



# IECEX Certificate of Conformity

## INTERNATIONAL ELECTROTECHNICAL COMMISSION IEC Certification Scheme for Explosive Atmospheres

for rules and details of the IECEx Scheme visit [www.iecex.com](http://www.iecex.com)

### Ex COMPONENT CERTIFICATE

Certificate No.: IECEx ULD 16.0036U Issue No: 2 Certificate history:  
Status: **Current** Page 1 of 5 Issue No. 2 (2019-01-27)  
Date of Issue: **2019-01-27** Issue No. 1 (2018-05-21)  
Applicant: **Weidmüller Interface GmbH & Co. KG** Issue No. 0 (2017-03-27)  
Klingenbergstrasse 16  
32758 Detmold  
**Germany**  
Ex Component: **Feed through and protective conductor terminals, ZDK, ZDU, ZDUA, ZDUB, ZPEA, ZPEB and ZPE with accessories  
ZQV and ZQB.**

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).

Type of Protection: **Increased safety "eb"**

Marking:  
Ex eb IIC Gb

Approved for issue on behalf of the IECEx  
Certification Body:

Lucy Frieders

Position:

Staff Engineer

Signature:  
(for printed version)

Date:

2019-01-27

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 the [Official IECEx Website](http://www.iecex.com).

Certificate issued by:

**UL International Demko A/S**  
Borupvang 5A,  
DK-2750 Ballerup  
Denmark





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Manufacturer: **Weidmüller Interface GmbH & Co. KG**  
Klingenbergstrasse 16  
32758 Detmold  
**Germany**

Additional Manufacturing location(s):

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 Component 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 Ex Component 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 : 2011** Explosive atmospheres - Part 0: General requirements  
Edition:6.0

**IEC 60079-7 : 2015** Explosive atmospheres – Part 7: Equipment protection by increased safety "e"  
Edition:5.0

*This Certificate **does not** indicate compliance with electrical safety and performance requirements other than those expressly included in the Standards listed above.*

## TEST & ASSESSMENT REPORTS:

*A sample(s) of the Ex Component listed has successfully met the examination and test requirements as recorded in*

Test Report:

[DK/ULD/ExTR16.0037/02](#)

Quality Assessment Report:

[NL/DEK/QAR12.0052/06](#)



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## Schedule

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

The feed through and protective terminal blocks Type ZDK, ZDU, ZDUA, ZDUB, ZPEA, ZPEB and ZPE are for the connection of copper conductors in enclosures. The type of protection is increased safety, "eb", insulating parts made of Wellamid or Durethan, with optional accessories, Type ZQV and ZQB plug in cross-connectors.

**Please see Annex and Schedule of Limitations for additional information.**

### SCHEDULE OF LIMITATIONS:

- The feed through and protective earth terminal blocks are suitable for use in enclosures in atmospheres with flammable gases and combustible dust. For use in 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 60079-31.
- The terminal blocks shall be placed inside a suitable IECEx certified IP54 enclosure for gas atmosphere. For dust atmosphere the terminal blocks shall be mounted inside a suitable IECEx certified 't' enclosure (IEC 60079-31).
- The enclosure shall be constructed to block all sun and UV light from affecting the terminal blocks.
- 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 ... +40 °C) T5 (- 60°C ... +55 °C) T4 (- 60°C ... +70 °C)
- When using the types ZDK, ZDU, ZDUA, ZDUB or ZPE with other terminal blocks series or sizes or accessories, the requirements for clearance and creepages distances according to 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 and voltage rating, resistance across the terminal please refer to "Notice to installers".
- 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.
- Manually cut cross connections and cross connections with blank ends (ZQV's  $\geq 20$  poles) shall not be used.



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**DETAILS OF CERTIFICATE CHANGES (for issues 1 and above):**

Issue 1: Alternate construction.

Issue 2: Added Models ZDUB 2.5-2/2AN/RC and ZDUB 2.5-2/4AN/RC.



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**Additional information:**

**Annex:**

[Annex to IECEX ULD 16.0036U Issue 2.pdf](#)



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## PARAMETERS RELATING TO THE SAFETY

### Type & electrical data

TYPE	Rated (V)	Rated (A)	Rated Resistance ( $\mu\Omega$ )	Strip length [mm]	Solid wire size ( $\text{mm}^2$ )	Stranded wire size ( $\text{mm}^2$ )	Flexible wire size ( $\text{mm}^2$ )
ZDK 2.5-2V	550	21	See NTI	10	0.5-4	0.5-2.5	0.5-2.5
ZDK 2.5-2/4AN	550	19	See NTI	10	0.5-4	0.5-2.5	0.5-2.5
ZDK 2.5-2	550	21	See NTI	10	0.5-4	0.5-2.5	0.5-2.5
ZDK 2.5-2 PE	N/A	N/A	N/A	10	0.5-4	0.5-2.5	0.5-2.5
ZDU 6-2/3AN	500	38	See NTI	12	0.5-10	0.5-10	0.5-10
ZDU 6-2/2AN	550	38	See NTI	12	0.5-10	0.5-10	0.5-10
ZDU 4-2/4AN	440	29	See NTI	10	0.5-6	0.5-4	0.5-4
ZDU 4-2/2AN	440	29	See NTI	10	0.5-6	0.5-4	0.5-4
ZDU 4-2/3AN	440	29	See NTI	10	0.5-6	0.5-4	0.5-4
ZDU 2.5-2	550	21	See NTI	10	0.5-4	0.5-2.5	0.5-2.5
ZDU 2.5-2/3AN	550	21	See NTI	10	0.5-4	0.5-2.5	0.5-2.5
ZDU 2.5-2/4AN	550	21	See NTI	10	0.5-4	0.5-2.5	0.5-2.5
ZDUB 2.5-2/4AN/15	550	21	See NTI	10	0.5-4	0.5-2.5	0.5-2.5
ZDUB 2.5-2/4AN/DB	550	21	See NTI	10	0.5-2.5	0.5-2.5	0.5-2.5
ZDUB 2.5-2/4AN/DM	550	21	See NTI	10	0.5-4	0.5-2.5	0.5-2.5
ZDUB 2.5-2/4AN/RC	550	21	See NTI	10	0.5-4	0.5-2.5	0.5-2.5
ZDUB 2.5-2/2AN/15	550	21	See NTI	10	0.5-2.5	0.5-2.5	0.5-2.5
ZDUB 2.5-2/2AN/DM	550	21	See NTI	10	0.5-4	0.5-2.5	0.5-2.5
ZDUB 2.5-2/2AN/DB	550	21	See NTI	10	0.5-4	0.5-2.5	0.5-2.5



