



### **M3 – 5-digit digital panel meter in 96x24 mm (BxH) Direct current / direct voltage signals 0/4-20 mA, 0-10 VDC**

- red display from -19999...99999 digits (optional green, orange, blue or tricolour display)
- installation depth: 120 mm without plug-in screw terminal
- multi voltage power supply unit 100-240 VAC, alternatively 10-40 VDC galvanic isolated
- adjustment via factory setting or directly on the sensor signal
- min-/max-memory with adjustable permanent display
- 30 additional adjustable support points
- display flashing at threshold value exceedance / undercut
- navigation keys for the triggering of Hold, Tara, display change, setpoint setting, alarm actuation
- flexible alarm system with adjustable delay times
- volume measurement (Totaliser)
- mathematical functions like reciprocal value, square root, square and rounding
- constant setting / setpoint setting
- sliding averaging
- brightness control via parameter or front keys
- programming interlock via access code
- protection class IP65 at the front
- plug-in screw terminal
- optional: 1 or 2 relay outputs
- optional: sensor supply
- optional: 1 independently scalable analog output
- optional: galv. insulated digital input for the triggering Tara, Hold, display change
- optional: interface RS232 or RS485
- accessories: pc-based configuration-kit PM-TOOL with CD & USB adapter
- on demand: devices for working temperatures of -20°C...50°C or -20°C...60°C

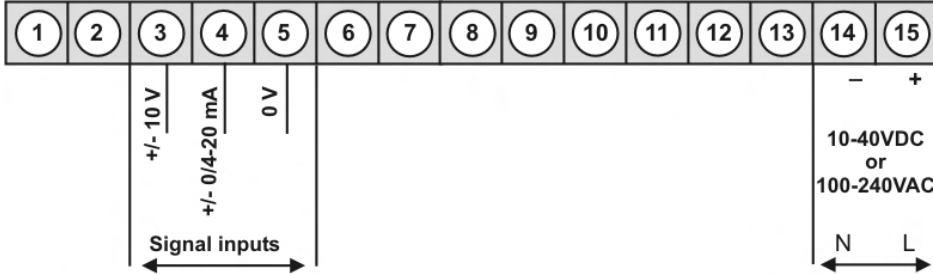
• **Direct current, direct voltage**

Supply 100-240 VAC, DC ± 10%

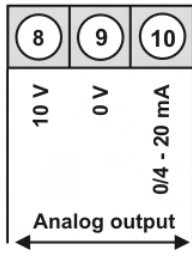
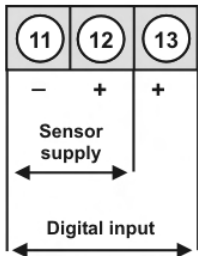
**M3-3VR5B.0001.S70BD** 220,00

Supply 10-40 VDC, 18-30 VAC

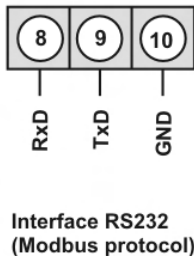
**M3-3VR5B.0001.W70BD** 220,00



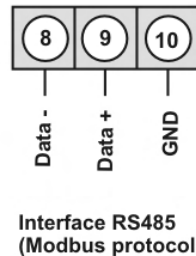
**Options:**



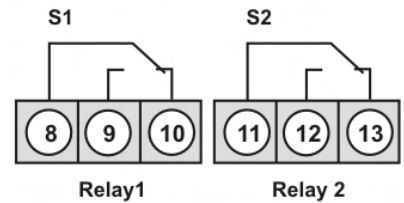
or



or



or



Alternative to analog output

• **Product key options**

|   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   |
|---|----|---|---|---|---|----|---|---|---|----|---|---|---|---|---|
| M | 3- | 3 | V | R | 5 | B. | 0 | 0 | 0 | 1. | S | 7 | 0 | B | D |
| M | 3- | 3 | V | R | 5 | B. | 0 | 0 | 0 | 1. | W | 7 | 0 | B | D |

