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

Certificate No.: IECEx SEV 13.0005U issue No.:2

Status: **Current**

Date of Issue: **2016-05-23** Page 1 of 5

Certificate history:
Issue No. 2 (2016-5-23)
Issue No. 1 (2015-1-23)
Issue No. 0 (2013-9-4)

Applicant: **Phoenix Contact GmbH & Co. KG**
Flachsmarktstrasse 8
32823 Blomberg
Germany

Electrical Apparatus: **Terminal block**
Optional accessory:

Type of Protection: **Increased safety "e"**

Marking: Ex eb IIC

Approved for issue on behalf of the IECEx Certification Body: Martin Plüss

Position: Manager Product Certification

Signature:
(for printed version)

Date: 2016-05-23

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.

Certificate issued by:

Electrosuisse div. Testing and Certification
Luppmenstrasse 1
CH-8320 FEHRALTORF
Switzerland

electro suisse

IECEx Certificate of Conformity

Certificate No.: IECEx SEV 13.0005U

Date of Issue: **2016-05-23** Issue No.: **2**

Manufacturer: **Phoenix Contact GmbH & Co. KG,**
Flachsmarktstrasse 8,
32823 Blomberg
Germany

Additional Manufacturing location (s):

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 electrical apparatus 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 : 2011 Edition: 6.0	Explosive atmospheres - Part 0: General requirements
IEC 60079-7 : 2015 Edition: 5.0	Explosive atmospheres – Part 7: Equipment protection by increased safety "e"

*This Certificate **does not** indicate compliance with electrical 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 Report:
CH/SEV/ExTR13.0005/02

Quality Assessment Report:

NL/DEK/QAR11.0009/04

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Schedule

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

Types:

PT 1.5/S ...
PT 2,5-3 ...
PT 6 ...
PT 10 ...
PTTB 1,5 ...
PTTBS 2,5 ...
PT 16 ...

Ratings: See Annexe to this certificate

CONDITIONS OF CERTIFICATION: NO

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

- Constructional changes of the terminal blocks
- Update of a standard

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Date of Issue: **2016-05-23** Issue No.: **2**

Additional information:

This certificate replaces Certificate No: IECEx SEV 13.0005 U Issue 1

Schedule of Limitations" for Ex Components, if any:
The terminal blocks of the PT series are to be installed in enclosures that meet the requirements of the standards IEC/EN 60079-0 and IEC/EN 60079-7 (for gas atmospheres) and IEC/EN 60079-31 (for dust atmospheres).
When installing the terminal blocks, clearances and creepage distances according to the standard IEC 60079-7 must be observed, in particular when using qualified terminal accessories (reduced voltage ratings apply): see manufacturer's documentation and installation instructions of the PT series.
When installing the terminal blocks, the data included in the manufacturer's installation instructions of the PT series shall be considered, in particular the temperature rise (when carrying rated current with specified conductor size) and the resistance across the terminal (with rated conductor cross-section). Reduced current ratings must be observed when multiple terminals are installed, according to the rating of the enclosure explained in sub-clauses 5.8, 6.7 and Annex E.
Service temperature range: from -60 °C ... +110 °C.

Annex: IECEx SEV 13.0005 Annexe Issue 2.pdf

Annexe to: **IECEx SEV 13.0005X** **Issue No.: 2**

Applicant Name: **PHOENIX CONTACT GmbH & Co. KG**

Electrical Apparatus: **Terminal block**

General product information:

The terminal blocks and protective conductor terminal blocks of the PT series consist of an insulating housing (PA 6.6) which is equipped with current bar(s), screwless-type clamping units (Push-in technology) to be used in terminal compartments of the Ex "e" type of protection (in gas atmospheres) or Ex "t" type of protection (in dust atmospheres)

When need be. two or more poles of adjacent terminal blocks can be connected with cross connectors FBS (jumper bridges) to build groups of terminals with the same potential.

Accessories are covers. partition plates. insertion bridges and end brackets. These terminal blocks can be mounted on standard support rails according to IEC/EN 60715-TH 35 (NS 35).

See ratings below.

