

EU - Type Examination Certificate

(1)

(2) Equipment and protective systems intended for use in potentially explosive atmospheres – Directive 2014/34/EU

(3) EU - Type Examination Certificate Number

EPS 14 ATEX 1 644 U

Revision 1

(4) Component: Line bushing with terminals type 07-93**_****/****

(5) Manufacturer: BARTEC GmbH

(6) Address: Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

(7) This component and any acceptable variation thereto are specified in the annex to this certificate and the documentation therein referred to.

(8) Bureau Veritas Consumer Products Services Germany GmbH, notified body No. 2004 in accordance with Article 21 given in the Directive 2014/34/EU of the European Parliament and of the Council of 26 February 2014, 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 of the Directive. The examination and test results are recorded in the confidential documentation under the reference number 13TH0451.

(9) Compliance with the essential health and safety requirements has been assured by compliance with:

FprEN 60079-0:2017 (IEC 60079-0:2017)

EN 60079-0:2012+A11:2013

EN 60079-1:2014

EN 60079-7:2015

(10) The sign "U" placed behind the certificate number indicates that this certificate shall not be confounded with certificates issued for equipment or protective systems. This certificate is valid for a component without an autonomous function in sense of article 2 (3) and does not authorize for the CE-marking to be applied according to article 13 (3) of the Directive. This component certificate only serves as a basis for the issuing of certificates for equipment or protective systems.

(11) This EU - Type Examination Certificate relates only to the design and examination of the specified component in accordance with Directive 2014/34/EU. Further requirements of this Directive apply to the manufacture of this component and its placing on the market. Those requirements are not covered by this certificate.

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



II 2G Ex db eb IIC Gb



I M2 Ex db eb I Mb



Certification department of explosion protection

Nuremberg, 2018-04-26

H. Schaffer

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Certificates without signature and seal are void. This certificate is allowed to be distributed only if not modified. Extracts or modifications must be authorized by Bureau Veritas Consumer Products Services Germany GmbH. EPS 14 ATEX 1 644 U, Revision 1.

(13)

Annex

(14) EU - Type Examination Certificate EPS 14 ATEX 1 644 U

Revision 1

(15) Description of component:

The line bushing type 07-93**-*0**/**** with terminals is used for the electrical connection of electrical equipment in explosion-proof enclosures. This may be the connection between a flameproof housing and housing in another approved type of protection according to EN 60079-0, section 1 or between interconnected flameproof enclosures. Because of this design, the wires/cables are always protected against direct contact.

Depending on the type, they are designed for intrinsically safe circuits, measuring, regulating and control circuits or power circuits.

Technical data:

Type 07-93**-*0**/0** (with BARTEC terminals):

Rated voltage:	Type 07-93*4-*0**/0**:	690 V
	Type 07-93*6-*0**/0**:	1000 V
Related current ⁽¹⁾ :	Max. 40 A	
Number of terminals:	2 to 6	
Current type:	AC and DC	
Rated cross section:	0.35 – 6 mm ²	
Service temperature range ⁽¹⁾ :	-60 °C ≤ T _s ≤ +110 °C	

(1) = Type-dependent ranges.

(These ratings are given in the marking of the line bushing)

- Service temperature depends on used conductor type.
- The related current depends on the cross-section of the conductor.

Type 07-93**-*0**/1** (with circuit board terminals):

Rated voltage ⁽²⁾ :	Max. 1000 V
Related current ⁽²⁾ :	Max. 54 A
Current type ⁽²⁾ :	AC and DC
Number of terminals ⁽²⁾ :	1 to n
Rated cross section ⁽²⁾ :	Max. 6 mm ²
Service temperature range ⁽²⁾ :	-60 °C ≤ T _s ≤ +110 °C

(2) = Type-dependent ranges depending on the used conductor, terminals and size of the sleeve.
(these ratings are given in the marking of the line bushing)

All types:

Size of sleeve (with thread):	M10x1 – M56x1,5 (alternatively to metric also different thread types, e.g. NPT)
Size of sleeve (cylindric):	Ø 10 mm – Ø 54 mm
Join length:	≥ 9.5 mm, ≥ 12.5 mm, ≥ 25 mm, ≥ 40 mm
Static test pressure (type tested) ⁽³⁾ :	41.1 bar – 48.6 bar

(3) = Type-dependent ranges.

(These ratings are given in the marking of the line bushing)

- Static test pressure is related to the lower service temperature of the line bushing.

Limitation for use (1), (2) and (3) can be found in the related documents to each shipment.

(16) Reference number: 13TH0451

(17) Notes for manufacture, installation and operation:

The line bushings have to be used according to the ratings given in the marking and the related documents attached to the shipment.

The classification of the temperatures to the temperature class of the line bushing must be stipulated in the type test of the electrical equipment concerned.

For determination of the max. current rating of the component, the self-heating and the maximum heating of the electrical apparatus have to be considered. The max. service temperature of the line bushing with terminals has to be considered.

The line bushings are suitable for installation in electrical equipment of protection type flameproof enclosures "d" groups I, IIA, IIB or IIC.

Line bushings screwed in threaded holes must meet minimum the requirements of EN 60079-1, section 5.3.

Cylindrical holes for the line bushings with cylindrical joint must meet the minimum requirements of EN 60079-1, section 5.2. The information to the outside-diameter of cylindrical sheaths in the instruction manual has to be considered. This cylindrical joint must be included in type testing to EN 60079-1 section 15.3 in accordance with the group subdivision of the electrical equipment concerned (I, IIA, IIB or IIC).

The line bushings must be fixed to the electrical equipment in such a way that they are secured against rotation and self-loosening.

The conductors of the line bushing must be connected in enclosures meeting a type of protection to EN 60079-0, section 1. The conductors must be suitably connected in accordance with their rated cross sections and the selected type of protection.

(18) Essential health and safety requirements:

Met by compliance with standards.

Certification department of explosion protection

Nuremberg, 2018-04-26



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