




# IECEx Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

Certificate No.:	IECEx KEM 07.0015U	issue No.:2	Certificate history: Issue No. 2 (2012-11-30) Issue No. 1 (2009-7-10) Issue No. 0 (2007-9-3)
Status:	Current		
Date of Issue:	2012-11-30	Page 1 of 5	
Applicant:	<b>PHOENIX CONTACT GmbH &amp; Co. KG</b> Flachmarktstrasse 8 32825 Blomberg Germany		
Electrical Apparatus:	<b>Terminal Blocks and Protective Conductor Terminal Blocks Series QTC 1,5 TWIN/QUATTRO and QTTCB 1,5</b>		
Optional accessory:			
Type of Protection:	<b>Increased safety</b>		
Marking:	Ex eb IIC		
Approved for issue on behalf of the IECEx Certification Body:	R. Schuller		
Position:	Certification Manager		
Signature: (for printed version)			
Date:	2012-11-30		

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**DEKRA Certification B.V.**  
Utrechtseweg 310  
6812 AR Arnhem  
The Netherlands

All testing, inspection, auditing and certification activities of the former KEMA Quality are an integral part of the DEKRA Certification Group.







# IECEX Certificate of Conformity

Certificate No.: IECEx KEM 07.0015U

Date of Issue: 2012-11-30

Issue No.: 2

Page 3 of 5

## Schedule

### EQUIPMENT:

*Equipment and systems covered by this certificate are as follows:*

Terminal Blocks (all colors) QTC 1,5; QTC 1,5-QUATTRO; QTC 1,5-TWIN; QTTCB 1,5 (-PV) and Protective Conductor Terminal Blocks QTC 1,5-PE; QTC 1,5-QUATTRO-PE; QTC 1,5-TWIN-PE; QTTCB 1,5-PE with accessories are intended for the connection of copper conductors in enclosures in type of protection Ex e for fixing on mounting rails type NS 35 according to IEC 60715-TH 35.  
Operating temperature range -45 °C ... +90 °C.

Refer to Annex 1 for the electrical data.

### CONDITIONS OF CERTIFICATION: NO



# IECEx Certificate of Conformity

Certificate No.: IECEx KEM 07.0015U

Date of Issue: **2012-11-30**

Issue No.: **2**

Page 4 of 5

## EQUIPMENT(continued):

### Schedule of limitations:

The Terminal Blocks and the Protective Conductor Terminal Blocks are suitable for use in enclosures in atmospheres with flammable gases. For flammable gases these enclosures must satisfy the requirements according to IEC 60079-0 and IEC 60079-7.

When assembling with other certified series and sizes and using the associated accessories, the required creepage distances and clearances have to be observed.

Regarding the use of covers, jumpers and end brackets the instructions of the manufacturer must be followed. If smaller cross sections as the rated cross section are used, the associated lower current has to be laid down in the Certificate of Conformity of the complete equipment.

The Terminal Blocks may be used, based on the self-heating when used at the above mentioned rated current and at ambient temperatures of -45 °C to +40 °C at the mounting position in apparatus, e.g. connection and junction boxes, for temperature class T6. 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.



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Issue No.: **2**

Page 5 of 5

## DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):

### Issue 1:

- the use of cut-to-length plug-in bridges
- manufacturing location in India changed

### Issue 2:

- Certification according to edition 6 of IEC 60079-0
- ExQAR numbers updated.

Annexe: 215216600-Annex 1 to ExTR07.0014.02-KEM07.0015U iss2-03ATEX2557U iss4.pdf



**Annex 1 to IECEx Test Report NL/KEM/ExTR07.0014/02**  
**Annex 1 to Certificate of Conformity IECEx KEM 07.0015U, issue 2**  
**Annex 1 to EC Type Examination Certificate KEMA 03ATEX2557 U, issue 4**  
**Anhang 1 zu EG Baumusterprüfbescheinigung KEMA 03ATEX2557 U, Ausgabe 4**

