



IPM5 – 5-digit digital panel meter in 96x48 mm (BxD) Strain gauge amplifier with 80% calibration for 350 Ω melt pressure sensors

- red display of -19999...99999 digits; 14 mm digit height
- installation depth: 120 mm without plug-in screw terminal
- DMS-4-wire measurement
- adjustable input amplification for 1 mV/V-, 2 mV/V- or 3.3 mV/V-sensors
- integrated bridge supply for standard 350 Ω measuring bridges
- permanent wire breakage monitoring
- bipole input range for pressure and tractive forces
- integrated factory calibration for preset weighing cells
- auto-sensor recognition for 1 mV/V, 2 mV/V and 3.3 mV/V-sensors
- measuring rate with up to 100 measurements/s (measuring time is adjustable from 0.01s...10.00s)
- 24 bit transducer resolution, of which 19 bit are noiseless (500,000 / 0.0002% of measuring range)
- high long-term and temperature stability
- free selectable scaling and decimal point adjustment
- sensor alignment with 30 additional support points
- taring-function for manual and automatic control
- full automatic or semi-automatic calibration functions
- min/max-memory with adjustable permanent display
- display flashing at threshold exceedance / undercut
- flexible alarm system with adjustable delay times
- programming interlock via access code
- protection class IP65 at the front side
- plug-in screw terminal
- optional: 2 or 4 relay outputs
- optional: independently scalable analog output
- optional: interface RS232 or RS485
- accessories: PC-based configuration-kit PM-TOOL with USB-adapter

ORDERING NUMBER EUR
(without options)

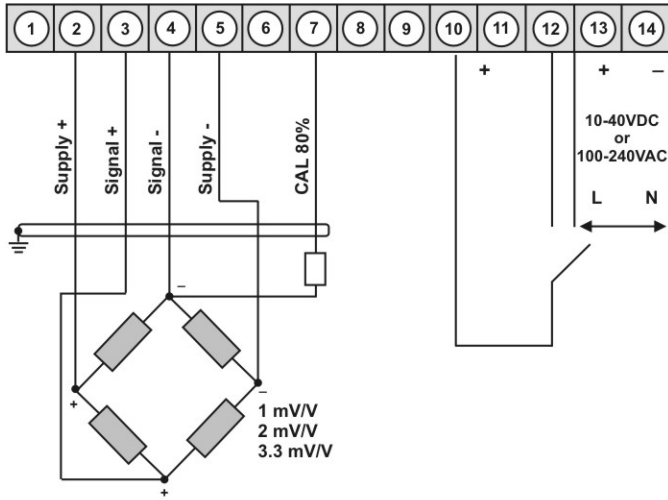
• **4-wire technology for strain gauge amplifier**

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

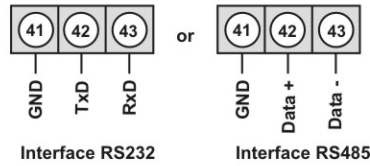
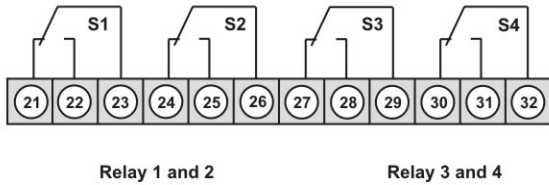
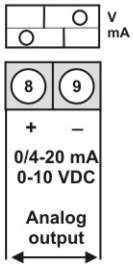
PM5.020X.1S70D 474.40

Supply 10-40 VDC / 18-30 VAC

PM5.020X.1W70D 529.50



Options:



• **Product key options**

IP	M	5.	0	2	0	X.	1	S	7	0	D
IP	M	5.	0	2	0	X.	1	W	7	0	D

	EUR	
D	Dimension/physical unit, customer-specific settings	20.00
2	2 relay outputs	53.00
4	4 relay outputs	68.80
X	Analog output 0-10 VDC / 0/4-20 mA	127.10
3	Interface RS232 with galvanic isolation	63.50
4	Interface RS485 with galvanic isolation	63.50

On demand state dimension unit on order, e.g. kN.

