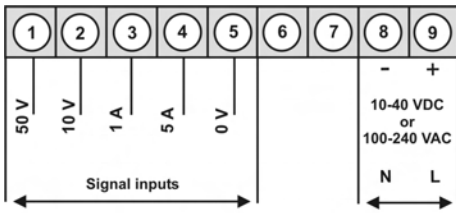




**M3 – 5-digit digital panel meter in 96x48 mm (BxH)
AC current / AC voltage signals rms-value (TRMS)
50 VAC, 10 VAC, 1 AAC, 5 AAC**

- 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

• AC current, AC voltage (RMS-value)

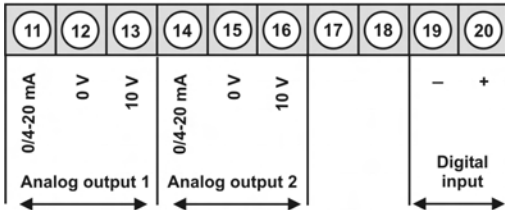


Supply 100-240 VAC, DC ± 10%
Supply 10-40 VDC, 18-30 VAC

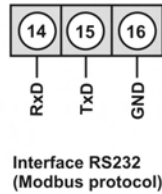
M3-1VR5B.0004.S70BD

M3-1VR5B.0004.W70BD

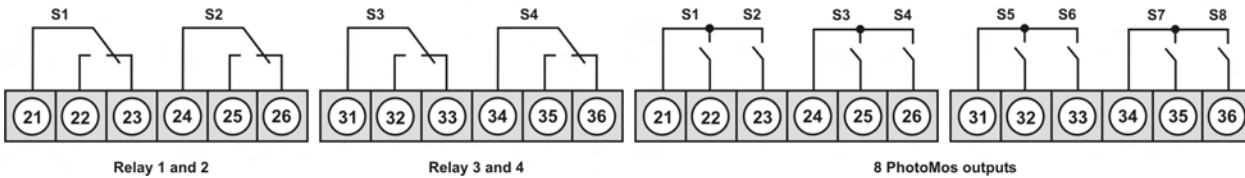
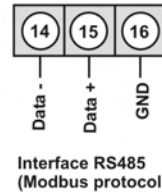
Options:



alternative to analog output 2



or



• Order key options

M	3-	1	V	R	5	B.	0	0	0	4.	S	7	0	B	D
M	3-	1	V	R	5	B.	0	0	0	4.	W	7	0	B	D

EUR

2	2 relay outputs
4	4 relay outputs
8	8 PhotoMos-outputs
1	without keypad, operation on the back
X	Analog output 0/4-20 mA, 0-10 VDC galv. isolated
Y	2 analog outputs galv. isolated
3	Interface RS232 galv. isolated
4	Interface RS485 galv. isolated
I	Digital input galv. isolated
B	Blue
G	Green
Y	Orange
T	Tricolour (Red-Green-Orange)

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 is made via an interface on the back.

ORDER NUMBER

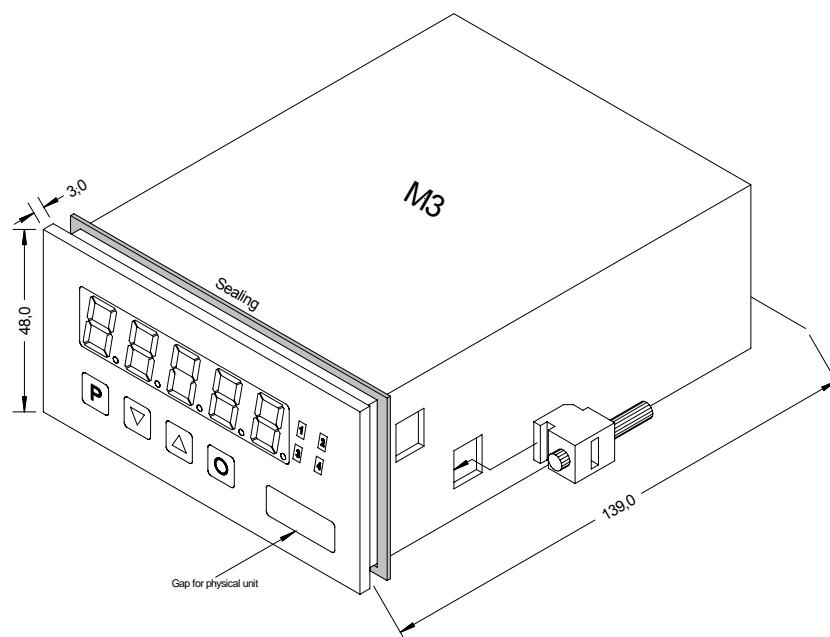
EUR

PM-TOOL-MUSB4

• 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 3 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	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 2004/108/EG				
EMV	EN 61326, EN 55011				
Safety standard	according to low voltage directive 2006/95/EG EN 61010; EN 60664-1				

Housing:



• Order key

	M	3-	1	V	R	5	B.	0	0	0	4.	S	7	0	B	D	
Basic type M-Line																	Dimension
																	<input type="checkbox"/> D physical unit (at buyer's option)
Installation depth 139 mm (incl. plug-in terminal)			<input type="checkbox"/> 3														Version
																	<input type="checkbox"/> B B
Housing size 96x48x120 mm (BxHxD)			<input type="checkbox"/> 1														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				<input type="checkbox"/> V													Protection class
																	<input type="checkbox"/> 1 Without keypad, operation via PM-TOOL
																	<input type="checkbox"/> 7 IP65 / plug-in terminal
Display colours Blue Green Red Red/Green/Orange Orange					<input type="checkbox"/> B <input type="checkbox"/> G <input type="checkbox"/> R <input type="checkbox"/> T <input type="checkbox"/> Y												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"/> 4 AC current, AC voltage
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					<input type="checkbox"/> 0 <input type="checkbox"/> I <input type="checkbox"/> 3 galv. isolated <input type="checkbox"/> 4 galv. isolated <input type="checkbox"/> C incl. digital input <input type="checkbox"/> D incl. digital input												Sensor supply
																	<input type="checkbox"/> 0 without