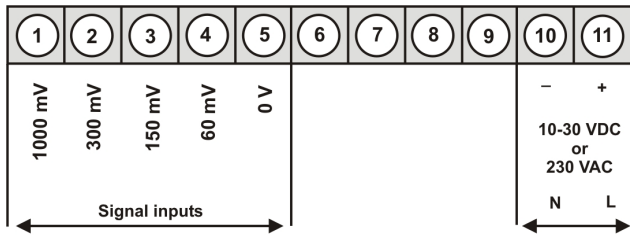




**IM2 – 5-digit digital panel meter in 96x48 mm (BxH) Direct voltage signals – Shunt
60 mV, 150 mV, 300 mV, 1000 mV**

- red display of -19999...99999 digits (optional green, orange, blue or tricolour display)
- compact installation depth: 70 mm without plug-in terminal
- adjustment via factory default or directly on the sensor signal
- min/max-memory with adjustable permanent display
- 30 additional adjustable supporting points
- display flashing at threshold value exceedance/undercut
- zero key for actuation of tara-function / hold-function, display change, setpoint setting, alarm actuator
- flexible alarm system with adjustable delay times
- demand measurement and energy measurement at constant voltage
- mathematical functions like reciprocal value, square root, squaring and rounding
- constant setting / respectively setpoint setting
- sliding averaging
- brightness control via parameters or front keys
- programming interlock via access code
- protection class IP65 at the front
- plug-in screw terminal
- optional: 2 relay outputs
- optional: 1 independently scalable analog output
- optional: galv. isolated digital input for the triggering of Tara, Hold, display change
- accessories: pc-based configuration-kit PM-TOOL with CD & USB adapter
- on request: devices for working temperatures of -20°C...60°C or -40°C...70°C

• **Direct voltage (Shunt)**



Supply 230 VAC

IM2-1VR5B.0002.570xD

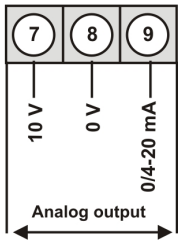
201,20

Supply 10-30 VDC

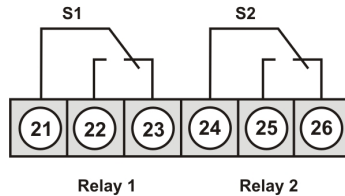
IM2-1VR5B.0002.670xD

248.90

Options:



or



• **Product key options**

| | | | | | | | | | | | | | | | |
|----|----|---|---|---|---|----|---|---|---|----|---|---|---|---|---|
| IM | 2- | 1 | V | R | 5 | B. | 0 | 0 | 0 | 2. | 5 | 7 | 0 | x | D |
| IM | 2- | 1 | V | R | 5 | B. | 0 | 0 | 0 | 2. | 6 | 7 | 0 | x | D |

EUR

| | | |
|---|---|--------|
| 2 | 2 relay outputs | 35.00 |
| 1 | Without keypad, operation via PC software PM-TOOL | 10.60 |
| 4 | Voltage supply 115 VAC | 10.90 |
| X | Analog output 0/4-20 mA, 0-10 VDC with 230 VAC | 105.90 |
| | Analog output 0/4-20 mA, 0-10 VDC with 10-30 VDC | 137.70 |
| I | Digital input galv. isolated | 10.60 |
| B | Blue | 46.60 |
| G | Green | 10.10 |
| Y | Orange | 10.10 |
| T | Tricolour (Red-Green-Orange)* | 31.80 |

* Only one option available with 230 VAC voltage supply: relay outputs or analog output.

