

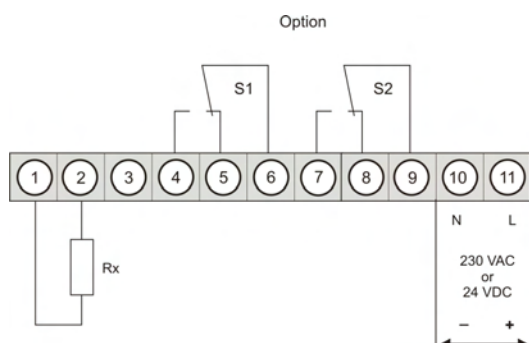
# M1 – 4-digit digital panel meters in 72x36 mm (BxH) Resistance 1 kΩ, 10 kΩ, 100 kΩ or 1000 kΩ

- red display with -1999...9999 digits (optional green, orange or blue displays)
- minimal installation depth: 97 mm without plug-in terminal
- adjustment via factory default or directly on the sensor signal
- min-/max-value recording
- 10 adjustable support points
- display flashing at threshold undercut/ exceedance
- navigation keys for the recall of the min/max-values or for threshold value corrections during operation
- tara function
- programming interlock via access code
- protection class IP65 at the front
- plug-in terminal
- optional: 2 relay outputs
- accessories: pc-based configuration-kit PM-TOOL with CD & USB adapter
- on demand: devices for working temperatures of -40°C...80°C or -25°C...60°C



ORDER NUMBER EUR  
(without options)

## • Resistance 1 kΩ, 10 kΩ, 100 kΩ or 1000 kΩ



| Supply         | Resistance | Order Number        |
|----------------|------------|---------------------|
| Supply 230 VAC | 1 kΩ       | M1-6VR4B.0806.570BD |
| Supply 24 VDC  | 1 kΩ       | M1-6VR4B.0806.770BD |
| Supply 230 VAC | 10 kΩ      | M1-6VR4B.0506.570BD |
| Supply 24 VDC  | 10 kΩ      | M1-6VR4B.0506.770BD |
| Supply 230 VAC | 100 kΩ     | M1-6VR4B.0606.570BD |
| Supply 24 VDC  | 100 kΩ     | M1-6VR4B.0606.770BD |
| Supply 230 VAC | 1000 kΩ    | M1-6VR4B.0706.570BD |
| Supply 24 VDC  | 1000 kΩ    | M1-6VR4B.0706.770BD |

## • Product key options

|   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   |
|---|----|---|---|---|---|----|---|---|---|----|---|---|---|---|---|
| M | 1- | 6 | V | R | 4 | B. | 0 | X | 0 | 6. | 5 | 7 | 0 | B | D |
| M | 1- | 6 | V | R | 4 | B. | 0 | X | 0 | 6. | 7 | 7 | 0 | B | D |

EUR

|   |                                       |
|---|---------------------------------------|
| 2 | 2 relay outputs                       |
| 1 | without keypad, operation on the back |
| X | other voltage supplies on demand!     |
| B | Blue                                  |
| G | Green                                 |
| Y | Orange                                |

State physical unit by order, e.g. mm!

## • Parameterisation software

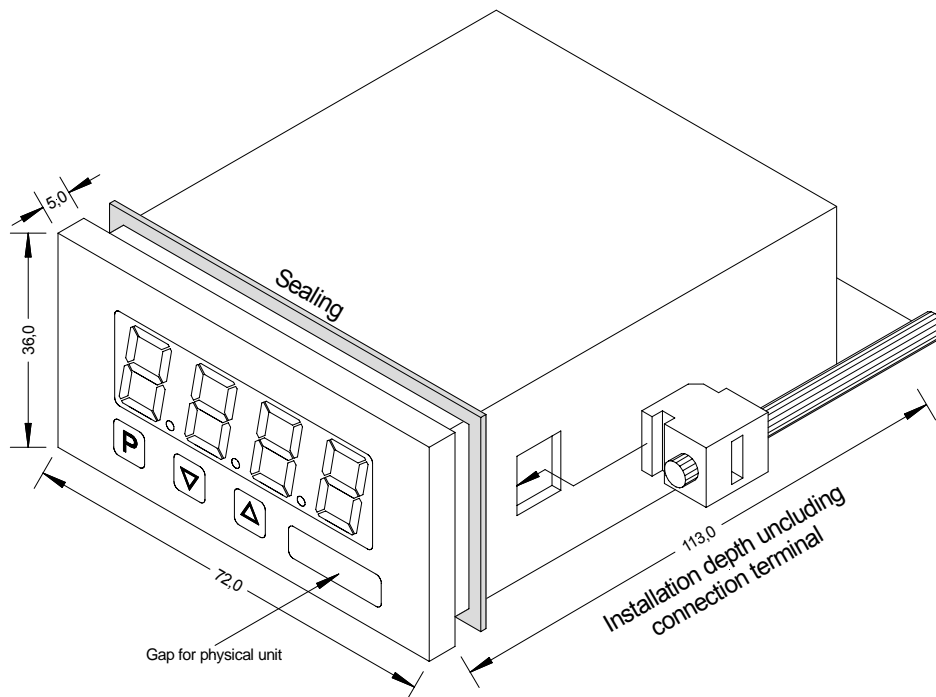
PC based configuration software PM-Tool for devices without keypad, for a simple adjustment of standard devices, incl. CD & USB-adapter. Programming is made via an interface on the back.

