PU5 – 5-digit digital panel meter in 96x48 mm (BxH)
Universal measuring inputs:
Pt100, current, voltage, shunt, thermocouple, resistance

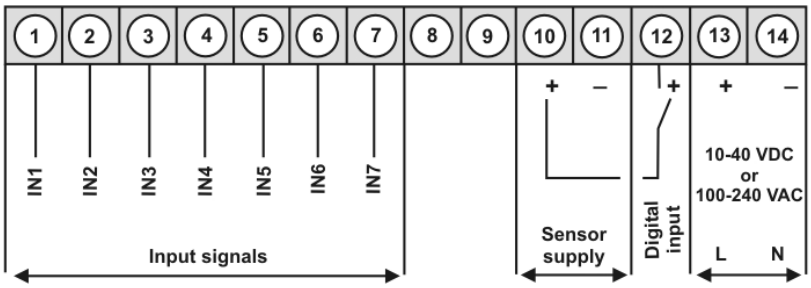
- red display of -9999…99999 digits
- installation depth: 120 mm without plug-in screw terminal
- digit height 14 mm
- 24 bit transducer resolution
- with up to 50 measurements
- display adjustment via factory settings or directly via sensor signal
- min/max-memory with adjustable permanent display
- 30 additional adjustable supporting points
- permanent wire breakage monitoring
- display flashing at threshold value exceedance/undercut
- volume measurement (Totaliser)
- zero-key for the triggering of Hold, Tara
- flexible alarm system with adjustable delay times
- galv. isolated digital input for the triggering of Hold, Tara
- sensor supply
- programming interlock via access code
- protection class IP65 at the front
- plug-in screw terminal
- optional: 2 or 4 relay outputs
- optional: independently scalable analog output
- optional: interface RS232 or RS485
- accessories: PC-based configuration software PM-TOOL incl. CD & USB-adapter

ORDER NUMBER OF TYPEEUR
(without options)

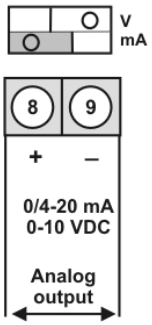
- **Universal measuring input: Pt100, voltage, current, shunt, thermocouple, resistance**

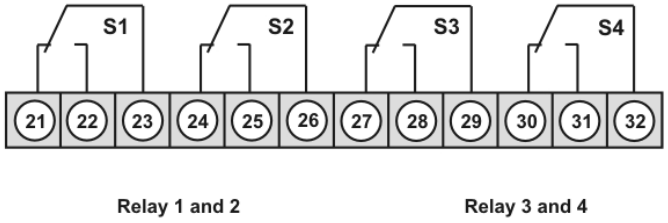
Power supply 100-240 VAC / DC ±10% **PU5.030X.1S70D**

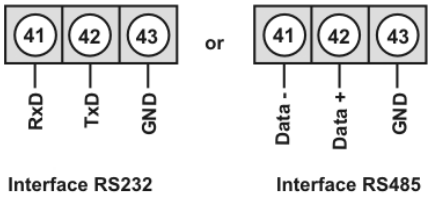
Power supply 10-40 VDC galv. isolated / 18-30 VAC **PU5.030X.1W70D**



Options:







- **Product key options**

P	U	5.	0	3	0	X.	1	S	7	0	D
P	U	5.	0	3	0	X.	1	W	7	0	D

2	2 relay outputs
4	4 relay outputs
X	Analog output 0-10 VDC, 0/4-20 mA
3	Interface RS232 with galvanic isolation
4	Interface RS485 with galvanic isolation

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

ORDER NUMBER

- **Parameterisation software**

PC based configuration software PM-Tool 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

Dimensions	B96xH48xD120 mm (including screw terminal = 139 mm)
Panel cut-out	92.0 $^{+0.8}$ x 45.0$^{+0.6}$ mm
Fixing	screw element for wall thicknesses of up to 15 mm
Housing material	PC polycarbonate, black
Sealing material	EPDM, 65 Shore, black
Protection class	standard IP65 (front), IP00 (back)
Weight	approx. 350 g
Connection	plug-in terminal; wire cross-section up to 2.5 mm^2

Display

Display	5-digit
Digit height	14 mm
Segment colour	Red (Standard)
Display range	-9999...99999
Limit values	one LED per switching point
Overflow	horizontal bars at the top
Underflow	horizontal bars at the bottom

Input	**Measuring range**	**R_I**	**Measuring error T_U= 20...40°C [%] Measuring range**	**Digit**
Voltage/Current	–1...10 V	150 kΩ	0.01	± 1
Measuring range/input resistance/	–1...5 V	150 kΩ	0.02	± 1
Measuring error at	0/4...20 mA	50 Ω	0.02	± 1
measuring time = 1 second	0...5 mA	50 Ω	0.02	± 1
	0...2 mA	50 Ω	0.02	± 1
	–500...2500 mV	1 MΩ	0.03	± 1
	–500...1250 mV	1 MΩ	0.03	± 1
	± 500 mV	1 MΩ	0.03	± 1
	± 300 mV	1 MΩ	0.03	± 1
	± 150 mV	1 MΩ	0.03	± 1
	± 75 mV	1 MΩ	0.04	± 1
	± 35 mV	1 MΩ	0.06	± 1
	± 15 mV	1 MΩ	0.06	± 1
Pt100 (2-/3-/4-wire)	-200.0°C…850.0°C	1 MΩ	0.04	± 1
Measuring range/input resistance/				
Meas. error at meas. time = 1 second				
Pt100: 3-/4-wire output resistance				
max. 10 Ω				
Thermocouple	Type L (-200°C...900°C)	1 MΩ	0.06	±1K
Measuring range/input resistance/	Type J (-210°C...1200°C)	1 MΩ	0.05	±1K
Meas. error at meas. time = 1 second	Type K (-250°C...1271°C)	1 MΩ	0.05	±1K
	Type B (100°C...1810°C)	1 MΩ	0.10	±1K
	Type S (0°C...1767°C)	1 MΩ	0.06	±1K
	Type N (-250°C...1300°C)	1 MΩ	0.06	±1K
	Type E (-260°C...1000°C)	1 MΩ	0.06	±1K
	Type R (0°C...1767°C)	1 MΩ	0.07	±1K
	Type T (-240°C...400°C)	1 MΩ	0.07	±1K
Resistance	100 Ω	1 MΩ	0.04	± 1
Measuring range/input resistance/	1 kΩ	1 MΩ	0.04	± 1
Meas. error at meas. time = 1 second	10 kΩ	1 MΩ	0.04	± 1

