



IECEx Certificate of Conformity

INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification System for Explosive Atmospheres

for rules and details of the IECEx Scheme visit www.iecex.com

Ex COMPONENT CERTIFICATE

Certificate No.:	IECEx ULD 15.0003U	Page 1 of 4	<u>Certificate history:</u>
Status:	Current	Issue No: 3	Issue 2 (2020-04-20)
Date of Issue:	2020-12-14		Issue 1 (2019-01-30)
			Issue 0 (2016-05-26)
Applicant:	Weidmüller Interface GmbH & Co. KG Klingenbergstrasse 26 Detmold 32758 Germany		
Ex Component:	Feed through and protective conductor terminals with accessories, WDK and accessories ZQV, WQV, WAP, WEW, WTW, LS 2.8		
<i>This component is NOT intended to be used alone and requires additional consideration when incorporated into other equipment or systems for use in explosive atmospheres (refer to IEC 60079-0).</i>			
Type of Protection:	Increased Safety "eb"		
Marking:	Ex eb IIC Gb		

Approved for issue on behalf of the IECEx
Certification Body:

Katy A. Holdredge

Position:

Senior Staff Engineer

Signature:
(for printed version)

Date:

2020-12-14

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 www.iecex.com or use of this QR Code.



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UL International DEMKO A/S
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Denmark





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Manufacturer: **Weidmüller Interface GmbH & Co. KG**
Klingenbergstrasse 26
Detmold 32758
Germany

Additional manufacturing locations: **Weidmüller Interface GmbH & Co. KG**
Klingenbergstrasse 16
32758 Detmold
Germany

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 equipment 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 60079-0:2017 Explosive atmospheres - Part 0: Equipment - General requirements
Edition:7.0

IEC 60079-7:2017 Explosive atmospheres - Part 7: Equipment protection by increased safety "e"
Edition:5.1

This Certificate **does not** indicate compliance with 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 Reports:

[DK/ULD/ExTR15.0004/00](#)
[DK/ULD/ExTR15.0004/03](#)

[DK/ULD/ExTR15.0004/01](#)

[DK/ULD/ExTR15.0004/02](#)

Quality Assessment Report:

[NL/DEK/QAR12.0052/07](#)



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Ex Component(s) covered by this certificate is described below:

Feed through terminal blocks type WDK are for the connection of copper conductors in enclosures. The type of protection is increased safety, "e", insulating parts made of Polyamide PA 66, 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-WDK end plates for fixing on mounting rails.

Please see Annex for additional information.

SCHEDULE OF LIMITATIONS:

- The feed through 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 IEC 60079-0 and IEC 60079-7. For combustible dust these enclosures must satisfy the requirements according to IEC 60079-0 and IEC 60079-31. The enclosure shall be constructed to block all sun and UV light from affecting the terminal blocks. The terminal blocks shall be placed inside a suitable certified IP54 enclosure in type of protection "e" for gas atmosphere. For dust atmosphere the terminal blocks shall be mounted inside a suitable certified enclosure (IEC 60079-31) in type of protection "t".
- Under normal operating conditions the temperature rise of the terminal blocks is maximum 40 K, measured with 110% of the maximum 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. No part of terminal block must exceed 110 °C under any condition.
 - T6 (- 60 °C....+40 °C).
 - T5 (- 60 °C....+55 °C).
 - T4 (- 60 °C....+70 °C).
- When using the types WDK and WPE with other terminal blocks series or sizes or accessories the requirements for clearance and creepage distances according to table 2 of IEC 60079-7 must be observed. Regarding the use of covers, cross-connectors and end brackets the instructions of the manufacturer must be followed.
- For cross connection accessories current rating, resistance across the terminal please refer to the table under "types & electrical rating" above. Details on creepages and clearance values and the required torque values please see Notice to installers.
- 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.
- 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.
- Unused terminals shall be tightened.



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DETAILS OF CERTIFICATE CHANGES (for issues 1 and above)

Issue 1: Standards updated to latest editions, adjusted voltage ratings and added alternative insulating material.