**Electrical data**

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

Terminal blocks

<b>Type:</b>	<b>QTC 1,5</b>	<b>QTC 1,5-QUATTRO</b>
Rated insulation voltage [V]	500	500
Rated voltage [V]	550	550
- with skipping jumper [V]	275	275
- with cut to length bridge and cover type D [V]	220	220
- with cut to length bridge and partition plate type ATP [V]	275	275
Rated current [A]	16,5	17,5
- with jumper type FBS ...-5 [A]	19	17,5
Max. load current [A]	16,5	17,5
Temperature rise [K]	37 (16,9 A; 1,5 mm <sup>2</sup> )	37 (17,7 A; 1,5 mm <sup>2</sup> )
Contact resistance [mΩ]	1,3	1,6
Rated cross-section [mm <sup>2</sup> ] (AWG)	1,5 (16)	1,5 (16)
Connectable conductor cross-section :		
Spring cage connection		
- rigid [mm <sup>2</sup> ] (AWG)	0,08 - 4 (28-12)	0,08 - 4 (28-12)
- flexible [mm <sup>2</sup> ] (AWG)	0,08 - 2,5 (28-14)	0,08 - 2,5 (28-14)
Quick connection		
rigid and flexible [mm <sup>2</sup> ] (AWG)	0,25 - 1,5 (24-16)	0,25 - 1,5 (24-16)
<b>Type:</b>	<b>QTC 1,5-TWIN</b>	<b>QTTCB 1,5</b>
Rated insulation voltage [V]	500	500
Rated voltage [V]	550	550
- with skipping jumper [V]	275	275
- with cut to length bridge and cover type D [V]	220	220
- with cut to length bridge and partition plate type ATP [V]	275	275
Rated current [A]	17	16
- with jumper type FBS ...-5 [A]	17	15
Max. load current [A]	17	16
Temperature rise [K]	38 (17 A; 1,5 mm <sup>2</sup> )	38 (16,3 A; 1,5 mm <sup>2</sup> )
Contact resistance [mΩ]	1,4	--
- Level 1	--	1,6
- Level 2	--	1,3
Rated cross-section [mm <sup>2</sup> ] (AWG)	1,5 (16)	1,5 (16)
Connectable conductor cross-section :		
rigid and flexible [mm <sup>2</sup> ] (AWG)	0,25 - 1,5 (24-16)	0,25 - 1,5 (24-16)

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<b>Type:</b>	<b>QTTCB 1,5-PV</b>
Rated insulation voltage [V]	500
Rated voltage [V]	550
- with skipping jumper [V]	275
- with cut to length bridge and cover type D [V]	220
- with cut to length bridge and partition plate type ATP [V]	275
Rated current [A]	18
- with jumper type FBS ...-5 [A]	17
Max. load current [A]	18
Temperature rise [K]	38 (18,2 A; 1,5 mm <sup>2</sup> )
Contact resistance [mΩ]	--
- Level 1	1,6
- Level 2	1,3
Rated cross-section [mm <sup>2</sup> ] (AWG)	1,5 (16)
Connectable conductor cross-section : rigid and flexible [mm <sup>2</sup> ] (AWG)	0,25 - 1,5 (24-16)

Protective Conductor Terminal Block

<b>Type:</b>	<b>QTC 1,5-PE</b>	<b>QTC 1,5-QUATTRO-PE</b>
Rated cross-section [mm <sup>2</sup> ] (AWG):	1,5 (16)	1,5 (16)
Connectable conductor cross-section : rigid and flexible [mm <sup>2</sup> ] (AWG)	0,25 - 1,5 (24-16)	0,25 - 1,5 (24-16)

<b>Type:</b>	<b>QTC 1,5-TWIN-PE</b>	<b>QTTCB 1,5-PE</b>
Rated cross-section [mm <sup>2</sup> ] (AWG):	1,5 (16)	1,5 (16)
Connectable conductor cross-section : rigid and flexible [mm <sup>2</sup> ] (AWG)	0,25 - 1,5 (24-16)	0,25 - 1,5 (24-16)

