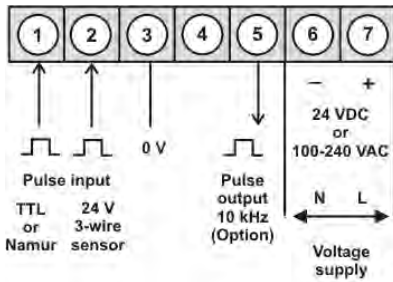




M3 – 5-digit digital panel meter in 48x24 mm (BxH) Frequency (0.01 Hz to 999.99 kHz)

- red display from -19999...99999 Digits (optional green, orange or blue display)
- installation depth: 90 mm without plug-in terminal
- multi voltage power supply unit 100-240 VAC
- adjustment via factory default or directly on the sensor signal
- min-/max-memory with adjustable permanent display
- 30 additional adjustable support points
- display flashing at threshold exceedance / threshold undershooting
- Schmitt-Trigger-Input
- digital frequency filter for contact bounce suppression and interference suppression
- frequency filter with different pulse-duty factor
- navigation keys for the triggering of Hold, Tara, display change, setpoint setting, alarm actuator
- flexible alarm system with adjustable delay times
- volume measuring (totaliser) for frequencies up to 1 kHz (pulse precisely)
- mathematical functions like reciprocal value, square root, square, 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
- pluggable screw terminal
- optional: 2 PhotoMos-outputs
- optional: sensor supply
- optional: 1 independently scalable analog output
- optional: galv. insulated digital input for the triggering of Tara, Hold, display change
- accessories: pc-based configuration-kit PM-TOOL with CD & USB adapter
- on demand: devices for working temperatures of -20°C...50°C or -40°C...70°C without condensation

• Frequency (0.01 Hz to 999.99 kHz)



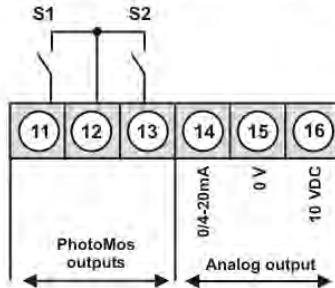
Supply 24 VDC

M3-7FR5A.0007.770BD

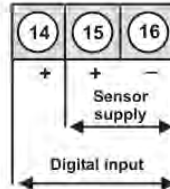
Supply 100-240 VAC, DC ± 10%

M3-7FR5A.0007.S70BD

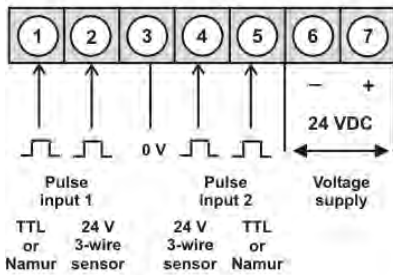
Options: device with a supply of 24 VDC



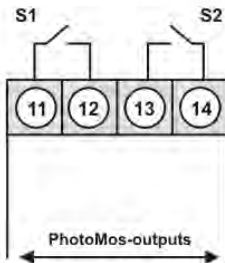
alternative to analog output



• Frequency for incremental encoder S420



Options: device with a supply of 100-240 VAC



• Product key options: devices with a supply of 24 VDC

M	3-	7	F	R	5	A.	0	0	0	7.	7	7	0	B	D
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EUR

2	Pulse input for incremental encoder S420
2	2 PhotoMos outputs
1	Without keypad, operation on the back side
X	Analog output 0/4-20 mA, 0-10 VDC galvanic insulated
2	Sensor supply 10 VDC / 20 mA incl. digital input
3	Sensor supply 24 VDC / 50 mA incl. digital input
K	Sensor supply 24 VDC / 50 mA incl. digital input and pulse output
I	Digital input galvanic insulated
B	Blue
G	Green
Y	Orange

• Product key options: devices with a supply of 100-240 VAC

M	3-	7	F	R	5	A.	0	0	0	7.	S	7	0	B	D
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EUR

2	2 PhotoMos outputs
1	Without keypad, operation on the back side
B	Blue
G	Green
Y	Orange

Please state physical unit on demand in your order, e.g. U/min.

