

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
Notified Body No. of Ex - QA: 0344
Label print on package unit: 0344

Standards:
 EN 60079-0:2012 + A11 2013 and EN 60079-7:2015
 IEC 60079-0: 6th Edition and IEC 60079-7: 5th Edition

Modular Terminal Blocks: ZDU/ZPE

Version:	ZDU 6-2/3AN*	Order No 1771410000
in conjunction with:	ZPE 6-2/3AN*	Order No 1771360000
Accessories:	Type	Order No
end plate	ZAP ZDU6-2*	1771440000
end bracket	ZEW 35*	9540000000
	EW 35*	0383560000
Terminal rail	TS 35/... acc.to DIN EN 60715	
Cross-connection	Plugable*	Order No
	ZQV 6/2 GE	1627850000
	ZQV 6/3 GE	1627860000
	ZQV 6/4 GE	1627870000

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"):

	ZDU 6-2/3AN	ZPE 6-2/3AN
- Rated voltage	550 V	
- Rated current	38 A / $\Delta T \leq 40$ K	
- Rated current with ZQV	37 A / $\Delta T \leq 40$ K	
- Contact resistance with rated conductor, 6 mm ²	0,8 m Ω	
- Rated conductor cross section	6 mm ²	6 mm ²
- Conductor cross section solid	0,5 - 10 mm ²	0,5 - 10 mm ²
- Conductor cross section stranded	0,5 - 10 mm ²	0,5 - 10 mm ²
- Conductor cross section flexible	0,5 - 10 mm ²	0,5 - 10 mm ²
- cross section, American Wire Gauge	22 - 8 AWG	22 - 8 AWG
- Stripping length	12 mm	12 mm

IECEx / ATEX Terminal and Cross-Connection Arrangements:

Max voltage data according to IEC/EN 60079-7 in conjunction with protective earth terminal blocks of the ZPE-Series, (increased safety "eb"):

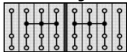
Application Case

A - Continuous



352 V

C - Adjacent – separated by a end plate



352 V

D - Intermediate - bridging one or more unconnected terminals (e.g. every 3rd terminal)



137 V

F - Next to a protective conductor terminal (earth) with a end plate



352 V

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

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 ZDU/ZPE 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.

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/EN 60079-0 and 60079-7. For combustible dust these enclosures must satisfy the requirements according to IEC/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 (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 ZDU and ZPE with other terminal blocks series or sizes or accessories, the requirements for clearance and creepages distances according to IEC/EN 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 the current ratings and the resistances across the terminals please refer to the table under "Technical data" above.

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.

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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 ≥ 20 poles) shall not be used.

Essential Health and Safety Requirements:

Concerning ESRs this Schedule verifies compliance with the Annex III of ATEX directive 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 of this Directive.