

EU-TYPE EXAMINATION CERTIFICATE



[1]

[2]

**Component intended for use on/in Equipment or Protective System
Intended for use in Potentially Explosive Atmospheres
Directive 2014/34/EU**

[3]

EU-Type Examination Certificate Number: **DEMKO 14 ATEX 1338U Rev. 4**

[4]

Component: **Feed through and protective conductor terminal blocks, types WDU and WPE**

[5]

Manufacturer: **Weidmüller Interface GmbH & Co. KG**

[6]

Address: **Klingenbergstrasse 16, 32758 Detmold, Germany**

[7]

This product and any acceptable variation thereto are specified in the schedule to this certificate and the documents therein referred to.

[8]

UL International Demko A/S, notified body number 0539 in accordance with Article 17 of the Council Directive 2014/34/EU of the European Parliament and the Council, dated 26 February 2014, certifies that this component has been found to comply with the Essential Health and Safety Requirements relating to design and construction of components 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. **4788268188.1.1**

[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 component. 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 GD Ex eb IIC Gb**

Certification Manager

Jan-Erik Storgaard

This is to certify that the sample(s) of the Component described herein ("Certified Component") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the ATEX Product Certification Program Requirements. This certificate and test results obtained apply only to the component sample(s) submitted by the Manufacturer. UL did not select the sample(s) or determine whether the sample(s) provided were representative of other manufactured component. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all products to all applicable Standards, specifications, requirements or Directives. The test results may not be used, in whole or in part, in any other document without UL's prior written approval.

Date of issue: 2014-10-06

Re-issued: 2018-12-17

Notified Body

UL International Demko A/S, Ballerup 5A, 2750 Ballerup, Denmark
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Schedule

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EU-TYPE EXAMINATION CERTIFICATE No. DEMKO 14 ATEX 1338U Rev. 4

[15] Description of Component:
Feed through terminal blocks type WDU and protective conductor terminal blocks type WPE are for the connection of copper conductors in enclosures. The type of protection is increased safety, "e", insulating parts made of Wellamid, with optional accessories, type WQV screw in cross-connectors, type ZQV plug-in cross-connectors, type LS2.8 shield bus, type WEW end brackets, type WTW partitions and type WAP end plates for fixing on mounting rails.

Types & electrical data:

TYPE	Rated voltage (V)	Rated Current (A)	Resistance across terminals (uΩ)	Strip length for min wire size (mm)	Solid wire size (mm ²)	Stranded wire size (mm ²)	Flexible wire size (mm ²)	2 wires in one terminal (mm ²)
WDU 1.5/R3.5	275	15	430	7	0,14-1,5	0,14-1,5	0,14-1,5	0,5-0,75
WDU 1.5/ZZ	550	17,5	740	7	0,14-2,5	0,14-2,5	0,13-1,5	0,5 -1,0
WDU 2.5N	440	24	430	10	0,14-4,0	0,14-4,0	0,5-2,5	0,5-1,5
WDU 2.5/1.5/ZR	550	20	720	10	See NTI	See NTI	See NTI	See NTI
WDU2.5	690	24	369	10	0,14-4,0	0,14-4,0	0,14-4,0	0,5-1,5
WDU 2.5/TC B	55	8	3300	10	0,14-2,5	0,14-2,5	0,14-2,5	0,5-1,5
WDU 2.5/TC E	55	8	8650	10	0,14-2,5	0,14-2,5	0,14-2,5	0,5-1,5
WDU 2.5/TC J	55	8	5808	10	0,14-2,5	0,14-2,5	0,14-2,5	0,5-1,5
WDU 2.5/TC K	55	8	6705	10	0,14-2,5	0,14-2,5	0,14-2,5	0,5-1,5
WDU 2.5/TC N	55	8	9104	10	0,14-2,5	0,14-2,5	0,14-2,5	0,5-1,5
WDU 2.5/TC SR	55	8	2055	10	0,14-2,5	0,14-2,5	0,14-2,5	0,5-1,5
WDU 2.5/TC T	55	8	4611	10	0,14-2,5	0,14-2,5	0,14-2,5	0,5-1,5
WDU 4	690	32	298	10	0,14-6,0	0,14-6,0	0,14-6,0	0,5-2,5
WDU 4 N	352	31	270	11	0,13-6,0	0,13-6,0	0,13-4,0	0,5-1,5
WDU 4/ZR	690	31	440	10	0,14-6,0	0,14-6,0	0,14-4,0	0,5-1,5
WDU 4/ZZ	690	29,5	560	10	0,14-6,0	0,14-6,0	0,14-4,0	0,5-1,5
WDU 4 SL	440	32,0	300	13	0,14-6,0	0,14-6,0	0,14-4,0	0,5-1,5
WDU 4 SL/EN	690	32,0	300	13	0,14-6,0	0,14-6,0	0,14-4,0	0,5-1,5
WDU 6	690	41	176	12	0,14-10,0	0,14-10,0	0,14-10,0	0,5-2,5
WDU 6 SL	275	40	360	16	0,14-10,0	0,14-10,0	0,14-6,0	0,5-2,5
WDU 6 SL/EN TS 32	440	40	360	16	0,14-10,0	0,14-10,0	0,14-6,0	0,5-2,5
WDU 6 SL/EN TS 35	690	40	360	16	0,14-10,0	0,14-10,0	0,14-6,0	0,5-2,5
WDU 10	690	57	152	12	1,31-16,0	1,31-16,0	1,31-16,0	0,5-6,0