• Parameterisation software

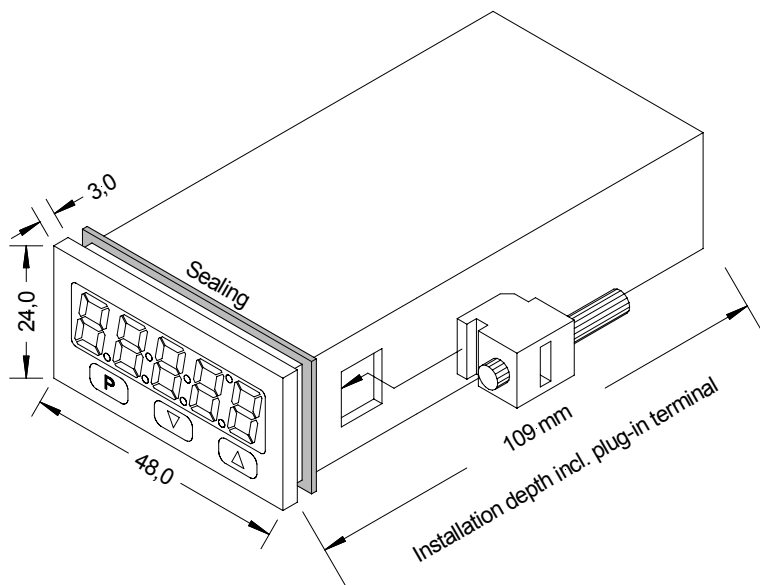
PC based configuration software PM-Tool for devices without keypad, for a simple adjustment of standard devices, incl. CD & USB-adapter. Programming is made via an interface on the back.

PM-TOOL-MUSB4

• **Technical data**

Housing dimension	Housing	B48 x H24 x T90 mm, (with plug-in terminal D= 109 mm)
	Panel cut-out	45.0 ^{+0.6} x 22.2 ^{+0.3} mm
	Fixing	screw elements for wall thicknesses 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. 200 g
	Connection	plug-in terminal; wire cross section up to 2.5 mm ²
Display	Display	5-digit
	Digit height	10 mm
	Segment colour	red (Standard), optional available in green, orange and blue
	Display range	-19999 to 99999
	Limit values	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	Signal	Pulse input, TTL, Namur, 3-wire initiator PNP/NPN
	Input resistance	Ri at 24 V / 4 kΩ High/Low level >15 V / < 4 V High/Low TTL level >4.6 V / <1.9 V
	Input frequency	0.01 Hz...999.99 kHz, 0.01 Hz...9.9999 kHz with rev counter, 0...2.5000 kHz with position recording
	Measuring fault	0.05% of measuring range, ± 1 digit
Output	PhotoMos	Closer contacts: 30 VDC/AC, 0.4 A
	Pulse output	max. 10 kHz
	Analog output	0-10 VDC / burden ≥ 10 kΩ, 0/4-20 mA / burden ≤ 500 Ω, 16 Bit
	Sensor supply	24 VDC / 50 mA 10 VDC / 20 mA
Digital input	Input galv. insulated	<2.4 V OFF; 10 V ON; max. 30 VDC, Ri ~ 5 kΩ
Power pack	Supply	100-240 VAC 50/60 Hz / DC ± 10% (max. 5 VA) 24 VDC ± 10 %, galvanic insulated (max. 4 VA)
Memory	EEPROM	Data life ≥ 100 years at 25°C
Ambient conditions	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-	7	F	R	5	A.	0	0	0	7.	7	7	0	B	D
Standard type M-Line																
Installation depth 109 mm (incl. plug-in terminal)																
Housing size 48x24x90 mm (BxHxD)																
Display type Frequency																
Display colours Blue Green Red Orange																
Number of digits 5-digit																
Digit height 10 mm																
Digital input without 1 digital input																
Dimension physical unit																
Version B																
Switching points no switching point 2 PhotoMos-outputs																
Protection class without keypad, operation on the back IP65 / pluggable terminal																
Supply voltage 24 VDC galv. insulated 100-240 VAC																
Measuring input Pulse, Namur, 3-wire PNP/NPN																
Analog output without 0-10 VDC, 0/4-20 mA																
Sensor supply without 10 VDC / 20 mA, incl. digital input 24 VDC / 50 mA, incl. digital input 24 VDC / 50 mA, incl. digital input and pulse input max. 10 kHz																