Translation, original language: German

(1) # EC-TYPE EXAMINATION CERTIFICATE

(2) **Equipment and protective systems intended for use in potentially explosive atmospheres - Directive 94/9/EC**

(3) EC-Type Examination Certificate Number: **KEMA 06ATEX0177 U** Issue Number: **2**

(4) Component: **Terminal Blocks Types PDU 2.5/4, PDU 2.5/4/3AN, PDU 2.5/4/4AN, PDU 6/10, PDU 6/10/3AN, PDU 16, PEI 16, Double Level Terminal Blocks PDK 2.5/4, PDK 2.5/4 N-L, PDK 2.5/4 L-PE, PDK 2.5/4 N-PE, PDK 2.5/4 V and Protective Conductor Terminal Blocks Types PPE 2.5/4, PPE 2.5/4/3AN, PPE 2.5/4/4AN, PPE 6/10, PPE 6/10/3AN, PPE 16 and PDK 2.5/4 PE.**

(5) Manufacturer: **Weidmüller Interface GmbH & Co. KG**

(6) Address: **Klingenbergstraße 16, D-32758 Detmold, Germany**

(7) This component and any acceptable variation thereto is specified in the schedule to this certificate and the documents therein referred to.

(8) KEMA Quality B.V., notified body number 0344 in accordance with Article 9 of the Council Directive 94/9/EC of 23 March 1994, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to the design and construction of equipment and protective systems intended for use in potentially explosive atmospheres given in Annex II to the directive.

The examination and test results are recorded in confidential report no. 211318500.

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

EN 60079-0 : 2006 **EN 60079-7 : 2007**

(10) The sign "U" placed after the certificate number indicates that this certificate describes components and must not be mistaken for a certificate intended for an equipment or protective system. This EC-Type Examination Certificate may be used as a basis for certification of an equipment or protective system.

(11) This EC-Type Examination Certificate relates only to the design, examination and tests of the specified component according to the Directive 94/9/EC. Further requirements of the directive apply to the manufacturing process and supply of this component. These are not covered by this certificate.

(12) The marking of the component shall include the following:

II 2 G D **Ex e II**

This certificate is issued on July 4, 2008 and, as far as applicable, shall be revised before the date of cessation of presumption of conformity of (one of) the standards mentioned above as communicated in the Official Journal of the European Union.

KEMA Quality B.V.

T. Pijpker
Certification Manager

PRODUCTS RvA C 001

KEMA Quality B.V. Utrechtseweg 310, 6812 AR Arnhem P.O. Box 5185, 6802 ED Arnhem, The Netherlands
T +31 26 3 56 20 00 F +31 26 3 52 58 00 customer@kema.com www.kema.com Registered Arnhem 09085396

(13) # SCHEDULE

(14) **to EC-Type Examination Certificate KEMA 06ATEX0177 U** Issue No. 2

(15) **Description**

The Terminal Blocks PDU 2.5/4, PDU 2.5/4/3AN, PDU 2.5/4/4AN, PDU 6/10, PDU 6/10/3AN, PDU 16, PEI 16 and Double Level Terminal Blocks PDK 2.5/4, PDK 2.5/4 N-L, PDK 2.5/4 L-PE, PDK 2.5/4 N-PE and PDK 2.5/4 V as well as the Protective Conductor Terminal Blocks Types PPE 2.5/4, PPE 2.5/4/3AN, PPE 2.5/4/4AN, PPE 6/10, PPE 6/10/3AN, PPE 16 and PDK 2.5/4 PE with accessories, are intended for the connection of copper conductors in enclosures in type of protection increased safety "e" or "D" (dust). Fixing is made on mounting rails type TS 35 according to EN 60715, Top hat section rail TS 35.

Operating temperature range: -50 °C ... +100 °C.

