



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Ex COMPONENT CERTIFICATE

Certificate No.:	IECEX EPS 13.0045U	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 3	Issue 2 (2018-11-30)
Date of Issue:	2023-03-27		Issue 1 (2017-10-24)
Applicant:	BARTEC GmbH Max-Eyth-Straße 16 97980 Bad Mergentheim Germany		Issue 0 (2014-02-07)
Ex Component:	Line bushing 07-91**-****/**** and 57-91**-****/****		

This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).

Type of Protection: **db**
Marking: Ex db IIC Gb
Ex db I Mb

Approved for issue on behalf of the IECEx
Certification Body:

Position:

Signature:
(for printed version)

Date:
(for printed version)



1. This certificate and schedule may only be reproduced in full.
2. This certificate is not transferable and remains the property of the issuing body.
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Certificate issued by:

Bureau Veritas Consumer Products Services Germany GmbH
Businesspark A96
86842 Türkheim
Germany





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Manufacturer: **BARTEC GmbH**
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

Manufacturing
locations: **BARTEC GmbH**
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

FENEX S.r.l.
Via Carducci 16
34070 Moraro (GO)
Italy

This certificate is issued as verification that a sample(s), representative of production, was assessed and tested and found to comply with the IEC Standard list below and that the manufacturer's quality system, relating to the Ex products covered by this certificate, was assessed and found to comply with the IECEX Quality system requirements. This certificate is granted subject to the conditions as set out in IECEX Scheme Rules, IECEX 02 and Operational Documents as amended

STANDARDS :

The component and any acceptable variations to it specified in the schedule of this certificate and the identified documents, was found to comply with the following standards

IEC 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-1:2014-06 Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
Edition:7.0

This Certificate **does not** indicate compliance with safety and performance requirements other than those expressly included in the Standards listed above.

TEST & ASSESSMENT REPORTS:

A sample(s) of the component listed has successfully met the examination and test requirements as recorded in:

Test Report:

DE/EPS/ExTR13.0032/03

Quality Assessment Reports:

DE/TUN/QAR06.0017/14

IT/CES/QAR12.0006/09



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Ex Component(s) covered by this certificate is described below:

The line bushing type 07-91**-**** / * *** and 57-91**-****/**** are used for the electrical connection of electrical equipment in explosion-proof enclosures. This may be the connection between a flame-proof housing and housing in another approved type of protection according to IEC 60079-0, Section 1 or between interconnected flameproof enclosures. Because of this design, the wires/cables are always protected against direct contact.

For details see additional sheet in annex to CoC.

SCHEDULE OF LIMITATIONS:

The line bushings have to be used according to the ratings given in the marking and the documents attached to the shipment. Special conditions especially regarding installation e.g. for strain-relief have to be considered.

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 wires the maximum heating and max. surrounding temperature of the electrical apparatus have to be considered. The max. service temperature of the line bushing has to be considered.

Line bushings screwed in threaded holes must meet the minimum requirements of IEC 60079-1, clause 5.3 (Table 4).

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

Cylindrical holes for the line bushings with cylindrical joint must meet the minimum requirements of IEC 60079-1, table 2 and 3 (cylindrical joint). 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 IEC 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 wires of the line bushing must be connected in enclosures meeting a type of protection to IEC 60079-0, section 2. The cores must be suitably connected in accordance with their rated cross sections and the type of protection selected.

The max. arm length of a connection fixture of type 07-91*9-****/S*** is limited to 100 mm.

When the end termination of fiber optic cables is inside hazardous location, the optical power must be in compliance with type of protection "op is" according to IEC 60079-28.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Addition of an additional manufacturer location.

Annex:

Attachment to IECEx certificate IECEx EPS 13.0045U_3_1.pdf



Annex to IECEx Certificate of Conformity
IECEX EPS 13.0045U
Issue 3



Applicant: BARTEC GmbH
Max-Eyth-Straße 16
97980 Bad Mergentheim
Germany

Electrical Apparatus: Line bushing type 07-91**_****/**** and 57-91**_****/****

Description of component:

The line bushing type 07-91**_****/**** and 57-91**_****/**** are used for the electrical connection of electrical equipment in explosion-proof enclosures. Also, it can be used with fiber optic cables for data transmission. This may be the connection between a flame-proof housing and housing in another approved type of protection according to IEC 60079-0, Section 1 or between interconnected flameproof enclosures (also enclosures protecting fiber optic cables). 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.

The allowed optical power for fiber optic cable bushing (57-91**_****/****) is depending on frequency and will be certified with the source of optical irradiation.

Line bushings can also be used as blind plugs for the termination of housings in the type of protection flameproof enclosure "d".

The type 07-91*9-****/S*** is used for the connection between a flameproof enclosure and intrinsically safe circuits in mechanically unprotected area.

Technical data:

Rated isolation voltage:	max. 6000 V
Rated current:	max. 644 A (On the basis of VDE 0298-04 Tab. 13, Col. 6)
Conductor cross section:	max. 185 mm ²
Current type:	AC and DC
Rated service temperature ⁽¹⁾ :	-60 °C ≤ T ≤ +110 °C (130 °C)
Nominal thread diameter:	M10x1 – M72x1.5 (alternatively to metric also different thread types e.g. NPT)
Size of sleeve (cylindrical):	Ø 10 mm - Ø 70 mm
Joint length:	≥ 9.5 mm, ≥ 12.5 mm, ≥ 25 mm, ≥ 40 mm
Number of conductors:	max. 99 (depending on 20% casting area limitation)
Static test pressure (type tested) ⁽¹⁾ :	30 bar – 48.6 bar

(1) = Type dependent ratings:
(These ratings are given in the marking of the bushing)

- Service temperature depends on used cable type.
- Static test pressure is related to the lower service temperature of the cable type.

Limitations for use ⁽¹⁾ regarding the service temperature and static test pressure depending on the used cable type can be found in attached the technical information to each shipment.