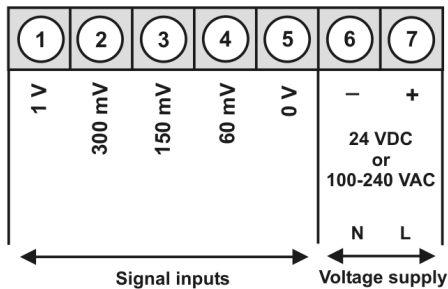




### **IM3 – 5-digit digital panel meter in 48x24 mm (BxH) Direct voltage signals – Shunt 60 mV, 150 mV, 300 mV, 1000 mV**

- red display from -19999...99999 digits (optional green, orange or blue display)
- installation depth: 90 mm without plug-in terminal
- multi voltage power supply unit 100-240 VAC
- adjustment via factory default or directly on the sensor signal
- min/max-memory with adjustable permanent display
- 30 additional adjustable support points
- display flashing at threshold exceedance / threshold undershooting
- navigation keys for the triggering of Hold, Tara, 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, square 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 PhotoMos-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...50°C or -40°C...70°C without condensation

• **Direct voltage (Shunt)**



Supply 24 VDC

**IM3-7VR5A.0002.770xD**

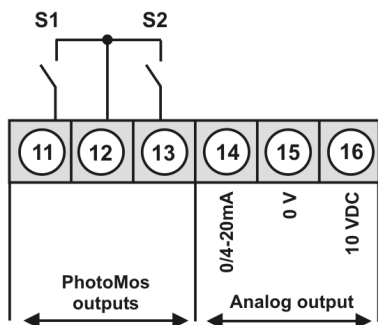
243.60

Supply 100-240 VAC, DC ±10%

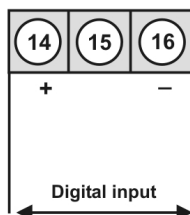
**IM3-7VR5A.0002.S70xD**

254.20

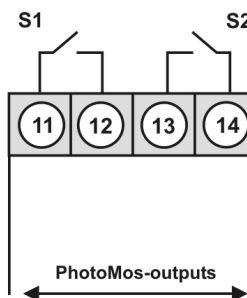
Options: device with a supply of 24 VDC



alternative for analog output



Options: device with a supply of 100-240 VAC



• **Product key options:** devices with a supply of 24 VDC

| IM | 3- | 7 | V | R | 5 | A. | 0 | 0 | 0 | 2. | 7 | 7 | 0 | x | D | EUR |   |        |
|----|----|---|---|---|---|----|---|---|---|----|---|---|---|---|---|-----|---|--------|
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 2   | 2 PhotoMos outputs                                  | 31.80  |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 1   | Without keypad, operation via PC software PM-TOOL   | 10.60  |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | X   | Analog output 0/4-20 mA, 0-10 VDC galvanic isolated | 127.10 |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | I   | Digital input galvanic isolated                     | 21.20  |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | B   | Blue  | 46.60  |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | G   | Green   | 10.10  |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | Y   | Orange  | 10.10  |

• **Product key options:** devices with a supply of 100-240 VAC

| IM | 3- | 7 | V | R | 5 | A. | 0 | 0 | 0 | 2. | S | 7 | 0 | x | D | EUR |   |       |
|----|----|---|---|---|---|----|---|---|---|----|---|---|---|---|---|-----|---|-------|
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 2   | 2 PhotoMos outputs                                | 31.80 |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 1   | Without keypad, operation via PC software PM-TOOL | 10.60 |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | B   | Blue  | 46.60 |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | G   | Green   | 10.10 |
|    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | Y   | Orange  | 10.10 |

Please state physical unit on demand in your order, e.g. mV.

