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 00 ATEX 1069 U

(4) Component: Flush-mounting switch, type GHG 264 ....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 00-19119.

(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) 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 EExdeia/b IIC 1 M 2 EEx deia/b I

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. U. Johannsmeyer
Regierungsdirektor

Braunschweig, September 12, 2000

(13) # SCHEDULE

(14) ## EC TYPE EXAMINATION CERTIFICATE PTB 00 ATEX 1069 U

(15) Description of component

The flush-mounting switch of type 26. .... R..... comprises flameproof compartments arranged in pairs. Auxiliary switches for control and signal circuits may in addition be combined as required.

If required, wafers (auxiliary switches) with the required identification will also be used for circuits of type of protection Intrinsic Safety "i", provided a separate examination certificate has been issued.

Technical data

Load interrupter switch

Rated insulation voltage ..... up to			750 V	
Rated operating voltage ..... up to	690 V	690 V	550 V	
Rated current I_e ..... max.	80 A	63 A	80 A	
Utilization category	AC-1	AC-3	AC-3	

Auxiliary switch

Rated voltage U_e ..... up to	24 V	230 V		400 V	500 V		690 V
Rated current I_e ..... max.	6 A	0.4 A	8 A	20 A	6 A	16 A	20 A
related to utilization category	DC-11	DC-11	AC-11	AC-3	AC-11	AC-3	AC-1

Provided the making and breaking capacity complies with the relevant regulations, rated values other than those specified above are permissible and will be defined by the manufacturer on the basis of the operating mode, utilization category, etc.

The rated values are maximum values, the actual electrical values will be subject to the electrical apparatus actually installed. Within these limits, the manufacturer will, in compliance with the relevant standards and subject to the mains conditions, operating mode, utilization category, etc., define the final rated values.

It will be the manufacturer's responsibility to specify the characteristic values of the intrisically safe cicuits. Any other technical details are fixed in the examination documents.
If required, the flush-mounting switch or pushbutton will be provided with wafers for the operation of circuits of type of protection Intrinsic Safety "i".

The flush-mounting switch is designed for 80° C temperature resistance and can be used within the scope of temperature class T6.

Rated wire range

Main terminals	max.	16 mm² fine-strand, 25 mm² stranded
with cable lug	max.	25 mm² fine-strand, 35 mm² stranded
Aux. terminals	max.	2.5 mm² fine-strand

The composition of the type of protection symbol is subject to the types of protection of the design used from case to case.

(16) Test report PTB Ex 00-19119

(17) Special conditions for safe use

none

Notes for production and operation

The flush-mounting switch shall be accommodated in a housing that meets the specifications of an approved type of protection in accordance with EN 50014, section 1.2.

When fitting the flush-mounting switch in a housing designed to type of protection Increased Safety "e" in accordance with EN 50019, the clearance and creapage distances according to section 4.3, section 4.4 and table 1 have to be complied with.

When combined with circuits of type of protection Intrinsic Safety "i", the switch has to be installed in such a way that the clearance and creapage distances between intrinsically safe and non-intrinsically safe circuits according to EN 50020 are met.

If the distance requirements for the connectors as specified in EN 50020 cannot be guaranteed with the installation, cables which meet the quality criteria Increased Safety "e" shall be used, or the cables shall be of the fail-safe type.

When using more than one intrinsically safe circuit, the regulations for interconnection shall be taken into consideration.

The component can be used both in groups I and II, because in this case the requirements of the standard are identical.

Physikalisch-Technische Bundesanstalt

Braunschweig und Berlin

SCHEDULE TO EC-TYPE-EXAMINATION CERTIFICATE PTB 00 ATEX 1069 U

(18) Essential health and safety requirements

The tests carried out and the positive results show that the flush-mounting switch meets the requirements of directive 94/9/EC as well as those of the standards quoted on the cover sheet.

Zertifizierungsstelle Explosionsschutz
By order:

Braunschweig, September 12, 2000

Dr.-Ing. U. Johannsmeyer
Regierungsdirektor

PHYSIKALISCH-TECHNISCHE BUNDESANSTALT 24

Physikalisch-Technische Bundesanstalt

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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:	3.5-2231-12/08-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 264 ....R....
Flush-mounting switch type GHG 264 ....R....

PTB 00 ATEX 1069 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:

 II 2G Ex de [ia/ib] IIC

 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.

600 00 g

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Deutschland

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:

Ⓔx II 2G Ex de [ia/ib] IIC

Ⓔx 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