



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 KEM 06.0013U	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 7	Issue 6 (2020-02-27)
Date of Issue:	2021-07-29		Issue 5 (2018-12-19)
Applicant:	PHOENIX CONTACT GmbH & Co. KG Flachmarktstrasse 8 32825 Blomberg Germany		Issue 4 (2014-01-06)
Ex Component:	Terminal Blocks; UT 2,5-QUATTRO; UT 2,5-TWIN; UT 4-QUATTRO; UT 4 TWIN; UTTB 2,5; UTTB 2,5-PV; UTTB 4 and UTTB 4-PV and Protective Conductor Terminal Blocks; UT 2,5-QUATTRO-PE; UT 2,5-TWIN-PE; UT 4-QUATTRO-PE; UT 4-TWIN-PE; UTTB 2,5-PE and UTTB 4-PE		Issue 3 (2012-11-30)
			Issue 2 (2009-06-15)
			Issue 1 (2007-06-01)
			Issue 0 (2006-05-01)

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:

L.G. van Schie

Position:

Certification Manager

Signature:
(for printed version)

Date:

1. This certificate and schedule may only be reproduced in full.
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6825 MJ Arnhem
Netherlands





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

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

PHOENIX CONTACT
Novomeshcherskiy proezd bld.9/1
119619, Moscow
Russian Federation

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

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/DEK/ExTR21.0026/00](#) [NL/KEM/ExTR06.0006/06](#)

Quality Assessment Reports:

[NL/DEK/QAR11.0009/07](#) [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:

Terminal Blocks (all colors); UT 2,5-QUATTRO, UT 2,5-TWIN, UT 4-QUATTRO, UT 4-TWIN, UTTB 2,5, UTTB 2,5-PV, UTTB 4 and UTTB 4-PV and Protective Conductor Terminal Blocks; UT 2,5 QUATTRO-PE, UT 2,5-TWIN-PE, UT 4-QUATTRO-PE, UT 4-TWIN-PE, UTTB 2,5-PE and UTTB 4-PE 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 35 according to IEC 60715 Section TH 35.

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

For electrical data and nomenclature see Annex 1 to NL/KEM/ExTR06.0006/05.

SCHEDULE OF LIMITATIONS:

1. 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.
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 influence on the temperature rise which shall be assessed in the end application.
4. 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.
5. If the Terminal Blocks are used in electrical equipment 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.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Introduction of an alternative insulation material for the Insulation body.

Annex:

[224265600_ExTR06.0006.05_Annex1.pdf](#)

Annex 1 to Report No. NL/KEM/ExTR06.0006/05

Electrical data

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

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

Type:	UT 2,5-QUATTRO	UT 2,5-TWIN
Rated insulation voltage [V]	320	320
Rated voltage [V]	352	352
- with bridge FB [V]	352	352
- with bridge via PE terminal block [V]	275	275
- with cut-to-length bridge and cover D-UT [V]	220	220
- with cut-to-length bridge and partition plate ATP-UT [V]	275	275
Rated current [A]	21	21
- with plug-in bridge type FBS... [A]	22	20
Maximum load current [A]	25	25
Temperature rise [K]	40 (24 A; 2,5 mm ²)	40 (23,4 A / 2,5 mm ²)
Contact resistance [mΩ]	0,75	0,6
Rated cross section [mm ²] (AWG)	2,5 (14)	2,5 (12)
Connectable conductor cross section		
- rigid [mm ²] (AWG)	0,14 - 4 (26-12)	0,14 - 4 (26-12)
- flexible [mm ²] (AWG)	0,14 - 2,5 (26-14)	0,14 - 2,5 (26-14)
Multiple conductor connection (2 conductors with the same cross section)		
- rigid [mm ²] (AWG)	0,14 - 1,5 (26-16)	0,14 - 1,5 (26-16)
- flexible [mm ²] (AWG)	0,14 - 1,5 (26-16)	0,14 - 1,5 (26-16)
Type:	UT 4-QUATTRO	UT 4-TWIN
Rated insulation voltage [V]	320	320
Rated voltage [V]	352	352
- with bridge FB [V]	352	352
- with bridge via PE terminal block [V]	275	275
- with cut-to-length bridge and cover D-UT [V]	220	220
- with cut-to-length bridge and partition plate ATP-UT [V]	275	275
Rated current [A]	29	29
- with plug-in bridge type FBS... [A]	27	27
Maximum load current [A]	33	35
Temperature rise [K]	40 (31,9 A; 4 mm ²)	40 (32,5 A; 4 mm ²)
Contact resistance [mΩ]	0,56	0,44
Rated cross section [mm ²] (AWG)	4 (12)	4 (12)
Connectable conductor cross section		
- rigid [mm ²] (AWG)	0,14 - 6 (26-10)	0,14 - 6 (26-10)
- flexible [mm ²] (AWG)	0,14 - 4 (26-12)	0,14 - 4 (26-12)
Multiple conductor connection (2 conductors with the same cross section)		
- rigid [mm ²] (AWG)	0,14 - 1,5 (26-16)	0,14 - 1,5 (26-16)
- flexible [mm ²] (AWG)	0,14 - 1,5 (26-16)	0,14 - 1,5 (26-16)