Electrical data

Terminal blocks

Type:	**PDU 2.5/4**	**PDU 2.5/4/3AN**
Rated insulation voltage [V]	500	500
Rated voltage [V]	550	550
- with jumper [V]	275	275
- with skipping jumper over PE Type [V]	176	176
- with 2 parallel skipping jumpers [V]	176	176
Nominal current [A] Temperature rise 40 K	29	29
- with jumper Temperature rise 40 K	25,5	25,5
Nominal current [A] Temperature rise 45 K	30,5	31
- with jumper Temperature rise 45 K	28,5	26,0
Contact resistance [mΩ]	0,6	0,7
Rated cross section [mm²] (AWG)	4 (12)	4 (12)
Connectable conductor cross section		
- rigid [mm²] (AWG)	0,5-6 (20-10)	0,5-6 (20-10)
- flexible [mm²] (AWG)	0,5-4 (20-12)	0,5-4 (20-12)

Type:	**PDU 2.5/4/4AN**	**PDU 6/10**
Rated insulation voltage [V]	500	500
Rated voltage [V]	550	550
- with jumper [V]	275	275
- with skipping jumper over PE Type [V]	176	-
- with 2 parallel skipping jumpers [V]	176	220
Nominal current [A] Temperature rise 40 K	29	34,5
- with jumper Temperature rise 40 K	26,5	26,5
Nominal current [A] Temperature rise 45 K	31,5	37,5
- with jumper Temperature rise 45 K	28,5	29
Contact resistance [mΩ]	0,7	0,5
Rated cross section [mm²] (AWG)	4 (12)	6 (10)
Connectable conductor cross section		
- rigid [mm²] (AWG)	0,5-6 (20-10)	1,5-6 (16-10)
- flexible [mm²] (AWG)	0,5-4 (20-12)	1,5-10 (16-8)

(13) # SCHEDULE

(14) **to EC-Type Examination Certificate KEMA 06ATEX0177 U** Issue No. 2

Type:	**PDU 6/10/3AN**	**PDU 16**
Rated insulation voltage [V]	500	500
Rated voltage [V]	550	550
- with jumper [V]	275	275
- with skipping jumper over PE Type [V]	-	-
- with 2 parallel skipping jumpers [V]	275	110
Nominal current [A] Temperature rise 40 K	36,5	59
- with jumper Temperature rise 40 K	29,5	57,5
Nominal current [A] Temperature rise 45 K	38,5	62
- with jumper Temperature rise 45 K	30,5	61
Contact resistance [mΩ]	0,5	0,3
Rated cross section [mm²] (AWG)	6 (10)	16 (6)
Connectable conductor cross section		
- rigid [mm²] (AWG)	1,5-6 (16-10)	2,5-10 (14-8)
- flexible [mm²] (AWG)	1,5-10 (16-8)	2,5-16 (14-6)

Type:	**PEI 16**
Rated insulation voltage [V]	500
Rated voltage [V]	550
- with jumper [V]	275
- with skipping jumper over PE Type [V]	-
- with 2 parallel jumpers [V]	-
Nominal current [A] Temperature rise 40 K	66,5
- with PDU 2.5/4 and jumper ZQV 2.5 40 K	25
- with PDU 6/10 and jumper ZQV 6N 40K	38
Nominal current [A] Temperature rise 45 K	70,5
- with PDU 2.5/4, jumper ZQV 2.5 45 K	26,5
- with PDU 6/10, jumper ZQV 6N 45K	40
Contact resistance [mΩ]	0,4
Rated cross section [mm²] (AWG)	16 (6)
Connectable conductor cross section	
- rigid [mm²] (AWG)	2,5-10 (14-8)
- flexible [mm²] (AWG)	2,5-16 (14-6)

Double Level Terminal blocks

Type:	**PDK 2.5/4**	**PDK 2.5/4 N-L**
Rated insulation voltage [V]	500	500
Rated voltage [V]	550	550
- with jumper [V]	275	275
- with skipping jumper [V]	176	176
Nominal current [A] Temperature rise 40 K	28	28
- with jumper Temperature rise 40 K	26	26
Nominal current [A] Temperature rise 45 K	30	30
- with jumper Temperature rise 45 K	27,5	27,5
Contact resistance [mΩ]	0,7	0,7
Rated cross section [mm²] (AWG)	4 (12)	4 (12)
Connectable conductor cross section		
- rigid [mm²] (AWG)	0,5 – 6 (20-10)	0,5 – 6 (20-10)
- flexible [mm²] (AWG)	0,5 – 4 (20-12)	0,5 – 4 (20-12)