Issue 2: Alternate insulation materials added and technical documents updated.

Issue 3: Added WDK 2.5V ZQV and Alternate insulation materials.

Annex:

[Annex to IECEx ULD 15.0003U Issue 3.pdf](#)



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PARAMETERS RELATING TO THE SAFETY

TYPE	Rated voltage (V)	Rated current (A)	Resistance across terminals (uΩ) top/lower	Cross section (mm ²)	Strip length for min wire size (mm)	Solid wire size (mm ²)	Stranded wire size (mm ²)	Flexible wire size (mm ²)	Conductor range for 2 wires (mm ²)
WDK 1.5/R3.5	275	15	496/883	1.5	7	0,13-1,5	0,13-1,5	0,13-1,5	0,5-0,75
WDK 2.5	275	21	301/522	2.5	10	0,13-4,0	0,13-4,0	0,13-4,0	0,13-1,5
WDK 2.5 ZQV	275	21	299/566	2.5	10	0,13-4,0	0,13-4,0	0,13-4,0	0,13-1,5
WDK 2.5/EX	550	22	311/494	2.5	10	0,13-4,0	0,13-4,0	0,13-4,0	0,13-1,5
WDK 2.5DU-PE	275	23	372/ 1137	2.5	10	0,13-4,0	0,13-4,0	0,13-4,0	0,13-1,5
WDK 2.5N	550	21	262/427	2.5	8	0,13-4,0	0,13-4,0	0,13-4,0	0,13-1,5
WDK 2.5N DU-PE	550	24	297/939	2.5	8	0,13-4,0	0,13-4,0	0,13-4,0	0,13-1,5
WDK 2.5N V	550	24	269/420	2.5	8	0,13-4,0	0,13-4,0	0,13-4,0	0,13-1,5
WDK 2.5N/PE	PE	PE	1129	2.5	8	0,13-4,0	0,13-4,0	0,13-4,0	0,13-1,5
WDK 2.5PE	PE	PE	1056	2.5	10	0,13-4,0	0,13-4,0	0,13-4,0	0,13-1,5
WDK 2.5V	275	24	292/475	2.5	10	0,13-4,0	0,13-4,0	0,13-4,0	0,13-1,5
WDK 2.5V ZQV	275	21	600	2.5	10	0,13-4,0	0,13-4,0	0,13-4,0	0,13-1,5
WDK 4N	550	30	232/365	4	8	0,13-6,0	0,13-6,0	0,13-4,0	0,13-1,5
WDK 4N DU-PE	550	30	222/735	4	8	0,13-6,0	0,13-6,0	0,13-4,0	0,13-1,5
WDK 4N PE	PE	PE	690	4	8	0,13-6,0	0,13-6,0	0,13-4,0	0,13-1,5
WDK 4N V	550	30	224/339	4	8	0,13-6,0	0,13-6,0	0,13-4,0	0,13-1,5
ZQV 1.5/R3.5	See NTI	See NTI	N/A	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	N/A
Q2 AKZ4	See NTI	See NTI	N/A	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	N/A
ZQV 4N	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WAP 2.5-10	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WAP	See NTI	See NTI	N/A	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) top/lower	Cross section (mm ²)	Strip length for min wire size (mm)	Solid wire size (mm ²)	Stranded wire size (mm ²)	Flexible wire size (mm ²)	Conductor range for 2 wires (mm ²)
WEW 35/1	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WEW 35/2	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A	N/A
WTW EN	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A	N/A
LS2.8	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A	N/A	N/A

NTI – Notice to Installers

MARKING

Marking has to be readable and indelible; it has to include the following indications:

This is an example of WDK 2.5N. The Weidmueller Trademark and type identification are on the product directly under the Ex Marking.



ROUTINE EXAMINATIONS AND TESTS

Each piece of equipment defined above has to have successfully passed; before delivery:

According to IEC 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 Weidmüller procedure "High voltage test" Document -NR: A_10_54.