

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 98ATEX1786 U** Issue Number: **5**

(4) Product: **Terminal Blocks
UK 10 N; UK 10-EX ALTER FUSS; UK 16 N; UK 35;
UK 35-IB; UKH 50; UKH 50-IB and UKH 95
Pick-off Terminal Blocks
AGK 10-UKH 50; AGK 10-UKH 95; and AGK 10-UKH 150/240**

(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/ExTR06.0028/03.

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

EN IEC 60079-0 : 2018

EN 60079-7 : 2015 + A1 : 2018

except in respect of those requirements listed at item 18 of the Schedule.

(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: 30 November 2020

DEKRA Certification B.V.

L.G. van Schie
Certification Manager



(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate KEMA 98ATEX1786 U**

Issue No. 5

(15) **Description**

Terminal Blocks (all colors) UK 10 N; UK 10-EX ALTER FUSS; UK 16 N; UK 35; UK 35-IB; UKH 50; UKH 50-IB and UK 95 and Pick-off Terminal Blocks AGK 10-UKH 50; AGK 10-UKH 95 and AGK 10-UKH 150/240 with 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 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, type UK 10-EX ALTER FUSS is also suitable for installation on mounting rail type NS 15 according to EN 60715-TH 15.

Operating temperature range -60 °C to +110 °C: general.
-60 °C to +105 °C: UK 10-EX ALTER FUSS

Electrical data

For electrical data and nomenclature see Annex 1 to report NL/KEM/ExTR06.0028/03.

Installation instructions

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

(16) **Report Number**

No. NL/KEM/ExTR06.0028/03.

(17) **Schedule of Limitations**

1. The 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. For combustible dust these enclosures must satisfy the requirements according to EN 60079-0 and EN 60079-31.
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 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 Terminal Blocks are used in electrical apparatus of temperature classes T6 the permissible ambient temperature range is $-60\text{ °C} < T_{amb} < +40\text{ °C}$.
6. The electrical data per Annex 1 applies.

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

Covered by the standards listed at item (9).

(19) **Test documentation**

As listed in Report No. NL/KEM/ExTR06.0028/03.

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate KEMA 98ATEX1786 U**

Issue No. 5

(20) **Certificate history**

Issue 1 - 8178600	Initial certificate
Issue 2 - 209386700	Assessment to recent edition of standards, addition new types.
Issue 3 - 213746700	Assessment to recent edition of standards, operating temperature range changed.
Issue 4 - 219710400	Assessment to recent edition of standards, plastic materials bridges changed.
Issue 5 - 224964300	Introduction of type UK 10-EX ALTER FUSS.

Electrical data

Note 1: in this document a comma “,” is used as decimal separator.

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

Terminal Blocks

Type:	UK 10 N	UK 10-EX ALTER FUSS
Rated insulation voltage [V]	630	500
Rated voltage [V]	690	550
- with bridge FB(I) [V]	690	-
- with bridge EB [V]	690	-
Rated current [A]	53,5	38,5
- with plug-in bridge type FB(I) [A]	51,5	-
- with plug-in bridge type EB [A]	50	-
Maximum load current [A]	67	47,5
Temperature rise [K]	40 (59,1 A / 10 mm ²)	40 (38.5 A / 6 mm ²)
Contact resistance [mΩ]	0,12	0.3
Rated cross section [mm ²] (AWG)	10 (8)	6 (10)
Connectable conductor cross section		
- rigid [mm ²] (AWG)	0,5 - 16 (20-6)	0,5 - 10 (20 - 8)
- flexible [mm ²] (AWG)	0,5 - 10 (20-8)	0,5 - 6 (20 - 10)
Multi-conductor connection (2 conductors with the same cross-section)		
- rigid [mm ²] (AWG)	0,5 - 4 (20-12)	-
- flexible [mm ²] (AWG)	0,5 - 4 (20-12)	-
Type:	UK 16 N	UK 35 (-IB)
Rated insulation voltage [V]	630	630
Rated voltage [V]	690	690
- with bridge FB(I) [V]	690	690
- with bridge EB [V]	-	690
- with bridge KB(I) [V]	-	-
Rated current [A]	68	118,5
- with plug-in bridge type FB(I) [A]	66	118,5
- with plug-in bridge type EB [A]	-	105,5
- with plug-in bridge type KB(I) [A]	-	116
Maximum load current [A]	91	147
Temperature rise [K]	40 (75,1 A / 16 mm ²)	40 (130,5 A / 35 mm ²)
Contact resistance [mΩ]	0,17	0,08
Rated cross section [mm ²] (AWG)	16 (6)	35 (2)
Connectable conductor cross section		
- rigid [mm ²] (AWG)	2,5 - 25 (14-4)	0,75 - 50 (18-1/0)
- flexible [mm ²] (AWG)	4 - 16 (12-6)	0,75 - 35 (18-2)
Multi-conductor connection (2 conductors with the same cross-section)		
- rigid [mm ²] (AWG)	1,5 - 6 (16-10)	0,75 - 16 (18-6)
- flexible [mm ²] (AWG)	1,5 - 4 (16-12)	0,75 - 10 (18-8)