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ZDUB 2.5-2/2AN/RC	550	21	See NTI	10	0.5-4	0.5-2.5	0.5-2.5
ZDUA 2.5-2	352	20	See NTI	10	0.5-4	0.5-2.5	0.5-2.5
ZPEA 2.5-2	N/A	N/A	N/A	10	0.5-4	0.5-2.5	0.5-2.5
ZPEB 2.5-2	N/A	N/A	N/A	10	0.5-2.5	0.5-2.5	0.5-2.5
ZPE 2.5-2/2AN	N/A	N/A	N/A	10	0.5-4	0.5-2.5	0.5-2.5
ZPE 2.5-2/3AN	N/A	N/A	N/A	10	0.5-4	0.5-2.5	0.5-2.5
ZPE 2.5-2/4AN	N/A	N/A	N/A	10	0.5-4	0.5-2.5	0.5-2.5
ZPE 4-2/2AN	N/A	N/A	N/A	10	0.5-6	0.5-4	0.5-4
ZPE 4-2/3AN	N/A	N/A	N/A	10	0.5-6	0.5-4	0.5-4
ZPE 4-2/4AN	N/A	N/A	N/A	10	0.5-6	0.5-4	0.5-4
ZPE 6-2/2AN	N/A	N/A	N/A	12	0.5-10	0.5-10	0.5-10
ZPE 6-2/3AN	N/A	N/A	N/A	12	0.5-10	0.5-10	0.5-10
<b>Pluggable cross connections (accessories)</b>							
ZQV 2.5/2	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5/3	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5/4	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5/5	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5/6	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5/7	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5/8	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5/9	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5/10	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 4/2 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 4/3 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 4/4 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 4/5 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A



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ZQV 4/6 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 4/7 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 4/8 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 4/9 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 4/10 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQB 2.5-2	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5N/2 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5N/3 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5N/4 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5N/5 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5N/6 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5N/7 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5N/8 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5N/9 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A
ZQV 2.5N/10 GE	See NTI	See NTI	N/A	N/A	N/A	N/A	N/A

Note: NTI= Notice to Installer



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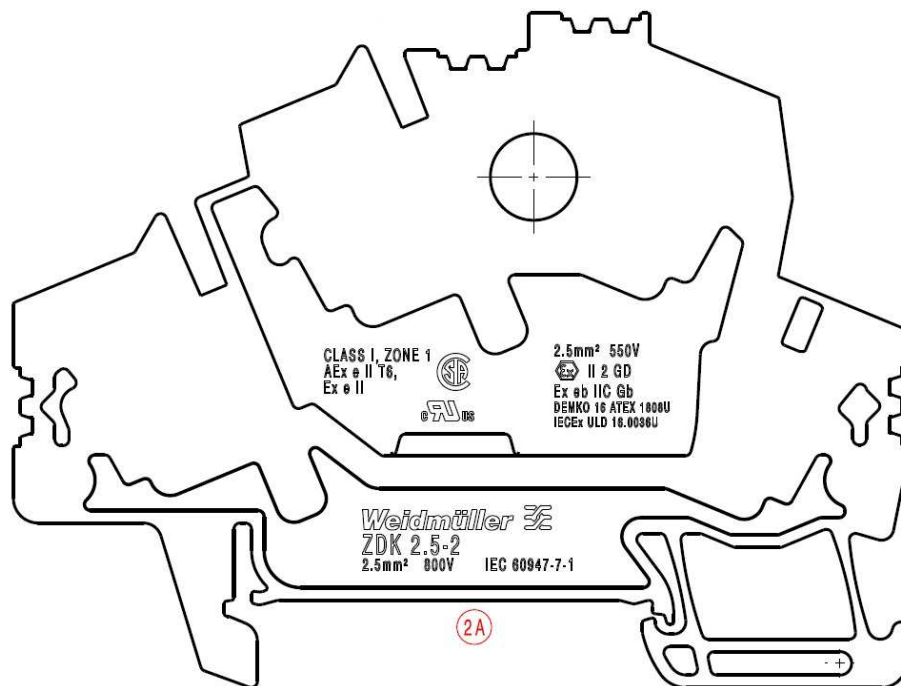
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## MARKING

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

**Example of marking Plate (ZDK 2.5-2, representing all models):**



## ROUTINE EXAMINATIONS AND TESTS

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.