



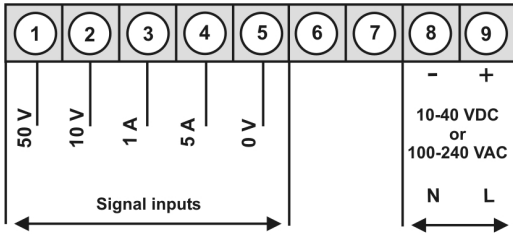
**IM3 – 5-digit digital panel meter in 96x48 mm (BxH)
AC current / AC voltage signals rms-value (TRMS)
50 VAC, 10 VAC, 1 AAC, 5 AAC**

- red display of -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
- 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
- zero key for the triggering of Hold, Tara, display change, setpoint setting, alarm actuation
- flexible alarm system with adjustable delay times
- power measurement and energy measurement at constant voltage
- 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: 2 or 4 relay outputs or 8 PhotoMos-outputs
- optional: 1 or 2 independently scalable analog outputs
- optional: galv. isolated 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...60°C or -40°C...70°C

ORDER NUMBER
(without options)

EUR

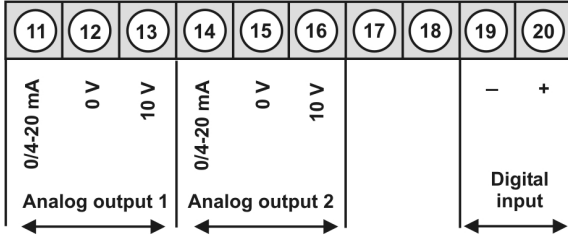
• **AC current, AC voltage (RMS-value)**



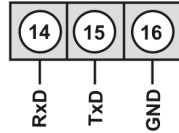
Supply 100-240 VAC, DC $\pm 10\%$
Supply 10-40 VDC, 18-30 VAC

IM3-1VR5B.0004.S70xD 275.30
IM3-1VR5B.0004.W70xD 291.20

Options:



alternative to analog output 2

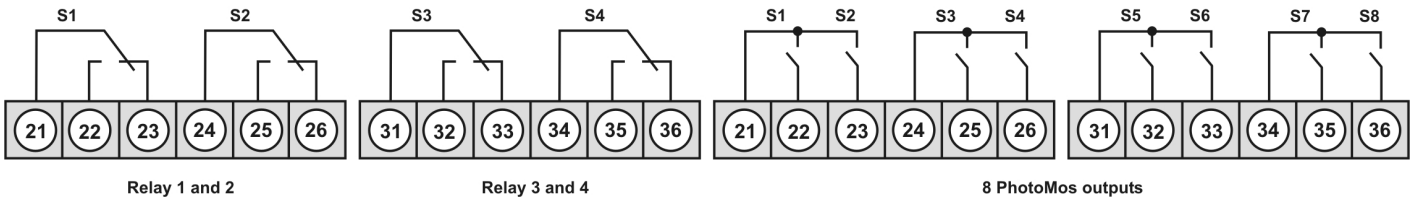


Interface RS232 (Modbus protocol)

or



Interface RS485 (Modbus protocol)



• **Order key options**

| | | | | | | | | | | | | | | | |
|----|----|---|---|---|---|----|---|---|---|----|---|---|---|---|---|
| IM | 3- | 1 | V | R | 5 | B. | 0 | 0 | 0 | 4. | S | 7 | 0 | x | D |
| IM | 3- | 1 | V | R | 5 | B. | 0 | 0 | 0 | 4. | W | 7 | 0 | x | D |

EUR

| | | |
|---|---|--------|
| 2 | 2 relay outputs | 35.00 |
| 4 | 4 relay outputs | 69.90 |
| 8 | 8 PhotoMos-outputs | 95.30 |
| 1 | without keypad, operation via PC software PM-TOOL | 10.60 |
| X | Analog output 0/4-20 mA, 0-10 VDC galv. isolated | 127.10 |
| Y | 2 analog outputs galv. isolated | 254.20 |
| 3 | Interface RS232 galv. isolated | 58.30 |
| 4 | Interface RS485 galv. isolated | 58.30 |
| 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 |

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

• **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

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PM-TOOL-MUSB4 94.30

• **Technical data**

| | | | | | |
|---------------------------|---|---|----------------|-----------------|----------------|
| Dimensions | Housing | B96 x H48 x D120 mm, (incl. plug-in terminal D = 139 mm) | | | |
| | Panel cut-out | 92.0 ^{+0.8} x 45.0 ^{+0.6} mm | | | |
| | Fixing | screw elements for insulation thickness up to 15 mm | | | |
| | Housing material | PC Polycarbonate, black | | | |
| | Sealing material | EPDM, 65 Shore, black | | | |
| | Protection type | front side IP65 standard, back side IP00 | | | |
| | Weight | approx. 350 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) | | | |
| | Range of display | -19999 to 99999 | | | |
| | Threshold | optical display flashing | | | |
| | Overflow | horizontal bars at the top | | | |
| | Underflow | horizontal bars at the bottom | | | |
| Measuring input | Measuring range | 50 VAC | / 10 VAC | / 5 AAC | / 1 AAC |
| | Input resistance | Ri at ~200 kΩ | / Ri at ~40 kΩ | / Ri at ~0.05 Ω | / Ri at ~200 Ω |
| | Measuring fault | 0.5% of measuring range at 50 Hz...1 kHz up to crestfactor 4 for input signals of 1...100% of final value | | | |
| | 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 | | | |
| Output | Relays | with change-over contact 250 V / 5 AAC, 30 V / 5 ADC | | | |
| | Switching cycles | 10 * 10 ⁵ at 5 AAC, 5 ADC contact rate, 10 * 10 ⁶ mechanically | | | |
| | PhotoMos output | Separation in accordance with DIN EN50178 / Specifications in accordance with DIN EN 60255 | | | |
| | Analog output | NOC contacts: 30 VDC/AC, 4 A 0-10 VDC / burden ≥ 10 kΩ, 0/4-20 mA / burden ≤ 500 Ω, 16 bit | | | |
| Digital input | Input galv. isolated | < 2.4 V OFF; >10 V ON; max. 30 VDC, Ri ~ 5 kΩ | | | |
| Interface | Protocol | manufacturer's specifics ASCII | | | |
| | RS232 | 9.600 Baud, no parity, 8 DataBit, 1 StopBit, wire length max. 3 m | | | |
| | RS485 | 9.600 Baud, no parity, 8 DataBit, 1 StopBit, wire length max. 1000 m | | | |
| Power pack | Supply | 100-240 VAC 50/60 Hz ± 10% (max. 15 VA) 10-40 VDC, galvanic isolated, 18-30 VAC 50/60 Hz (max. 15 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:

