




weidmuller WMF 2.5 Modular Terminal Blocks Instructions

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weidmuller WMF 2.5 Modular Terminal Blocks



Product Information

Modular Terminal Blocks – W-Series

Specifications:

- **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
- **Type:** WMF 2.5
- **Order No:** 1143070000
- **Rated Voltage:** 500 V
- **Rated Current:** 23 A
- **Rated Conductor** Cross Section:
 - **Solid:** 26 – 12 AWG
 - **Stranded:** 0.5 – 0.6 Nm
 - **Flexible:** 10 +/- 0.5 mm
 - **Flexible with Ferrule:** 10 +/- 0.5 mm
- **Insulation Material:** Wemid CTI
- **Tracking Resistance (A)** to IEC 60112: 600
- **Flammability Class to UL 94:** V0
- **Operating Temperature Range:** –

Product Usage Instructions

Mounting Instructions:

The WMF series modular terminal blocks are suitable for application in enclosures in atmospheres with flammable gases or combustible dust. The following requirements should be met:

- For use in flammable gases, the enclosures must satisfy the requirements according to EN/IEC 60079-0 and EN/IEC 60079-7.
 - For use in combustible dust, the enclosures must satisfy the requirements according to EN/IEC 60079-0

and EN/IEC 60079-31. If using the terminal blocks in combination with other series, sizes, or accessories, ensure that the applicable creepage and clearance distances are met.

- Follow the instructions of the manufacturer when using accessories.

Schedule of Limitations:

The feed-through terminal blocks are suitable for use in enclosures in atmospheres with flammable gases or combustible dust. The following requirements should be met:

- For use in flammable gases, the enclosures must satisfy the requirements according to EN/IEC 60079-0 and EN/IEC 60079-7.
- For use in combustible dust, the enclosures must satisfy the requirements according to EN/IEC 60079-31.
- The terminal blocks should be placed inside a suitable IECEx/ATEX/UKCA certified IP54 enclosure for gas atmosphere.
- For dust atmosphere, the terminal blocks should be mounted inside a suitable IECEx/ATEX/UKCA certified 't' enclosure (EN/IEC 60079-31).
- The enclosure should be constructed to block all sun and UV light from affecting the terminal blocks.

FAQ:

1. Q: What are the specifications of the WMF 2.5 terminal blocks?

The WMF 2.5 terminal blocks have a rated voltage of 500 V, a rated current of 23 A, and can accommodate conductor cross sections ranging from 26 to 12 AWG. The tightening torque range for the terminal screws is 0.5-0.6 Nm, and the stripping length should be 10 +/- 0.5 mm.

2. Q: What enclosures are suitable for using the terminal blocks in flammable gases or combustible dust atmospheres?

For flammable gases, the enclosures must satisfy the requirements according to EN/IEC 60079-0 and EN/IEC 60079-7. For combustible dust, the enclosures must satisfy the requirements according to EN/IEC 60079-0 and EN/IEC 60079-31. The enclosures should be IECEx/ATEX/UKCA certified and constructed to block all sun and UV light from affecting the terminal blocks.

3. Q: Can I use the WMF series terminal blocks with other series or sizes?

Yes, you can use the WMF series terminal blocks with other series or sizes. However, ensure that the applicable creepage and clearance distances are met.

Weidmüller Interface GmbH Co. KG; Klingenbergstraße 26, 32758 Detmold-Germany

INSTALLATION INSTRUCTIONS & CONDITIONS FOR SAFE USE



II 3 G Ex ec IIC Gc

Modular TERMINAL Blocks: W- Series

- DEMKO 14 ATEX1389 U
- 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

Modular Terminal Blocks: WMF

- **Version:**

- WMF 2.5

- **Order No**

- 1143070000

- **Accessories End Plate**

- **Type**
- AP WMF 2.5

- **Order No**

- 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 \geq 600

- **Flammability class to UL 94**

- VO

- **Operating temperature range**

- 0°C...+130°C (insulating material limit)
- in all colours and optional with hexagon and six lobe drive

Technical data according to IEC/EN 60079-7 (increased safety “ec”)

WMF 2.5

- **Rated voltage**
 - 500 V
- **Rated current**
 - 23 A
- **Rated conductor cross section**
 - 2.5mm²
- **Contact resistance with rated conductor,**
 - 2.5 mm² 0.6 mΩ
- **Conductor cross section solid**
 - 0.5 – 4.0 mm²
- **Conductor cross section stranded**
 - 0.5 – 4.0 mm²
- **Conductor cross section flexible**
 - 0.5 – 4.0 mm²
- **Conductor cross section flexible with ferrule**
 - 0.5 – 2.5 mm²
- **Conductor cross section flexible with ferrule**
 - 0.5 – 2.5 mm²
- **cross section, American Wire Gauge**
 - 26 – 12 AWG
- **Tightening torque range, terminal screw**
 - 0.5 – 0.6 Nm
- **Stripping length**
 - 10 +/- 0.5 mm

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 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 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 feed through 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.
- Under normal operating conditions the temperature rise of the terminal blocks is max 40 K, measured with the max 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 as shown below. No part of terminal block must exceed 130 °C under any condition.
- 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.
- Unused terminals shall be tightened.
- 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.
 -  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.

- **Version:** WMF 2.5 4986715
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