M3 – 5-digit digital panel meter in 96x24 mm (BxH)
Direct voltage signals – Shunt
60 mV, 150 mV, 300 mV, 1000 mV

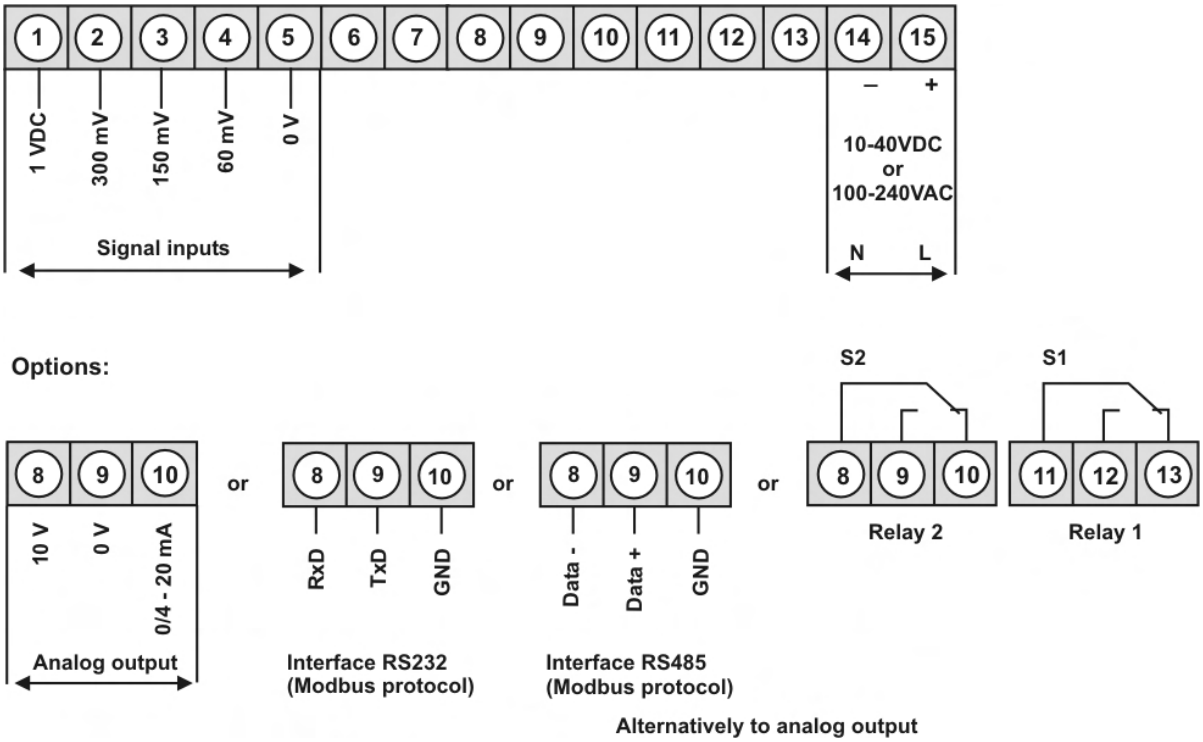
- red display from -19999…99999 digits (optional green, orange, blue or tricolour display)
- installation depth: 120 mm without plug-in screw terminal
- multi voltage power supply unit 100-240 VAC, alternatively 10-40 VDC galvanic isolated
- adjustment via factory setting or directly on the sensor signal
- min-/max-memory with adjustable permanent display
- 30 additional adjustable support points
- display flashing at threshold value exceedance / undercut
- navigation keys for the triggering of Hold, Tara, display change, setpoint setting, alarm actuation
- flexible alarm system with adjustable delay times
- demand 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: 1 or 2 relay outputs
- optional: 1 independently scalable analog output
- 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

• Direct voltage (Shunt)

Supply 100-240 VAC, DC ± 10% **M3-3VR5B.0002.S70BD**

Supply 10-40 VDC, 18-30 VAC **M3-3VR5B.0002.W70BD**



• Product key options

M	3-	3	V	R	5	B.	0	0	0	2.	S	7	0	B	D		
M	3-	3	V	R	5	B.	0	0	0	2.	W	7	0	B	D		EUR
																1	1 relay output (with option analog output only 1 switching point is possible)
																2	2 relay outputs
																1	without keypad, operation on the back
																X	Analog output 0/4-20 mA, 0-10 VDC
																3	Interface RS232 galv. isolated
																4	Interface RS485 galv. isolated
																B	Blue
																G	Green
																Y	Orange
																T	Tricolour (Red-Green-Orange)

