



## **PZ5- 5-digit digital panel meter in 96x48 mm (BxH) two direct voltage/direct current signals 10 VDC, 0/4-20 mA, with calculation**

- red display of -9999...99999 digits
- installation depth: 120 mm without plug-in screw terminal
- digit height 14 mm
- two independently adjustable analog outputs
- calculation of the channels by addition, subtraction, multiplication or division
- manual or automatic switching between channels and calculation channel
- resolution 24 bit
- up to 100 measurements/s respectively 50 measurements/s, 2 channels
- adjustment via factory settings or directly via sensor signal
- min/max-memory
- 30 additional adjustable support points per channel
- permanent wire breakage control
- display flashing at threshold value exceedance / undercut
- zero key for the triggering of Hold, Tara, channel switching
- flexible alarm system with adjustable delay times
- galv. isolated digital input for the triggering of Hold, Tara or channel switching
- sensor supply
- programming interlock via access code
- protection class IP65 at the front
- plug-in screw terminal
- optional: 2 or 4 relay outputs
- optional: 1 independently scalable analog output
- optional: interface RS232 or RS485
- accessory: PC-based configuration kit PM-TOOL incl. USB-adapter

**96x48**

• **Two measuring inputs – direct voltage, direct current**

Power supply 100-240 VAC / DC ± 10%

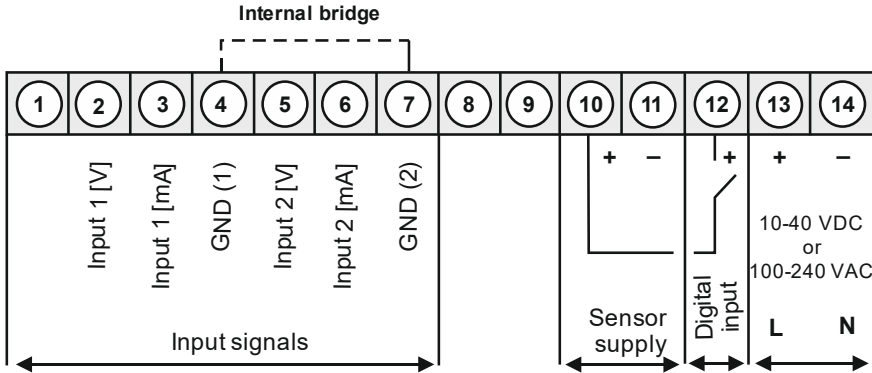
**PZ5.0301.1S70D**

**338.90**

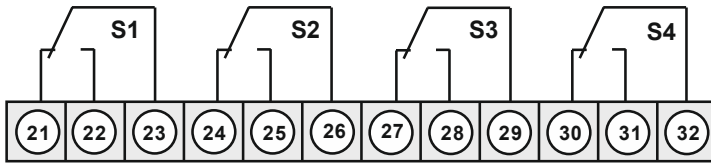
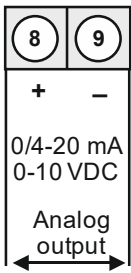
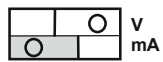
Power supply 10-40 VDC galv. isolated / 18-30 VAC

**PZ5.0301.1W70D**

**354.80**

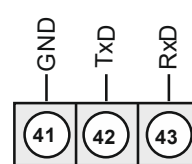


**Options:**

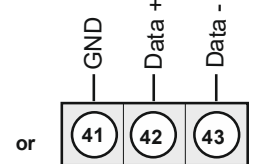


Relay 1 and 2

Relay 3 and 4



Interface RS232



Interface RS485

• **Product key options**

|   |   |   |   |   |   |   |   |   |   |   |   |
|---|---|---|---|---|---|---|---|---|---|---|---|
| P | Z | 5 | 0 | 3 | X | 1 | 1 | S | 7 | 0 | D |
| P | Z | 5 | 0 | 3 | X | 1 | 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  |

• **Parameterisation software**

PC based configuration software PM-Tool for a simple adjustment of standard devices, incl. USB-adapter. Programming happens via an interface on the back.

