-69412 Eberbach

(7) This component 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 component 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 99-18166.

(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) The sign "U" placed behind the certificate number indicates that this certificate should not be confounded with certificates issued for equipment or protective systems. This Component Certificate only serves as a basis for the issuing of certificates for equipment or protective systems.

(11) This EC-type-examination Certificate relates only to the design and construction of the specified component in accordance with Directive 94/9/EC. Further requirements of this Directive apply to the manufacture and supply of this component.

(12) The marking of the component shall include the following:

II 2 G EEx de ia/ib IIC I M 2 EEx de ia/ib I

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. U. Klausmeyer
Regierungsdirektor

Braunschweig, November 25, 1999

(13) # S C H E D U L E

(14) ## EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1031 U

(15) Description of component

The built-in switch of type 263 .... R ..... consists of flameproof single compartments put together in pairs. It serves for switching load current circuits and motor current circuits. The built-in switch may optionally be combined with smaller switching compartments as additional auxiliary switches.

If necessary, switch levels (auxiliary switches) with appropriate marking are also used for switching circuits of the type of protection intrinsic safety "i" covered by a separate test certificate.

Technical data

Load interrupter switch

Rated insulation voltage	up to		690 V	
Rated operating voltage	up to	690 V	690 V	500 V
Rated current I_e	max.	40 A	32 A	40 A
Utilization category		AC-1	AC-3	AC-3

Auxiliary switch

Rated insulation voltage	up to		500 V	
Rated operating voltage	up to	500 V	230 V	500 V
Rated current I_e	max.	16 A	8 A	6 A
Utilization category		AC-3	AC-11	AC-11
Rated operating voltage	up to	24 V	110 V	220 V
Rated current I_e	max.	6 A	0.06 A	0.04 A
Utilization category		DC-11	DC-11	DC-11

Rated values differing from those stated above are permissible provided the making and breaking capacity as laid down in the relevant regulations is complied with and such values have been specified by the manufacturer depending on operating mode, utilization category, etc.

Terminals of intrinsically safe circuits	only for connection to certified intrinsically safe circuits. The internal inductances and capacitances are negligibly small.

The intrinsically safe circuits are electrically isolated from the non-intrinsically safe circuits up to a sum of the peak voltage values of 1000 V.

The built-in switch has been designed for thermal stability of 80 °C.

Rated conductor area

main terminals	max.	2 x10 mm² finely stranded, 2 x 16 mm² stranded
auxiliary terminals	max.	2.5 mm² finely stranded

The composition of the symbols identifying the type of protection depends on the types of protection of the design used in each particular case.

(16) Test report PTB Ex 99-18166, description (6 sheets), aneex to description (1 sheet), 6 drawings

(17) Special conditions for safe use

The built-in switch is to be fitted into an enclosure meeting the requirements of a recognized type of protection in compliance with EN 50014, section 1.2.

If the built-in switch is fitted into an enclosure of the type of protection increased safety “e” according to EN 50019, the creepage distances and clearances in accordance with section 4.3, section 44 and Table 1 must be complied with.

Installation of the built-in switches into the enclosure must be such that the separation distances, creepage distances and clearances between intrinsically safe and non-intrinsically safe circuits are complied with.

If the separation requirements for the connection facilities according to EN 50020 are not met by installation, either lines of the quality increased safety “e” must be used or the lines must be fixed in such a way that the fail-safe condition is ensured by mechanical means.
If these separation requirements are not met, on-site wiring is permissible only if there is no explosion risk along all lines.

When more than a single intrinsically safe circuit is connected, the rules for interconnection must be observed.

The component may be used in both, group I and II, as in this case the requirements of the standard are identical.

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

SCHEDULE TO EC-TYPE-EXAMINATION CERTIFICATE PTB 99 ATEX 1031 U

(18) Essential health and safety requirements

The tests carried out and their positive results show that the built-in switch meets the requirements of Directive 94/9/EC and of the standards specified on the cover sheet.

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. U. Klausmeyer
Regierungsdirektor

Braunschweig, November 25, 1999

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT 24

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

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Cooper-Crouse Hinds GmbH
z. Hd. Frau Frankhauser

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69412 Eberbach

Ihr Zeichen:	
Ihre Nachricht vom:	28.01.2008
Unser Zeichen:	3.5-2231-11/08-Ko
Unsere Nachricht vom:	
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Datum:	30.05.2008

Normengenerationsänderung nach EN 60079-0 ff
Change of the standard generation to EN 60079-0 ff
Einbauschalter Typ GHG 263 .... R....
Built-in switch type GHG 263 .... R....

PTB 99 ATEX 1031 U

Sehr geehrte Frau Frankhauser,
Dear Mrs. Frankhauser,

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

⟨Ex⟩ II 2G Ex de [ia/ib] IIC

⟨Ex⟩ I M2 Ex de [ia/ib] I

Nach Rücksprache mit dem Leiter der Zertifizierungsstelle wird die Kennzeichnung hinsichtlich der eigensicheren Stromkreise um die eckigen Klammern erweitert, da es sich nicht um ein komplett eigensicheres Gerät sondern um ein zugehöriges Betriebsmittel gemäß EN 60079-11 handelt.

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

800 00 g

Your statement relating the above-named components 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 components as follows:

Ex II 2G Ex de [ia/ib] IIC

Ex I M2 Ex de [ia/ib] I

After consultation with the head of the certification body the marking is extended by brackets concerning the intrinsically safe circuits, since the equipment is not a completely intrinsically safe apparatus but an associated apparatus according to EN 60079-11.

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