

INSTALLATION INSTRUCTIONS & CONDITIONS FOR SAFE USE

Ex eb IIC Gb

Modular TERMINAL Blocks: Z- Series

IECEX ULD 16.0036U DEMKO 16 ATEX 1808U UL21UKEX2119U

Standards:

EN IEC 60079-0:2018 and EN IEC 60079-7:2015 A1:2018 IEC 60079-0: 7th Edition and IEC 60079-7: 5.1th Edition

Modular Terminal Blocks: ZDUB/ZPEB

Version: ZDUB 2.5-2/4AN/DM* 1704540000
ZDUB 2.5-2/4AN/DB* 1704690000

 Accessories:
 Type
 Order No

 end plate
 ZTW ZDUB*
 1704340000

 seperation plate
 ZBB ZDUB*
 1704740000

Cross-connection Plugable* Order No ZQB 2.5-2* 1677120000

Insulation material:

- Type Wemid - Tracking resistance (A) to IEC 60112 CTI \geq 600 - Flammability class to UL 94 V0

Operating temperature range
 Ambient temperature range
 G°C...+10°C (for T6 applications)
 Ambient temperature range
 G°C...+70°C (for T4 applications)

^{*} in all colours



Technical data according to IEC/EN 60079-7 (increased safety "eb"):

ZDUB 2.5-2/4AN ZDUB 2.5-2/4AN/DB

- Rated voltage 550 V

 $21 \text{ A} / \Delta T \leq 40 \text{ K}$ - Rated current - Rated current with ZQV $20 \text{ A} / \Lambda \text{T} \leq 40 \text{ K}$

- Contact resistance

with rated conductor, 2.5 mm² $1.4 \text{ m}\Omega$ - Rated conductor cross section 2,5 mm² - Conductor cross section solid 0,5 - 2,5 mm² - Conductor cross section stranded 0,5 - 2,5 mm² - Conductor cross section flexible 0,5 - 2,5 mm² - cross section, American Wire Gauge 26 - 12 AWG - conductor cross section flexible with 0,5 - 1,5 mm²

ferrule acc. to DIN 46228 part 1

- conductor cross section flexible with 0,5 - 2,5 mm²

ferrule acc. to DIN 46228 part 4

- Stripping length 10 mm

IECEx / ATEX / UKCA Terminal and Cross-Connection Arrangements:

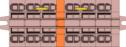
Max voltage data according to IEC/EN 60079-7 (increased safety "eb"):

Application Case

A - Continuous



C - Adjacent - separated by a end plate



Information for further cross-connector arrangements will be provided on request.

If smaller cross sections than the rated cross section are used, the belonging lower current has to be laid down in the IECEx/EC-Type Examination Certificate of the complete apparatus.

Mounting instructions:

The ZDUB/ZPEB series is suitable for application in enclosures in atmospheres with flammable gases or combustible dust. For use in flammable gases these enclosures must satisfy the requirements according to IEC/EN60079-0 and IEC/EN60079-7. For use in combustible dust these enclosures must satisfy the requirements according to IEC/EN60079-0 and IEC/EN60079-31.

In combination with other terminal block series and sizes and if other accessories are used, the applicable creepage and clearance distances shall be met.

Regarding the use of accessories the instructions of the manufacturer must be followed.



Schedule of Limitations:

The feed through and protective earth 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/EN60079-0 and IEC/EN60079-7. For combustible dust these enclosures must satisfy the requirements according to IEC/EN60079-31.

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/EN60079-31) in type of protection "t".

Under normal operating conditions the temperature rise of the terminal blocks is maximum 40 K, measured at the maximum 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. No part of terminal block must exceed 110 °C under any condition.

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T6 (- 60°C ... +40 °C)
T5 (- 60°C ... +55 °C)
T4 (- 60°C ... +70 °C)
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When using the types ZDUB and ZPEB with other terminal blocks series or sizes or accessories, the equirements for clearance and creepages distances according to IEC/EN60079-7 must be observed. Regarding the use of covers, cross-connectors and end brackets the instructions of the manufacturer must be followed.

Warning: Always ensure the the conductor is placed between the tension clamp and ZQB 2.5. The conductor cross-sections is reduced to 1,5 mm².

For cross connection accessories the current ratings and the resistances across the terminals please refer to the table under "Technical data" above.

When using ferrules for flexible conductors, it must be ensured that the test requirements of DIN 46228-1 and DIN 46228-4 are complied with. Therefore we recommend the use of the appropriate Weidmüller crimping tools. The length of the copper ferrule must correspond to the specified stripping length.

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.

Essential Health and Safety Requirements:

Concerning ESRs this Schedule verifies compliance with the Annex II of ATEX / Schedule 1 of UKCA directive and Equipment and Protective Systems Intended for Use in Potentially Explosive Atmospheres Regulations 2016 only. By placing the product on the market, the manufacturer declares compliance with other relevant Directives, and all other safety related requirements including those of Annex II / Schedule 1 of these Directives.