Electrosuisse
Swiss Certification Body

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Ratings (see IEC 60079-7:2015 clause 8.2 terminals)
1 table of 8

Type:**	PT 1,5/S	PT 1,5/S -QUATTRO	PT 1,5/S -QUATTRO-U	PT 1,5/S-TWIN	PTTB 1,5/S
Rated voltage [V]	352	352	352	352	352
- with jumper FBS... ②.	352	352	352	352	352
- with skipping jumper [V]. ②	220	220	220	220	220
- with skipping jumper type PE [V] ②	220	220	220	220	220
- with cut to length bridge [V] ②	166	166	166	166	166
- with cut to length bridge and cover type D [V] ②	275	275	275	275	275
- with cut to length bridge and cover type ATP [V] ②	550	550	550	550	550
Rated current [A]	15	15	13	15	14.5
with jumper type FBS ... [A] ①	14.5	14.5	14.5	14.5	13.5
Max. load current [A]	15	15	13	15	14.5
Temperature rise [K] ④	40	38	38	38	38
Contact resistance [mΩ] ⑤	1.3	1.5	0.9	1.4	---
- first level ⑤	---	---	---	---	1.4
- second level ⑤	---	---	---	---	1.3
- third level ⑤	---	---	---	---	---
- lower / upper level ⑤	---	---	---	---	---
Rated cross-section [mm²] (AWG)	1.5 (16)	1.5 (16)	1.5 (16)	1.5 (16)	1.5 (16)
Connectable conductor cross-section					
- rigid [mm²] (AWG)	0.14 – 1.5 (26-16)	0.14 – 1.5 (26-16)	0.14 – 1.5 (26-16)	0.14 – 1.5 (26-16)	0.14 – 1.5 (26-16)
- flexible [mm²] (AWG)	0.14 – 1.5 (26-16)	0.14 – 1.5 (26-16)	0.14 – 1.5 (26-16)	0.14 – 1.5 (26-16)	0.14 – 1.5 (26-16)
Assembly as stated	NS 35 acc. to EN 60715-TH 35	NS 35 acc. to EN 60715-TH 35	NS 35 acc. to EN 60715-TH 35	NS 35 acc. to EN 60715-TH 35	NS 35 acc. to EN 60715-TH 35
Stripping length [mm]	8	8	8	8	8
Service temperature [°C]. ③	-60 ... +110	-60 ... +110	-60 ... +110	-60 ... +110	-60 ... +110

** valid for color variants

Legend of ① to ⑤: See the list below.

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Ratings (see IEC 60079-7:2015 clause 8.2 terminals)
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Type:**	PTTB 1,5/ S-PV	PT 2,5-3L	PT 2,5-3PV	PTTBS 2,5	PTTBS 2,5-PV
Rated voltage [V]	352	440	440	440	440
- with jumper FBS... ②	352	440	440	440	440
- with skipping jumper [V] ②	220	352	352	352	352
- with skipping jumper type PE [V]. ②	220	352	352	352	352
- with cut to length bridge [V] ②	166	166	166	137.5	137.5
- with cut to length bridge and cover type D [V] ②	275	352	352	352	352
- with cut to length bridge and cover type ATP [V] ②	550	---	---	---	---
Rated current [A]	14.5	17	17	18.5	18.5
with jumper type FBS ... [A] ①	13.5	14.5	14.5	16.5	16.5
Max. load current [A]	14.5	21	21	21	21
Temperature rise [K] ④	36	40	26	38	38
Contact resistance [mΩ] ⑤	---	---	---	---	---
- first level ⑤	1.4	1.2	---	1.3	---
- second level ⑤	1.3	1.1	---	1.3	---
- third level ⑤	---	0.8	---	---	---
- lower / upper level ⑤	1.7		1.3	---	1.2
Rated cross-section [mm²] (AWG)	1.5 (16)	2.5 (14)	2.5 (14)	2.5 (14)	2.5 (14)
Connectable conductor cross-section					
- rigid [mm²] (AWG)	0.14 – 1.5 (26-16)	0.14 - 4 (26-12)	0.14 - 4 (26-12)	0.14 - 4 (26-12)	0.14 - 4 (26-12)
- flexible [mm²] (AWG)	0.14 – 1.5 (26-16)	0.14 – 2.5 (26-14)	0.14 – 2.5 (26-14)	0.14 – 2.5 (26-14)	0.14 – 2.5 (26-14)
Assembly as stated	NS 35 acc. to EN 60715-TH 35	NS 35 acc. to EN 60715-TH 35	NS 35 acc. to EN 60715-TH 35	NS 35 acc. to EN 60715-TH 35	NS 35 acc. to EN 60715-TH 35
Stripping length [mm]	8	10	10	10	10
Service temperature [°C] ③	-60 ... +110	-60 ... +110	-60 ... +110	-60 ... +110	-60 ... +110