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**Elektrische Daten**

Durchgangs-Reihenklemmen

<b>Typ:</b>	<b>QTC 1,5</b>	<b>QTC 1,5-QUATTRO</b>
Bemessungsisolationsspannung [V]	500	500
Bemessungsspannung [V]	550	550
- bei überspringender Brückung [V]	352	352
- bei abgelängter Brücke mit Trennplatte Typ D [V]	220	220
- bei abgelängter Brücke mit Trennplatte Typ ATP [V]	275	275
Nennstrom [A]	16,5	17,5
- bei Brückung Typ FBS ...-5 [A]	19	17,5
Max. Belastungsstrom [A]	16,5	17,5
Temperaturerhöhung [K]	37 (16,9 A; 1,5 mm <sup>2</sup> )	37 (17,7 A; 1,5 mm <sup>2</sup> )
Durchgangswiderstand [mΩ]	1,3	1,6
Bemessungsquerschnitt [mm <sup>2</sup> ] (AWG)	1,5 (16)	1,5 (16)
Anschließbare Leiterquerschnitte		
- starr und flexibel [mm <sup>2</sup> ] (AWG)	0,25 - 1,5 (24-16)	0,25 - 1,5 (24-16)
<b>Typ:</b>	<b>QTC 1,5-TWIN</b>	<b>QTTCB 1,5</b>
Bemessungsisolationsspannung [V]	500	400
Bemessungsspannung [V]	550	440
- bei überspringender Brückung [V]	352	352
- bei abgelängter Brücke mit Trennplatte Typ D [V]	220	220
- bei abgelängter Brücke mit Trennplatte Typ ATP [V]	275	275
Nennstrom [A]	17	16
- bei Brückung Typ FBS ...-5 [A]	17	15
Max. Belastungsstrom [A]	17	16
Temperaturerhöhung [K]	38 (17 A; 1,5 mm <sup>2</sup> )	38 (16,3 A; 1,5 mm <sup>2</sup> )
Durchgangswiderstand [mΩ]	1,4	--
-1. Etage	--	1,6
-2. Etage	--	1,3
Bemessungsquerschnitt [mm <sup>2</sup> ] (AWG)	1,5 (16)	1,5 (16)
Anschließbare Leiterquerschnitte		
- starr und flexibel [mm <sup>2</sup> ] (AWG)	0,25 - 1,5 (24-16)	0,25 - 1,5 (24-16)



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<b>Typ:</b>	<b>QTTCB 1,5-PV</b>
Bemessungsisolationsspannung [V]	400
Bemessungsspannung [V]	440
- bei überspringender Brückung [V]	352
- bei abgelängter Brücke mit Trennplatte Typ D [V]	220
- bei abgelängter Brücke mit Trennplatte Typ ATP [V]	275
Nennstrom [A]	18
- bei Brückung Typ FBS ..-5 [A]	17
Max. Belastungsstrom [A]	18
Temperaturerhöhung [K]	38 (18,2 A; 1,5 mm <sup>2</sup> )
Durchgangswiderstand [mΩ]	--
-1. Etage	1,6
-2. Etage	1,3
Bemessungsquerschnitt [mm <sup>2</sup> ] (AWG)	1,5 (16)
Anschließbare Leiterquerschnitte	
- starr und flexibel [mm <sup>2</sup> ] (AWG)	0,25 - 1,5 (24-16)

Schutzleiter-Reihenklappen:

<b>Typ:</b>	<b>QTC 1,5-PE</b>	<b>QTC 1,5-QUATTRO-PE</b>
Bemessungsquerschnitt [mm <sup>2</sup> ] (AWG)	1,5 (16)	1,5 (16)
Anschließbare Leiterquerschnitte:		
starr und flexibel [mm <sup>2</sup> ] (AWG)	0,25 - 1,5 (24-16)	0,25 - 1,5 (24-16)
<b>Typ:</b>	<b>QTC 1,5-TWIN-PE</b>	<b>QTTCB 1,5-PE</b>
Bemessungsquerschnitt [mm <sup>2</sup> ] (AWG)	1,5 (16)	1,5 (16)
Anschließbare Leiterquerschnitte:		
starr und flexibel [mm <sup>2</sup> ] (AWG)	0,25 - 1,5 (24-16)	0,25 - 1,5 (24-16)