(13) **SCHEDULE**

(14) **to EC-Type Examination Certificate KEMA 06ATEX0177 U** Issue No. 2

Type:	**PDK 2.5/4 L-PE**	**PDK 2.5/4 N-PE**
Rated insulation voltage [V]	500	500
Rated voltage [V]	550	550
- with jumper [V]	275	275
- with skipping jumper [V]	176	176
Nominal current [A] Temperature rise 40 K	28	28
- with jumper Temperature rise 40 K	26	26
Nominal current [A] Temperature rise 45 K	30	30
- with jumper Temperature rise 45 K	27,5	27,5
Contact resistance [mΩ]	0,7	0,7
Rated cross section [mm²] (AWG)	4 (12)	4 (12)
Connectable conductor cross section		
- rigid [mm²] (AWG)	0,5 – 6 (20-10)	0,5 – 6 (20-10)
- flexible [mm²] (AWG)	0,5 – 4 (20-12)	0,5 – 4 (20-12)

Type:	**PDK 2.5/4 V**
Rated insulation voltage [V]	500
Rated voltage [V]	550
- with jumper [V]	275
- with skipping jumper [V]	176
Nominal current [A] Temperature rise 40 K	29
- with jumper Temperature rise 40 K	27
Nominal current [A] Temperature rise 45 K	30,5
- with jumper Temperature rise 45 K	28,5
Contact resistance [mΩ]	0,7
Rated cross section [mm²] (AWG)	4 (12)
Connectable conductor cross section	
- rigid [mm²] (AWG)	0,5 – 6 (20-10)
- flexible [mm²] (AWG)	0,5 – 4 (20-12)

Protective conductor terminal blocks

Type:	**PPE 2.5/4**	**PPE 2.5/4/3AN**
Rated cross section [mm²] (AWG)	4 (12)	4 (12)
Connectable conductor cross section		
- rigid [mm²] (AWG)	0,5-6 (20-10)	0,5-6 (20-10)
- flexible [mm²] (AWG)	0,5-4 (20-12)	0,5-4 (20-12)

Type:	**PPE 2.5/4/4AN**	**PPE 6/10**
Rated cross section [mm²] (AWG)	4 (12)	6 (10)
Connectable conductor cross section		
- rigid [mm²] (AWG)	0,5-6 (20-10)	1,5-6 (16-10)
- flexible [mm²] (AWG)	0,5-4 (20-12)	1,5-10 (16-8)

Type:	**PPE 6/10/3AN**	**PPE 16**
Rated cross section [mm²] (AWG)	6 (10)	16 (6)
Connectable conductor cross section		
- rigid [mm²] (AWG)	1,5-6 (16-10)	2,5-10 (14-8)
- flexible [mm²] (AWG)	1,5-10 (16-8)	2,5-16 (14-6)

(13) # SCHEDULE

(14) **to EC-Type Examination Certificate KEMA 06ATEX0177 U** Issue No. 2

Type:	**PDK 2.5/4 PE**
Rated cross section [mm²] (AWG)	4 (12)
Connectable conductor cross section	
- rigid [mm²] (AWG)	0,5 – 6 (20-10)
- flexible [mm²] (AWG)	0,5 – 4 (20-12)

Installation instructions

The Terminal blocks, Double level terminal blocks and Protective conductor terminal blocks are suitable for use in enclosures in atmospheres with flammable gases or combustible dust. For flammable gases these enclosures must satisfy the requirements according to EN 60079-0 and EN 60079-7. For combustible dust these enclosures must satisfy the requirements according to EN 50281-1-1 or EN 61241-series.

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

Regarding the use of covers, cross-connectors and end brackets the instructions of the manufacturer must be followed.

If conductors with smaller cross sections as the rated cross section are used, the belonging lower current has to be laid down in the EC-Type Examination Certificate of the complete equipment.

The Terminal blocks, Double level terminal blocks and Protective conductor terminal blocks may be used at ambient temperatures of -50 °C to +40 °C at the mounting position in electrical apparatus, e.g. junction and connection boxes, for temperature class T6. When 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.

Routine tests

Routine dielectric strength tests according to EN 60079-7, Clause 7.1 in combination with Clause 6.1, have to be carried out.

(16) **Report**

KEMA No. 211318500

(17) **Special conditions for safe use**

None.

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

Covered by the standards listed at (9).

(19) **Test documentation**

As listed in Test Report No. 211318500.