



## EU-TYPE EXAMINATION CERTIFICATE

Component intended for use in Potentially Explosive Atmospheres Directive 2014/34/EU

Certificate Number: **KIWA 14ATEX0011U** Issue: **3**

Component: **Terminal Block, Type AKG 4...-EX and Type EK 135**

Applicant: **Phoenix Contact GmbH & Co. KG**

Address: Flachsmarktstrasse 8,  
32825 Blomberg  
Germany

This component and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

CSA Group Netherlands B.V. notified body number 2813 in accordance with Articles 17 and 21 of Directive 2014/34/EU of the European Parliament and of the Council, dated 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 a component intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in the confidential reports listed in Section 14.2.

Compliance with the Essential Health and Safety Requirements, with the exception of those listed in the schedule to this certificate, has been assured by compliance with the following documents:

EN 60079-0: 2018

EN 60079-7: 2015 + A1: 2018

The sign 'U' is placed after the certificate number to indicate that the product assessed is a component and may be subject to further assessment when incorporated into equipment. Any limitations of use are listed in the schedule to this certificate.

This EU-Type Examination Certificate relates only to the design and construction of the specified component. If applicable, further requirements of this Directive apply to the manufacture and supply of this component.

The marking of the component shall include the following:



II 2G

Ex eb IIC Gb

Project Number 80085010

Signed: J A May

Title: Director of Operations

**CSA Group Netherlands B.V.**  
Utrechtseweg 310, Building B42,  
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## SCHEDULE

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#### 13 DESCRIPTION OF COMPONENT

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".

#### Technical data

|                                                                                          | <u>Type AKG 4...-EX</u>                                                  | <u>Type EK 135</u>                                                           |
|------------------------------------------------------------------------------------------|--------------------------------------------------------------------------|------------------------------------------------------------------------------|
| Rated cross section                                                                      | 4 mm <sup>2</sup>                                                        | 25 mm <sup>2</sup>                                                           |
| Connecting capacity                                                                      | 0,5 - 6 mm <sup>2</sup> (rigid)<br>0,5 - 4 mm <sup>2</sup><br>(flexible) | 0,75 - 35 mm <sup>2</sup> (rigid)<br>0,75 - 25 mm <sup>2</sup><br>(flexible) |
| Multi conductor connection (two conductors of the same cross section and conductor type) | 0,5 - 2,5 mm <sup>2</sup><br>(rigid and flexible)                        | 0,75 - 10 mm <sup>2</sup><br>(rigid and flexible)                            |
| Rated current                                                                            | 32 A (4 mm <sup>2</sup> )                                                | 85 A (25 mm <sup>2</sup> )                                                   |
| Maximum current                                                                          | 41 A (6 mm <sup>2</sup> )                                                | 100 A (35 mm <sup>2</sup> )                                                  |
| 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                                                            |

#### Variation 1 – This variation introduced the following changes:

- Following appropriate assessment to demonstrate compliance with the latest technical knowledge, the previously listed standard EN 60079-0: 2012 + A11: 2013 is replaced by EN IEC 60079-0: 2018 and the previously listed standard EN 60079-7: 2007 is replaced by EN IEC 60079-7: 2015 + A1: 2018.
- Change of torque bus-bar connection for the terminal type EK 135 from 3.2 Nm ... 3.7 Nm to 2.6 Nm ... 2.8 Nm.
- Change of the current and max. current rating of the terminal type EK 135 from 95 A and 110A to 85 A and 100 A.
- The report is also to facilitate the transfer of the certificates KIWA 14ATEX0011 U from Kiwa Nederland B.V., Unit Kiwa ExVision, Wilmersdorf 50, 7327 AC Apeldoorn, The Netherlands, to CSA Group Netherlands B.V.

#### Variation 2 – This variation introduced the following change:

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

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#### 14 DESCRIPTIVE DOCUMENTS

##### 14.1 Drawings

Refer to Certificate Annexe.

##### 14.2 Associated Reports and Certificate History

| Issue | Date             | Report number | Comment                               |
|-------|------------------|---------------|---------------------------------------|
| 1     | 21 April 2015    | 141000638     | The release of the prime certificate. |
| 2     | 19 May 2021      | R80072737A    | The introduction of Variation 1.      |
| 3     | 07 December 2021 | R80085010D    | The introduction of Variation 2.      |

#### 15 SCHEDULE OF LIMITATIONS

15.1 See Technical data.

15.2 The terminal blocks shall be mounted in an enclosure having one of the specific types of protection mentioned in EN 60079-0, section 1.

15.3 When mounted in an enclosure with type of protection Increased safety “e”, the clearances and creepage distances to other live parts shall fulfil the requirements of Table 1 of that standard.

15.4 When accessories are used, the instructions provided by the manufacturer shall be observed.

#### 16 ESSENTIAL HEALTH AND SAFETY REQUIREMENTS OF ANNEX II (EHSRs)

The relevant EHSRs that are not addressed by the standards listed in this certificate have been identified and individually assessed in the reports listed in Section 14.2.

#### 17 CONDITIONS OF MANUFACTURE

17.1 The use of this certificate is subject to the Regulations Applicable to Holders of CSA Certificates.

17.2 Holders of EU-Type Examination Certificates are required to comply with the conformity to type requirements defined in Article 13 of Directive 2014/34/EU.

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# Certificate Annexe



Certificate Number: **KIWA 14ATEX0011U**  
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Applicant: **Phoenix Contact GmbH & Co. KG**

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## Issue 1

| Drawing       | Rev. | Date       | Title                                               |
|---------------|------|------------|-----------------------------------------------------|
| 00281273      | 03   | 14.11.14   | AKG 4 AND EK 135 EX-GEN.ARRANGEM.                   |
| 00822991      | -    | 10.11.14   | AKG 4 AND EK 135 EX-MARKING DETAIL                  |
| -             | 03   | 2015-04-07 | Instructions AKG 4...-EX                            |
| -             | 02   | 2015-02-19 | Instructions EK 135                                 |
| LA-14-106/2/E | -    | 2014-10-29 | AKG 4, BBJ-SEP report electrical safety (18 pages)  |
| LA-14-106/1/E | -    | 2014-10-29 | EK 135, BBJ-SEP report electrical safety (16 pages) |

## Issue 2

| Drawing         | Sheets | Rev. | Date (stamp) | Title                                 |
|-----------------|--------|------|--------------|---------------------------------------|
| 00822991        | 1 of 1 | 01   | 14 Apr 21    | AKG 4 AND EK 135 EX-MARKING DETAIL    |
| 00281273        | 1 of 1 | 04   | 14 Apr 21    | AKG 4 AND EK 135 EX-GEN.ARRANGEM.     |
| MNR 01091996-00 | 1 to 2 | -    | 14 Apr 21    | Installation instructions AKG 4...-EX |
| MNR 01092004-00 | 1 to 2 | -    | 14 Apr 21    | Installation instructions EK 135      |

## Issue 3

| Drawing  | Sheets | Rev. | Date (stamp) | Title               |
|----------|--------|------|--------------|---------------------|
| 01285858 | 1 of 1 | 01   | 05 Nov 21    | Material data sheet |

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