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

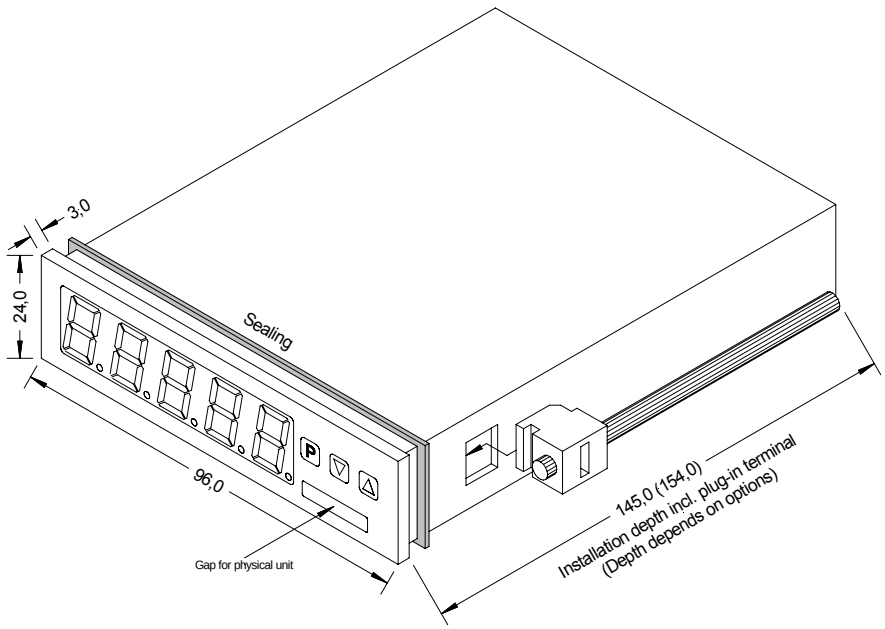
• Parameterisation software

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. **PM-TOOL-MUSB4**

• Technical data

Dimensions	Housing	B96 x H24 x D120 mm, (incl. plug-in terminal D= 145 mm cable outlet at the back)
	Panel cut-out	$92.0^{+0.8}$ x $22.2^{+0.3}$ mm
	Fixing	screw elements for a wall thickness up to 3 mm
	Housing material	PC Polycarbonate, black
	Sealing material	EPDM, 65 Shore, black
	Protection class	at the front IP65 Standard, at the back IP00
	Weight	approx. 250 g
	Connection	plug-in terminal; wire cross section up to 2.5 mm^2
Display	Display	5-digit
	Digit height	14 mm
	Segment colour	red (Standard), optional in green, orange, blue or tricolour (red/green/orange)
	Range of display	-19999 to 99999
	Threshold value	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	-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 kΩ / Ri at ~60 kΩ / Ri at ~200 kΩ
	Measuring fault	0.2% of measuring range, ± 1 Digit / 0.2% 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	Relay	with change-over contact 250 V / 5 AAC, 30 V / 5 ADC
	Switching cycle	$30 * 10^3$ at 5 AAC, 5 ADC resistive burden, $10 * 10^6$ mechanically Separation according to DIN EN50178 / Specific values according to DIN EN 60255
	Analog output	0-10 VDC / burden ≥ 10 kΩ, 0/4-20 mA / burden ≤ 500 Ω, 16 Bit
Interface	Protocol	Modbus with ASCII or RTU-protocol
	RS232	9.600 Baud, no parity, 8 DataBit, 1 StopBit, Pipeline length max. 3 m
	RS485	9.600 Baud, no parity, 8 DataBit, 1 StopBit, Pipeline length max. 1000 m
Power pack	Supply	100-240 VAC 50/60 Hz, DC ± 10 % (max. 10 VA) 10-40 VDC galv. isolated, 18-30 VAC (max. 10 VA)
Memory	EEPROM	Data preservation≥ 100 years at 25°C
Ambient condition	Working temperature	0°C to + 50°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-	3	V	R	5	B.	0	0	0	2.	W	7	0	B	D	
Standard type M-Line																	**Dimension**
Installation depth																	D physical unit (on demand)
145 mm incl. plug-in terminal (154 mm)		3															
Housing size																	**Version**
96x24x120 mm (BxHxT)			3														B B
Display type																	**Switching points**
mV				V													0 without
																	1 1 relay output
Display colours																	2 2 relay outputs
Blue					R												**Protection class**
Green																	1 without keypad, operation via PM-TOOL
Red																	7 IP65 / plug-in terminal
Red/Green/Orange																	**Supply voltage**
Orange																	S 100-240 VAC
																	W 10-40 VDC
Number of digits																	
5-digits						5											**Measuring input**
																	2 Shunt
Digit height																	
14 mm							B										**Analog output**
																	0 without
Digital input																	X 1x 0-10 VDC, 0/4-20 mA
without								0									
Interface RS232								3									**Sensor supply**
Interface RS485								4									0 without