

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****UL21UKEX2114U**

Standards:

EN IEC 60079-0:2018 and EN 60079-7:2015, EN IEC 60079-7:2015/A1:2018

IEC 60079-0: 7th Edition and IEC 60079-7: 5.1th Edition

Modular Terminal Blocks: WDU/WPE

Version:

	Order No
WDU 2.5/TC TYP B*	1033700000
WDU 2.5/TC TYP E*	1033300000
WDU 2.5/TC TYP J*	1024300000
WDU 2.5/TC TYP K*	1024100000
WDU 2.5/TC TYP N*	1041500000
WDU 2.5/TC TYP SR*	1024400000
WDU 2.5/TC TYP T*	1024200000

in conjunction with:

	Order No
WPE 2.5*	1010000000

Accessories:

Type	Order No
WAP 2.5-10*	1050000000
WAP 16 + 35 WTW 2.5-10*	1050100000

End Plate

End bracketed

Terminal rail

WEW 35/2 V0 GF...*
TS 35/... acc.to DIN EN 60715**Insulation material:**

- Type
- Tracking resistance (A) to IEC 60112
- Flammability class to UL 94

Wemid
CTI ≥ 600
V0

- Operating temperature range
- Ambient temperature range
- Ambient temperature range
- Ambient temperature range

-60°C...+110°C (insulating material limit)
 -60°C...+40°C (for T6 applications)
 -60°C...+55°C (for T5 applications)
 -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/TC**

- Rated voltage 55 V
- Rated current 8,0 A / ΔT 40 K
- Temperature rise with rated current 26,2 K / 8,0 A
- Contact resistance
with rated conductor, 2,5 mm²

Current Bar Material	Version Type	Contact resistance
S-CU	WDU 2.5/TC TYP B*	3,30 mΩ
E-CU		
Ni / Cr	WDU 2.5/TC TYP E*	8,62 mΩ
Cu / Ni		
Fe	WDU 2.5/TC TYP J*	5,76 mΩ
Cu / Ni		
Ni / Cr	WDU 2.5/TC TYP K*	6,66 mΩ
Ni		
Ni / Cr / Si	WDU 2.5/TC TYP N*	9,07 mΩ
Ni / Si		
E-Cu	WDU 2.5/TC TYP SR*	2,05 mΩ
A-Cu		
E-Cu	WDU 2.5/TC TYP T*	4,59 mΩ
Cu / Ni		

- Rated conductor cross section 2,5 mm²
- Conductor cross section solid 0,14 - 2,5 mm²
- Conductor cross section stranded 0,14 - 2,5 mm²
- Conductor cross section flexible 0,14 - 2,5 mm²
- cross section, American Wire Gauge 26 - 12 AWG
- conductor cross section flexible with ferrule
acc. to DIN 46228 part 1 + 4 0,5 - 2,5 mm²
- 2 conductors with same cross-section 0,5 - 1,5 mm²
- Tightening torque range, terminal screw 0,4 - 0,6 Nm
- Tightening torque range, fixing screw 0,5 - 1,0 Nm
- Stripping length 10 mm

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 2.5/TC range of Thermocouple Terminals 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 2.5/TC range of Thermocouple Terminals is 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 the enclosure must satisfy the requirements according to IEC/EN60079-0 and IEC/EN60079-31.

The terminal blocks shall be placed inside a suitable IECEx/ATEX/UKCA certified IP54 enclosure for gas atmosphere. For dust atmosphere the terminal blocks shall be mounted inside a suitable IECEx/ATEX/UKCA certified 't' enclosure (IEC/EN60079-31).

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 2.5/TC range of Thermocouple Terminals especially with other terminal blocks series or sizes or accessories the requirements for clearance and creepage 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.

For accessories, current rating, resistance across the terminal and torque values 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.

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.

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.

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.