



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

Ex COMPONENT CERTIFICATE

Certificate No.:	IECEX KEM 07.0008U	Issue No: 4	<u>Certificate history:</u> Issue No. 4 (2018-12-18) Issue No. 3 (2012-11-30) Issue No. 2 (2009-07-27) Issue No. 1 (2007-05-23) Issue No. 0 (2007-01-30)
Status:	Current	Page 1 of 4	
Date of Issue:	2018-12-18		
Applicant:	PHOENIX CONTACT GmbH & Co. KG Flachmarktstrasse 8 32825 Blomberg Germany		
Ex Component:	Terminal Blocks MBK 3/E-Z and MBK 6/E and Protective Conductor Terminal Blocks MSLKG 6		

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: **Increased safety**

Marking:
Ex eb IIC Gb

Approved for issue on behalf of the IECEX
Certification Body:

R. Schuller

Position:

Certification Manager

Signature:
(for printed version)

Date:

2018-12-18

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:

DEKRA Certification B.V.
Meander 1051
6825 MJ Arnhem
The Netherlands





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Manufacturer: **PHOENIX CONTACT GmbH & Co. KG**
Flachsmarktstrasse 8
32825 Blomberg
Germany

Additional Manufacturing location(s):

PHOENIX CONTACT India Pvt. Ltd.
Prithla-Datir Road, Dudhola, Dist.Palwal, Haryana
India

Nanjing PHOENIX CONTACT Ltd. and PHOENIX CONTACT Asia-Pacific (Nanjing) Co. Ltd.
36 Phoenix Road, Jiangning Development Zone
Nanjing, 211100, Jiangsu Province
China

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 Component 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 Ex 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 60079-7 : 2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5,1

*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 Ex Component listed has successfully met the examination and test requirements as recorded in

Test Report:

[NL/KEM/ExTR07.0010/02](#)

Quality Assessment Report:

[NL/DEK/QAR11.0009/06](#)

[NL/DEK/QAR11.0010/03](#)

[NL/DEK/QAR11.0011/03](#)



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Schedule

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

Terminal Blocks (all colors) MBK 3/E-Z and MBK 6/E and the Protective Conductor Terminal Block MSLKG 6 and accessories are intended for the connection of copper conductors in enclosures fulfilling the degree of protection which is required by the applied type of protection for the end-application. The Terminal Blocks and Protective Conductor Terminal Blocks are intended for installation on mounting rails type NS 15 according to EN 60715 TH 15.

Operating temperature range -60 °C to +105 °C.

See Annex 1 for electrical data and nomenclature.

SCHEDULE OF LIMITATIONS:

The Terminal Blocks and the Protective Conductor Terminal Blocks shall be mounted in a certified enclosure that meets the requirements of a type of protection as specified in IEC 60079-0 clause 1, with a degree of protection at least as required for Ex e.

When assembling with other certified series and sizes and using the associated accessories, the required creepage distances and clearances have to be observed.

The installation instruction of the manufacturer shall be followed e.g. for the use of cover, jumpers, end brackets. The data regarding current and associated temperature rise shall be used as guideline for the given conductor cross sections. The cross section has influence on the temperature rise which shall be assessed in the end application.

If the Terminal Blocks are used in electrical equipment of temperature classes T1 up to T5, the highest temperature of the insulating material shall not exceed the maximum value of the operating temperature range.

If the Terminal Blocks are used in electrical equipment of temperature classes T6 the permissible ambient temperature range is -60 °C < Tamb < +40 °C.



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

- Assessment to recent editions of the standards.
- Change operating temperature.
- Small mechanical changes.
- PHOENIX CONTACT Ind. Com, Ltda deleted as manufacturing location.

Annex:

[219710400_Annex1.pdf](#)

Annex 1 to IECEx Test Report NL/KEM/ExTR07.0010/02
Annex 1 to Certificate of Conformity IECEx KEM 07.0008U
Annex 1 to EU-Type Examination Certificate KEMA 01ATEX2134 U, issue 3

Electrical data

Note 1: in this document [,] is used as decimal separator.

All values are values of terminal blocks without bridges, unless indicated otherwise.

Terminal blocks

Type	MBK 3/E-Z	MBK 6/E
Rated insulation voltage [V]	250	250
Rated voltage [V]	275	275
- with bridge FB [V]	250	275
- at bridging between non-adjacent terminal block [V]	176	-
Rated current [A]	21	37
- rated cross-section with bridge FB [A]	22	33
Maximum load current [A]	27,5	49
Temperature rise [K]	40 (23,1 A; 2,5 mm ²)	40 (41 A; 6 mm ²)
Contact resistance [mΩ]	0,5	0,78
Rated cross-section [mm ²] (AWG)	2,5 (14)	6 (10)
Connectable conductor cross-section		
- rigid [mm ²] (AWG)	0,2 - 4 (24-12)	0,5 - 10 (20-8)
- flexible [mm ²] (AWG)	0,2 - 2,5 (24-14)	0,5 - 6 (20-10)
Multi-conductor connection (2 conductor with the same cross-section)		
- rigid [mm ²] (AWG)	0,2 - 1,5 (24-16)	0,5 - 2,5 (20-14)
- flexible [mm ²] (AWG)	0,2 - 1,5 (24-16)	0,5 - 2,5 (20-14)

Protective Conductor Terminal Block

Type	MSLKG 6
Rated cross-section [mm ²] (AWG)	6 (10)
Connectable conductor cross-section	
- rigid [mm ²] (AWG)	0,5 - 10 (20-8)
- flexible [mm ²] (AWG)	0,5 - 6 (20-10)

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Nomenclature

Terminal Blocks

MBK 3 / E = Z
 I II III IV

Designation	Explanation	Value	Explanation
I	Type indicator	MBK	Mini feed through terminal block with screw connection
II	Rated cross section	3 6	2,5 mm ² , 14 AWG 6 mm ² , 10 AWG
III	Single Terminal Block	E	Individual combinable terminal block.
IV	Pin	Z	Pin and plug of adjacent terminal blocks (only for MBK 3/E)

Protective Conductor Terminal Blocks

MSLKG 6
 I II

Designation	Explanation	Value	Explanation
I	Type indicator	MSLKG	Ground Modular Terminal block with screw connection
II	Rated cross section	6	6 mm ² , 12 AWG