# 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 98 ATEX 1071 U**

(4) Component: Cable bushing, type MD5/750/3...

(5) Manufacturer: Emil A. Peters GmbH & Co. KG

(6) Address: D-58636 Iserlohn

(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 98-18100.

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

EN 50 014: 1997 EN 50 018:1994 EN 50 019:1994

(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 II I M 2 EEx de I**

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. U. Klausmeyer
Oberregierungsrat

Braunschweig, June 4,1999

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

(14) ## EC-TYPE-EXAMINATION CERTIFICATE PTB 98 ATEX 1071 U

(15) Description of component

The cable bushing, type MD5/750/3... is used to provide for electrical connection between flameproof compartments, or flameproof compartments and a terminal compartment designed to another approved type of protection.

Connection is made at the integrated terminals of the cable bushing.

Electrical data

| | | |
|---|---|---|
| Rated insulation voltage ..... | up to | 750 V |
| Rated cross section ..... | max. | 4.0 mm² |
| No. of studs ..... | | 3 |
| Type and size of thread ..... | | M 36 x 1.5<br>other thread types and sizes as marked |
| Temperatures at the location of the cable bushing for normal operation of the electrical apparatus ..... | | -55 °C to 120 °C |

*The maximum current carrying capacity of the sleeve studs and the connecting wires shall be established on the basis of the elements' own heating rate and that of the enclosure at the location starting from maximum admissible ambient temperatures.*

(16) Test report PTB Ex 98-18100, description (4 sheets), 1 drawing

(17) Special conditions for safe use

Tapped holes receiving the cable bushings with their screw threads shall meet the minimum requirements of EN 50018, section 5.3 (table 3). These cable bushings are suited for use in electrical apparatus designed to type of protection Flameproof Enclosure "d" of groups I, IIA, IIB or IIC.

Should the reference pressure exceed 20 bar, the cable bushing shall be included in the type test according to EN 50018, section 15.1.3 (overpressure test) as required by the classification of the electrical apparatus in question (grouping I; IIA, IIB or IIC).

The cable bushings shall be fixed in the electrical apparatus in such a way that rotation and accidental loosening will be prevented.

Connection of the connecting wires of the cable bushing shall proceed in enclosures that comply with a standardised type of protection in accordance with EN 50014, section 1.2.

The cable entry is a structural unit. Assembly and installation conditions are documented for proper reproduction so that routine testing with the flameproof enclosure as set forth in EN 50018, section 16.1, can according to section 16.2 (13.4.4) be dispensed with.

Since in this case the requirements of the standard are identical, the component can be used in groups I as well as II.

The way in which temperatures will have to be associated with the temperature class of the cable bushing shall be specified in the type test of the electrical apparatus in question.

This EC type-examination certificate as well as any future supplements thereto shall at the same time be regarded as supplements to Component Certificate PTB No. Ex-79/1026 U.

(18) Essential health and safety requirements

The tests and the favourable results these have produced reveal that the cable bushing meets the requirements of directive 94/9/EC as well as those of the standards quoted on the cover sheet.

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