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 1072 U

(4) Component: Cable bushing of types AD275-..-...-..., AD750-..-...-... AD1100-..-...-... and AD3300-..-...-...

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

(6) Address: Westfalenstr. 85, 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 98-18099.

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

EN 50 014:1997 **EN 50 018:1994**

(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:

Ex II 2 G EEx d II I M 2 EEx d I

Zertifizierungsstelle Explosionsschutz
By order:

Dr.-Ing. U. Klausmeyer
Oberregierungsrat

Braunschweig, January 20, 1999

(13) # SCHEDULE

(14) ## EC-TYPE-EXAMINATION CERTIFICATE No. PTB 98 ATEX 1072 U

(15) Description of component

The cable bushing of types AD275-..-...-..., AD750-..-...-..., AD1100-..-...-... and AD3300-..-...-... serve as electrical connection between flameproof compartments or between flameproof compartments and a terminal compartment of another recognized type of protection.
The connection is made at the integrated connecting leads of the cable bushing.

Electrical data

Rated insulation voltage ..... up to		275 V	750 V	1100 V	3300 V
Rated cross-section *) ..... max.		0,5 mm² ... 95 mm²			
Number of leads		1 ... 40			
Type and size of thread *)		M24 x 1,5 to M 48 x 1,5 other types and sizes of threads with respective identification			

Rated current at (for multi-core designs, ambient temperatures of 40 °C and permissible temperature of 80 °C on the cable for T6)					
	0,35 mm²	5,5 A	16 mm²	67 A
	0,5 mm²	7,5 A	10 mm²	50 A
	0,75 mm²	10 A	25 mm²	90 A
	1,0 mm²	12 A	35 mm²	110 A
	1,5 mm²	15 A	50 mm²	140 A
	2,5 mm²	21 A	70 mm²	170 A
	4,0 mm²	28 A	95 mm²	205 A
	6 mm²	36 A		

suitable for temperature class		T6	T5	T4
ambient temperature	-50 °C	40 °C	55 °C	70 °C
maximum temperature of use at place of installation of the cable bushing, with the electrical apparatus in normal operation	cast resin		120 °C	
	H05V-K		70 °C	
	NSGHFÖU		90 °C	
	H07G-K		110 °C	

*) depending on the non-sheathed cable used

When the maximum current-carrying capacity of the connecting leads is determined, the self-heating and the heating of the electrical apparatus at the place of installation at maximum permissible ambient temperature must be taken as a basis. Special attention must be given to the service temperatures of the cast resin **and** to the conduction qualities.

(16) Report PTB Ex 98-18099

(17) Special conditions for safe use

Threaded holes into which cable bushings are screwed with the internal thread must meet the minimum requirements of EN 50 018, section 5.3 (Table 3). These cable bushings are suitable for installation in electrical apparatus of the type of protection flameproof enclosure "d" of groups I, IIA, IIB or IIC.

The cable bushings must be fastened in the electrical apparatus so that they are locked to prevent rotation and accidental loosening.

The connecting leads of the cable bushing must be connected inside enclosures which are in compliance with a standardized type of protection according to EN 50014, section 1.2.

The cable bushing is a constructional unit. The reproducible assembly and the installation conditions have been documented. According to EN 50 018, section 16.2 (13.4.4), a routine test together with the flameproof enclosure in compliance with section 16.1 is, therefore, not necessary.

The assignment of the temperatures to the temperature class of the cable bushing is to be laid down during the type test of the respective electrical apparatus.

(18) Essential health and safety requirements

The tests carried out and their positive results show that the cable bushing meets the requirements of Directive 94/9/EC and of the standards stated on the cover sheet.

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Dr.-Ing. U. Klausmeyer
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Braunschweig, January 20, 1999