**EUR**

|   |  |       |
|---|--|-------|
| 1 | 1 relay output (with option analog output only 1 output is possible) | 20,00 |
| 2 | 2 relay outputs  | 30,00 |
| 1 | without keypad, operation on the back                                | 10,00 |
| X | Analog output 0/4-20 mA, 0-10 VDC                                    | 90,00 |
| 2 | Sensor supply 10 VDC / 50 mA incl. digital input                     | 35,00 |
| 3 | Sensor supply 24 VDC / 50 mA incl. digital input                     | 35,00 |
| 3 | Interface RS232 galv. insulated                                      | 65,00 |
| 4 | Interface RS485 galv. insulated                                      | 65,00 |
| I | Digital input galv. insulated  | 10,00 |
| B | Blue   | 44,00 |
| G | Green  | 10,00 |
| Y | Orange   | 4,00  |
| T | Tricolour (Red-Green-Orange)   | 30,00 |

On demand state dimension unit on order, e.g. min.

• **Parameterisation software**

PC based configuration software PM-Tool for devices without keypad, for a simple adjustment of standard devices, incl. CD & USB-adapter. Programming is made via an interface on the back.

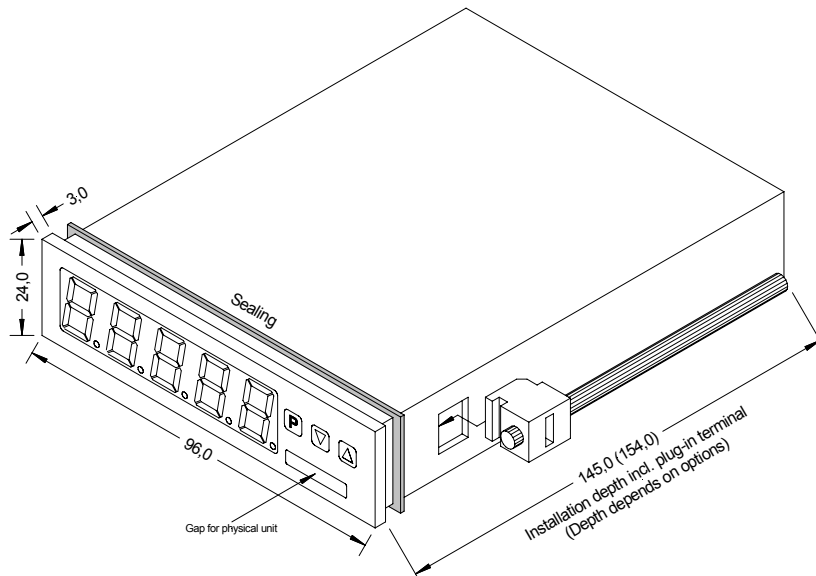
**PM-TOOL-MUSB4**

**89,00**

• **Technical data**

|                          |   |   |
|--------------------------|---|---|
| <b>Dimensions</b>        | Housing<br>Panel cut-out<br>Fixing<br>Housing material<br>Sealing material<br>Protection class<br>Weight<br>Connection                    | B96 x H24 x D120 mm, (incl. plug-in terminal D= 145 mm cable outlet at the back)<br>92.0 <sup>+0.8</sup> x 22.2 <sup>+0.3</sup> mm<br>screw elements for a wall thickness up to 3 mm<br>PC Polycarbonate, black<br>EPDM, 65 Shore, black<br>at the front IP65 Standard, at the back IP00<br>approx. 250 g<br>plug-in terminal; wire cross section up to 2.5 mm <sup>2</sup> |
| <b>Display</b>           | Display<br>Digit height<br>Segment colour<br>Range of display<br>Threshold value<br>Overflow<br>Underflow<br>Display time                 | 5-digit<br>14 mm<br>red (Standard), optional in green, orange, blue or tricolour (red/green/orange)<br>-19999 to 99999<br>optical display flashing<br>horizontal bars at the top<br>horizontal bars at the bottom<br>0.1 to 10.0 seconds  |
| <b>Measuring input</b>   | Span<br>Metering range<br>Input resistance<br>Measuring fault<br>Temperature drift<br>Measuring time<br>Measuring principle<br>Resolution | -12...12 V / -22...24 mA<br>0-10 VDC / 0/4-20 mA<br>Ri with ~200 kΩ / Ri with ~100 Ω<br>0.1% of measuring range, ± 1 Digit / 0.1% of measuring range, ± 1 Digit<br>100 ppm/K<br>0.1 ... 10.0 seconds<br>U/F-conversion<br>approx. 18 Bit at 1s measuring time   |
| <b>Output</b>            | Relay<br>Switching cycle<br><br>Analog output<br>Sensor supply  | with change-over contact 250 V / 5 AAC, 30 V / 5 ADC<br>30 * 10 <sup>3</sup> at 5 AAC, 5 ADC ohm resistive burden, 10 * 10 <sup>6</sup> mechanically<br>Separation according to DIN EN50178 / Specific values according to DIN EN 60255<br>0-10 VDC / burden ≥ 10 kΩ, 0/4-20 mA / burden ≤ 500 Ω, 16 Bit<br>24 VDC / 50 mA<br>10 VDC / 50 mA                                |
| <b>Digital input</b>     | Input galv. insulated   | < 2,4 V OFF; >10 V ON; max. 30 VDC, R <sub>i</sub> ~ 5 kΩ   |
| <b>Interface</b>         | Protocol<br>RS232<br>RS485  | Modbus with ASCII or RTU-protocol<br>9.600 Baud, no parity, 8 DataBit, 1 StopBit, Pipeline length max. 3 m<br>9.600 Baud, no parity, 8 DataBit, 1 StopBit, Pipeline length max. 1000 m  |
