

CERTIFICATE

(1) EU-Type Examination

(2) **Component intended for use on/in equipment or protective systems intended for use in potentially explosive atmospheres - Directive 2014/34/EU**

(3) EU-Type Examination Certificate Number: **KEMA 99ATEX4487 U** Issue Number: **3**

(4) Product: **Protective Conductor Terminal Blocks
USLKG 1,5 N; USLKG 5 (-1); USLKG 10 N (-1)
USLKG 16 N (-1); USLKG 50 (-IB) and USLKG 95**

(5) Manufacturer: **PHOENIX CONTACT GmbH & Co. KG**

(6) Address: **Flachsmarktstraße 8, 32825 Blomberg, Germany**

(7) This product and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) DEKRA Certification B.V., Notified Body number 0344 in accordance with Article 17 of Directive 2014/34/EU of the European Parliament and of the Council, dated 26 February 2014, certifies that this product has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of products intended for use in potentially explosive atmospheres given in Annex II to the Directive.

The examination and test results are recorded in confidential test report number NL/KEM/ExTR06.0036/03.

(9) Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

**EN 60079-0 : 2012 + A11 : 2013
EN 60079-7 : 2015 + A1 : 2017**

EN IEC 60079-0 : 2018

(10) The sign "U" is placed after the certificate number. It indicates that this certificate must not be mistaken for a certificate intended for an equipment or protective system. This partial certification may be used as a basis for certification of an equipment or protective system.

(11) This EU-Type Examination Certificate relates only to the design and construction of the specified product. Further requirements of the Directive apply to the manufacturing process and supply of this product. These are not covered by this certificate.

(12) The marking of the product shall include the following:



II 2 GD Ex eb IIC Gb

Date of certification: 25 October 2018

DEKRA Certification B.V.

R.H.D. Pommé
Certification Manager



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(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate KEMA 99ATEX4487 U**

Issue No. 3

(15) **Description**

The Protective Conductor Terminal Blocks USLKG 1,5 N; USLKG 5 (-1); USLKG 10 N (-1); USLKG 16 N (-1); USLKG 50 (-IB) and USLKG 95 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 Protective Conductor Terminal Blocks are intended for installation on mounting rails type NS 32 according to EN 60715-G 32 or type NS 35 according to EN 60715-TH 35.

Operating temperature range -60 °C to +110 °C.

Electrical data

For electrical data and nomenclature see Annex 1.

Installation instructions

The instructions provided with the product shall be followed in detail to assure safe operation.

(16) **Report Number**

No. NL/KEM/ExTR06.0036/03.

(17) **Schedule of Limitations**

1. The Protective Conductor Terminal Blocks shall be mounted in a certified enclosure that meets the requirements of an approved type of protection as specified in EN 60079-0 clause 1, with a degree of protection at least as required for Ex e.
2. When assembling with other certified series and sizes and using the associated accessories, the required creepage distances and clearances have to be observed.
3. 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 an influence on the temperature rise which shall be assessed in the end application.
4. If the Protective Conductor Terminal Blocks are used in electrical apparatus 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.
5. If the Protective Conductor Terminal Blocks are used in electrical apparatus of temperature classes T6 the permissible ambient temperature range is $-60\text{ °C} < T_{amb} < +40\text{ °C}$.

(18) **Essential Health and Safety Requirements**

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/KEM/ExTR06.0036/03.

(20) **Certificate history**

| | |
|---------------------|---|
| Issue 1 - 9448700 | Initial certificate |
| Issue 2 - 213746700 | Assessment to latest edition of standards, operating temperature range changed. |
| Issue 3 - 219710400 | Assessment to latest edition of standards, small mechanical changes. |

Annex 1 to Test Report IECEx NL/KEM/ExTR06.0036/03
Annex 1 to Certificate of Conformity IECEx KEM 06.0035U, issue no. 5
Annex 1 to EU-Type Examination KEMA 99ATEX4487 U, issue no. 3

Electrical data

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

| | | |
|--|------------------------|------------------------|
| Type | USLKG 1,5 N | USLKG 5 (-1) |
| Rated cross-section [mm ²] (AWG) | 1,5 (16) | 4 (12) |
| Connectable conductor cross-section | | |
| - rigid [mm ²] (AWG) | 0,14 - 1,5 (26 - 16) | 0,2 - 4 (24 - 12) |
| - flexible [mm ²] (AWG) | 0,14 - 1,5 (26 - 16) | 0,2 - 4 (24 - 12) |
| Type | USLKG 10 N (-1) | USLKG 16 N (-1) |
| Rated cross-section [mm ²] (AWG) | 10 (8) | 16 (6) |
| Connectable conductor cross-section | | |
| - rigid [mm ²] (AWG) | 0,5 - 16 (20 - 6) | 2,5 - 25 (14 - 4) |
| - flexible [mm ²] (AWG) | 0,5 - 10 (20 - 8) | 4 - 16 (12 - 6) |
| Type | USLKG 50 (-IB) | USLKG 95 |
| Rated cross-section [mm ²] (AWG) | 50 (1/0) | 95 (3/0) |
| Connectable conductor cross-section | | |
| - rigid [mm ²] (AWG) | 16 - 50 (6 - 1/0) | 25 - 95 (4 - 3/0) |
| - flexible [mm ²] (AWG) | 25 - 50 (4 - 1/0) | 35 - 95 (2 - 3/0) |

In combination with the Terminal Blocks the required clearances and creepage distances are kept for the rated voltages according to IEC 60079-7 as listed below:

| Protective Conductor Terminal Block | Type | Terminal Block Certificates | Rated Voltage |
|--|-------------|--|----------------------|
| USLKG 1,5 N | UK 1,5 N | IECEX KEM 06.0034U, KEMA 98ATEX1651 U | 275 V |
| USLKG 5 (-1) | UK 5 N | | 550 V (on NS 32) |
| USLKG 5 (-1) | UK 5 N | | 690 V (on NS 35) |
| USLKG 10 N (-1) | UK 10 N | IECEX KEM 06.0013U, KEMA 98ATEX1786 U | 690 V |
| USLKG 16 N (-1) | UK 16 N | | 690 V |
| USLKG 50 (-IB) | UKH 50 | | 880 V |
| USLKG 95 | UKH 95 | | 880 V |

Annex 1 to Test Report IECEx NL/KEM/ExTR06.0036/03
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Nomenclature

USLKG * N (-1) (-IB)
 I II III IV V

| Designation | Explanation | Value | Explanation |
|-------------|---------------------|-------|---|
| I | Type indicator | USLKG | Protective Conductor Terminal Block with screw connection |
| II | Rated cross section | 1,5 | 1,5 mm ² , 16 AWG |
| | | 5 | 5 mm ² , 12 AWG |
| | | 10 | 10 mm ² , 8 AWG |
| | | 16 | 16 mm ² , 6 AWG |
| | | 50 | 50 mm ² , 1/0 AWG |
| | | 95 | 95 mm ² , 3/0 AWG |
| III | New | N | Only for; USLKG 1,5 N; USLKG 10 N (-1) USLKG 16 N (-1) |
| IV | Mounting rails | (-1) | Suitable for rail NS 35 and rail NS 32 Only for; USLKG 5 (-1) USLKG 10 N (-1) USLKG 16 N (-1) |
| V | Options | (-IB) | InBus screw connection (only USLKG 50 (-IB)) |