



M3 – 5-digit digital panel meter in 96x24 mm (BxH) AC voltage signals / AC current signals – rms-value (TRMS) 50 VAC, 5 AAC

- 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
- 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: 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

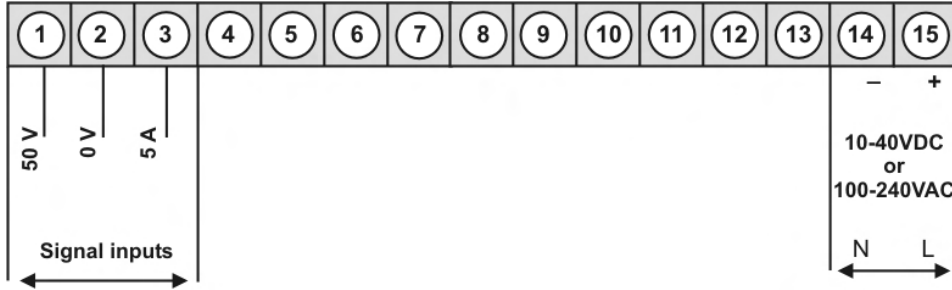
• AC current, ac voltage (true RMS value)

Supply 100-240 VAC, DC ± 10%

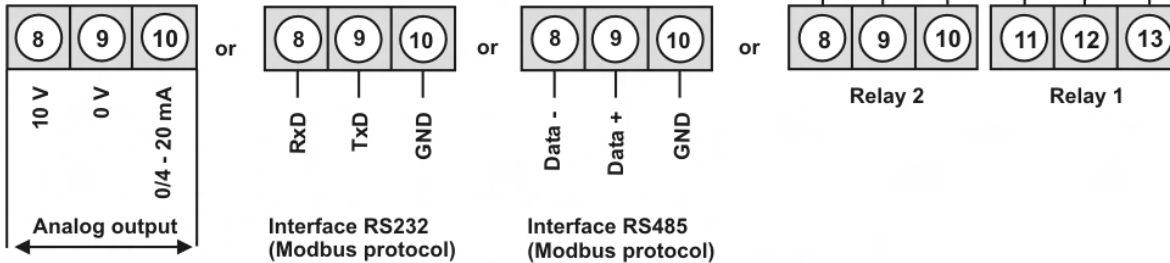
M3-3VR5B.0004.S70BD

Supply 10-40 VDC, 18-30 VAC

M3-3VR5B.0004.W70BD



Options:



Alternative to analog output

• Product key options

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

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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 side
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. V.

• Parameterisation software

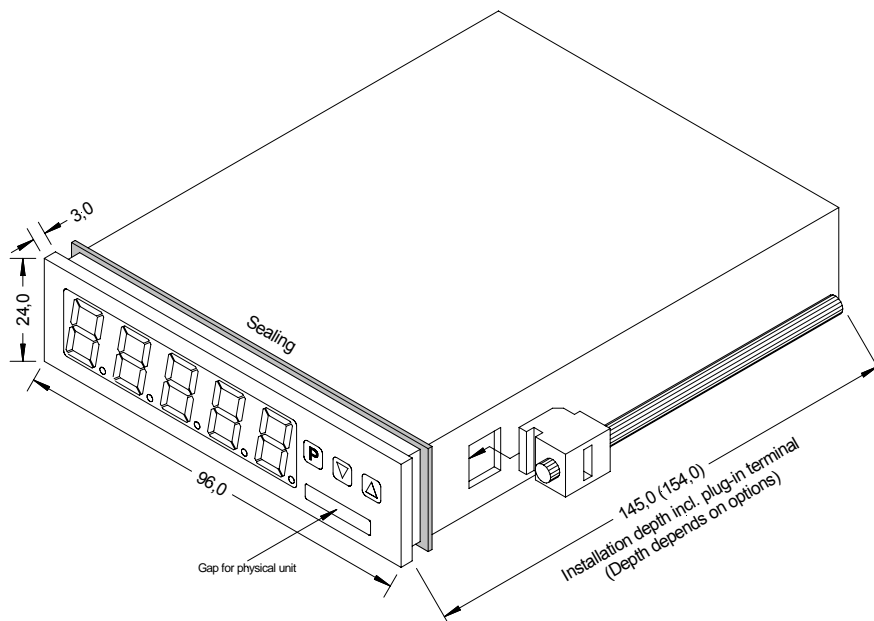
PC based configuration software PM-Tool for devices without keypad, for a simple adjustment of standard devices, incl. CD & USB-adapter. Programming is made via an interface on the back.

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	Measuring range	50 VAC / 5 AAC
	Input resistance	R _i at ~ 200 kΩ / R _i at ~ 0,05 Ω
	Measuring fault	0.5 % of final value with 50 Hz ... 1 kHz to crest factor 4 for input signals from 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 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 ohm 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. insulated, 18-30 VAC 50/60 Hz (max. 10 VA)
Memory	EEPROM	Data preservation ≥ 100 years at 25°C
Ambient condition	Working temperature	0 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	4.	W	7	0	B	D
Standard type M-Line																
Installation depth 145 mm incl. plug-in terminal (154 mm)																
Housing size 96x24x120 mm (BxHxT)																
Display type V, A																
Display colours Blue Green Red Red/Green/Orange Orange																
Number of digits 5-digits																
Digit height 14 mm																
Digital input without Interface RS232 Interface RS485																
Dimension physical unit (on demand)																
Version B																
Switching points without 1 relay output 2 relay outputs																
Protection class without keypad, operation via PM-TOOL IP65 / plug-in terminal																
Supply voltage 100-240 VAC 10-40 VDC																
Measuring input AC, TRUE RMS																
Analog output without 1x 0-10 VDC, 0/4-20 mA																
Sensor supply without																