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Ratings (see IEC 60079-7:2015 clause 8.2 terminals)
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Type:	PT 1,5/S-PE	PT 1,5/S-QUATTRO-PE	PT 1,5/S-TWIN-PE
Rated cross-section [mm²] (AWG)	1.5 (16)	1.5 (16)	1.5 (16)
Connectable conductor cross-section			
- rigid [mm²] (AWG)	0.14 - 1.5 (26-14)	0.14 - 1.5 (26-14)	0.14 - 1.5 (26-14)
- flexible [mm²] (AWG)	0.14 - 1.5 (26-14)	0.14 - 1.5 (26-14)	0.14 - 1.5 (26-14)
Assembly as stated	NS 35 acc. to EN 60715-TH 35	NS 35 acc. to EN 60715-TH 35	NS 35 acc. to EN 60715-TH 35
Stripping length [mm]	8	8	8
Service temperature [°C] ③	-60 ... +110	-60 ... +110	-60 ... +110

** valid for color variants

Legend of ① to ⑤: See the list below.

Ratings (see IEC 60079-7:2015 clause 8.2 terminals)
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Type:	PTTB 1,5/S-PE	PT 2,5-3PE	PTTBS 2,5-PE
Rated cross-section [mm²] (AWG)	1.5 (16)	2.5(14)	2.5(14)
Connectable conductor cross-section			
- rigid [mm²] (AWG)	0.14 - 1.5 (26-14)	0.14 - 4 (26-12)	0.14 - 4 (26-12)
- flexible [mm²] (AWG)	0.14 - 1.5 (26-14)	0.14 - 2.5 (26-14)	0.14 - 2.5 (26-14)
Assembly as stated	NS 35 acc. to EN 60715-TH 35	NS 35 acc. to EN 60715-TH 35	NS 35 acc. to EN 60715-TH 35
Stripping length [mm]	8	10	10
Service temperature [°C] ③	-60 ... +110	-60 ... +110	-60 ... +110

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Ratings (see IEC 60079-7:2015 clause 8.2 terminals)
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*Type:***	*PT 6*	*PT 6-QUATTRO*	*PT 6-TWIN*	*PT 10*
Rated voltage [V]	*550*	*550*	*550*	*550*
- with jumper FBS... ②	*550*	*550*	*550*	*550*
- with skipping jumper [V] ②	*275*	*275*	*275*	*---*
- with skipping jumper type PE [V] ②	*275*	*275*	*275*	*---*
- with cut to length bridge [V] ②	*220*	*220*	*220*	*---*
- with cut to length bridge and cover type D [V] ②	*275*	*275*	*275*	*---*
- with cut to length bridge and cover type ATP [V] ②	*550*	*---*	*550*	*---*
Rated current [A]	*36.5*	*36*	*35.5*	*52.5*
with jumper type FBS ... [A] ①	*35*	*35*	*35*	*48*
Max. load current [A]	*46*	*45*	*44.5*	*61.5*
Temperature rise [K] ④	*39*	*38*	*39*	*39*
Contact resistance [mΩ] ⑤	*0.48*	*0.65*	*0.65*	*0.43*
Rated cross-section [mm²] (AWG)	*6 (10)*	*6 (10)*	*6 (10)*	*10 (8)*
Connectable conductor cross-section				
- rigid [mm²] (AWG)	*0.5 - 10 (20-8)*	*0.5 - 10 (20-8)*	*0.5 - 10 (20-8)*	*0.5 - 16 (20-6)*
- flexible [mm²] (AWG)	*0.5 - 6 (20-10)*	*0.5 - 6 (20-10)*	*0.5 - 6 (20-10)*	*0.5 - 10 (20-8)*
Assembly as stated	*NS 35 acc. to EN 60715-TH 35*	*NS 35 acc. to EN 60715-TH 35*	*NS 35 acc. to EN 60715-TH 35*	*NS 35 acc. to EN 60715-TH 35*
Stripping length [mm]	*12*	*12*	*12*	*18*
Service temperature [°C] ③	*-60 ... +110*	*-60 ... +110*	*-60 ... +110*	*-60 ... +110*

