Physikalisch-Technische Bundesanstalt
Braunschweig und Berlin
Nationales Metrologieinstitut

(1) # EU-TYPE EXAMINATION CERTIFICATE

(Translation)

(2) Component Intended for Use in Potentially Explosive Atmospheres
Directive 2014/34/EU

(3) EU-Type Examination Certificate Number:

PTB 98 ATEX 1069 U **Issue: 1**

(4) Product: Bushing Type PLD**/**** *** and PkLD6/690

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

(6) Address: Westfalenstraße 85, 58636 Iserlohn, Germany

(7) This component and any acceptable variation thereto is 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 17 of the Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres, given in Annex II to the Directive.

The examination and test results are recorded in the confidential test report PTB Ex 22-12093.

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

EN IEC 60079-0:2018, EN 60079-1:2014/AC:2018, EN IEC 60079-7:2015/A1:2018

(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 partial certification may be used as a basis for certification of an equipment or protective systems.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified component in accordance to the Directive 2014/34/EU. Further requirements of the Directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.

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

Ex II 2 G Ex db eb IIC Gb

Ex I M 2 Ex db eb I Mb

Konformitätsbewertungsstelle, Sektor Explosionsschutz
On behalf of PTB:

Braunschweig, July 27, 2022

Dr.-Ing. D. Markus
Direktor und Professor

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(13) # SCHEDULE

(14) **EU-Type Examination Certificate Number PTB 98 ATEX 1069 U, Issue: 1**

(15) Description of Component

The bushings, type PLD**/**** *** and PkLD6/690, serve as electrical connection between flameproof enclosures or between flameproof enclosures and a terminal compartment with another type of protection.
They are built in two designs, design A and design B.
Connection is made directly at the connection facilities of the bushing conductor studs or at the connection heads, which are screwed onto the threaded bolts of the bushing and secured against self-loosening and rotation.

Technical data

Rated insulation voltage up to:	400 V, 500 V, 690 V, 1100 V, 3300 V, 6600 V
Rated cross-section, depending on the connection head max.:	450 mm²
Number of studs:	1
Rated service temperature range:	-55 °C to +120 °C

Design A		Design B	
Type	**Thread**	**Type**	**Thread**
PLD4/500	M14 x 1,5	PLD 8/690	M26 x 1,5
PLD4/400/18	M14 x 1,5	PLD10/690	M30 x 1,5
PLD4/690	M14 x 1,5	PLD12/690	M36 x 1,5
PLD4/690/18	M14 x 1,5	PLD16/690	M42 x 1,5
PLD5/690	M16 x 1,5	PLD20/690	M48 x 1,5
PLD6/690	M20 x 1,5	PLD24/690	M52 x 1,5
PLD4/1100	M14 x 1,5	PLD 8/1100	M26 x 1,5
PLD4/1100+10	M14 x 1,5	PLD10/1100	M30 x 1,5
PLD6/1100	M20 x 1,5	PLD12/1100	M36 x 1,5
PLD6/1100+10	M20 x 1,5	PLD16/1100	M42 x 1,5
PkLD6/690	M20 x 1,5	PLD20/1100	M48 x 1,5
		PLD24/1100	M52 x 1,5
		PLD12/3300	M60 x 2
		PLD12/6600	M60 x 2
		PLD16/6600	M80 x 1,5
		PLD20/6600	M80 x 1,5

SCHEDULE TO EU-TYPE-EXAMINATION CERTIFICATE PTB 98 ATEX 1069 U, Issue: 1

Nomenclature

PLD**/**** *** and PkLD6/690

1	2	3	4
PLD	**/	****	***

1 = Type
2 = Diameter of the bolt
3 = Rated voltage
4 = Extension of thread of bushing, no influence on the Ex-protection

Details of change:

1) No technical changes. Updated to current editions of EN IEC 60079-0:2018, EN 60079-1:2014/AC:2018, EN IEC 60079-7:2015/A1:2018.

2) Marking is changed to:
   Ⓔx II 2 G Ex db eb IIC Gb
   Ⓔx I M 2 Ex db eb I Mb

(16) Test report PTB Ex 22-12093

(17) Notes for manufacture, installation and operation

1. Threaded holes into which bushings are screwed have to meet the minimum requirements of IEC 60079-1, table 3. The bushings are suitable for installation in electrical apparatus of the type of protection flameproof enclosure "db" of groups I, IIA, IIB or IIC.
2. Should the reference pressure exceed 20 bar, the bushing shall be included into the type test according to IEC 60079-1, section 15.1.3 (overpressure test) as required by the classification of the electrical apparatus in question (grouping I, IIA, IIB, IIC)
3. The bushing with cylindrical joint are to be included in the type test according to IEC 60079-1, section 15, in compliance with the grouping of the respective electrical apparatus (group I, IIA, IIB or IIC).
4. The bushings shall be fixed in the electrical apparatus in such a way that rotation and accidental loosening will be prevented.
5. The connecting part of the bushing must be connected inside enclosures which are in compliance with a standardized type of protection according to IEC 60079-0, section 1
6. The bushing is a constructional unit. The reproducible assembly and the installation conditions have been documented. According to IEC 60079-1, section 16.2 a routine test together with the flameproof enclosure in compliance with section 16.1 is, therefore, not necessary.
7. The component can be used in both, group I and group II, as the requirements of the standard are identical in this case.

8. Installation of electrical components requires further assessment by an ExCB.

(18) Essential health and safety requirements

Met by compliance with the aforementioned standards.

According to Article 41 of Directive 2014/34/EU, EC-type examination certificates which have been issued according to Directive 94/9/EC prior to the date of coming into force of Directive 2014/34/EU (April 20, 2016) may be considered as if they were issued already in compliance with Directive 2014/34/EU. By permission of the European Commission supplements to such EC-type examination certificates and new issues of such certificates may continue to hold the original certificate number issued before April 20, 2016.

Konformitätsbewertungsstelle, Sektor Explosionsschutz — Braunschweig, July 27, 2022
On behalf of PTB:

Dr.-Ing. D. Markus
Direktor und Professor