



## **IPM5 – 5-digit digital panel meter in 96x48 mm (BxD) Strain gauge amplifier with 80% calibration for 350 $\Omega$ 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  $\Omega$  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 CD & USB-adapter

**ORDERING NUMBER** EUR  
(without options)

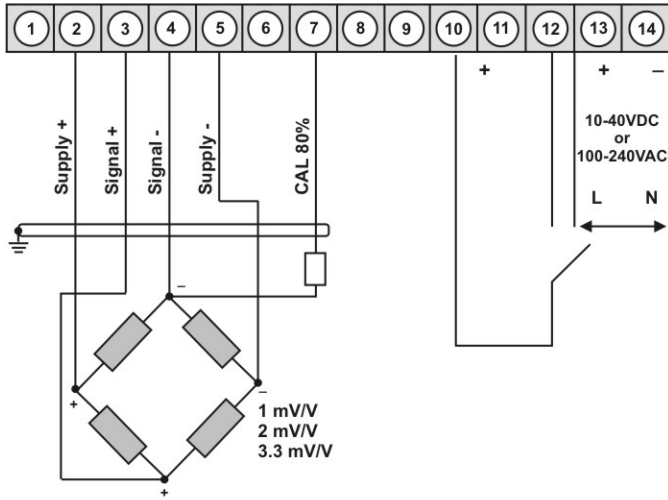
• **4-wire technology for strain gauge amplifier**

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

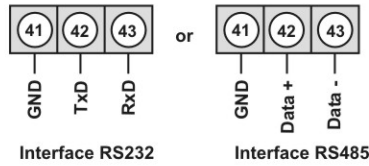
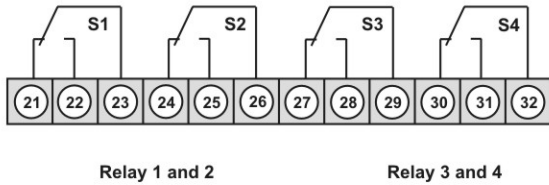
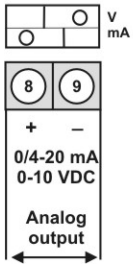
**PM5.020X.1S70D** 474.40

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

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. CD & USB-adapter. Programming happens via an interface on the back.

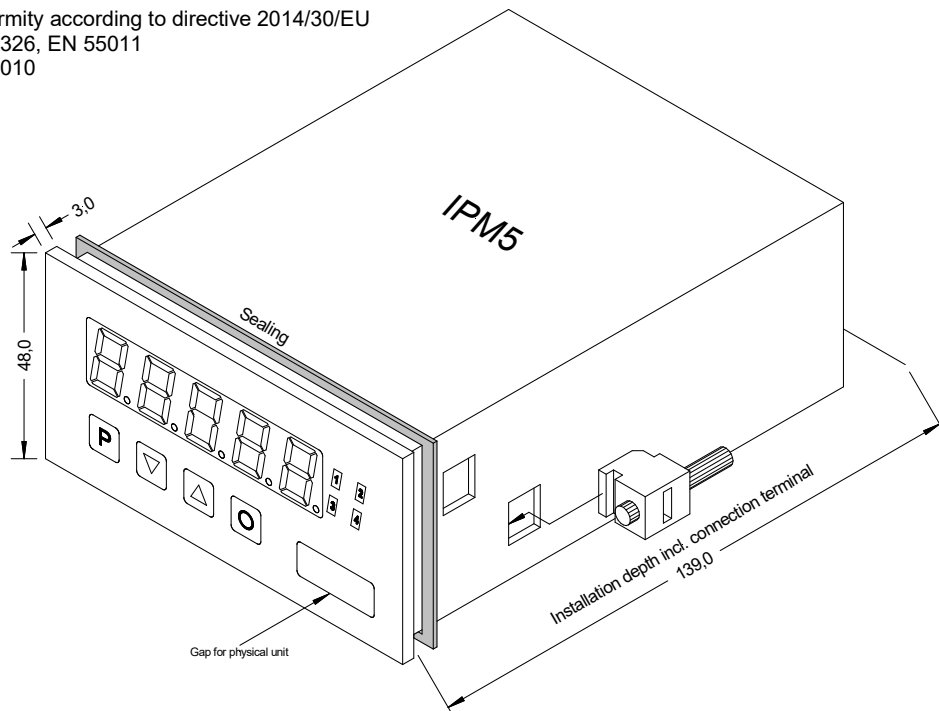
**PM-TOOL-MUSB4**

**94.30**

• **Technical data**

<b>Dimensions</b>	Housing Panel cut-out Fixing Housing material Protection class Weight Connection	B96 x H48 x D120 mm, including plug-in terminal D = 139mm 92.0 <sup>+0.8</sup> x 45.0 <sup>+0.6</sup> mm latchable screw element for a wall thickness up to 15 mm PC polycarbonate, black at the front IP65 standard, at the back IP00 approx. 350 g plug-in terminal; wire cross-section up to 2.5 mm <sup>2</sup>
<b>Display</b>	Display Digit height Display range Switching points Overflow Underflow Display time	5-digit 14 mm, segment colour: red -9999 to 99999 one LED per switching point horizontal bars at the top horizontal bars at the bottom 0.1 to 10.0 seconds
<b>Measuring input</b>	Measuring range (adjustable)  Measuring accuracy (at 1s measuring time)  Measuring bridge Bridge supply Input resistance signal Drift of temperature Measuring principle Measuring rate Resolution	± 6 mV/V ± 3.3 mV/V ± 2 mV/V ± 1 mV/V  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 200 Ω...500 Ω approx. 10 VDC approx. 5 kΩ 20 ppm/K Sigma/Delta 0.01s...10.00s 24 bit, max. 19 bit RMS
<b>Output</b>	Relay Switching cycles  Analog output	with change-over contact 250 V / 5 AAC, 30 V / 5 ADC 30 * 10 <sup>3</sup> at 5 AAC, 5 ADC ohm resistive burden, 10 * 10 <sup>6</sup> mechanically 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
<b>Digital input</b>	Input galv. isolated	<2.4 V OFF; >10 V ON; max. 30 VDC, R <sub>i</sub> ~ 5 kΩ, respectively 15 V contact supply
<b>Interface</b>	Protocol RS232 RS485	ASCII manufacturer-specific 9.600 Baud, no parity, 8 DataBit, 1 StopBit, wire length max. 3 m 9.600 Baud, no parity, 8 DataBit, 1 StopBit, wire length max. 1000 m
<b>Power pack</b>	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)
<b>Memory</b>	EEPROM	Data life ≥ 100 years at 25°C
<b>Ambient conditions</b>	Working temperature Storing temperature Weathering resistance	0 to +50°C -20 to +80°C relative humidity 0-85% on years average without dew
<b>CE-sign EMV Safety standard</b>	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	
<b>Processor device</b>													<b>Version</b> D Version D
<b>Base</b> 4-wire technology		M											<b>Setpoints</b> 0 no setpoint 2 2 relay outputs 4 4 relay outputs
<b>Number of digits</b> 5 digits			5										<b>Mechanical options</b> 7 IP65, foil keyboard, plug-in terminal
<b>Interface</b> no interface RS232 (galv. isolated) RS485 (galv. isolated)													<b>Power supply</b> S 100-240 VAC W 10-40 VDC
<b>Sensor supply</b> Bridge supply 10 VDC													<b>Size of housing</b> 1 96x48 mm (BxH)
<b>Outputs</b> no output 0-10 V, 0-20 mA, 4-20 mA													<b>Measuring input</b> X 1 mV/V, 2 mV/V, 3.3 mV/V