Digital panel meter
4-digit

M1

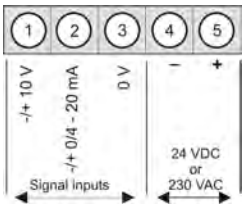
- red display of -1999…9999 digits (optional green, orange or blue display)
- minimal installation depth: 57 mm without plug-in terminal
- min-/max-value recording
- 10 adjustable setpoints
- display flashing at threshold exceedance / undershooting
- tara-function
- zero point slowdown
- programming interlock via access code
- protection class IP65 at the front
- plug-in terminal
- accessories: PC-based configuration software

Digital panel meter

- Direct current
- Potentiometer
- Thermocouple
- Direct voltage
- Resistance
- Shunt
- PT100

ORDER NUMBER (without options) **EUR**

- ***Direct current, direct voltage***

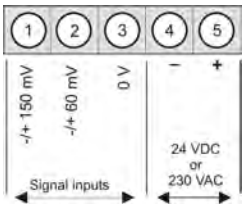


Supply 230 VAC	**M1-3VR4B.0001.570AD**	**150,00**
Supply 24 VDC	**M1-3VR4B.0001.770AD**	**160,00**

Product key options:

M	1-	3	V	R	4	B.	0	0	0	1.	5	7	0	A	D			EUR
M	1-	3	V	R	4	B.	0	0	0	1.	7	7	0	A	D			
																	S100 up to 100 VDC, measuring fault 0.5% of final value	45,00
																	S260 up to 50 VDC, measuring fault 0.5% of final value	15,00
																1	Without keypad, operation on the back	on demand
																B	Blue	38,00
																G	Green	9,50
																Y	Orange	3,00

- ***Direct voltage (Shunt)***



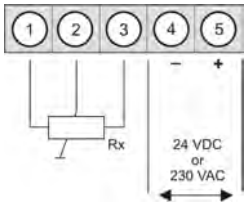
Supply 230 VAC	**M1-3VR4B.0002.570AD**	**175,00**
Supply 24 VDC	**M1-3VR4B.0002.770AD**	**185,00**

Product key options:

M	1-	3	V	R	4	B.	0	0	0	2.	5	7	0	A	D			EUR
M	1-	3	V	R	4	B.	0	0	0	2.	7	7	0	A	D			
																1	Without keypad, operation on the back	on demand
																B	Blue	38,00
																G	Green	9,50
																Y	Orange	3,00

	ORDER NUMBER (without options)	EUR

- ***Potentiometer (1 kΩ … 100 kΩ)***



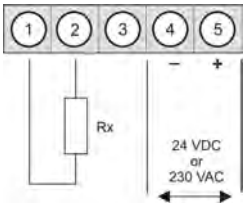
Supply 230 VAC	**M1-3VR4B.0005.570AD**	**175,00**
Supply 24 VDC	**M1-3VR4B.0005.770AD**	**185,00**

Product key options:

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

		EUR
1	Without keypad, operation on the back	on demand
B	Blue	38,00
G	Green	9,50
Y	Orange	3,00

- ***Resistance (1 kΩ, 10 kΩ, 100 kΩ or 1000 kΩ)***



Supply 230 VAC	***1 kΩ***	**M1-3VR4B.0806.570AD**	**175,00**
Supply 24 VDC	***1 kΩ***	**M1-3VR4B.0806.770AD**	**185,00**
Supply 230 VAC	***10 kΩ***	**M1-3VR4B.0506.570AD**	**175,00**
Supply 24 VDC	***10 kΩ***	**M1-3VR4B.0506.770AD**	**185,00**
Supply 230 VAC	***100 kΩ***	**M1-3VR4B.0606.570AD**	**175,00**
Supply 24 VDC	***100 kΩ***	**M1-3VR4B.0606.770AD**	**185,00**
Supply 230 VAC	***1000 kΩ***	**M1-3VR4B.0706.570AD**	**175,00**
Supply 24 VDC	***1000 kΩ***	**M1-3VR4B.0706.770AD**	**185,00**

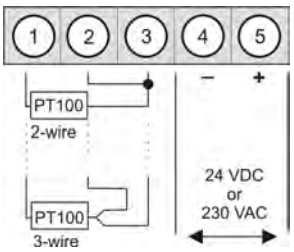
Product key options:

M	1-	3	V	R	4	B.	0	0	0	6.	5	7	0	A	D
M	1-	3	V	R	4	B.	0	0	0	6.	7	7	0	A	D

		EUR
1	Without keypad, operation on the back	on demand
B	Blue	38,00
G	Green	9,50
Y	Orange	3,00

ORDER NUMBER (without options) **EUR**

• *PT100 (2-/3-wire) -200°C…850°C / -328°F…1562°F*



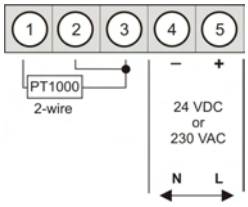
Supply 230 VAC	**M1-3TR4B.030C.570AD**	**180,00**
Supply 24 VDC	**M1-3TR4B.030C.770AD**	**190,00**