| <b>Power pack</b>        | Supply  | 100-240 VAC 50/60 Hz, DC ± 10 % (max. 10 VA)<br>10-40 VDC galv. insulated, 18-30 VAC 50/60 Hz (max. 10 VA)  |
| <b>Memory</b>            | EEPROM  | data preservation ≥ 100 years at 25°C   |
| <b>Ambient condition</b> | Working temperature<br>Storing temperature<br>Climatic density  | 0 to + 50 °C<br>-20 to + 80 °C<br>relative humidity 0-85% on years average without dew  |
| <b>CE-sign</b>           | Conformity to directive 2004/108/EG   |   |
| <b>EMV</b>               | EN 61326, EN 55011  |   |
| <b>Safety standard</b>   | According to low voltage directive 2006/95/EG, EN 61010; EN 60664-1   |   |

**Housing:**



• Order key

|  | M | 3- | 3 | V | R | 5 | B. | 0 | 0 | 0 | 1. | W | 7 | 0 | B | D |  |
|--|---|----|---|---|---|---|----|---|---|---|----|---|---|---|---|---|--|
| <b>Standard type M-Line</b>  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Dimension</b>   |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> D physical unit (on demand)               |
| <b>Installation depth</b><br>145 mm incl. plug-in terminal (154 mm)  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Version</b>   |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> B B                                       |
| <b>Housing size</b><br>96x24x120 mm (BxHxT)  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Switching points</b>  |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 0 without                                 |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 1 1 relay output                          |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 2 2 relay outputs                         |
| <b>Display type</b><br>V, A  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Protection class</b>  |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 1 without keypad, operation via back side |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 7 IP65 / plug-in terminal                 |
| <b>Display colours</b><br>Blue<br>Green<br>Red<br>Red/Green/Orange<br>Orange   |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Supply voltage</b>  |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> S 100-240 VAC                             |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> W 10-40 VDC                               |
| <b>Number of digits</b><br>5-digits  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Measuring input</b>   |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 1 Direct voltage, direct current          |
| <b>Digit height</b><br>14 mm   |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Analog output</b>   |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 0 without                                 |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> X 1x 0-10 VDC, 0/4-20 mA                  |
| <b>Digital input</b><br>without<br>1 digital input<br>Interface RS232<br>Interface RS485<br>Interface RS232<br>Interface RS485 |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Sensor supply</b>   |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 0 without                                 |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 2 10 VDC / 50 mA (incl. digital input)    |
|  |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 3 24 VDC / 50 mA (incl. digital input)    |