Drift of temperature	**all measuring inputs**	**50 ppm/K at T_U < 20°C respectively > 40°C**
Measuring time	Current, voltage	0.02...10.00 s
	Pt100 2-/4-wire	0.04...10.00 s
	Pt100 3-wire	0.06...10.00 s
	Thermocouple	0.04...10.00 s
	Resistance 2-/4-wire	0.04...10.00 s
	Resistance 3-wire	0.06...10.00 s

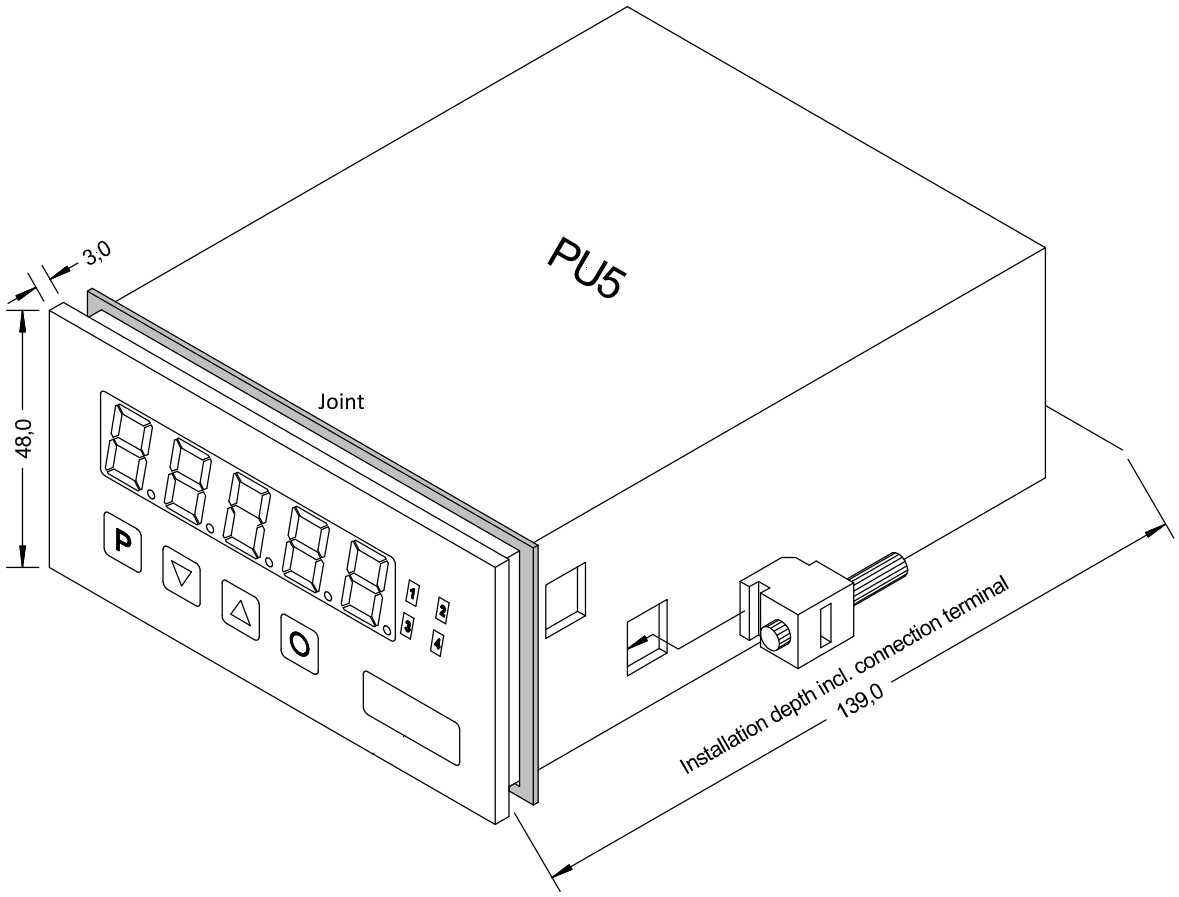
Measuring principle	Sigma/Delta
Resolution	24 bit
Totaliser timing error	max. 0.1% of totaliser value at an integration time of >1 min

Digital input

Input galv. isolated	<2.4 V OFF; >10 V ON; max. 30 VDC, R_I ~ 5 kΩ

Output	Relays	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
		Separation in accordance with DIN EN50178 / Specifications in accordance with DIN EN 60255
	Analog output	0-10 VDC / burden ≥ 10 kΩ, 0/4-20 mA / burden ≤ 500 Ω, 16 bit
	Sensor supply	24 VDC / 50 mA
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, DC ±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 <75% 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:



• Ordering code