



Digital panel meter 4-digit

M1

- red display of -1999...9999 digits (optional green, orange or blue display)
- minimal installation depth: 27 mm without plug-in terminal
- min-/max-value recording
- 10 adjustable setpoints
- display flashing at threshold exceedance / undershooting
- tara-function
- zero point tranquilization
- programming interlock via access code
- protection class IP65 at the front
- plug-in terminal
- accessories: PC-based configuration software PM-TOOL

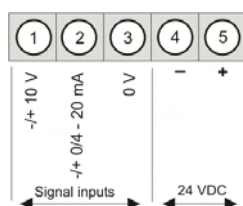
Digital panel meter

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

**ORDER NUMBER**
(without options)

EUR

- **Direct current, direct voltage**



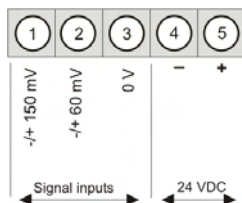
Supply 24 VDC

M1-7VR4A.0001.770BD	125,00
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Product key options:

M	1-	7	V	R	4	A.	0	0	0	1.	7	7	0	B	D				EUR
																		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 24 VDC

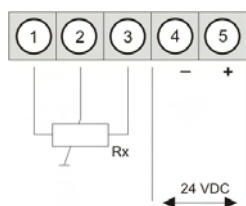
M1-7VR4A.0002.770BD	150,00
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Product key options:

[illegible]

Supply 24 VDC

M1-7VR4A.0005.770BD	150,00
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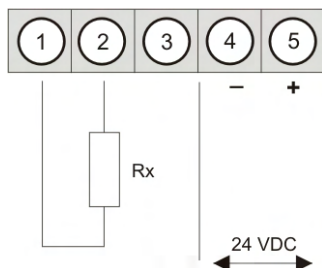


M	1-	7	V	R	4	A.	0	0	0	5.	7	7	0	B	D
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	Without keypad, operation on the back	on demand
B	Blue	38,00
G	Green	9,50
Y	Orange	3,00

Supply 24 VDC (Measuring range 1 k Ω)

M1-7VR4A.0806.770BD	150,00
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Supply 24 VDC (Measuring range 10 kΩ)

M1-7VR4A.0506.770BD	150.00
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Supply 24 VDC (Measuring range 100 kΩ)

M1-7VR4A.0606.770BD	150.00
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Supply 24 VDC (Measuring range 1 M Ω)

M1-7VR4A.0706.770BD	150,00
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M	1-	7	V	R	4	A.	0	0	0	6.	7	7	0	B	D
---	----	---	---	---	---	----	---	---	---	----	---	---	---	---	---

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

153,00

M	1-	7	T	R	4	A.	0	3	0	C.	7	7	0	B	D
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[illegible]

The diagram shows a 5-bit digital input (1, 2, 3, 4, 5) connected to a 24 VDC source. The output is a thermocouple signal.

160,00

M	1-	7	T	R	4	A.	0	4	0	X.	7	7	0	B	D
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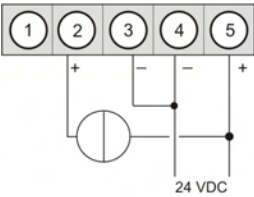
[illegible]

89,00

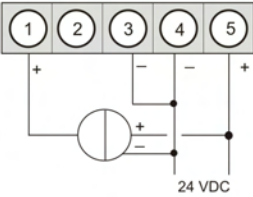
Connection examples

M1 devices with a direct current / direct voltage input

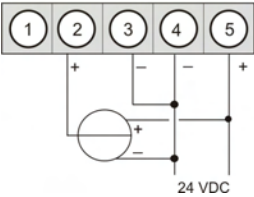
M1 in combination with a 2-wire-sensor 4-20 mA



