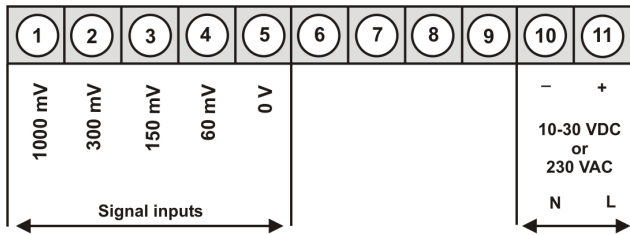




## **M2 – 5-digit digital panel meter in 96x48 mm (BxH) Direct voltage signals – Shunt 60 mV, 150 mV, 300 mV, 1000 mV**

- 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 USB adapter
- on request: devices for working temperatures of -20°C...60°C or -40°C...70°C

• **Direct voltage (Shunt)**



Supply 230 VAC

**M2-1VR5B.0002.570xD**

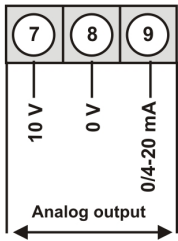
**201,20**

Supply 10-30 VDC

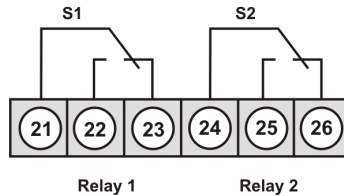
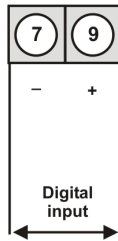
**M2-1VR5B.0002.670xD**

**248,90**

**Options:**



or



• **Product key options**

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

**EUR**

D	Dimension/physical unit, customer-specific settings	20.00
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. USB-adapter. Programming happens via an interface on the back.

**ORDER NUMBER**

**EUR**

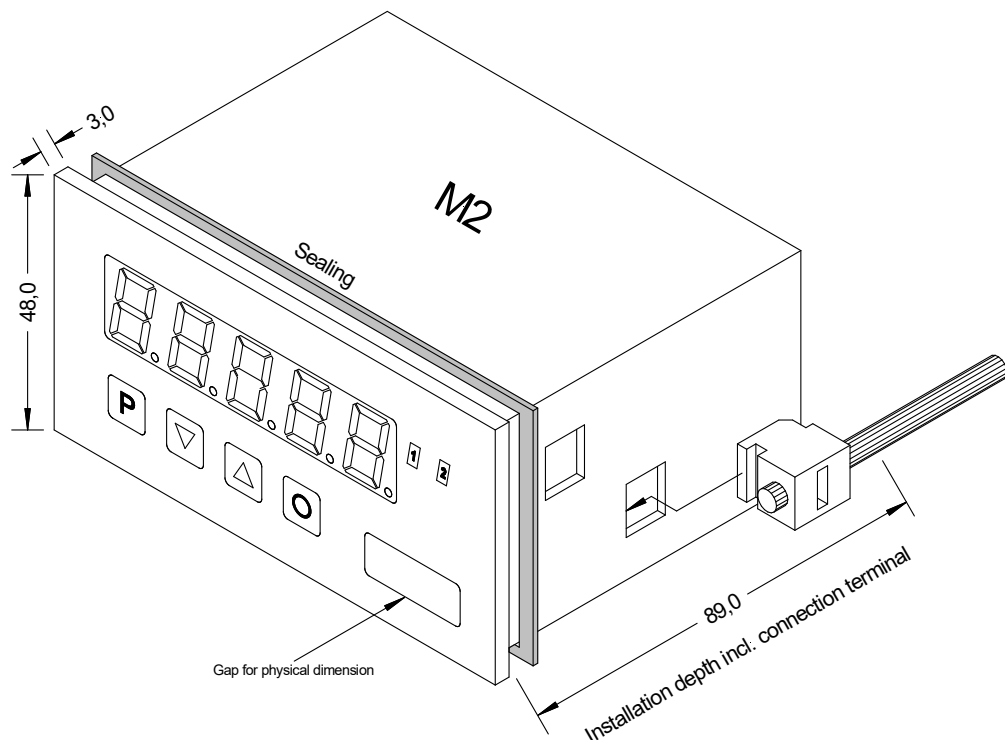
**PM-TOOL-MUSB4**

**94.30**

• **Technical data**

<b>Dimension</b>	Housing	B96 x H48 x D70 mm (including plug-in terminal D= 89 mm)			
	Panel cut-out	92.0 <sup>+0.8</sup> x 45.0 <sup>+0.6</sup> 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 <sup>2</sup>			
<b>Display</b>	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				
<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	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			
	<b>Output</b>	Relay	with change-over contact 250 V / 5 AAC, 30 V / 5 ADC		
Switching cycle		10 * 10 <sup>3</sup> at 5 AAC, 5 ADC ohm resistive burden 10 * 10 <sup>6</sup> 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			
<b>Digital input</b>	Input galv. isolated	< 2.4 OFF; > 10 V ON; max. 30 VDC, Ri at ~ 5 kΩ			
<b>Power pack</b>	Supply	230 VAC 50/60 Hz ±10 % (max. 10 VA)			
		10-30 VDC, galvanic isolated (max. 4 VA)			
<b>Memory</b>	EEPROM	Data life ≥ 100 years at 25°C			
<b>Ambient conditions</b>	Working temperature	0 to +60°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; EN 61010; EN 60664-1				

**Housing:**



• Order key

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