WMF 2.5
Multi-Functional Terminal Block Series
For DCS Marshalling
A Better Way to Marshal for DCS Applications

For reliable and safe marshalling in modern Distributed Control Systems (DCS), modular terminal blocks are still the first choice, especially for very large and complex systems. Terminal blocks offer good value and availability because they are easy to use and provide a high level of design flexibility. Plus, terminal blocks with screw connections are well-known world wide in the Process Industry as the most common and reliable interface for the connection of signals to and from the field.

Reduce Your Total Cost of Ownership

Weidmuller’s innovative new terminal block series, the WMF 2.5 (Weidmuller Multi-Functional), is specifically designed for the challenging demands of DCS marshalling applications— notably to simplify wiring, reduce required cabinet space, increase functionality, and expand wire routing and signal distribution capabilities. These space-saving terminal blocks provide a cost saving and flexible solution for routing and distributing signals by combining all the necessary functionality into a single solution.

The WMF 2.5 series offers an uncomplicated and reliable connection that ensures one of the best possible solutions for signal termination in the process and power generation industries.

Features that Deliver Optimum Flexibility

- **2 Blocks - Multiple Options**
  - Feed through, fuse and disconnect

- **3 Cross Connections**
  - Three pluggable center channels
  - Ideal for commoning potentials

- **Innovative Fusing**
  - Blown fuse indication (LED) with low leakage rating (0.5mA)
  - Provides quick disconnect

- **Pluggable Connections**
  - Pre-assembled cables possible
  - 87% wiring time savings

- **Small Form Factor**
  - Up to 55% space savings with 5mm width

- **Ground Shield Attachment Point**
  - With integrated ground connection
  - No ground block required
Traditional Cabinet Marshalling for 96 Signal Loops

1. **Contact Wire to FTA:**
   - Cut wire to length
   - Strip wire
   - Connect wire
   
   Needed time: ~ 60 seconds

2. **Run Wire:**
   - Place cable in wire duct
   - Label cable
   
   Needed time: ~ 30 seconds

3. **Contact Wire to Terminal Block:**
   - Cut wire to length
   - Strip wire
   - Connect wire
   
   Needed time: ~ 60 seconds

**Time Calculation for Marshalling Wiring:**
- 2½ minutes per wire
- 96 x 2 wires per signal loop = 192 wires
- 2 connections per wire (on terminal block and FTA) = 384 connections

192 wires x 2½ minutes = 8 hours

**Limitations:**
- Increased potential of wiring failures due to many individual screw connections
- High complexity due to wide variety of terminal block types required

**Space Calculation for Marshalling Wiring:**
(Average marshalling panel with 96 signal loops on 8 I/O modules/FTA with 16 signal loops on each):
- 3 terminal blocks per signal loop = 22mm/loop
- 288 terminal blocks required
- Uses 2112mm (83 in.) on DIN-rail

18-22 mm width

One signal loop (fuse block, feed through block and PE block for the shield connection)

2112mm (83 in.) on DIN-rail

Terminal Blocks
DIN-rail
Wire Ducts
Marshalling / Routing wiring between internal side of terminal blocks and I/O module or FTA
I/O module or Field Terminal Assemblies (FTA)
Marshalling Cabinet
Cabinet Marshalling Using WMF 2.5 Terminals

1. Contact Cable to FTA (2, 4, 6, 8, 16 pole):
   - Just plug it in
   - Needed time: ~ 60 seconds

2. Run Wire
   - Place cable in wire duct
   - Label cable
   - Needed time: ~ 30 seconds

3. Contact Cable to Terminal Blocks
   - Just plug it in
   - Needed time: ~ 60 seconds

Time Calculation for Marshalling Wiring:
- 2½ minutes per 8-pole cable
- 96 x 2 wires per signal loop = 192 wires on 24 cables with 8-pole plugs

24 connections x 2½ minutes = 1 hour

Advantages:
- Minimize wiring failures with pre-assembled cables and plugs
- Reduced complexity with one terminal design (WMF 2.5)

Space Calculation for Marshalling Wiring:
(Average marshalling panel with 96 signal loops on 6 I/O modules/FTA with 16 signal loops on each):
- 2 terminal blocks per signal loop = 10mm/loop
- 192 terminal blocks required
- Uses 960mm (38.0 in) on DIN-rail

87% Faster to Wire!

55% Space Savings!

33% Fewer Blocks!

2½ minutes per wire (2, 4, 6, 8 and 16 poles)
~1 hour to wire

960mm (38.0 in.) on DIN-rail
Why Get Better Connected with Weidmuller WMF 2.5 Multi-Functional Terminal Blocks?

From start to finish, the WMF 2.5 series provides a flexible and efficient DCS marshalling solution. The savings in wiring time is significant—up to 87% in some cases. Add to that a 55% reduction in valuable DIN-rail space, and the potential total cost savings over traditional marshalling solutions will have a positive impact on your bottom line.

Availability
The following products are available from stock:

<table>
<thead>
<tr>
<th>IEC rated Voltage / Current</th>
<th>UL rated Voltage / Current</th>
<th>Standard</th>
<th>With Integrated Ground / PE</th>
<th>With Pluggable BLZ Interface</th>
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Accessories

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<tr>
<th>Pin cover protective cap</th>
<th>End plate</th>
<th>Locking bracket†</th>
<th>Locking lever**</th>
<th>Disconnect lever</th>
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<td>AP WMF 2.5</td>
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* Set for screwing the connector to the terminal strip
** Plastic lever to secure the connector on the terminal block against possible pull out
†Fuse levers for fuse or disconnect terminal blocks
WMF 2.5 Series is designed to optimize marshalling in the following DCS Systems:

**ABB**
- System 800xA
- Freelance
- Compact 800

**Emerson**
- DeltaV™
- DeltaV™ SIS
- Ovation™
- WDPF™

**Honeywell**
- Mark™ Vle DCS Control Solutions
- OC 4000™ Control System
- OC 6000e DCS Control System

**Invensys Controls**
- Foxboro®
- Triconex®

**Rockwell Automation**
- ProcessLogix

**Siemens**
- PCS7
- TELEPERM
- SPPA T1000/2000/3000

**Yokogawa**
- CENTUM® -V
- CENTUM® -XL
- CENTUM® -pXL
- CENTUM® -CS 300R3
- CENTUM® -CS

Weidmuller is the leading manufacturer of components for electrical connection technology to transmit energy, signals and data. The Weidmuller product portfolio ranges from terminal blocks, PCB connectors and terminals, protected components, Industrial Ethernet components, I/O components and relay sockets to power supplies and over-voltage protection modules suitable for all applications. Assemble Services, marking solutions with a variety of tools and software systems, round off the range. As an OEM supplier, the company sets global standards in the field of electrical connection technology.

The Weidmuller WMF 2.5 Series will save installation time and space with any marshalling system, including upgrade and retrofit applications.

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