

# 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 00ATEX2052 U** Issue Number: **8**

(4) Product: **Terminal Blocks  
ST 2,5; ST 2,5-TWIN; ST 2,5-QUATTRO and STTB 2,5(-PV)  
Protective conductor terminal blocks  
ST 2,5-PE; ST 2,5-TWIN-PE; ST 2,5-QUATTRO-PE and  
STTB 2,5-PE**

(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/ExTR06.0053/07.

(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**

(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: 28 August 2023

DEKRA Certification B.V.

R. Schuller  
Certification Manager

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(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate KEMA 00ATEX2052 U**

Issue No. **8**

(15) **Description**

Terminal Blocks (all colors) ST 2,5; ST 2,5-TWIN; ST 2,5-QUATTRO and STTB 2,5(-PV) as well as Protective Conductor Terminal Blocks ST 2,5-PE; ST 2,5 TWIN-PE; ST 2,5-QUATTRO-PE and STTB 2,5-PE 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 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.

**Electrical data**

For electrical data and nomenclature see Annex 1 to Report No. NL/KEM/ExTR06.0053/07.

**Installation instructions**

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

(16) **Report Number**

NL/KEM/ExTR06.0053/07.

(17) **Schedule of Limitations**

1. The Terminal Blocks and 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 IEC 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 IEC 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 and 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 Terminal Blocks and Protective Conductor Terminal Blocks are used in electrical apparatus of temperature classes T6 the permissible ambient temperature range is  $-60\text{ °C} < T_{amb} < +40\text{ °C}$ .
6. The electrical data per Annex 1 to Report No. NL/KEM/ExTR06.0053/07 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/ExTR06.0053/07.

(13) **SCHEDULE**

(14) **to EU-Type Examination Certificate KEMA 00ATEX2052 U**

Issue No. **8**

(20) **Certificate history**

Issue 1 - 200354700	Initial certificate.
Issue 2 - 210073500	Assessment to recent edition of standards, operating temperature range changed.
Issue 3 - 211801500	Assessment to recent edition of standards, plastic materials bridges changed.
Issue 4 - 215216600	Assessment to recent edition of standards, operating temperature range changed.
Issue 5 - 219710400	Assessment to recent editions of the standards, small mechanical change.
Issue 6 - 224265600	Addition alternative plastic material bridges.
Issue 7 - 225498500	Introduction of an alternative insulation material for the Insulation body.
Issue 8 - 226295800	Addition of the rated voltage for bridging between non-adjacent terminal blocks, minor corrections.

**Electrical data**

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

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

Terminal blocks

<b>Type:</b>	<b>ST 2,5</b>	<b>ST 2,5-TWIN</b>
Rated insulation voltage [V]	500	500
Rated voltage [V]	550	550
Rated voltage with plug-in bridge type FBS		
- at bridging between adjacent terminal blocks [V]	550	550
- at bridging between non-adjacent terminal blocks [V]	352	352
- with plug-in bridge via PE terminal block [V]	352	352
- with cut-to-length bridge and cover D [V]	220	220
- with cut-to-length bridge and partition plate ATP [V]	275	275
Rated current [A]	20,5	21
- with plug-in bridge type FBS... [A]	23	22,5
Maximum load current [A]	26,5	24,5
Temperature rise [K]	40 (22,8 A / 2,5 mm <sup>2</sup> )	40 (23,4 A / 2,5 mm <sup>2</sup> )
Contact resistance [mΩ]	1,04	1,08
Rated cross section [mm <sup>2</sup> ] (AWG)	2,5 (14)	2,5 (14)
Connectable conductor cross section		
- rigid [mm <sup>2</sup> ] (AWG)	0,08 - 4,0 (28-12)	0,08 - 4,0 (28-12)
- flexible [mm <sup>2</sup> ] (AWG)	0,08 - 2,5 (28-14)	0,08 - 2,5 (28-14)
 <b>Type:</b>	 <b>ST 2,5-QUATTRO</b>	
Rated insulation voltage [V]	500	
Rated voltage [V]	550	
Rated voltage with plug-in bridge type FBS		
- at bridging between adjacent terminal blocks [V]	550	
- at bridging between non-adjacent terminal blocks [V]	352	
- with plug-in bridge via PE terminal block [V]	352	
- with cut-to-length bridge and cover D [V]	220	
- with cut-to-length bridge and partition plate ATP [V]	275	
Rated current [A]	22	
- with plug-in bridge type FBS... [A]	21,5	
Maximum load current [A]	26	
Temperature rise [K]	40 (24,2 A / 2,5 mm <sup>2</sup> )	
Contact resistance [mΩ]	1,17	
Rated cross section [mm <sup>2</sup> ] (AWG)	2,5 (14)	
Connectable conductor cross section		
- rigid [mm <sup>2</sup> ] (AWG)	0,08 - 4,0 (28-12)	
- flexible [mm <sup>2</sup> ] (AWG)	0,08 - 2,5 (28-14)	

<b>Type:</b>	<b>STTB 2,5</b>	<b>STTB 2,5-PV</b>
Rated insulation voltage [V]	400	400
Rated voltage [V]	440	440
Rated voltage with plug-in bridge type FBS		
- at bridging between adjacent terminal blocks [V]	440	440
- at bridging between non-adjacent terminal blocks [V]	352	352
- with plug-in bridge via PE terminal block [V]	352	352
- with cut-to-length bridge and cover D [V]	220	220
- with cut-to-length bridge and partition plate ATP [V]	220	220
Rated current [A]	19,5	19,5
- with plug-in bridge type FBS... [A]	17	17
Maximum load current [A]	23,5	23,5
Temperature rise [K]	40 (21,9 A / 2,5 mm <sup>2</sup> )	40 (21,9 A / 2,5 mm <sup>2</sup> )
Contact resistance [mΩ]	--	--
- Level 1	1,04	1,04
- Level 2	0,83	0,83
- Level 1./2. (PV-connection)	-	1,04
Rated cross section [mm <sup>2</sup> ] (AWG)	2,5 (14)	2,5 (14)
Connectable conductor cross section		
- rigid [mm <sup>2</sup> ] (AWG)	0,08 - 4,0 (28-12)	0,08 - 4,0 (28-12)
- flexible [mm <sup>2</sup> ] (AWG)	0,08 - 2,5 (28-14)	0,08 - 2,5 (28-14)

Protective conductor terminal blocks

<b>Type:</b>	<b>ST 2,5-PE</b>	<b>ST 2,5-TWIN-PE</b>
Rated cross section [mm <sup>2</sup> ] (AWG)	2,5 (14)	2,5 (14)
Connectable conductor cross section		
- rigid [mm <sup>2</sup> ] (AWG)	0,08 - 4,0 (28-12)	0,08 - 4,0 (28-12)
- flexible [mm <sup>2</sup> ] (AWG)	0,08 - 2,5 (28-14)	0,08 - 2,5 (28-14)

<b>Type:</b>	<b>ST 2,5-QUATTRO-PE</b>	<b>STTB 2,5-PE</b>
Rated cross section [mm <sup>2</sup> ] (AWG)	2,5 (14)	2,5 (14)
Connectable conductor cross section		
- rigid [mm <sup>2</sup> ] (AWG)	0,08 - 4,0 (28-12)	0,08 - 4,0 (28-12)
- flexible [mm <sup>2</sup> ] (AWG)	0,08 - 2,5 (28-14)	0,08 - 2,5 (28-14)