• **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**

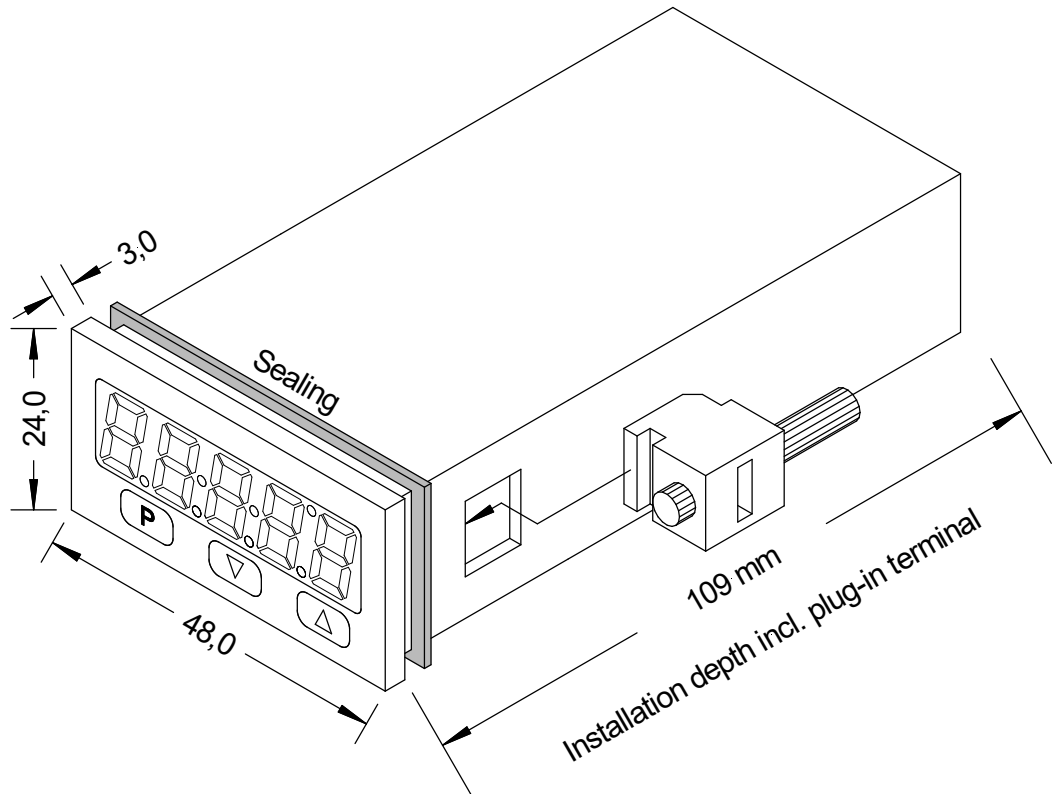
**PM-TOOL-MUSB4**

**94.30**

• **Technical data**

|                           |   |  |                                   |                                      |                             |
|---------------------------|---|--|-----------------------------------|--------------------------------------|-----------------------------|
| <b>Housing dimension</b>  | Housing   | B48 x H24 x T90 mm, (with plug-in terminal D= 109 mm)                                      |                                   |                                      |                             |
|                           | Panel cut-out   | 45.0 <sup>+0.6</sup> x 22.2 <sup>+0.3</sup> mm   |                                   |                                      |                             |
|                           | Fixing  | screw elements for wall thicknesses up to 5 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   | 5-digit  |                                   |                                      |                             |
|                           | Digit height  | 10 mm  |                                   |                                      |                             |
|                           | Segment colour  | red (Standard), optional available in green, orange and blue                               |                                   |                                      |                             |
|                           | Display range   | -19999 to 99999  |                                   |                                      |                             |
|                           | Limit values  | optical display flashing   |                                   |                                      |                             |
|                           | Overflow  | horizontal bars at the top   |                                   |                                      |                             |
|                           | Underflow   | horizontal bars at the bottom  |                                   |                                      |                             |
|                           | Display time  | 0.1 to 10.0 seconds  |                                   |                                      |                             |
| <b>Measuring input</b>    | 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  | R <sub>i</sub> at ~12 kΩ   | / R <sub>i</sub> at ~30 kΩ        | / R <sub>i</sub> at ~60 kΩ           | / R <sub>i</sub> at ~200 kΩ |
|                           | Measuring fault   | 0.5% of measuring range, ± 1 digit   |                                   | / 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 second measuring time  |                                   |                                      |                             |
|                           | <b>Output</b>   | PhotoMos   | Closer contacts: 30 VDC/AC, 0.4 A |                                      |                             |
| Analog output             |   | 0-10 VDC / burden ≥ 10 kΩ, 0/4-20 mA / burden ≤ 500 Ω, 16 bit                              |                                   |                                      |                             |
| <b>Digital input</b>      | Input galv. isolated  | <2.4 V OFF; 10 V ON; max. 30 VDC, R <sub>i</sub> ~ 5 kΩ                                    |                                   |                                      |                             |
| <b>Power pack</b>         | Supply  | 100-240 VAC 50/60 Hz / DC ± 10% (max. 5 VA)<br>24 VDC ± 10%, galvanic isolated (max. 4 VA) |                                   |                                      |                             |
| <b>Memory</b>             | EEPROM  | Data life ≥ 100 years at 25°C  |                                   |                                      |                             |
| <b>Ambient conditions</b> | Working temperature   | 0 to + 50°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 2014/30/EU                                    |  |                                   |                                      |                             |
| <b>EMV</b>                | EN 61326, EN 55011  |  |                                   |                                      |                             |
| <b>Safety standard</b>    | According to low voltage directive 2014/35/EU<br>EN 61010; EN 60664-1 |  |                                   |                                      |                             |

**Housing:**



• Order key

|                                 | IM | 3- | 7 | V | R | 5 | A. | 0 | 0 | 0 | 2. | 7 | 7 | 0 | x | D |   |
|---------------------------------|----|----|---|---|---|---|----|---|---|---|----|---|---|---|---|---|---|
| <b>Standard type M-Line</b>     |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Dimension</b>                        |
|                                 |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | D physical unit                         |
| <b>Installation depth</b>       |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Version</b>                          |
| 109 mm (incl. plug-in terminal) |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | x internal version                      |
| <b>Housing size</b>             |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Switching points</b>                 |
| 48x24x90 mm (BxHxD)             |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 0 no switching point                    |
| <b>Display type</b>             |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 2 2 PhotoMos-outputs                    |
| mV                              |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Protection class</b>                 |
| <b>Display colours</b>          |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 1 without keypad, operation via PM-TOOL |
| Blue                            |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 7 IP65 / pluggable terminal             |
| Green                           |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Supply voltage</b>                   |
| Red                             |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 7 24 VDC galv. isolated                 |
| Orange                          |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | S 100-240 VAC                           |
| <b>Number of digits</b>         |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Measuring input</b>                  |
| 5-digit                         |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 2 Shunt                                 |
| <b>Digit height</b>             |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Analog output</b>                    |
| 10 mm                           |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 0 without                               |
| <b>Digital input</b>            |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | X 0-10 VDC, 0/4-20 mA                   |
| without                         |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Sensor supply</b>                    |
| 1 digital input                 |    |    |   |   |   |   |    |   |   |   |    |   |   |   |   |   | 0 without                               |