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TYPE	Rated voltage (V)	Rated Current (A)	Resistance across terminals (uΩ)	Strip length for min wire size (mm)	Solid wire size (mm ²)	Stranded wire size (mm ²)	Flexible wire size (mm ²)	2 wires in one terminal (mm ²)
WDU 10 SL /EN TS 32	550	55	280	17	1,5-16,0	1,5-16,0	0,5-10,0	1,5-4,0
WDU 10 SL /EN TS 35	690	55	280	17	1,5-16,0	1,5-16,0	0,5-10,0	1,5-4,0
WDU 10 SL	352	55	280	17	1,5-16,0	1,5-16,0	0,5-10,0	1,5-4,0
WDU 16	690	76	161	16	1,5-16,0	1,5-25,0	1,5-25,0	1,5-4,0
WDU 35	690	115	145	18	2,5-16,0	2,5-50,0	2,5-35,0	2,5-16,0
WDU 35N	352	110	122	18	2,5-16,0	2,5-50,0	2,5-35,0	2,5-6,0
WDU 50N	690	126	151	24	5,26-16,0	5,26-70,0	5,26-50,0	6,0-16,0
WDU 70N/35	690	184	142	22	10-16	10-95	10-70	10-25
WDU 70/95	1100	218	53	30	16	16-120	16-95	16-35
WDU 95N/120N	880	221	129	27	16	16-150	16-120	10-35
WDU 120/150	1100	265	44	35	16	35-150	35-150	35-70
WPE 1.5/R3.5	N/A	N/A	1150	7	0,14-1,5	0,14-1,5	0,14-1,5	0,5-0,75
WPE 1.5/ZZ	N/A	N/A		7	0,14-2,5	0,14-2,5	0,13-1,5	0,5 -1,0
WPE 2.5/1.5/ZR	N/A	N/A	660	10	See NTI	See NTI	See NTI	See NTI
WPE 2.5	N/A	N/A	833	10	0,14-4,0	0,14-4,0	0,14-4,0	0,5-1,5
WPE 2.5N	N/A	N/A	380	10	0,14-4,0	0,14-4,0	0,5-4,0	0,5-1,5
WPE 4	N/A	N/A	643	10	0,14-6,0	0,14-6,0	0,14-6,0	0,5-2,5
WPE 4/ZZ	N/A	N/A	584	10	0,14-6,0	0,14-6,0	0,14-4,0	0,5-1,5
WPE 4/ZR	N/A	N/A	570	10	0,14-6,0	0,14-6,0	0,14-4,0	0,5-1,5
WPE 4N	N/A	N/A	740	11	0,13-6,0	0,13-6,0	0,13-4,0	0,13-1,5
WPE 6	N/A	N/A	256	12	0,14-10,0	0,14-10,0	0,14-10,0	0,5-2,5
WPE 10	N/A	N/A	221	12	1,31-16,0	1,31-16,0	1,31-16,0	0,5-6,0
WPE 16	N/A	N/A	178	16	1,5-16,0	1,5-25,0	1,5-25,0	1,5-4,0
WPE 35	N/A	N/A	173	18	2,5-16,0	2,5-50,0	2,5-35,0	2,5-16,0

