

INSTALLATION INSTRUCTIONS
& CONDITIONS FOR SAFE USE II 3 G Ex ec IIC Gc**Modular TERMINAL Blocks: W- Series****DEMKO 14 ATEX 1389U**
IECEX UL 14.0097U
UL21UKEX2115U

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**Fuse Terminal Blocks: WMF**

Version:	Type	Order No
	WMF 2.5 FU SW *	1162920000
	WMF 2.5 FU 10-36V SW *	1162930000
	WMF 2.5 FU 30-70V SW*	1162940000
	WMF 2.5 FU 60-150V SW*	1162950000
	WMF 2.5 FU 100-250V SW*	1162960000
	WMF 2.5 FU PE SW *	1163040000
	WMF 2.5 FU PE 10-36V SW *	1163050000
	WMF 2.5 FU PE 30-70V SW*	1163060000
	WMF 2.5 FU PE 60-150V SW*	1163070000
	WMF 2.5 FU PE 100-250V SW*	1163080000

Accessories:	Type	Order No
End Plate	AP WMF 2.5*	1142990000
End bracket	WEW 35/2*	1061200000
Terminal rail	TS 35/... acc.to DIN EN 60715	

Cross-connection	Pluggable*
	ZQV 2.5N/2
	ZQV 2.5N/3
	ZQV 2.5N/4
	ZQV 2.5N/5
	ZQV 2.5N/6
	ZQV 2.5N/7
	ZQV 2.5N/8
	ZQV 2.5N/9
	ZQV 2.5N/10

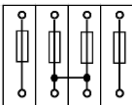
Insulation material:

- Type	Wemid
- Tracking resistance (A) to IEC 60112	CTI ≥ 600
- Flammability class to UL 94	V0
- Operating temperature range	-60°C...+130°C (insulating material limit)

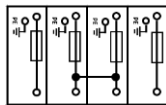
* in all colours

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

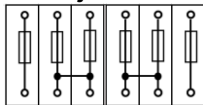
	Type	
- Rated voltage	WMF 2.5 FU SW *	250 V
	WMF 2.5 FU 10-36V SW *	10-36V
	WMF 2.5 FU 30-70V SW*	30-70 V
	WMF 2.5 FU 60-150V SW*	60-150 V
	WMF 2.5 FU 100-250V SW*	250 V
	WMF 2.5 FU PE SW *	250 V
	WMF 2.5 FU PE 10-36V SW *	10-36V
	WMF 2.5 FU PE 30-70V SW*	30-70 V
	WMF 2.5 FU PE 60-150V SW*	60-150 V
	WMF 2.5 FU PE 100-250V SW*	100-250 V
- Rated current	6.3 A	
- Rated power dissipation P _{vk}		
Separate arrangement	4 W (6.3 A)	
Compound arrangement	2.5 W (6.3 A)	
- Rated conductor cross section	2.5 mm ²	
- Conductor cross section solid	0.5 - 4.0 mm ²	
- Conductor cross section stranded	0.5 - 4,0 mm ²	
- Conductor cross section flexible	0.5 - 4.0 mm ²	
- Conductor cross section flexible with ferrule	0.5 - 2.5 mm ²	
- cross section, American Wire Gauge	26 - 12 AWG	
- 2 conductors with same cross-section	0.5 - 1.5 mm ²	
- Tightening torque range, terminal screw	0.5 - 0.6 Nm	
- Stripping length	10 +/- 0.5 mm	

IECEx / ATEX / UKCA Terminal and Cross-Connection Arrangements:**Max voltage data according to IEC/EN 60079-7 (increased safety "ec"):****Application Case****A - Continuous no difference between one or two cross connections**

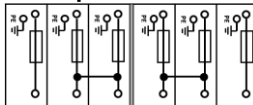
250 V



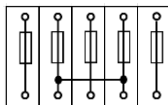
250 V

C - Adjacent – separated by a end plate

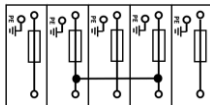
250 V



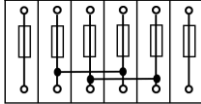
250 V

D - Intermediate - bridging one or more unconnected terminals (e.g. every 3rd terminal) no difference between one or two cross connections