** valid for color variants

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Ratings (see IEC 60079-7:2015 clause 8.2 terminals)
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*Type:***	*PT 10-TWIN*	*PT 16 N*	*PT 16-TWIN N*
Rated voltage [V]	*550*	*550*	*550*
- with jumper FBS…	*550*	*550*	*550*
- with skipping jumper [V] ②	*---*	*---*	*---*
- with skipping jumper type PE [V] ②	*---*	*---*	*---*
- with cut to length bridge [V] ②	*---*	*---*	*---*
- with cut to length bridge and cover type D [V] ②	*---*	*---*	*---*
- with cut to length bridge and cover type ATP [V] ②	*---*	*---*	*---*
Rated current [A]	*48.5*	*65.5*	*65.5*
with jumper type FBS … [A] ①	*48*	*60.5*	*60.5*
Max. load current [A]	*61*	*78*	*78*
Temperature rise [K] ④	*39*	*39*	*39*
Contact resistance [mΩ] ⑤	*0.52*	*0.31*	*0.31*
Rated cross-section [mm²] (AWG)	*10 (8)*	*16 (6)*	*16 (6)*
Connectable conductor cross-section			
- rigid [mm²] (AWG)	*0.5 - 16 (20-6)*	*0.5 - 25 (20-4)*	*0.5 - 25 (20-4)*
- flexible [mm²] (AWG)	*0.5 - 10 (20-8)*	*0.5 - 16 (20-6)*	*0.5 - 16 (20-6)*
Assembly as stated	*NS 35 acc. to EN 60715-TH 35*	*NS 35 acc. to EN 60715-TH 35*	*NS 35 acc. to EN 60715-TH 35*
Stripping length [mm]	*18*	*18*	*18*
Service temperature [°C] ③	*-60 … +110*	*-60 … +110*	*-60 … +110*

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Ratings (see IEC 60079-7:2015 clause 8.2 terminals)
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Type:	*PT 6-PE*	*PT 6-QUATTRO-PE*	*PT 6-TWIN-PE*	*PT 10-PE*
Rated cross-section [mm²] (AWG)	*6 (10)*	*6 (10)*	*6 (10)*	*10 (8)*
Connectable conductor cross-section				
- rigid [mm²] (AWG)	*0.5 - 10 (20-8)*	*0.5 - 10 (20-8)*	*0.5 - 10 (20-8)*	*0.5 - 16 (20-6)*
- flexible [mm²] (AWG)	*0.5 - 6 (20-10)*	*0.5 - 6 (20-10)*	*0.5 - 6 (20-10)*	*0.5 - 10 (20-8)*
Assembly as stated	*NS 35 acc. to EN 60715-TH 35*	*NS 35 acc. to EN 60715-TH 35*	*NS 35 acc. to EN 60715-TH 35*	*NS 35 acc. to EN 60715-TH 35*
Stripping length [mm]	*12*	*12*	*12*	*18*
Service temperature [°C] ③	*-60 ... +110*	*-60 ... +110*	*-60 ... +110*	*-60 ... +110*

Legend of ① to ⑤: See the list below.

Ratings (see IEC 60079-7:2015 clause 8.2 terminals)
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Type:	**PT 10-TWIN-PE**	**PT 16 N-PE**	**PT 16-TWIN N-PE**
Rated cross-section [mm²] (AWG)	10 (8)	16 (6)	16 (6)
Connectable conductor cross-section			
- rigid [mm²] (AWG)	0.5 - 16 (20-6)	0.5 - 25 (20-4)	0.5 - 25 (20-4)
- flexible [mm²] (AWG)	0.5 - 16 (20-8)	0.5 - 16 (20-6)	0.5 - 16 (20-6)
Assembly as stated	NS 35 acc. to EN 60715-TH 35	NS 35 acc. to EN 60715-TH 35	NS 35 acc. to EN 60715-TH 35
Stripping length [mm]	18	18	18
Service temperature [°C] ③	-60 ... +110	-60 ... +110	-60 ... +110

Legend of ① to ⑤: See the list below.

Ratings legend
① to ⑤ IEC 60079-7:2015 clause 8.2:

① Current rating for terminal jumper accessories.
② Terminal jumper accessories have effect to creepage and clearance.
③ The limiting temperature of insulation.
④ Temperature rise when carrying 110% rated current.
⑤ Contact resistance across the terminal with rated conductor cross-section.

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