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TYPE	Rated voltage (V)	Rated Current (A)	Resistance across terminals ($\mu\Omega$)	Strip length for min wire size (mm)	Solid wire size (mm^2)	Stranded wire size (mm^2)	Flexible wire size (mm^2)	2 wires in one terminal (mm^2)
WPE 35N	N/A	N/A	147	18	2,5-16,0	2,5-50,0	2,5-35,0	2,5-6,0
WPE 50N	N/A	N/A	189	24	5,26-16,0	5,26-70,0	5,26-50,0	6,0-16
WPE 70/95	N/A	N/A	76	30	16	16-120	16-120	16-35
WPE 70N/35	N/A	N/A	156	22	10-16	10-95	10-70	10-25
WPE 95N/120N	N/A	N/A	126	27	16	16-150	16-120	10-35
WPE 120/150	N/A	N/A	67	35	35	35-150	35-150	35-70
WAP 2.5-10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WAP 16+35WTW 2.5-10	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WEW 35/1	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WEW 35/2	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WTW EN	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LS 2.8	See NTI	N/A	N/A	N/A	N/A	N/A	N/A	N/A
ZQV 1.5N/R3.5	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A
ZQV 2.5N	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A
ZQV 4N	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A
WQV 2.5	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A
WQV 4	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A
WQV 6	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A
WQV 10	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A
WQV 16	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A
WQV 35	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A
WQV 35N	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A
WQV 50N	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A

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TYPE	Rated voltage (V)	Rated Current (A)	Resistance across terminals (uΩ)	Strip length for min wire size (mm)	Solid wire size (mm ²)	Stranded wire size (mm ²)	Flexible wire size (mm ²)	2 wires in one terminal (mm ²)
WQV 70/95	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A
WQV 70N	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A
WQV 95/120	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A
WQV 120	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A

NOTE: NTI = Notice to installer

Temperature range

The ambient temperature range is -60°C to +70 °C depending of T-Code. Refer to [17] Schedule of limitations. The service temperature range is -60 °C to +110 °C.

Routine tests

According to EN 60079-7 clause 7.1 in combination with clause 6.1 a dielectric strength test has to be carried out. The routine tests may be performed on a statistical basis according to ISO 2859-1 with an acceptance quality limit (AQL) of 0,04. Routine test is to be carried out according to Weidmuller procedure "High voltage test" Document -NR: A_10_54.

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Descriptive Documents

The scheduled documents are listed in the report no. provided under item no. [8] on page 1 of this EU-Type Examination Certificate.

[17]

Schedule of limitations:

- o The feed through and protective conductor terminal blocks are suitable for use in enclosures in atmospheres with flammable gases and 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 60079-31.
- o The terminal blocks shall be placed inside a suitable ATEX certified IP54 enclosure for gas atmosphere. For dust atmosphere the terminal blocks shall be mounted inside a suitable ATEX certified 't' enclosure (EN60079-31).
- o The enclosure shall be constructed to block all sun and UV light from affecting the terminal blocks.
- o Under normal operating conditions the temperature rise of the terminal blocks is max 40 K, measured with the max permitted rated current. Due to the above mentioned the terminal blocks may be used in apparatus of temperature classes T6...T1 as long as the terminal block ambient temperature range is not exceeded as shown below. No part of terminal block must exceed 110 °C under any condition.
 - T6 (- 60°C ≤ Tamb ≤ +40 °C)
 - T5 (- 60°C ≤ Tamb ≤ +55 °C)
 - T4 (- 60°C ≤ Tamb ≤ +70 °C)
- o When using the types WDU and WPE with other terminal blocks series or sizes or accessories, the requirements for clearance and creepage distances according to table 1 of EN 60079-7 must be observed. Regarding the use of covers, cross-connectors and end brackets the instructions of the manufacturer must be followed.
- o For terminal jumper accessories current ratings and the resistances across the terminals please refer to the table under "types & electrical rating" above. Details on creepage and clearance values and the required torque values are in the respective "Notice to installers".
- o The terminal can be used with either one or two wires into either side of the terminal. When two wires are used they must be of the same type, and of equal sizes. No other wire sizes or types than the ones specified in instructions must be used. The terminal blocks must either be mounted next to another block of the same type and size or with an end plate.
- o If smaller conductor cross sections than the rated conductor cross sections are used, then the corresponding lower current shall be stated in the Certificate of the complete apparatus
- o Unused terminals shall be tightened.

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Schedule

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Essential Health and Safety Requirements

The Essential Health and Safety Requirements (EHSRs) covered by the standards listed at item 9.

Additional information

The trademark **Weldmüller**  will be used as the company identifier on the marking label.

The manufacturer shall inform the notified body concerning all modifications to the technical documentation as described in Annex III to Directive 2014/34/EU of the European Parliament and the Council of 26 February 2014.