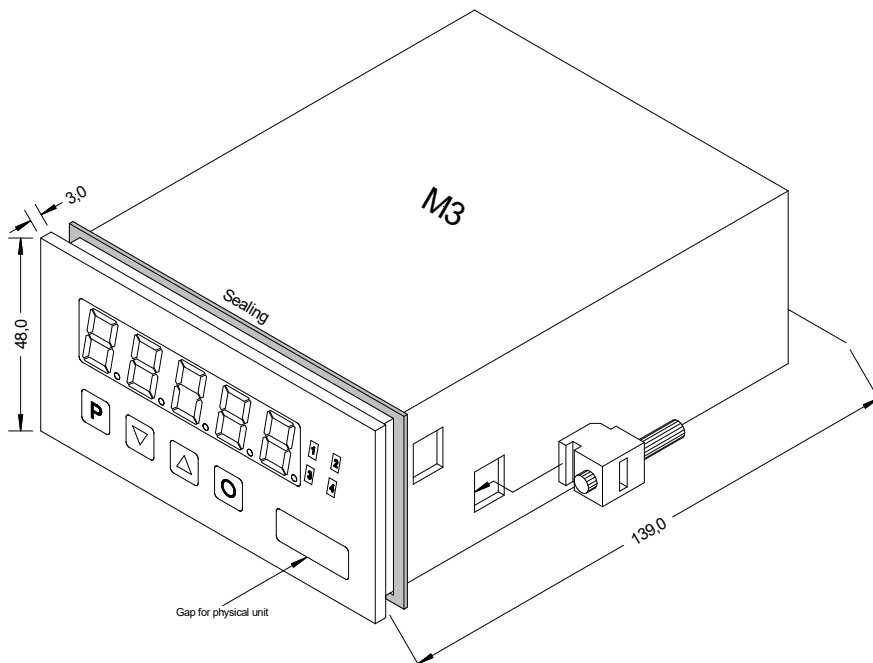
**PM-TOOL-MUSB4**

**94.30**

• **Technical data**

|                           |   |  |
|---------------------------|---|--|
| <b>Dimensions</b>         | Housing   | B96 x H48 x D120 mm, (including plug-in terminal D = 139 mm)   |
|                           | Panel cut-out   | 92.0 <sup>+0.8</sup> x 45.0 <sup>+0.6</sup> mm   |
|                           | Fixing  | screw element for a wall thickness of up to 15 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. 300 g  |
|                           | Connection  | plug-in terminal; cable cross-section up to 2.5 mm <sup>2</sup>  |
| <b>Display</b>            | Display   | 5-digit  |
|                           | Digit height  | 14 mm, segment colour: red   |
|                           | Display range   | -19999 up to 99999   |
|                           | Switching points  | one LED per switching  |
|                           | Overflow  | horizontal bars at the top   |
|                           | Underflow   | horizontal bars at the bottom  |
|                           | Display time  | 0.1 to 10.0 seconds  |
| <b>Measuring input</b>    | Measuring range   | 0-10 VDC and 0/4-20 mA   |
|                           | Input resistance  | 0-10 VDC: R <sub>i</sub> = ~150 kΩ<br>0/4-20 mA: R <sub>i</sub> = ~50 Ω  |
|                           | Measuring error   | 0.02% of measuring range + 0.01% of measuring value, ±1 digit at 1 sec measuring time  |
|                           | Drift of temperature  | all measuring inputs 50 ppm/K, at T <sub>U</sub> < 20°C respectively > 40°C  |
|                           | Measuring time  | one channel: 0.02...10.00 seconds<br>two channels: 0.04...10.00 seconds  |
|                           | Measuring principle   | Sigma/Delta  |
|                           | Resolution  | 24 bit   |
| <b>Digital input</b>      | Input galv. isolated  | <2.4 V OFF; >10 V ON; max. 30 VDC, R <sub>i</sub> ~ 5 kΩ   |
| <b>Output</b>             | Relay   | with change-over contact 250 V / 5 AAC, 30 V / 5 ADC   |
|                           | Switching cycles  | 30 * 10 <sup>3</sup> at 5 AAC, 5 ADC with ohm resistive burden, 10 * 10 <sup>6</sup> mechanically  |
|                           | Analog output (galv. isolated)                                      | Division according to DIN EN50178 / Characteristics according to DIN EN 60255<br>0-10 VDC / burden ≥ 10 kΩ, 0/4-20 mA / burden ≤ 500 Ω, 16 bit |
|                           | Sensor supply   | 24 VDC / 50 mA   |
| <b>Interface</b>          | Protocol  | ASCII manufacturer-specific  |
|                           | RS232   | 9.600 Baud, no parity, 8 DataBit, 1 StopBit, cable length, max. 3 m  |
|                           | RS485   | 9.600 Baud, no parity, 8 DataBit, 1 StopBit, cable length, max. 1000 m   |
| <b>Power supply</b>       | Supply  | 100-240 VAC 50/60 Hz, DC ± 10% (max. 15 VA)<br>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   | 0°C to + 50°C  |
|                           | Storing temperature   | -20°C to + 80°C  |
|                           | Weathering resistance   | relative humidity 0-75% on years average without dew   |
| <b>CE-sign</b>            | Conformity according to directive 2014/30/EU                        |  |
| <b>EMV</b>                | EN 61326, EN 55011  |  |
| <b>Safety regulations</b> | According to low voltage directive 2014/35/EU, EN 61010; EN 60664-1 |  |

**Housing:**



• Ordering code

|  | P | Z | 5. | 0 | 3 | 0 | 1. | 1 | S | 7 | 0 | D |   |
|--|---|---|----|---|---|---|----|---|---|---|---|---|---|
| <b>Processor-based device</b>  |   |   |    |   |   |   |    |   |   |   |   |   | <b>Internal index</b><br>Version D  |
| <b>Type of display</b><br>two inputs   |   | Z |    |   |   |   |    |   |   |   |   |   | <b>Switching points</b><br>0 no switching point<br>2 2 relay outputs<br>4 4 relay outputs |
| <b>Number of digits</b><br>5-digit   |   |   | 5  |   |   |   |    |   |   |   |   |   | <b>Mechanical options</b><br>7 IP65, keypad, plug-in terminal                             |
| <b>Interface</b><br>none<br>RS232 (galvanic isolated)<br>RS485 (galvanic isolated) |   |   |    |   |   |   |    |   |   |   |   |   | <b>Voltage supply</b><br>S 100-240 VAC<br>W 10-40 VDC galv. isolated                      |
| <b>Sensor supply</b><br>24 V / 50 mA   |   |   |    |   |   |   |    |   |   |   |   |   | <b>Housing dimension</b><br>1 96x48 mm (WxH)  |
| <b>Analog output</b><br>none<br>0-10 V, 0-20 mA, 4-20 mA                           |   |   |    |   |   |   |    |   |   |   |   |   | <b>Measuring input</b><br>1 Voltage, current  |