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



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



Technical data

Dimension	Housing	B48xH24xD27 mm (including plug-in terminal D= 54 mm)	
	Panel cut-out	45.0 ^{+0.8} x 22.2 ^{+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 class	at the front IP65 standard, back side IP00	
	Weight	approx. 20 g	
	Connection	plug-in terminal; line cross-section up to 2.5 mm ²	
Display	Display	4-digit	
	Digit height	10 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 <i>M1-7VR4B.0001...</i> <i>Direct current /</i> <i>Direct voltage</i>	Span	-12...12 V	/ -22...24 mA
	Measuring range	0-10 V	/ 0/4-20 mA
	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 <i>M1-7VR4B.0002...</i> <i>Shunt</i>	Span	-5...80 mV	/ -10...180 mV
	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 <i>M1-7VR4B.0005...</i> <i>Potentiometer</i>	Span	>1 kΩ ...1000 kΩ	
	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 <i>M1-7VR4B.0x06...</i> <i>Resistance</i>	Span	0...1,1 kΩ, 0...11 kΩ, 0...110 kΩ, 0...1100 kΩ	
	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 <i>M1-7TR4B.030C...</i> <i>PT100</i>	Span	-200...850°C / -328...1562°F	
	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
M1-7TR4B.040C...
Thermocouple

Measuring range	Type L -200...900°C 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	24 VDC +/- 10 %, galvanic insulated (max. 1 VA)
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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

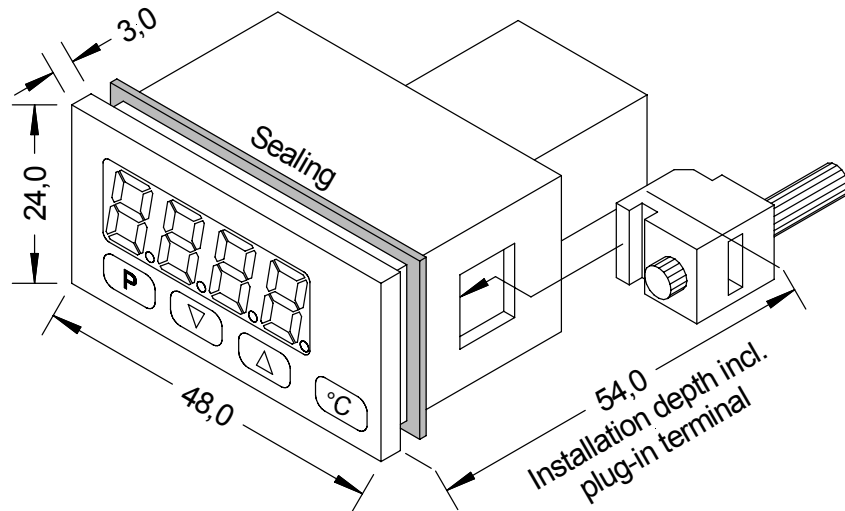
EMV

EN 61326

Safety standard

EN 61010

Housing:



Ordering code M1

Digital display standard

		M	1-	7	V	R	4	A.	0	0	0	1.	7	7	0	B	D		
Basic type M-Line		Operation D physical unit																	
Installation depth		Version B B																	
54 mm		1																	
Incl. plug-in terminal																			
Housing size		Setpoints 0 no setpoints																	
48 x 24 x 27 mm (BxHxD)		7																	
Display type		Protection class 1 without keypad, operation on the back 7 IP65 / plug-in terminal																	
Temperature		T																	
V, A, Ohm		V																	
Display colours		Supply voltage 7 24 VDC galv. insulated																	
Blue		B																	
Green		G																	
Red		R																	
Orange		Y																	
Number of digits		Measuring input 1 Direct current, direct voltage 2 Shunt 5 Potentiometer 6 Resistance C PT100 wire 800°C X Thermocouple type B, E, J, K, L, N, R, S, T																	
4-digit		4																	
Digit height		Analog output 0 without																	
10 mm		A																	
Digital input		without 0																	
without		0																	
Temperature devices																			
PT100/2-wire		2																	
PT100/2-3-wire		3																	
Thermocouple		4																	
Resistance / Potentiometer																			
1 kΩ		8																	
10 kΩ		5																	
100 kΩ		6																	
1 MΩ		7																	
Sensor supply																			
without		0																	