

# 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 16 ATEX 1808U Rev. 1**

[4]

Component: **Feed through and protective conductor terminal blocks, types ZDK, ZDU, ZDUA, ZDUB, ZPEA, ZPEB and ZPE series with accessories ZQV and ZQB**

[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. **4788268188.5.1**

[9]

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

**EN 60079-0:2012+A11:2013**

**EN 60079-7:2015**

[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:** 2017-03-27

**Re-issued:** 2018-05-21



**Notified Body**

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## Schedule EU-TYPE EXAMINATION CERTIFICATE No. DEMKO 16 ATEX 1808U Rev. 1

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**Description of Component:**

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.

**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.

**Types & electrical data:**

TYPE	Rated (V)	Rated (A)	Rated Resistance (uΩ)	Strip length [mm]	Solid wire size (mm <sup>2</sup> )	Stranded wire size (mm <sup>2</sup> )	Flexible wire size (mm <sup>2</sup> )
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 2.5-2/2AN/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
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
ZDK 2.5-2V	550	21	See NTI	10	0.5-4	0.5-2.5	0.5-2.5

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**Schedule**  
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TYPE	Rated (V)	Rated (A)	Rated Resistance (uΩ)	Strip length [mm]	Solid wire size (mm <sup>2</sup> )	Stranded wire size (mm <sup>2</sup> )	Flexible wire size (mm <sup>2</sup> )
<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
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

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.

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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.



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## Schedule

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[17]

### Schedule of limitations:

- o The feed through and protective earth 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 (EN 60079-31).
- 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 ... +40 °C)
  - T5 (- 60°C ... +55 °C)
  - T4 (- 60°C ... +70 °C)
- o 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 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 cross connection accessories current and voltage rating, resistance across the terminal please refer to "Notice to installers".
- o 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 Manually cut cross connections and cross connections with blank ends (ZQV's ≥ 20 poles) shall not be used

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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  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.