Product key options:

M	1-	3	T	R	4	B.	0	3	0	C.	5	7	0	A	D
M	1-	3	T	R	4	B.	0	3	0	C.	7	7	0	A	D

		EUR
1	Without keypad, operation on the back	on demand
B	Blue	38,00
G	Green	9,50
Y	Orange	3,00

• *PT1000 (2-wire) -200°C…850°C/ -328°F…1562°F*



Supply 230 VAC	**M1-3TR4B.060C.570AD**	**180,00**
Supply 24 VDC	**M1-3TR4B.060C.770AD**	**190,00**

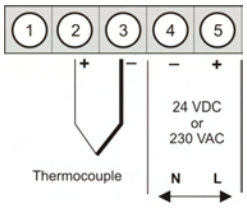
Product key options:

M	1-	3	T	R	4	B.	0	6	0	C.	5	7	0	A	D
M	1-	3	T	R	4	B.	0	6	0	C.	7	7	0	A	D

		EUR
1	Without keypad, operation on the back	on demand
B	Blue	38,00
G	Green	9,50
Y	Orange	3,00

	ORDER NUMBER (without options)	EUR

- ***Thermocouple Type B, E, J, K, L, N, R, S, T***



Supply 230 VDC	**M1-3TR4B.040X.570AD**	**180,00**
Supply 24 VDC	**M1-3TR4B.040X.770AD**	**190,00**

Product key options:

M	1-	3	T	R	4	B.	0	4	0	X.	5	7	0	A	D
M	1-	3	T	R	4	B.	0	4	0	X.	7	7	0	A	D

		EUR
1	Without keypad, operation on the back	on demand
B	Blue	38,00
G	Green	9,50
Y	Orange	3,00

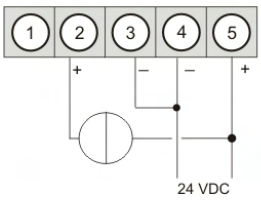
- ***Accessories***

Parametrisation software Incl. USB-cable and device adapter Programming is made via an interface on the back	**PM-TOOL-MUSB6**	**89,00**

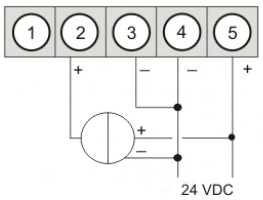
Connection examples

M1 devices with direct current / direct voltage input:

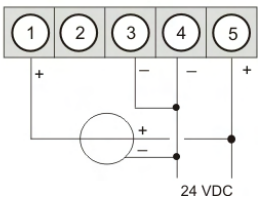
M1 in combination with a 2-wire sensor of 4-20 mA



M1 in combination with a 3-wire sensor of 0/4-20 mA



M1 in combination with a 3-wire sensor of 0-10 V



Technical data

Dimension	Housing	B96 x H24 x D57 mm (including plug-in terminal, D= 74 mm)	
	Panel cut-out	$92.0^{+0.8}$ x $22.2^{+0.3}$ mm	
	Fixing	screw elements for insulation thickness up to 3 mm	
	Housing material	PC Polycarbonat, black	
	Sealing material	EPDM, 65 Shore, black	
	Protection class	at the front IP65 standard, back side IP00	
	Weight	approx. 50 g	
	Connection	plug-in terminal; line cross-section up to 2.5 mm^2	
Display			
	Display	4-digit	
	Digit height	14 mm	
	Segment colour	Red (standard), optional available in green, blue and orange	
	Display range	-1999 to 9999	
	Setpoints	optical display flashing	
	Overflow	horizontal bars at the top	
	Underflow	horizontal bars at the bottom	
	Display time/ Measuring time	0.1 to 10.0 seconds	
Measuring input			
M1-1VR4B.0001…	Span	-12…12 V	/ -22…24 mA
Direct current /	Measuring range	0-10 V	/ 0/4-20 mA
Direct voltage	Input resistance	Ri at ~100 kΩ	/ Ri at ~100 Ω
	Measuring fault	0.1% of measuring range, ± 1 Digit	/ 0.1% 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	
Measuring input			
M1-1VR4B.0002…	Span	-5…80 mV	/ -10…180 mV
Shunt	Measuring range	0…60 mV	/ 0…150 mV
	Input resistance	Ri at ~12 kΩ	/ Ri at ~30 Ω
	Measuring fault	0.1% of measuring range, ± 1 Digit	/ 0.1% 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	
Measuring input			
M1-1VR4B.0005…	Span	>1 kΩ …1000 kΩ	
Potentiometer	Measuring range	0…100 %	
	Measuring fault	0.1% 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	
Measuring input			
M1-1VR4B.0x06…	Span	0…1,1 kΩ, 0…11 kΩ, 0…110 kΩ, 0…1100 kΩ	
Resistance	Measuring range	0…1 kΩ, 0…10 kΩ, 0…100 kΩ, 0…1000 kΩ	
	Measuring fault	0.1% 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	
Measuring input			
M1-1TR4B.030C…	Span	-200…850°C / -328…1562°F	
PT100	Measuring fault	0.1% of measuring range, ± 1 Digit	
	Temperature drift	100 ppm/K	
	Measuring time	0.1 … 10.0 seconds	
	Measuring principle	U/F-conversion	
	Resolution	approx. 0.1°C or 0.1°F	

