

3 User Configurable Output Options: IO-Link, 4...20mA or PNP/NPN Switch

- Three operating modes - IO-Link, 4-20mA, and switching output (PNP/NPN) with alarm thresholds
- -58...662°F standard range
- Threaded and Sanitary Tri-Clamp connections
- Response time < 5 seconds
- Zero point and span adjustment
- Adjustment of input signal filtering from 0.1s to 3.7s
- RGB LED indicators and programmable settings for activation/deactivation delays
- AISI 316L housing
- Available for cryogenic applications down to -328°F



About

The P61 is a high-performance temperature transmitter featuring an IO-Link interface and full stainless-steel construction. It offers optimized response times and can be configured in three operating modes: IO-Link, 4-20mA loop-powered, and switching output with alarm thresholds. Its IP67-rated protection and versatile process connection options make it ideal for applications in the food, chemical, and pharmaceutical industries.

Applications

- ✓ Food & beverage
- ✓ Pharmaceutical
- ✓ Chemical
- ✓ HVAC-R
- ✓ CNC machines
- ✓ Skid Packagers
- ✓ Test Benches
- ✓ Generators
- ✓ Compressors

Build Your Part Number

Series P61

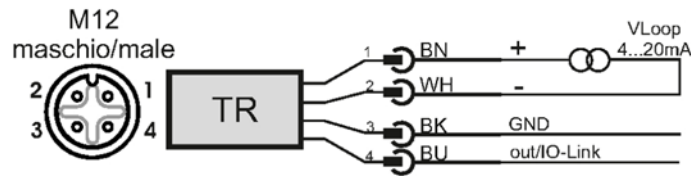
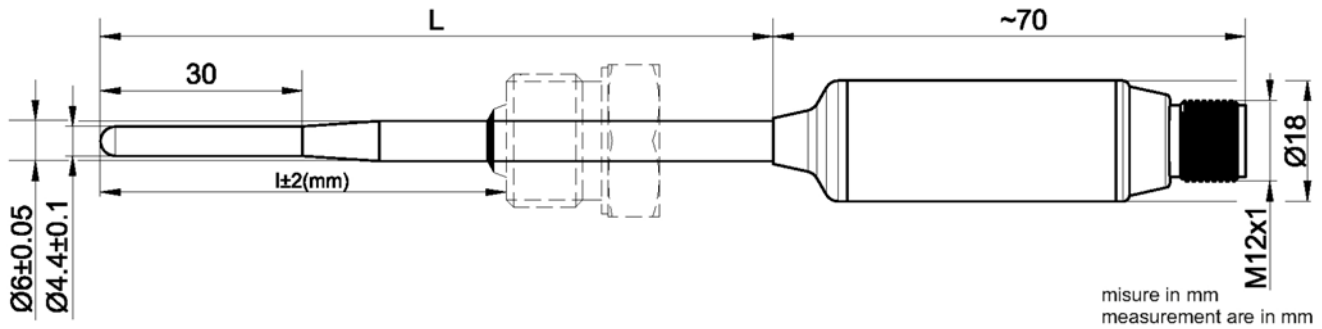
Example: P61L9D55VMXT1APSE38 MX=300mm

Series	
P61	
Probe Length - select one	
L1	100mm
L2	150mm
L4	250mm
L5	350mm
L6	500mm
L9	750 mm
LX	Custom - please specify under part number; Example: LX = 67mm
Probe Diameter - select one	
D5	6mm
D64	6mm tapered to 4.4mm
Process Connection - select one	
5C	1/4" NPT male
5E	1/2" NPT male
5N	G1/4" male
5Q	G1/2" male
5X	3/4" Tri-clamp
5V	1 1/2" Tri-clamp
Immersion Length – (from process connection to probe end) select one	
M1	100mm
MX	Custom - please specify in mm; Example: MX = 67mm
Temperature Range -58 ...+662°F - select one	
TI	0...302°F factory calibrated default Note: can be scaled by user with PSRC1 configuration kit (see page 6) Note: from zero point to full span, minimum tolerance = 68°F
XX	Use "X...XXX" for custom ranges (Ex: ex: -0...+125°F / ex: -32...+95°F / ex: +25...400°F) Please inform range below part number Note: from zero point to full span, minimum tolerance = 68°F
YY	For cryogenic temperatures down to -328°F (please ask)
Output Signal	
A	Configurable between 4÷20mA analogue signal, IO-Link, switching PNP or NPN output (SIO)
Mating Electrical Connection Assembly – select one; will be quoted as a separate line item	
Part#	
PSE1	M12x1, 5 pole – straight with cable gland (field wireable)
PSE2	M12x1, 5 pole - straight with 1 meter PUR cable
PSE3	M12x1, 5 pole - straight with 3 meter PUR cable
PSE29	M12x1, 5 pole - straight with 5 meter PUR cable
PSE36	M12x1, 5 pole - straight with 7 meter PUR cable
PSE30	M12x1, 5 pole - straight with 10 meter PUR cable
PSE4	M12x1, 5 pole - straight with 1 meter PUR shielded cable
PSE5	M12x1, 5 pole - straight with 3 meter PUR shielded cable
PSE37	M12x1, 5 pole - straight with 5 meter PUR shielded cable
PSE38	M12x1, 5 pole - straight with 7 meter PUR shielded cable
PSE39	M12x1, 5 pole - straight with 10 meter PUR shielded cable
PSE6	M12x1, 5 pole - 90° (field wireable)
PSE7	M12x1, 5 pole - 90° with 1 meter PUR shielded cable
PSE8	M12x1, 5 pole - 90° with 3 meter PUR shielded cable
PSE40	M12x1, 5 pole - 90° with 5 meter PUR shielded cable
PSE41	M12x1, 5 pole - 90° with 7 meter PUR shielded cable
PSE42	M12x1, 5 pole - 90° with 10 meter PUR shielded cable

