

INSTALLATION INSTRUCTIONS
& CONDITIONS FOR SAFE USE



II 2 GD

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 4*	Order No		
		1020100000		
in conjunction with:	WPE 4*	Order No		
		1010100000		
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 4N/2	1758250000	WQV 4/2	1051960000
	ZQV 4N/3	1762630000	WQV 4/3	1054560000
	ZQV 4N/4	1762620000	WQV 4/4	1054660000
	ZQV 4N/10	1758260000	WQV 4/5	1057860000
			WQV 4/6	1057160000
			WQV 4/7	1057260000
			WQV 4/10	1052060000

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"):

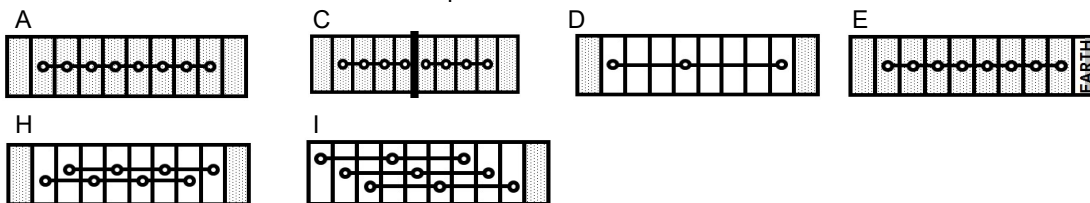
	WDU 4	WPE 4
- Rated voltage	690 V	
- Rated voltage with LS 2.8	275 V	
- Rated current	32 A / ΔT 40 K	
- Temperature rise with rated current	38,1 K / 32 A	
- Rated current with WQV..	32 A / ΔT 40 K	
- Rated current with ZQV..	30 A / ΔT 40 K	
- Contact resistance		
with rated conductor, 4,0mm ²	0,30 mΩ	0,64 mΩ
- Rated conductor cross section	4mm ²	4mm ²
- Conductor cross section solid	0,14 - 6.0 mm ²	0,14 - 6.0 mm ²
- Conductor cross section stranded	0,14 - 6,0 mm ²	0,14 - 6,0 mm ²
- Conductor cross section flexible	0,14 - 6,0 mm ²	0,14 - 6,0 mm ²
- cross section, American Wire Gauge	26 - 10 AWG	26 - 10 AWG
- 2 conductors with same cross-section	0,5 - 2,5 mm ²	---
- Tightening torque range, terminal screw	0,5 - 1,0 Nm	0,5 - 1,0 Nm
- Tightening torque range, fixing screw		0,5 - 1,0 Nm
- Tightening torque range for WQV...	0,5 - 1,0 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



Application case	WDU 4 with ZQV 4/N max Voltage/V	WDU 4 with WQV 4 max Voltage/V
A	440	550
C	440	550
D	352	275
E	352	352
H	275	275
I	-	88

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

Max voltage data with optional screen bus bar:

- WDU 4 with ZQV 4/N 88 V
- WDU 4 with WQV 4 275 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 ≥ 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.