Please state physical unit on demand, e.g. A

• **Parameterisation software**

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

ORDER NUMBER

EUR

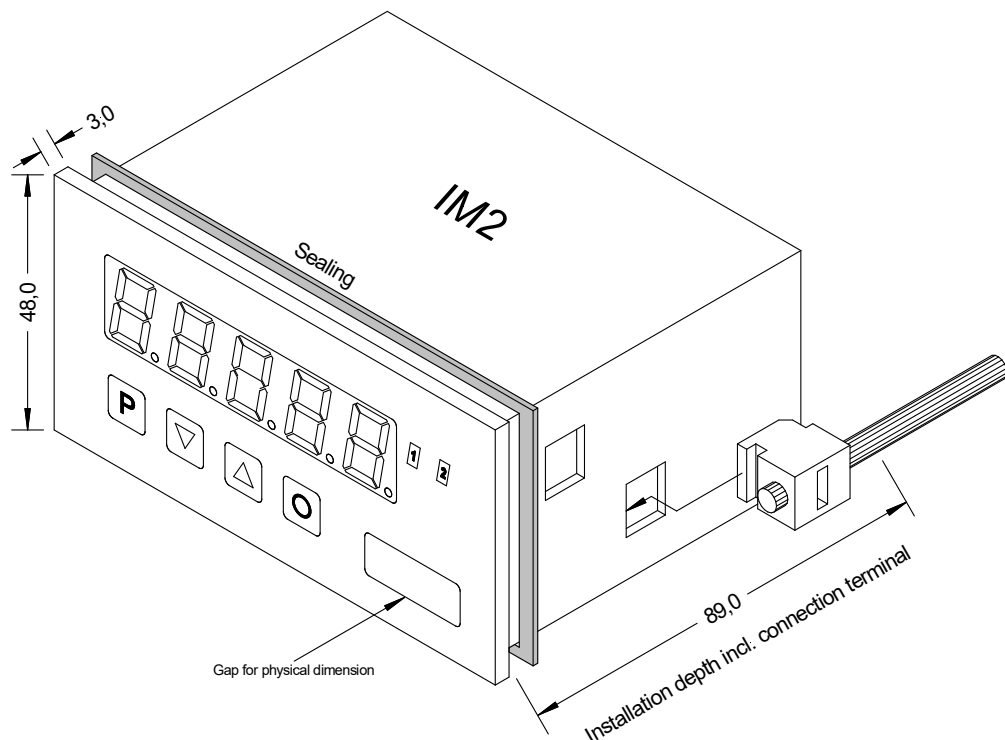
PM-TOOL-MUSB4

94.30

• **Technical data**

| | | | | | |
|---------------------------|---|---|--|----------------|------------------|
| Dimension | Housing | B96 x H48 x D70 mm (including plug-in terminal D= 89 mm) | | | |
| | Panel cut-out | 92.0 ^{+0.8} x 45.0 ^{+0.6} mm | | | |
| | Fixing | screw elements for insulation thickness up to 3 mm | | | |
| | Housing material | PC Polycarbonate, black | | | |
| | Sealing material | EPDM, 65 Shore, black | | | |
| | Protection class | at the front IP65 standard, back side IP00 | | | |
| | Weight | approx. 250 g | | | |
| | Connection | plug-in terminal; line cross-section up to 2.5 mm ² | | | |
| Display | Display | 5-digit | | | |
| | Digit height | 14 mm | | | |
| | Segment colour | red (standard), optional available in green, blue, orange or tricolour (red/green/orange) | | | |
| | Display range | -19999 to 99999 | | | |
| | Setpoints | optical display flashing | | | |
| | Overflow | horizontal bars at the top | | | |
| | Underflow | horizontal bars at the bottom | | | |
| Display time | 0.1 to 10.0 seconds | | | | |
| Measuring input | Span | -5...75 mV | / -15...180 mV | / -30...360 mV | / -100...1200 mV |
| | Measuring range | 0...60 mV | / 0...150 mV | / 0...300 mV | / 0...1000 mV |
| | Input resistance | Ri at ~12 kΩ | / Ri at ~30 Ω | / Ri at ~60 Ω | / Ri at ~200 Ω |
| | Measuring fault | 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 1 sec measuring time | | | |
| | Output | Relay | with change-over contact 250 V / 5 AAC, 30 V / 5 ADC | | |
| Switching cycle | | 10 * 10 ³ at 5 AAC, 5 ADC ohm resistive burden 10 * 10 ⁶ mechanically Separation in accordance with DIN EN 50178 / Specifications in accordance with DIN EN 60255 | | | |
| | Analog output | 0-10 VDC / burden ≥ 10 kΩ, 0/4-20 mA / burden ≤ 500 Ω, 16 bit | | | |
| Digital input | Input galv. isolated | < 2.4 OFF; > 10 V ON; max. 30 VDC, Ri at ~ 5 kΩ | | | |
| Power pack | Supply | 230 VAC 50/60 Hz ±10 % (max. 10 VA) | | | |
| | | 10-30 VDC, galvanic isolated (max. 4 VA) | | | |
| Memory | EEPROM | Data life ≥ 100 years at 25°C | | | |
| Ambient conditions | Working temperature | 0 to +60°C | | | |
| | Storing temperature | -20 to +80°C | | | |
| | Climatic density | relative humidity 0-85% on years average without dew | | | |
| CE-sign | Conformity to directive 2014/30/EU | | | | |
| EMV | EN 61326, EN 55011 | | | | |
| Safety standard | according to low voltage directive 2014/35/EU; EN 61010; EN 60664-1 | | | | |

Housing:



• Order key

| | IM | 2- | 1 | V | R | 5 | B. | 0 | 0 | 0 | 2. | 6 | 7 | 0 | x | D | |
|--|----|----|---|---|---|---|----|---|---|---|----|---|---|---|---|---|--|
| Basic type M-Line | | | | | | | | | | | | | | | | | Dimension |
| | | | | | | | | | | | | | | | | | <input type="checkbox"/> D physical unit (free selectable) |
| Installation depth 89 mm (incl. plug-in terminal) | | | | | | | | | | | | | | | | | Version |
| | | | | | | | | | | | | | | | | | <input type="checkbox"/> x internal version |
| Housing size 96x48x70 mm (BxHxD) | | | | | | | | | | | | | | | | | Switching points |
| | | | | | | | | | | | | | | | | | <input type="checkbox"/> 0 no switching point |
| | | | | | | | | | | | | | | | | | <input type="checkbox"/> 2 2 relay outputs |
| Display type mV | | | | | | | | | | | | | | | | | Protection class |
| | | | | | | | | | | | | | | | | | <input type="checkbox"/> 1 without keypad, operation via PM-TOOL |
| | | | | | | | | | | | | | | | | | <input type="checkbox"/> 7 IP65 / plug-in terminal |
| Display colours Blue Green Red Red/Green/Orange Orange | | | | | | | | | | | | | | | | | Supply voltage |
| | | | | | | | | | | | | | | | | | <input type="checkbox"/> 4 115 VAC |
| | | | | | | | | | | | | | | | | | <input type="checkbox"/> 5 230 VAC |
| | | | | | | | | | | | | | | | | | <input type="checkbox"/> 6 10-30 VDC galv. isolated |
| Number of digits 5-digit | | | | | | | | | | | | | | | | | Measuring input |
| | | | | | | | | | | | | | | | | | <input type="checkbox"/> 2 Shunt |
| Digit height 14 mm | | | | | | | | | | | | | | | | | Analog output |
| | | | | | | | | | | | | | | | | | <input type="checkbox"/> 0 without |
| | | | | | | | | | | | | | | | | | <input type="checkbox"/> X 0-10 VDC, 0/4-20 mA |
| Digital input without 1x digital input | | | | | | | | | | | | | | | | | Sensor supply |
| | | | | | | | | | | | | | | | | | <input type="checkbox"/> 0 without |