Technical Parameters

Technical Parameters		
Accuracy	PT100	Class A up to 572°F according to IEC 751
	Accuracy@77°F	Maximum value between $\pm 0.15K$ and $\pm 0.15\%$ of span (Loop Powered operating mode) $\pm 0.1K$ (IO-Link operating mode)
	Temp. influence deviation from 68°F	Max value between $\pm 32.54^\circ F/77^\circ F$ and $\pm 0.3\%$ of span/ $77^\circ F$ (Loop Powered operating mode) $\pm 32.54^\circ F$ (IO-Link and SIO operating mode)
	Long term stability	Max 0.1% of span per year
	Linear error	Negligible
	Error compensation	Offset or over two points
	Response time	<5 seconds
	Input filter (time to reach 90% of signal)	Configurable from 0.1 ... 3.7 seconds
Electrical	Power supply	18-32 Vdc reverse polarity protection (IO-Link operating mode) 8-32 Vdc reverse polarity protection (Loop Powered operating mode)
	Output signal	Configurable between 4÷20mA analogue signal; IO-Link; switching PNP or NPN output (SIO)
	Current Consumption	0.65 W (IO-Link operating mode) 0.8 W (SIO operating mode)
	Connection	M12X1, 4-pole
	Sensor open (break) or short circuit indication	According to NAMUR NE43, selectable between: Upper scale (≥ 21.0 mA) Lower scale ($\leq 3,6$ mA) (Loop Powered operating mode)
	Sensor input signal filter (*) (*) time to reach 90% of signal	Configurable from 0.1s to 3.7s
	Communication Interface	IO-Link Vers. 1.1 (COM2 - 38,4Kbaud) Class A port M12x1 - 4 pos. A-coded
	IO-Link smart sensor profile (2 nd ed.)	According to SSP type 3.1
	Switching output (*) (*) SIO operating mode NO	NO/NC programmable, PNP/NPN Overload and short circuit protection Hysteresis or window function Maximum current: 150mA Programmable output activation/deactivation delay RGB LED for output status signaling (configurable color for OFF state and ON state)
	Programming	With any IO-Link programming platform and the relative master
	Display elements (*) (*) IO-Link operating mode	Green color LED (IO-Link), RGB LED with configurable color (Locator), RGB LED with configurable color (SIO)
	Load	727Ω @ 24 Vdc [Rload= (Vpw. - 8) / 0,022] (Loop Powered operating mode)
	Insulation resistance	100 M Ω@ 100 Vdc.
	Input/output insulation	None
	Factory default	Loop powered operating mode: (4÷20)mA output / Range 0÷150°C / Sensor break $\geq 21mA$ / Sensor short-circuit $\leq 3.6mA$ Switching output operating mode (SIO): PNP type output with hysteresis function NO, SP=80°C, RSP=70°C, no delay, output status signaling: LED color red
Environmental	Measurement temperature range	-58 ... 662°F
	Protection	IP67
	Humidity	0 ... 100%
EMC	In accordance to	EN 61326-1 :2013 (CE)
	In accordance to	BS EN 61326-1 :2013 (UKCA)
Mechanical	Probe	AISI 316L
	Probe diameter	6mm 6mm tapered to 4.4mm
	Housing (connection body)	AISI 316L

Dimensions (mm) & Pin-Out



Loop Powered: 1(+) / 2 (-)
IO-Link: 1(+) / 3 (GND) / 4 (IO-Link)
Switch.Out: 1(+) / 3 (GND) / 4 (Out)