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Type:	UTT 2,5	UTT 2,5-PV
Rated insulation voltage [V]	320	320
Rated voltage [V]	352	352
- with bridge FB [V]	352	352
- with bridge via PE terminal block [V]	275	275
- with cut-to-length bridge and cover D-UT [V]	220	220
- with cut-to-length bridge and partition plate ATP-UT [V]	176	176
Rated current [A]	20	21
- with plug-in bridge type FBS... [A]	20	20
Maximum load current [A]	24	26,5
Temperature rise [K]	40 (22,5 A; 2,5 mm ²)	40 (23,3 A; 2,5 mm ²)
Contact resistance [mΩ]	0,6	0,66
Rated cross section [mm ²] (AWG)	2,5 (14)	2,5 (14)
Connectable conductor cross section		
- rigid [mm ²] (AWG)	0,14 - 4 (26-12)	0,14 - 4 (26-12)
- flexible [mm ²] (AWG)	0,14 - 2,5 (26-14)	0,14 - 2,5 (26-14)
Multiple conductor connection (2 conductors with the same cross section)		
- rigid [mm ²] (AWG)	0,14 - 1,5 (26-16)	0,14 - 1,5 (26-16)
- flexible [mm ²] (AWG)	0,14 - 1,5 (26-16)	0,14 - 1,5 (26-16)
Type:	UTT 4	UTT 4-PV
Rated insulation voltage [V]	400	400
Rated voltage [V]	440	440
- with bridge FB [V]	440	440
- with bridge via PE terminal block [V]	275	275
- with cut-to-length bridge and cover D-UT [V]	220	220
- with cut-to-length bridge and partition plate ATP-UT [V]	176	176
Rated current [A]	25,5	29,5
- with plug-in bridge type FBS... [A]	25,5	25,5
Maximum load current [A]	31,5	33,5
Temperature rise [K]	40 (28,5 A; 4 mm ²)	40 (32,8 A; 4 mm ²)
Contact resistance [mΩ]	0,35	0,5
Rated cross section [mm ²] (AWG)	4 (12)	4 (12)
Connectable conductor cross section		
- rigid [mm ²] (AWG)	0,14 - 6 (26-10)	0,14 - 6 (26-10)
- flexible [mm ²] (AWG)	0,14 - 4 (26-12)	0,14 - 4 (26-12)
Multiple conductor connection (2 conductors with the same cross section)		
- rigid [mm ²] (AWG)	0,14 - 1,5 (26-16)	0,14 - 1,5 (26-16)
- flexible [mm ²] (AWG)	0,14 - 1,5 (26-16)	0,14 - 1,5 (26-16)

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Protective Conductor Terminal Blocks

Type:	UT 2,5-QUATTRO-PE	UT 2,5-TWIN-PE
Rated cross section [mm ²] (AWG)	2,5 (14)	2,5 (14)
Connectable conductor cross section		
- rigid [mm ²] (AWG)	0,14 - 4 (26-12)	0,14 - 4 (26-12)
- flexible [mm ²] (AWG)	0,14 - 2,5 (26-14)	0,14 - 2,5 (26-14)
Type:	UT 4-QUATTRO-PE	UT 4-TWIN-PE
Rated cross section [mm ²] (AWG)	4 (12)	4 (12)
Connectable conductor cross section		
- rigid [mm ²] (AWG)	0,14 - 6 (26-10)	0,14 - 6 (26-10)
- flexible [mm ²] (AWG)	0,14 - 4 (26-12)	0,14 - 4 (26-12)
Type:	UTTB 2,5-PE	UTTB 4-PE
Rated cross section [mm ²] (AWG)	2,5 (14)	4 (12)
Connectable conductor cross section		
- rigid [mm ²] (AWG)	0,14 - 4 (26-12)	0,14 - 6 (26-10)
- flexible [mm ²] (AWG)	0,14 - 2,5 (26-14)	0,14 - 4 (26-12)

Nomenclature

Terminal Blocks

<u>UT</u>	<u>2,5</u>	<u>-TWIN</u>
I	II	III

Designation	Explanation	Value	Explanation
I	Type indicator	UT	Universal Feed through terminal block with multi-conductor-screw connection
		UTTB	Universal double level terminal block with screw connection
II	Rated cross section	2,5 4	2,5 mm ² , 14 AWG 4 5 mm ² , 12 AWG
III	Options	-QUATTRO -TWIN -PV	4 connection options (only for UT-series) 2 connection options (only for UT-series) 4 connection options with equipotential bonder (only for UTTB-series)

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Protective Conductor Terminal Blocks

<u>UT</u>	<u>2,5</u>	<u>-TWIN</u>	<u>-PE</u>
I	II	III	IV

Designation	Explanation	Value	Explanation
I	Type indicator	UT	Universal Terminal block with screw connection
		UTTB	Universal double level terminal block with screw connection
II	Rated cross section	2,5	2,5 mm ² , 14 AWG
		4	4 5 mm ² , 12 AWG
III	Options	-QUATTRO	4 connection options (only for UT-series)
		-TWIN	2 connection options (only for UT-series)
IV		-PE	Protective Earth, green-yellow colour, with a spring for mounting rail contact