



M3 – 5-digit digital panel meter 96x48 (BxH) Potentiometer >1 k Ω ... <1000 k Ω

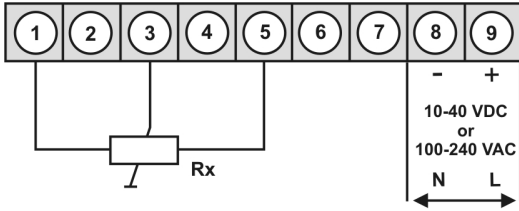
- red display of -19999...99999 digits (optional green, orange, blue or tricolour display)
- installation depth: 120 mm without plug-in screw terminal
- multi voltage power supply unit 100-240 VAC, alternatively 10-40 VDC
- adjustment via factory setting or directly on the sensor signal
- min/max-memory 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: 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)

• **Potentiometer >1 kΩ ... <1000 kΩ**



Supply 100-240 VAC, DC ±10%

M3-1VR5B.0005.S70xD

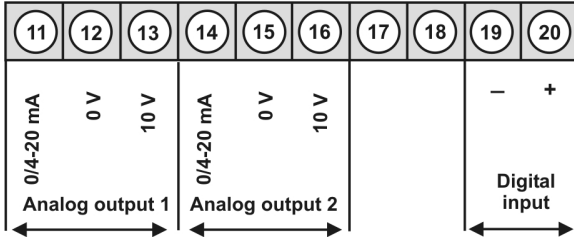
243.60

Supply 10-40 VDC, 18-30 VAC

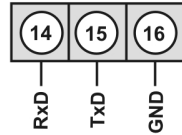
M3-1VR5B.0005.W70xD

254.20

Options:



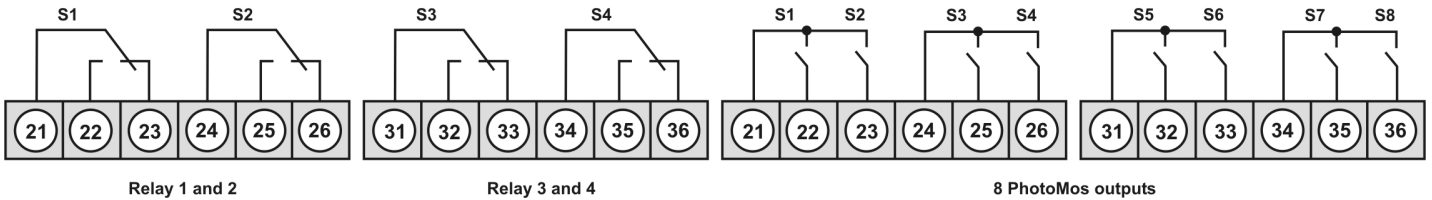
alternative to analog output 2



Interface RS232 (Modbus protocol)



Interface RS485 (Modbus protocol)



• **Order key options**

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

• **Parameterisation software**

ORDER NUMBER

EUR

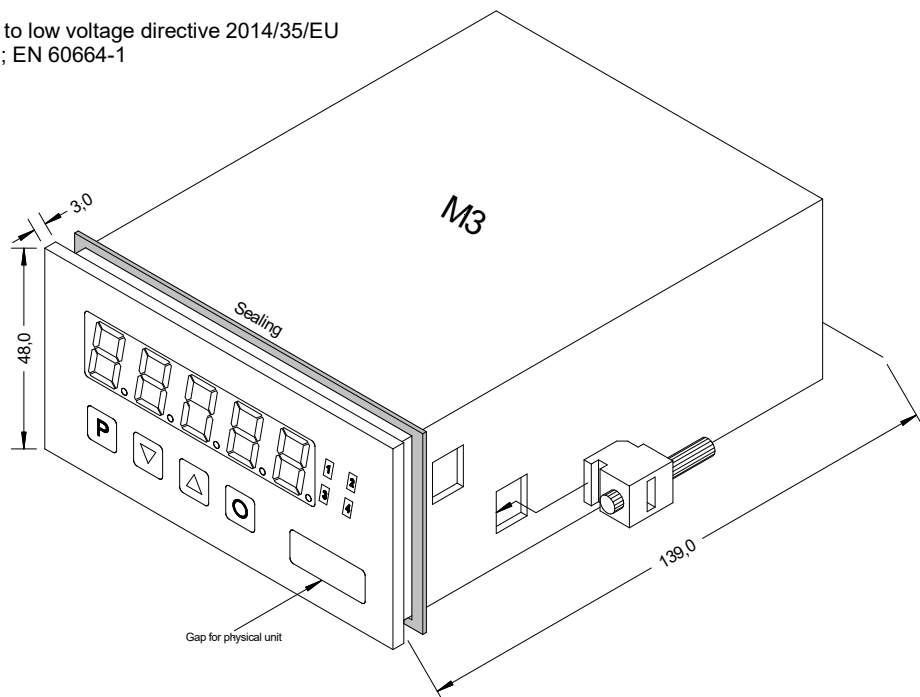
PC based configuration software PM-Tool for devices without keypad, for a simple adjustment of standard devices, incl. USB-adapter. Programming happens via an interface on the back.

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
	Display time	0.1 to 10.0 seconds
Measuring input	Span	>1 kΩ ... <1000 kΩ
	Measuring range	0-100 %
	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 1s 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, R _i ~ 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:		



• Order key

	M	3-	1	V	R	5	B.	0	0	0	5.	S	7	0	x	D
Basic type M-Line																
Installation depth 139 mm (incl. plug-in terminal)																
Housing size 96x48x120 mm (BxHxD)																
Display type Potentiometer																
Display colours Blue Green Red Red/Green/Orange Orange																
Number of digits 5-digit																
Digit height 14 mm																
Digital input without 1 digital input Interface RS232 Interface RS485 Interface RS232 Interface RS485																
Dimension D physical unit																
Version x internal version																
Switching points 0 no switching point 2 2 relay outputs 4 4 relay outputs 8 8 PhotoMos-outputs																
Protection class 1 without keypad, operation via PM-TOOL 7 IP65 / plug-in terminal																
Voltage supply S 100-240 VAC W 10-40 VDC galv. isolated																
Measuring input 5 Potentiometer >1 kΩ ... <1000 kΩ																
Analog output 0 without X 1x 0-10 VDC, 0/4-20 mA Y 2x 0-10 VDC, 0/4-20 mA																
Sensor supply 0 without																