



M3 – 5-digit digitales panel meter 96x48 (BxH) Standard signal 0/4-20 mA, 0-10 VDC

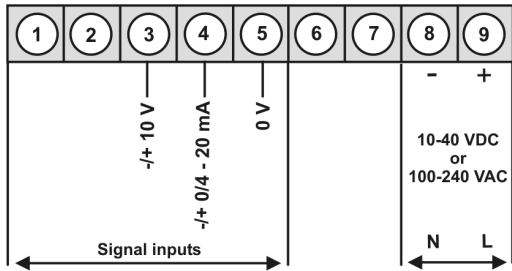
- red display of -19999...99999 digits (optional green, orange, blue or tricolour display)
- installation depth: 120 mm without plug-in screw terminal
- multi voltage power supply unit 100-240 VAC, alternatively 10-40 VDC
- adjustment via factory setting or directly on the sensor signal
- min/max-memory 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
- 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: 2 or 4 relay outputs or 8 PhotoMos-outputs
- optional: sensor supply
- 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 USB adapter
- on demand: devices for working temperatures of -20°C...60°C or -40°C...70°C

ORDER NUMBER

EUR

(without options)

• **Direct current, direct voltage**



Supply 100-240 VAC, DC ±10%

M3-1VR5B.0001.S70xD

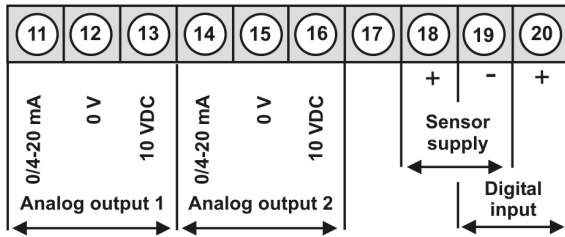
217.10

Supply 10-40 VDC, 18-30 VAC

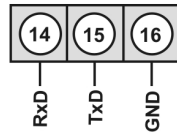
M3-1VR5B.0001.W70xD

222.40

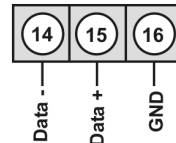
Options:



alternative for analog output 2

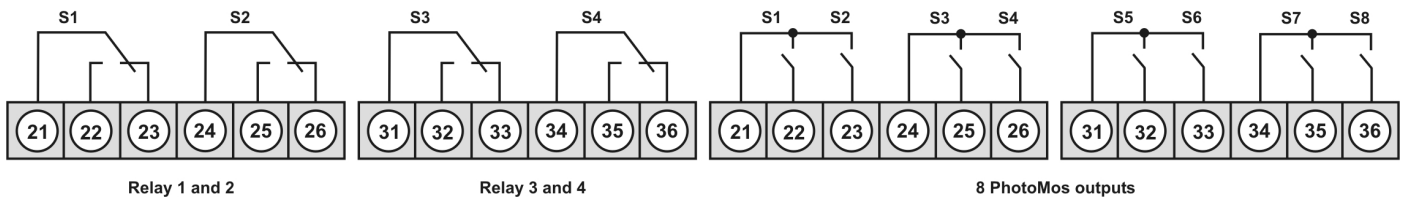


or



Interface RS232 (Modbus protocol)

Interface RS485 (Modbus protocol)



• **Order key options**

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

EUR

D	Dimension/physical unit, customer-specific settings	20.00
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
2	Sensor supply 10 VDC / 20 mA incl. digital input	26.50
3	Sensor supply 24 VDC / 50 mA incl. digital input	26.50
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. USB-adaptor. Programming happens via an interface on the back.