Type:	UKH 50 (-IB)	UKH 95
Rated insulation voltage [V]	630	800
Rated voltage [V]	690	880
- with bridge FB(I) [V]	690	-
- with bridge EB [V]	-	690
- with bridge KB(I) [V]	-	-
Rated current [A]	133	216
- with plug-in bridge type FB(I) [A]	130,5	-
- with plug-in bridge type EB [A]	-	177
- with plug-in bridge type KB(I) [A]	-	-
Maximum load current [A]	133	216
Temperature rise [K]	40 (146,5 A / 50 mm ²)	40 (238,1 A / 95 mm ²)
Contact resistance [mΩ]	0,1	0,06
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)
Multi-conductor connection (2 conductors with the same cross-section)		
- rigid [mm ²] (AWG)	10 - 16 (8-6)	25 - 35 (4-2)
- flexible [mm ²] (AWG)	10 - 16 (8-6)	25 - 35 (4-2)

Pick-off Terminal Blocks

Type:	AGK 10-UKH 50	AGK 10-UKH 95
Rated insulation voltage [V]	630	800
Rated voltage [V]	690	880
Rated current [A]	57	57
Maximum load current [A]	57	57
Temperature rise [K]	40 (62,7 A; 10 mm ²)	40 (62,7 A; 10 mm ²)
Contact resistance [mΩ]	0,6	0,6
Rated cross section [mm ²] (AWG)	10 (8)	10 (8)
Connectable conductor cross section		
- rigid [mm ²] (AWG)	0,5 - 10 (20-8)	0,5 - 10 (20-8)
- flexible [mm ²] (AWG)	0,5 - 10 (20-8)	0,5 - 10 (20-8)
Multiple conductor connection (2 conductors with the same cross section)		
- rigid [mm ²] (AWG)	0,5 - 6 (20-10)	0,5 - 6 (20-10)
- flexible [mm ²] (AWG)	0,5 - 6 (20-10)	0,5 - 6 (20-10)

Type:	AGK 10-UKH 150/240
Rated insulation voltage [V]	1000
Rated voltage [V]	1100
Rated current [A]	57
Maximum load current [A]	57
Temperature rise [K]	40 (62,7 A; 10 mm ²)
Contact resistance [mΩ]	0,7
Rated cross section [mm ²] (AWG)	10 (8)
Connectable conductor cross section	
- rigid [mm ²] (AWG)	0,5 - 10 (20-8)
- flexible [mm ²] (AWG)	0,5 - 10 (20-8)
Multiple conductor connection (2 conductors with the same cross section)	
- rigid [mm ²] (AWG)	0,5 - 6 (20-10)
- flexible [mm ²] (AWG)	0,5 - 6 (20-10)

Nomenclature

UK 10 N
I II III

Designation	Explanation	Value	Explanation
I	Type indicator	UK	Feed through terminal block with screw connection
		UKH	High current terminal block with screw connection
II	Rated cross section	10	10 mm ² , 8 AWG
		16	16 mm ² , 6 AWG
		35	35 mm ² , 2 AWG
		50	50 mm ² , 1/0 AWG
		95	95 mm ² , 3/0 AWG
III	Options	N	New
		-IB	InBus screw connection (only for UK 35 and UKH 50)
		-EX ALTER FUSS	Suitable for rails DIN 15, 32 and 35 (only for UK 10)

Pick-off Terminal Blocks

AGK * - UKH - *
I II III IV

Designation	Explanation	Value	Explanation
I	Type indicator	AGK	Pick-off terminal block with screw connection
II	Rated cross section	10	10 mm ² , 8 AWG
III	Type indicator associated terminal block	UKH	High current terminal block with screw connection
IV	Rated cross section associated terminal block	50	50 mm ² , 1/0 AWG
		95	95 mm ² , 3/0 AWG
		150/240	150/240 mm ² , 300/500 AWG