

INSTALLATION INSTRUCTIONS
& CONDITIONS FOR SAFE USE

Ex eb IIC Gb

Modular TERMINAL Blocks: W- Series**DEMKO 14 ATEX1338 U****IECEX ULD 14.0005U****Notified Body No. of Ex - QA: 0344****Label print on package unit: 0344**

Standards:

EN 60079-0:2018 and EN 60079-7:2015
IEC 60079-0: 7th Edition and IEC 60079-7: 5th Edition**Modular Terminal Blocks: WDU/WPE**

Version:	WDU 2.5*	Order No	1020000000	
in conjunction with:	WPE 2.5*	Order No	1010000000	
Accessories:	Type	Order No		
End Plate	WAP 2.5-10*	1050000000		
Partition Plate	WTW 2.5-10*	1050100000		
End bracket	WEW 35/2*	1061200000		
Terminal rail	TS 35/... acc.to DIN EN 60715			
Screen bus bar	LS 2.8	1056400000		
Cross-connection	Pluggable*	Order No	Screwable*	Order No
	ZQV 2.5N/2	1693800000	WQV 2.5/2	1053660000
	ZQV 2.5N/3	1693810000	WQV 2.5/3	1053760000
	ZQV 2.5N/4	1693820000	WQV 2.5/4	1053860000
	ZQV 2.5N/5	1693830000	WQV 2.5/5	1053960000
	ZQV 2.5N/6	1693840000	WQV 2.5/6	1054060000
	ZQV 2.5N/7	1693850000	WQV 2.5/7	1054160000
	ZQV 2.5N/8	1693860000	WQV 2.5/8	1054260000
	ZQV 2.5N/9	1693870000	WQV 2.5/9	1054360000
	ZQV 2.5N/10	1693880000	WQV 2.5/10	1054460000

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 and optional with hexagon and six lobe drive

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

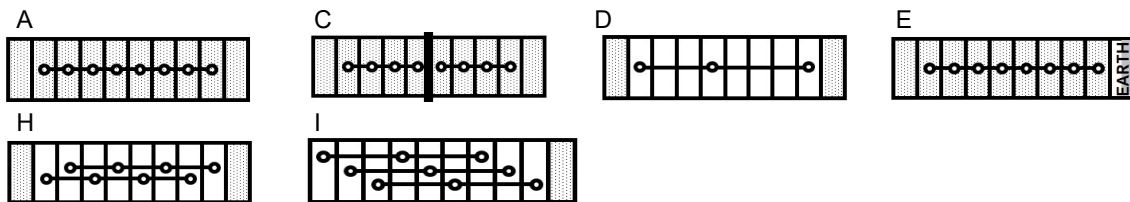
	WDU 2.5	WPE 2.5
- Rated voltage	690 V	
- Rated voltage with LS 2.8	275 V	
- Rated current	24 A / ΔT 40 K	
- Temperature rise with rated current	37,7 K / 24 A	
- Rated current with WQV	24 A / ΔT 40 K	
- Rated current with ZQV	24 A / ΔT 40 K	
- Contact resistance		
with rated conductor, 2.5mm ²	0,37 m Ω	0,83 m Ω
- Rated conductor cross section	2.5mm ²	2.5mm ²
- Conductor cross section solid	0,14 - 4.0 mm ²	0,14 - 4.0 mm ²
- Conductor cross section stranded	0,14 - 4,0 mm ²	0,14 - 4,0 mm ²
- Conductor cross section flexible	0,14 - 4,0 mm ²	0,14 - 4,0 mm ²
- cross section, American Wire Gauge	26 - 12 AWG	26 - 12 AWG
- 2 conductors with same cross-section	0,5 - 1,5 mm ²	---
- Tightening torque range, terminal screw	0,4 - 0,8 Nm	0,4 - 0,6 Nm
- Tightening torque range, fixing screw		0,4 - 0,8 Nm
- Tightening torque range for WQV...	0,4 - 0,8 Nm	
- Stripping length	10 mm	10 mm

IECEx / ATEX Terminal and Cross-Connector Arrangements:

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

Application Case

- A Continuous
- C Adjacent – separated by a partition plate
- D Intermediate - bridging one or more unconnected terminals
- E Next to a protective conductor terminal (earth) without a partition plate
- H Cross-connection with twin parallel
- I Cross-connection with triple parallel



Application case	WDU 2.5 with ZQV 2.5/N	WDU 2.5 with WQV 2.5
	max Voltage/V	max Voltage/V
A	440	550
C	440	550
D	352	275
E	352	352
H	275	275
I	69	-

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

Max voltage data with optional screen bus bar LS 2,8:

- WDU 2.5 with ZQV 2.5/N 69 V
- WDU 2.5 with WQV 2.5 275 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 WDU/WPE 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 WDU/WPE terminals 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 EN 60079-0 and EN 60079-7. For combustible dust the enclosure must satisfy the requirements according to EN 60079-0 and 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 type WDU/WPE especially with other terminal blocks series or sizes or accessories the requirements for clearance and creepage distances according to table 1 of 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, current rating, resistance across the terminal and torque values 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.

When assembling with other approved terminal blocks series, sizes and accessories the required creepage distances and clearances must be considered.

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.

Unused terminals shall be tightened.



Manually cut cross connections and cross connections with blank ends (ZQV's \geq 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.