Measuring input

M1-1TR4B.040C…	Measuring range	Type L -200…900°C
Thermocouple		Type J -210…1200°C
		Type K -270…1372°C
		Type B 80…1820°C
		Type S -50…1768°C
		Type N -270…1300°C
		Type E -270…1000°C
		Type T -270…400°C
		Type R -50…1768°C
	Measuring fault	2 K, ± 1 Digit
	Temperature drift	100 ppm/K
	Measuring time	0.1 … 10.0 seconds
	Measuring principle	U/F-conversion
	Resolution	0.1°C
	Characteristic curve fault	<± 1 kΩ
	Reference junction	Semiconductor sensor

Power pack

	Supply	230 VAC +/- 10 % (typ.3.7 VA; max. 9 VA) 24 VDC +/- 10 %, galvanic insulated (typ. 0.5 VA; max. 1 VA)

Memory

	EEPROM	
	Data life	≥ 100 years

Ambient conditions

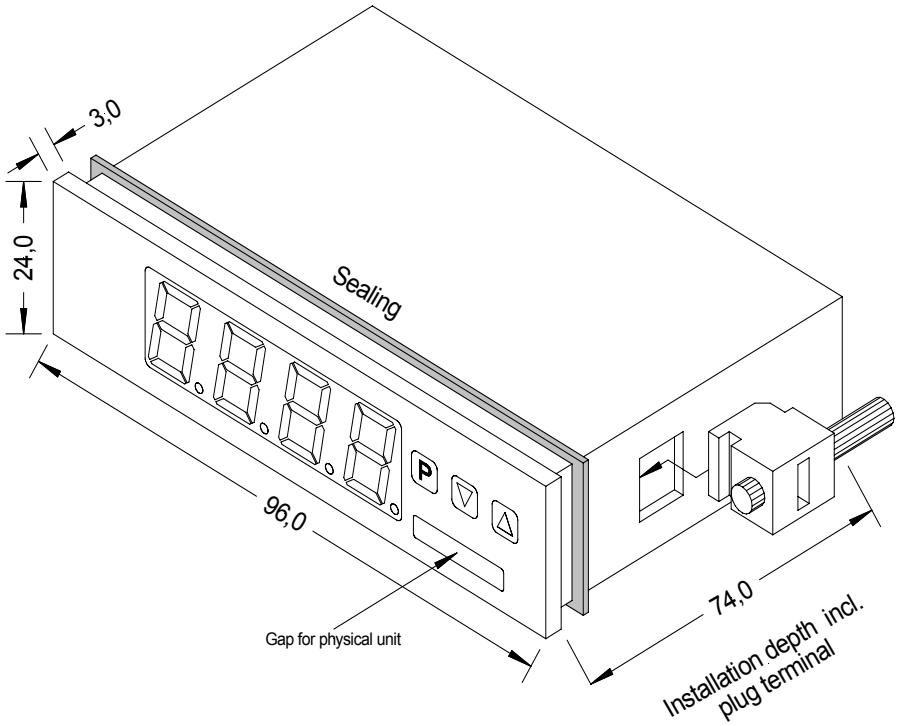
	Working temperature	0 to + 60 °C
	Storing temperature	-20 to + 80°C
	Climatic density	relative humidity 0-85% on years average without dew

CE-sign Conformity to directive 200/108/EG

EMV EN 61326

Safety standard EN 61010

Housing:



Ordering code M1 - Digital display standard

	M	1-	3	V	R	4	B.	0	0	0	1.	7	7	0	A	D	

Basic type M-Line

Installation depth

74 mm	1
with plug-in terminal	

Housing size

96 x 24 x 60 mm	3
without plug-in terminal	

Display type

Temperature	T
V, A, Ohm	V

Display colours

Blue	B
Green	G
Red	R
Orange	Y

Number of digits

4-digit	4

Digit height

14 mm	B

Interface

without	0

Dimension

D	physical unit (free choice)

Version

A	A

Setpoints

0	no setpoints

Protection class

1	without keypad, operation on back
7	IP65 / plug-in terminal

Supply voltage

4	115 VAC plus 10,25€
5	230 VAC
7	24 VDC galv. insulated

Measuring input

1	Direct current, direct voltage
2	Shunt
5	Potentiometer
6	Resistance
C	PT100 -200…850°C
X	Thermocouple
	Type B, E, J, K, L, N, R, S,T

Analog output

0	without

Temperature devices

3	PT100 / 2- 3-wire
4	Thermocouple
6	PT1000 / 2-wire

Resistance

8	1 kΩ
5	10 kΩ
6	100 kΩ
7	1000 kΩ

Sensor supply

0	without