• **Parameterisation software**

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

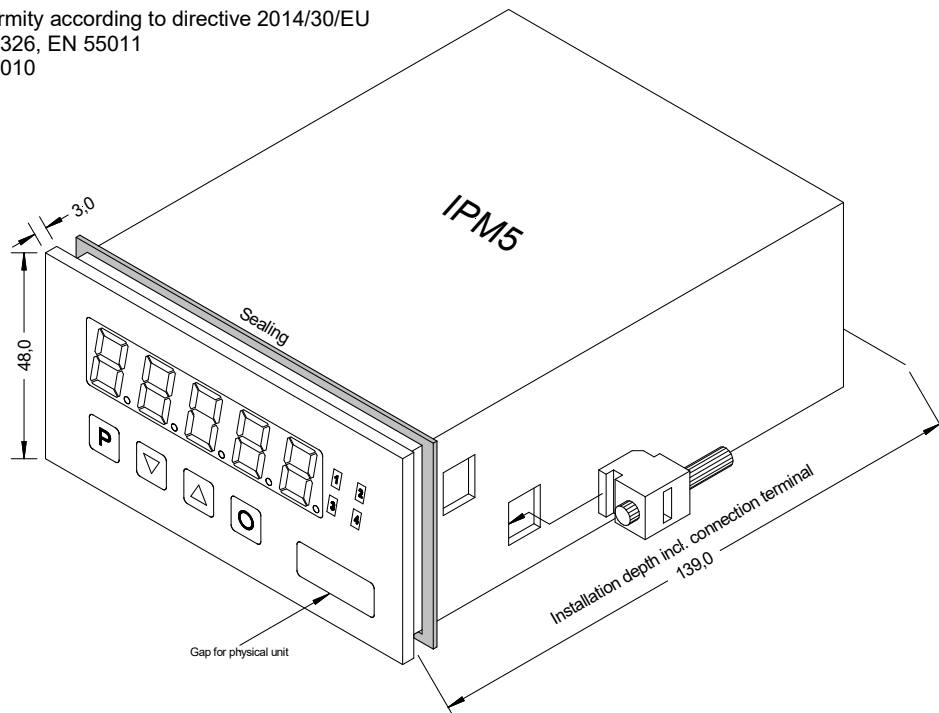
PM-TOOL-MUSB4

94.30

• **Technical data**

Dimensions	Housing	B96 x H48 x D120 mm, including plug-in terminal D = 139mm
	Panel cut-out	92.0 ^{+0.8} x 45.0 ^{+0.6} mm
	Fixing	latchable screw element for a wall thickness up to 15 mm
	Housing material	PC polycarbonate, black
	Protection class	at the front IP65 standard, at the back IP00
	Weight	approx. 350 g
Display	Connection	plug-in terminal; wire cross-section up to 2.5 mm ²
	Display	5-digit
	Digit height	14 mm, segment colour: red
	Display range	-9999 to 99999
	Switching points	one LED per switching point
	Overflow	horizontal bars at the top
Measuring input	Underflow	horizontal bars at the bottom
	Display time	0.1 to 10.0 seconds
	Measuring range (adjustable)	± 6 mV/V ± 3.3 mV/V ± 2 mV/V ± 1 mV/V
	Measuring accuracy (at 1s measuring time)	0.002% of measuring range – under laboratory conditions 0.1% of measuring range – in electromagnetic controlled surroundings 0.75% of measuring range – in industrial area
	Measuring bridge	200 Ω...500 Ω
	Bridge supply	approx. 10 VDC
	Input resistance signal	approx. 5 kΩ
	Drift of temperature	20 ppm/K
	Measuring principle	Sigma/Delta
	Measuring rate	0.01s...10.00s
Output	Resolution	24 bit, max. 19 bit RMS
	Relay	with change-over contact 250 V / 5 AAC, 30 V / 5 ADC
	Switching cycles	30 * 10 ³ at 5 AAC, 5 ADC ohm resistive burden, 10 * 10 ⁶ mechanically
Digital input	Analog output	Division according to DIN EN50178 / Characteristics according to DIN EN 60255 0-10 VDC burden ≥ 10 kΩ, 0/4-20 mA burden ≤ 500 Ω, 16 bit
	Input galv. isolated	<2.4 V OFF; >10 V ON; max. 30 VDC, R _i ~ 5 kΩ, respectively 15 V contact supply
Interface	Protocol	ASCII manufacturer-specific
	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, DC ±10% (max. 15 VA) 10-40 VDC galv. 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 +50°C
	Storing temperature	-20 to +80°C
	Weathering resistance	relative humidity 0-85% on years average without dew
CE-sign EMV Safety standard	Conformity according to directive 2014/30/EU	
	EN 61326, EN 55011	
	EN 61010	

Housing



• Ordering code

	IP	M.	5	0	2	0	X.	1	S	7	0	D	
Processor device													Version <input type="checkbox"/> D Version D
Base 4-wire technology		<input checked="" type="checkbox"/> M											Setpoints <input type="checkbox"/> 0 no setpoint <input type="checkbox"/> 2 2 relay outputs <input type="checkbox"/> 4 4 relay outputs
Number of digits 5 digits			<input type="checkbox"/> 5										Mechanical options <input type="checkbox"/> 7 IP65, foil keyboard, plug-in terminal
Interface no interface RS232 (galv. isolated) RS485 (galv. isolated)				<input type="checkbox"/> 0 <input type="checkbox"/> 3 <input type="checkbox"/> 4									Power supply <input type="checkbox"/> S 100-240 VAC <input type="checkbox"/> W 10-40 VDC
Sensor supply Bridge supply 10 VDC					<input type="checkbox"/> 2								Size of housing <input type="checkbox"/> 1 96x48 mm (BxH)
Outputs no output 0-10 V, 0-20 mA, 4-20 mA						<input type="checkbox"/> 0 <input checked="" type="checkbox"/> X							Measuring input <input checked="" type="checkbox"/> X 1 mV/V, 2 mV/V, 3.3 mV/V