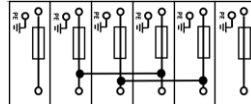
250 V



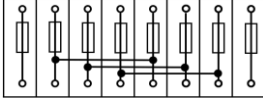
250 V

H - Cross-connection with twin parallel

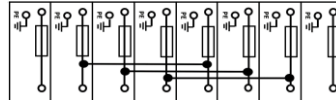
125 V



125 V

I - Cross-connection with triple parallel

125 V



125 V

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

CONDITIONS FOR SAFE USE:

This document should be read carefully before starting installation. Respect the information stated on the certification label of the terminal, e.g. Type/s of protection, gas group and temperature class. The installation of these terminals should only be carried out by authorized and qualified personnel whose training has included instruction on the various types of protection and installation practices, the relevant rules and regulations, and on the general principles of area classification.

The fuse holder shall be fully closed all times. Do not remove or replace the fuse when energized.

The fuse link shall not be replaced in the presence of a hazardous area and the associated enclosure shall be marked "Switch off supply and discharge any stored energy safely before removing fuse(s)". The "stored energy" statement may be replaced by a statement declaring a de-energizing time before

The fuse terminal is safe under the following conditions:

- Fuse terminal blocks WMF 2.5 FU shall not be mounted side by side. They shall be separated by a feed through terminal block WMF 2.5.
- Use only fuse links according to the Table 1.
- The temperature class must be verified in the final customers specific application.
- T4 based on 130° C of the insulating material and 85 °C for the fuse carrier.

The informativ temperatures of Table 2 were determined with a nominal current of 100 % according to the IEC 60947-7-3.

The fuse terminal blocks maybe used only for short circuit protecting applications based on the operational self heating at nominal current in combination with the specified fuse links at ambient temperatures according to the following table:

Table 1

Cartridge fuse-links (5 x 20 mm) **	EN 60127-2 Spec. Sheet	Rated current	Breaking capacity
** only permissible for sandfilled fuse link	1	50 mA ... 10 A	1.5 kA
	2	32 mA ... 10 A	35 A resp. 10 x I _N
	3	32 mA ... 10 A	35 A resp. 10 x I _N
	5	100 mA ... 10 A	1.5 kA
	6	32 mA ... 10 A	150 A

Table 2:

		Temperature class:		
		T4 (130°C)	T5 (100 °C)	T6 (85 °C)
Separate arrangement:	Cartridge fuse-link	max. ambient temperature (°C)		
WMF 2.5 FU SW	4 W/ 6.3A	71	36	21
WMF 2.5 FU PE SW	4 W/ 6.3A	71	36	21
Compound arrangement:	Cartridge fuse-link	max. ambient temperature (°C)		
WMF 2.5 FU SW	2.5 W/ 6.3A	58	23	-
WMF 2.5 FU PE SW	2.5 W/ 6.3A	58	23	-

Note:

The creepage and clearance distances were determined in the worst case. (with closed or open clamping yoke)

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 WMF 2.5 FU terminal blocks are 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 EN/IEC 60079-0 and EN/IEC 60079-7. For use in combustible dust these enclosures must satisfy the requirements according to EN/IEC 60079-0 and EN/IEC 60079-31.

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.

Schedule of Limitations:

The fuse 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 EN/IEC 60079-0 and EN/IEC 60079-7. For combustible dust these enclosures must satisfy the requirements according to EN/IEC 60079-31.

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 (EN/IEC 60079-31).

The enclosure shall be constructed to block all sun and UV light from affecting the terminal blocks.

WARNING – Do not remove or replace the fuse disconnect switch when energized!

When using the WMF FU terminal blocks with other terminal blocks series or sizes or accessories, the requirements for clearance and creepages distances according to EN/IEC 60079-7 must be observed. Regarding the use of covers, cross-connectors and end brackets the instructions of the manufacturer must be followed.

For terminal jumper accessories current ratings and the rated power dissipation 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.

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.



- Cross connections with blank ends shall not be used.
- Manually cut cross connections shall not be used.

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.