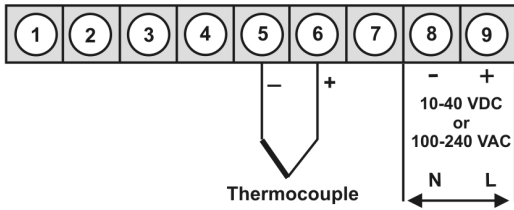




M3 – 5-digit digital panel meter 96x48 (BxH) Thermocouple type L, J, K, B, S, N, E, T, R

- 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
- display flashing at threshold value exceedance / undercut
- flexible alarm system with adjustable delay times
- 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: interface RS232 or RS485
- accessories: pc-based configuration-kit PM-TOOL with USB adapter
- on demand: devices for working temperatures of -20°C...60°C or -40°C...70°C

• **Thermocouple type L, J, K, B, S, N, E, T, R**



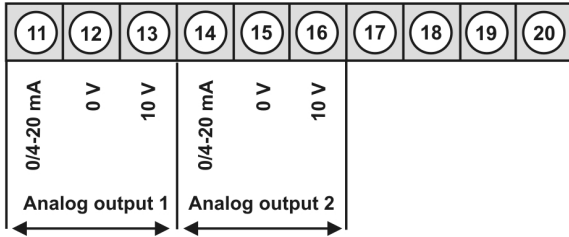
Supply 100-240 VAC, DC $\pm 10\%$

M3-1TR5B.040X.S70xD 254.20

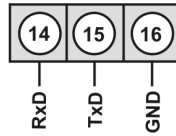
Supply 10-40 VDC, 18-30 VAC

M3-1TR5B.040X.W70xD 262.60

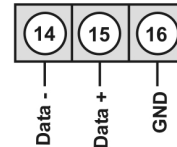
Options:



alternative to analog output 2

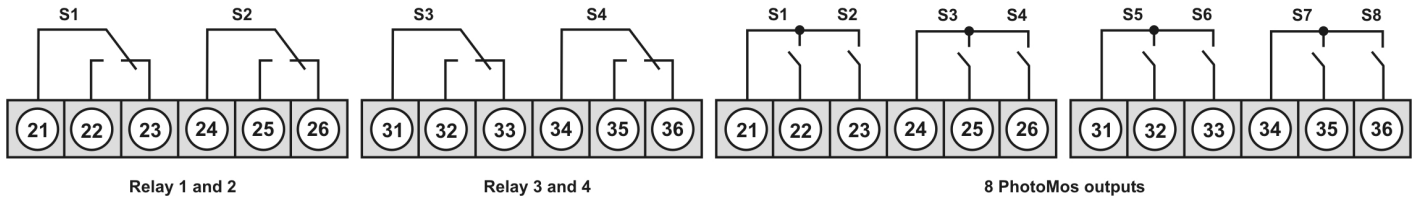


or



Interface RS232
(Modbus protocol)

Interface RS485
(Modbus protocol)



• **Order key options**

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

EUR

D	Dimension/physical unit, customer-specific settings	20.00
2	2 relay outputs	35.00
4	4 relay outputs	69.90
8	8 PhotoMos-outputs	95.30
1	without keypad, operation via PC software PM-TOOL	10.60
X	Analog output 0/4-20 mA, 0-10 VDC galv. isolated	127.10
Y	2 analog outputs galv. isolated	254.20
3	Interface RS232 galv. isolated	58.30
4	Interface RS485 galv. isolated	58.30
B	Blue	46.60
G	Green	10.10
Y	Orange	10.10
T	Tricolour (Red-Green-Orange)	31.80

On demand state dimension unit on order, e.g. °F.

• **Parameterisation software**

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

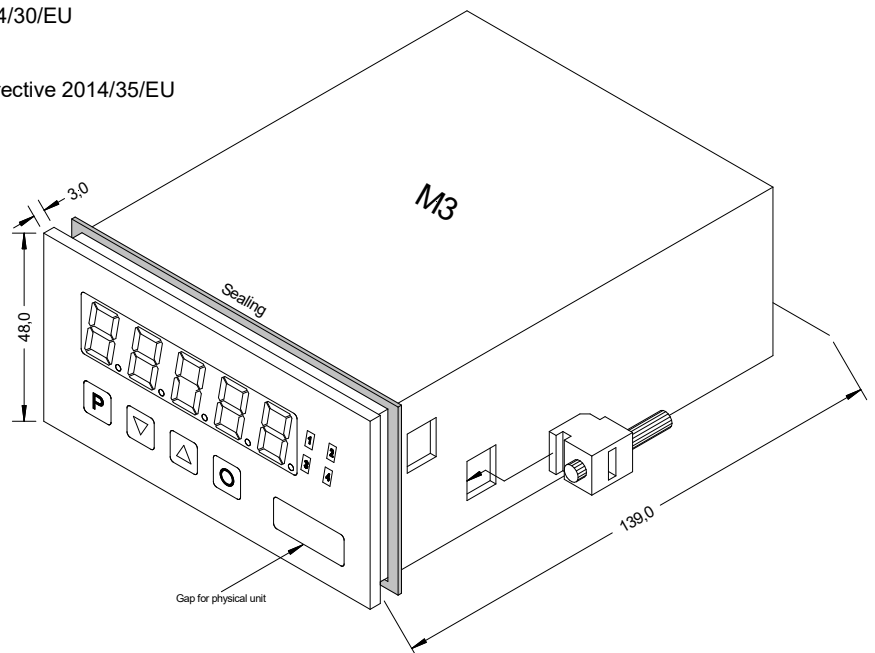
PM-TOOL-MUSB4

94.30

• **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 15 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	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-conversions		
Resolution	0.1°C		
Characteristic curve fault	<±1 K		
Reference junction	Thermistor		
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 Separation in accordance with DIN EN50178 / Specifications in accordance with DIN EN 60255	
	PhotoMos output	NOC contacts: 30 VDC/AC, 4 A	
	Analog output	0-10 VDC / burden ≥ 10 kΩ, 0/4-20 mA / burden ≤ 500 Ω, 16 bit	
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 EMV	Conformity to directive 2014/30/EU		
	EN 61326, EN 55011		
Safety standard	according to low voltage directive 2014/35/EU EN 61010; EN 60664-1		

Housing:



• Order key

	M	3-	1	T	R	5	B.	0	4	0	X.	S	7	0	x	D	
Basic type M-Line																	Dimension
																	<input type="checkbox"/> D physical unit
Installation depth 139 mm (incl. plug-in terminal)																	Version
																	<input type="checkbox"/> x internal version
Housing size 96x48x120 mm (BxHxD)																	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 Temperature																	Protection class
																	<input type="checkbox"/> 1 without keypad, via PM-TOOL
																	<input type="checkbox"/> 7 IP65 / plug-in terminal
Display colours Blue Green Red Red/Green/Orange Orange																	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"/> X Thermocouple
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 Interface RS232 Interface RS485																	Thermocouple
																	<input type="checkbox"/> 4 Type L, J, K, B, S, N, E, T, R