

INSTALLATION INSTRUCTIONS
& CONDITIONS FOR SAFE USE



II 2 GD

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

Version:		Order No
	ZDUB 2.5-2/2AN/RC*	1712820000
	ZDUB 2.5-2/4AN/RC*	1712970000

in conjunction with:

Accessories:	Type	Order No
	ZAP ZDUB*	1704750000
end plate		
partions plate	ZTW ZDUB	1704340000

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

Insulation material:

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

- Operating temperature range	-60°C...+110°C (insulating material limit)
- Ambient temperature range	-60°C...+40°C (for T6 applications)
- Ambient temperature range	-60°C...+55°C (for T5 applications)
- Ambient temperature range	-60°C...+70°C (for T4 applications)

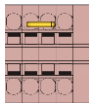
* in all colours

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

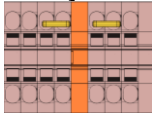
	ZDUB 2.5-2/2AN/RC ZDUB 2.5-2/4AN/RC
- Rated voltage	550 V
- Rated current	21 A / $\Delta T \leq 40 \text{ K}$
- Rated current with ZQB	20 A / $\Delta T \leq 40 \text{ K}$
- Contact resistance with rated conductor, 2.5 mm ²	1,4 mΩ
- Rated conductor cross section	2,5 mm ²
- Conductor cross section solid	0,5 - 2,5 mm ²
- Conductor cross section stranded	0,5 - 2,5 mm ²
- Conductor cross section flexible	0,5 - 1,5 mm ²
- cross section, American Wire Gauge	26 - 12 AWG
- conductor cross section flexible with ferrule acc. to DIN 46228 part 1	0,5 - 1,5 mm ²
- conductor cross section flexible with ferrule acc. to DIN 46228 part 4	0,5 - 2,5 mm ²
- 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**

550 V

C - Adjacent – separated by a end plate

550 V

Note:

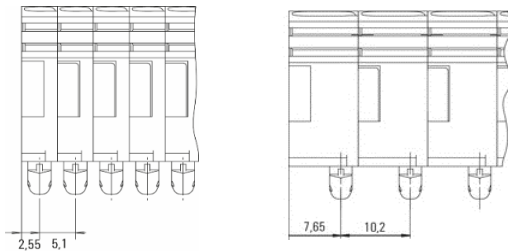
If smaller cross sections than the rated cross section are used, the belonging lower current has to be laid down in the IECEx/EC-Type Examination Certificate of the complete apparatus.

Mounting instructions:

The ZDUB - 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. The ZDUB 2.5-2/2AN/RC and ZDUB 2.5-2/4AN/RC terminal blocks have a snap-in clip for mounting on a mounting plate. The thickness of the mounting plate shall vary between 0.5 - 1.0 mm. The diameter of the hole must be 3.5 mm. A hole spacing of 5.1 mm for the ZDUB 2.5-2/2AN/RC and 10.25 mm for the ZDUB 2.5-2/4AN/RC must be used for mounting the terminal blocks. Further information can be found in the following sketch.



ZDUB 2.5-2/2AN/RC

ZDUB 2.5-2/4AN/RC

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.

T6 (- 60°C ... +40 °C)

T5 (- 60°C ... +55 °C)

T4 (- 60°C ... +70 °C)

When using the types ZDUB with other terminal blocks series or sizes or accessories, the requirements 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 that the conductor is placed between the tension clamp and cross connection ZQB 2.5. In this case the conductor cross-section is limited 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.