PM-TOOL-MUSB4

## • Technical data

|                           |   |  |
|---------------------------|---|--|
| <b>Dimensions</b>         | Housing   | B72 x H36 x D97 mm, (incl. plug-in terminal D = 113 mm)  |
|                           | Panel cut-out   | 68.0 <sup>+0.7</sup> x 33.0 <sup>+0.6</sup> mm   |
|                           | Fixing  | screw elements for wall thickness up to 3 mm   |
|                           | Housing material  | PC Polycarbonate, black  |
|                           | Sealing material  | EPDM, 65 Shore, black  |
|                           | Protection class  | at the front IP65 standard, at the back IP00   |
|                           | Weight  | approx. 200 g  |
|                           | Connection  | plug-in terminal; wire cross section up to 2.5 mm <sup>2</sup>                                 |
| <b>Display</b>            | Display   | 4-digit  |
|                           | Digit height  | 14 mm  |
|                           | Segment colour  | red (Standard), optional available in green, blue and orange                                   |
|                           | Range of display  | -1999 to 9999  |
|                           | Threshold values  | optical display flashing   |
|                           | Overflow  | horizontal bars at the top   |
|                           | Underflow   | horizontal bars at the bottom  |
| Display time/Meas. time   | 0.1 to 10.0 seconds   |  |
| <b>Measuring input</b>    | Measuring span  | 0...1,1 kΩ, 0...11 kΩ, 0...110 kΩ, 0...1100 kΩ   |
|                           | Measuring range   | 0...1 kΩ, 0...10 kΩ, 0...100 kΩ, 0...1000 kΩ   |
|                           | Measuring error   | 0.5% of measuring range, ± 1 Digit   |
|                           | Temperature drift   | 100 ppm/K  |
|                           | Measuring time  | 0.1 ... 10.0 seconds   |
|                           | Measuring principle   | U/F-conversion   |
|                           | Resolution  | approx. 18 Bit at 1s measuring time  |
| <b>Output</b>             | Relay   | with change-over contact 250 V / 5 AAC, 30 V / 5 VDC   |
|                           | Switching cycles  | 30 * 10 <sup>3</sup> with 5 AAC, 5 ADC ohm resistive load<br>10 * 10 <sup>6</sup> mechanically |
|                           |   | Diversity according to DIN EN50178 / Characteristics according to DIN EN60255                  |
| <b>Power pack</b>         | Supply  | 230 VAC +/- 10 % (max. 3 VA)<br>24 VDC +/- 10 %, galvanic insulated (max. 1 VA)                |
|                           |   |  |
| <b>Memory</b>             | EEPROM  | Data life ≥ 100 years at 25°C  |
| <b>Ambient conditions</b> | Working temperature   | 0 to + 60 °C   |
|                           | Storing temperature   | -20 to + 80°C  |
|                           | Climatic density  | 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:



• Product key

|                               | M | 1- | 6 | V | R | 4 | B. | 0 | 8 | 0 | 6. | 7 | 7 | 0 | B | D |  |
|-------------------------------|---|----|---|---|---|---|----|---|---|---|----|---|---|---|---|---|--|
| <b>Basic type M-line</b>      |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Dimension</b>   |
|                               |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> D physical unit (free selectable)       |
| <b>Installation depth</b>     |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Version</b>   |
| 113 mm incl. plug-in terminal |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> B B                                     |
| <b>Housing size</b>           |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Switching points</b>  |
| 72x36x97 mm (BxHxD)           |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 0 no switching points                   |
|                               |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 2 2 relay outputs                       |
| <b>Display type</b>           |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Protection class</b>  |
| Ohm                           |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 1 without keypad, operation on the back |
| <b>Display colours</b>        |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 7 IP65 / plug-in terminal               |
| Blue                          |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   |  |
| Green                         |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   |  |
| Red                           |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   |  |
| Orange                        |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   |  |
| <b>Number of digits</b>       |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Supply voltage</b>  |
| 4-digit                       |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 5 230 VAC                               |
|                               |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 7 24 VDC galv. insulated                |
| <b>Digit height</b>           |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Measuring input</b>   |
| 14 mm                         |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 6 Resistance                            |
| <b>Digital input</b>          |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Analog output</b>   |
| none                          |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 0 none                                  |
|                               |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Resistance values</b>   |
|                               |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 8 1 kΩ                                  |
|                               |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 5 10 kΩ                                 |
|                               |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 6 100 kΩ                                |
|                               |   |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <input type="checkbox"/> 7 1000 kΩ                               |