ORDER NUMBER

EUR

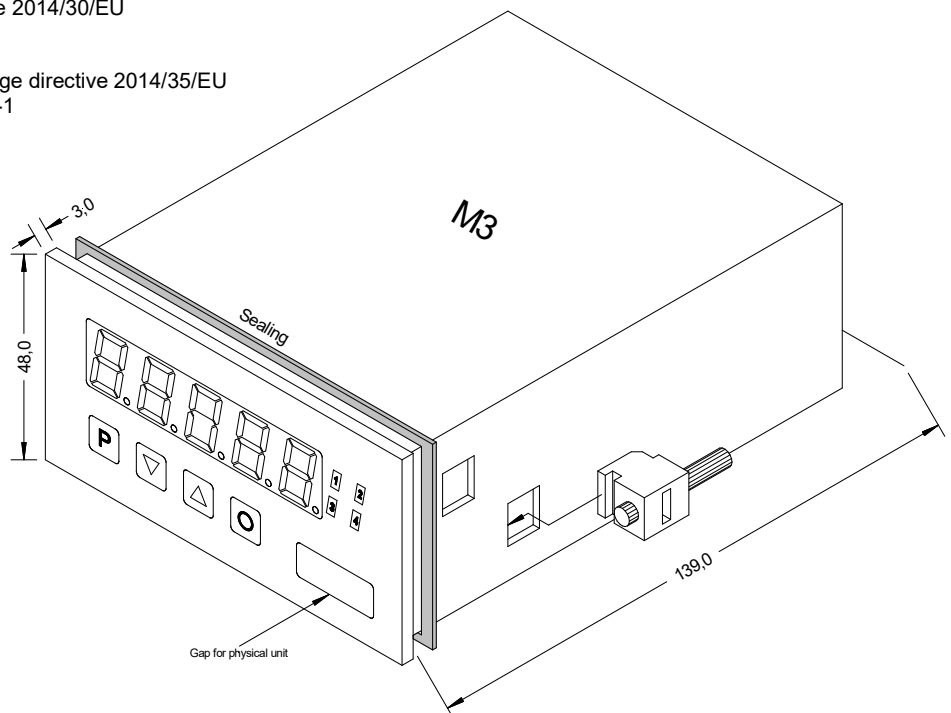
PM-TOOL-MUSB4

94.30

• **Technical data**

Dimensions	Housing Panel cut-out Fixing Housing material Sealing material Protection type Weight Connection	B96 x H48 x D120 mm, (incl. plug-in terminal D = 139 mm) 92.0 ^{+0.8} x 45.0 ^{+0.6} mm screw elements for insulation thickness up to 15 mm PC Polycarbonate, black EPDM, 65 Shore, black front side IP65 standard, back side IP00 approx. 350 g plug-in terminal; line cross-section up to 2.5 mm ²
Display	Display Digit height Segment colour Range of display Threshold Overflow Underflow Display time	5-digit 14 mm red (standard), optional available in green, blue, orange or tricolour (red/green/orange) -19999 to 99999 optical display flashing horizontal bars at the top horizontal bars at the bottom 0.1 to 10.0 seconds
Measuring input	Span Measuring range Input resistance Measuring fault Temperature drift Measuring time Measuring principle Resolution	-12...12 V / -22...24 mA 0-10 VDC / 0/4-20 mA Ri at ~200 kΩ / Ri at ~100 Ω 0.1% of measuring range, ± 1 digit / 0.1% of measuring range, ± 1 digit 100 ppm/K 0.1 ... 10.0 seconds U/F- conversion approx. 18 bit at 1 sec measuring time
Output	Relays Switching cycles PhotoMos output Analog output Sensor supply	with change-over contact 250 V / 5 AAC, 30 V / 5 ADC 30 * 10 ⁵ at 5 AAC, 5 ADC contact rate, 10 * 10 ⁶ mechanically Separation in accordance with DIN EN50178 / Specifications in accordance with DIN EN 60255 NOC contacts: 30 VDC/AC, 4 A 0-10 VDC / burden ≥ 10 kΩ, 0/4-20 mA / burden ≤ 500 Ω, 16 bit 24 VDC / 50 mA 10 VDC / 20 mA
Digital input	Input galv. isolated	<2.4 V OFF; >10 V ON; max. 30 VDC, Ri ~ 5 kΩ
Interface	Protocol RS232 RS485	manufacturer's specifics ASCII 9.600 Baud, no parity, 8 DataBit, 1 StopBit, wire length max. 3 m 9.600 Baud, no parity, 8 DataBit, 1 StopBit, wire length max. 1000 m
Power pack	Supply	100-240 VAC 50/60 Hz, DC ±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 Storing temperature Climatic density	0 to +60°C -20 to +80°C relative humidity 0-85% on years average without dew
CE-sign EMV	Conformity to directive 2014/30/EU EN 61326, EN 55011	
Safety standard	according to low voltage directive 2014/35/EU EN 61010; EN 60664-1	

Housing:



• Order key

	M	3-	1	V	R	5	B.	0	0	0	1.	S	7	0	x	D	
Basic type M-Line																	Dimension
																	<input type="checkbox"/> D physical unit
Installation depth 139 mm (incl. plug-in terminal)																	Version
																	<input type="checkbox"/> x internal version
Housing size 96x48x120 mm (BxHxD)																	Switching points
																	<input type="checkbox"/> 0 no switching point
																	<input type="checkbox"/> 2 2 relay outputs
																	<input type="checkbox"/> 4 4 relay outputs
																	<input type="checkbox"/> 8 8 PhotoMos-outputs
Display type V, A, Ohm																	Protection class
																	<input type="checkbox"/> 1 without keypad, via PM-TOOL
																	<input type="checkbox"/> 7 IP65 / plug-in terminal
Display colours Blue Green Red Red/Green/Orange Orange																	Voltage supply
																	<input type="checkbox"/> S 100-240 VAC
																	<input type="checkbox"/> W 10-40 VDC galv. isolated
Number of digits 5-digit																	Measuring input
																	<input type="checkbox"/> 1 Direct voltage, direct current
Digit height 14 mm																	Analog output
																	<input type="checkbox"/> 0 without
																	<input type="checkbox"/> X 1x 0-10 VDC, 0/4-20 mA
																	<input type="checkbox"/> Y 2x 0-10 VDC, 0/4-20 mA
Digital input without 1 digital input Interface RS232 Interface RS485 Interface RS232 Interface RS485																	Sensor supply
																	<input type="checkbox"/> 0 without
																	<input type="checkbox"/> 2 10 VDC / 20 mA (incl. digital input)
																	<input type="checkbox"/> 3 24 VDC / 50 mA (incl. digital input)