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 KIWA 14.0005U**	Page 1 of 4	Certificate history:
Status:	**Current**	Issue No: 2	Issue 1 (2021-05-19) Issue 0 (2015-04-21)
Date of Issue:	2021-12-07		
Applicant:	**PHOENIX CONTACT GmbH & Co. KG** Flachmarktstrasse 8 32825 BLOMBERG **Germany**		
Ex Component:	Terminal blocks, type AKG 4-EX and type EK 135		

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 "eb"**
Marking:	Ex eb IIC Gb

Approved for issue on behalf of the IECEx Certification Body:	**Dorin Stochitoiu P. Eng**
Position:	**Technical Oversight Specialist**
Signature: (for printed version)	
Date:	

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 www.iecex.com or use of this QR Code.

Certificate issued by:

CSA Group
178 Rexdale Blvd
Toronto Ontario M9W 1R3
Canada

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Manufacturer: **PHOENIX CONTACT GmbH & Co. KG**
Flachmarktstrasse 8
32825 BLOMBERG
Germany

Additional manufacturing locations:

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 equipment 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 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 Reports:

NL/KIWA/ExTR14.0007/00 NL/KIWA/ExTR14.0007/01 NL/KIWA/ExTR14.0007/02

Quality Assessment Reports:

NL/DEK/QAR11.0009/08 NL/DEK/QAR11.0010/05 NL/DEK/QAR11.0011/05
NL/DEK/QAR17.0005/03

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

Connecting Terminal Block type AKG 4-EX and Power Terminal Block type EK 135 for mounting on a bus bar type NLS-CU 3/10 (3 mm x 10 mm). The terminal blocks are intended for the connection of copper conductors in enclosures in type of protection increased safety “e”.

Rated service temperature range: AKG 4-EX: -60 °C to +125 °C
EK 135: -60 °C to +180 °C

For technical data, see Annex 1.

SCHEDULE OF LIMITATIONS:

1. The terminal blocks shall be mounted in an enclosure having one of the specific types of protection mentioned in IEC 60079-0, section 1.
2. When mounted in an enclosure in type of protection Increased safety “e”, the clearances and creepage distances to other live parts shall fulfil the requirements of IEC 60079-7, Table 1.
3. When accessories are used, the instructions provided by the manufacturer shall be observed.

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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)
This issue, Issue 2, recognises the following change; refer to the certificate annex to view a comprehensive history:

1. Addition of new insulation material (not relevant for the type of protection).

Annex:

IECEx KIWA 14.0005U Annex Issue 2.pdf

Annexe to: **IECEx KIWA 14.0005U Issue 2**

Applicant: **PHOENIX CONTACT GmbH & Co. KG**

Apparatus: **Terminal blocks, type AKG 4-EX and type EK 135**

Technical data

	Type AKG 4-EX	Type EK 135
Rated cross section	4 mm^2	25 mm^2
Connecting capacity	0.5 -6 mm^2 (rigid) 0.5 -4 mm^2 (flexible)	0.75 -35 mm^2 (rigid) 0.75 -25 mm^2 (flexible)
Multi conductor connection (two conductors of the same cross section and conductor type)	0.5 –2.5 mm^2 (rigid and flexible)	0.75 -10 mm^2 (rigid and flexible)
Rated current	32 A (4 mm^2)	85 A (25 mm^2)
Maximum current	41 A (6 mm^2)	100 A (35 mm^2)
Temperature rise at rated current and rated cross section	25 K	40 K
Temperature rise at max. current and max. cross section	25 K	40 K
Contact resistance	0.08 mΩ	0.24 mΩ
Operating temperature range	-60 °C to +125 °C	-60 °C to +180 °C

Full certificate change history

Issue 1 – this Issue introduced the following change:

i. Update reports to the latest editions of the standards.
ii. Change of torque bus-bar connection of the terminal from 3.2 Nm … 3.7 Nm to 2.6 Nm … 2.8 Nm.
iii. Change of the rated current and max. current ratings from 95 A and 110A to 85 A and 100A.

Issue 2 – this Issue introduced the following change:

i. Addition of new insulation material (not relevant for the type of protection).

Date: **07 December 2021**

CSA Group Testing & Certification Inc.
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