



IECEX Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

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

Certificate No.:	IECEX EPS 11.0004X	Issue No: 3	Certificate history: Issue No. 3 (2016-06-30) Issue No. 2 (2015-07-21) Issue No. 1 (2013-01-22) Issue No. 0 (2011-08-25)
Status:	Current	Page 1 of 5	
Date of Issue:	2016-06-30		
Applicant:	Quintex GmbH i_Park Tauberfranken 13 97922 Lauda-Königshofen Germany		
Equipment:	Line Bushing, types LB* * * * * /...		
Optional accessory:			
Type of Protection:	flameproof enclosure "d", increased safety "e", protection by enclosure "t"		
Marking:	Ex db eb IIC T4/T5/T6 Ex tb IIIC T135°C/T100°C/T85°C IP66 Ex d I mb		

Approved for issue on behalf of the IECEx
Certification Body:

Dieter Zitzmann

Position:

Head of Certification

Signature:
(for printed version)

Date:

2016-06-30



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.
3. The Status and authenticity of this certificate may be verified by visiting the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

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





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Manufacturer: Quintex GmbH
i_Park Tauberfranken 13
97922 Lauda-Königshofen
Germany

Additional Manufacturing
location(s):

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 electrical apparatus 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 : 2011 Edition:6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-1 : 2014-06 Edition:7.0	Explosive atmospheres - Part 1: Equipment protection by flameproof enclosures "d"
IEC 60079-31 : 2013 Edition:2	Explosive atmospheres - Part 31: Equipment dust ignition protection by enclosure "t"
IEC 60079-7 : 2015 Edition:5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

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

TEST & ASSESSMENT REPORTS:

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

Test Report:

[DE/EPS/ExTR11.0004/03](#)

Quality Assessment Report:

[DE/EPS/QAR11.0001/03](#)



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Schedule

EQUIPMENT:

Equipment and systems covered by this certificate are as follows:

The equipment covered by this certificate are line bushings of type LB* * * * */... and serve as electric connection of equipment in explosion-protected enclosures. This can be a connection between a flameproof enclosure and an enclosure of another type of protection or between two flameproof enclosures. Furthermore, the line bushing with impact protection (U and Z in the type designation code) can be used for an electrical connection from the outside into a flameproof enclosure. The line bushing type LB* * * * Q0/... - line bushing without cores – may be used as sealing element. Additionally, they can be used as enclosure blanking plugs made of solid metal (without casting compound). The blanking plugs are unchanged except for the omission of the drilled hole and the casting compound. For this style, in addition to the type number LB....ooo/... a variant count number (six digit) EP (end plug) gets permanently engraved by means of a laser. This variant count number is detailed in the shipping documents.

CONDITIONS OF CERTIFICATION: YES as shown below:

Line bushings with screw thread: The thread hole of the flameproof enclosure in which the line bushing is integrated has to comply with IEC 60079-1:2007, Clause 5.3.

Pluggable line bushings: The hole of the flameproof enclosure, in which the line bushing is integrated has to comply with IEC 60079-1:2007, Clauses 5.2.1 and 5.2.2 regarding the length and width of the gap. The average surface finish (ISO 468) has to be $Ra \leq 6,3 \mu m$.

Requirements valid for pluggable and screwable line bushings: The line bushing with shock protection (U and Z in the type designation key) may be used for direct connection of flameproof enclosures. In this case, the mounting has to be from the outside into the d-space, so that the impact proof is guaranteed. On the outside, only a hose line, which is safely enclosed, may be used.

Regardless of the type of mounting it has to be ensured, that the line bushing is secured against twisting or loosening.

The cable specific minimum ambient temperature $T_{a,min}$ is marked on the line bushing and it is detailed in the shipping documents.

The specifically correct maximum ambient temperature $T_{a,max}$ shall be determined.

For Ex-e and Ex-t applications the line bushings and plugs can be fitted with an O-ring or flange gasket. When correctly installed an IP protection of IP66 can be achieved. The operating temperature range of the seal is $-55 \text{ }^{\circ}\text{C}$ to $+70 \text{ }^{\circ}\text{C}$. For use with flange gasket it must be assured that the gasket does not flip off due to high torque.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

Addition of IEC 60079-7, IEC 60079-31 and a higher IP class of IP66.



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Additional information:

The determination of the maximum and minimum permissible ambient temperature as well as the temperature class takes place under consideration of the cable types used, if need be on the basis of self-performed temperature measurements as well as the core specific limiting temperature T_G .

The type LBSM42124/SETZ-Sopat is used as a passage for optical waveguides. Here, a sleeve having a soldered sapphire glass is potted in the cable entry. This allows a light transmission without introducing the optical waveguides into the housing.