

[1]

## UNITED KINGDOM CONFORMITY ASSESSMENT UK-TYPE EXAMINATION CERTIFICATE

[2] Component Intended for use on/in a Product or Protective System Intended for use in Potentially Explosive Atmospheres

UKSI 2016:1107 (as amended by UKSI 2019:696) - Schedule 3A, Part 1

[3] Type Examination Certificate No.: UL21UKEX2116U Rev. 0

[4] Component: Feed through and protective conductor terminal blocks. Types WDK

and accessories ZQV, WQV, WAP, WEW, WTW, LS 2.8

[5] Manufacturer: Weidmüller Interface GmbH & Co. KG

[6] Address: Klingenbergstrasse 26, 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.

UL International (UK) Ltd, Approved Body number 0843, in accordance with Regulation 44 of the Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016, UKSI 2016:1107 (as amended by UKSI 2019:696), 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 Schedule 1 of the Regulations. The examination and test results are recorded in the confidential report 4789880974.12.

[9] Compliance with the Essential Health and Safety Requirements has been assured by compliance with:

#### EN IEC 60079-0:2018 EN IEC 60079-7:2015+A1:2018

Except in respect of those requirements listed at section 18 of the schedule to this certificate.

- [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 the basis for certification of an equipment or protective system.
- [11] This UK-TYPE EXAMINATION CERTIFICATE relates only to the design and construction of the specified component. Further requirements of the Regulations apply to the manufacturing process and supply of this component. These are not covered by this certificate.
- The marking of the component shall include the following:

⟨Ex⟩ II 2 GD Ex eb IIC Gb

**Certification Manager** 

David Lloyd

This is to certify that the sample(s) of the Product described herein ("Certified Product") has been investigated and found in compliance with the Standard(s) indicated on this Certificate, in accordance with the Ex UK Product Certification Program Requirements. This certificate and test results obtained apply only to the product 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 product. UL has not established Follow-Up Service or other surveillance of the product. The Manufacturer is solely and fully responsible for conformity of all product to all applicable Standards, specifications, requirements or Regulations. 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: 2021-10-08

Approved Body UL International (UK) Ltd Unit 1-3 Horizon Kingsland Business Park Wade

Road, Basingstoke RG24 8AH, UK Phone: +44 (0)1256 312100



#### [13] [14]

# Schedule UK-TYPE EXAMINATION CERTIFICATE No. UL21UKEX2116U Rev. 0

#### [15] <u>Description of Component</u>

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.

TYPE	Rated voltage (V)	Rated Current (A)	Resistance across terminals (uΩ) Top/lower	Cross section (mm²)	Strip length for min wire size (mm)	Solid wire size (mm²)	Stranded wire size (mm²)	Flexible wire size (mm²)	Conductor range for 2 wires (mm²)
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
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

NOTE: NTI = Notice to installer

#### Temperature range

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 Weidmüller procedure "High voltage test" Document -NR: A\_10\_54.

### [16] Test report No. (associated with this certificate issue) DK/ULD/ExTR15.0004/03

#### [17] 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 EN 60079-0 and EN 60079-7. For combustible dust these enclosures must satisfy the requirements according to EN 60079-0 and EN 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 (EN 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)



[13] [14]

#### **Schedule UK-TYPE EXAMINATION CERTIFICATE No.** UL21UKEX2116U Rev. 0

- 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 EN 60079-7 must be observed. Regarding the use of covers, crossconnectors 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.
- Conditions of certification: [18] None.
- Essential Health and Safety Requirements (Regulations Schedule 1) [19]

In addition to the Essential Health and Safety Requirements covered by the standards listed at item 9, all other requirements are demonstrated in the relevant reports.

Additional information The trademark **Weldmüller 3** will be used as the company identifier on the marking label.

