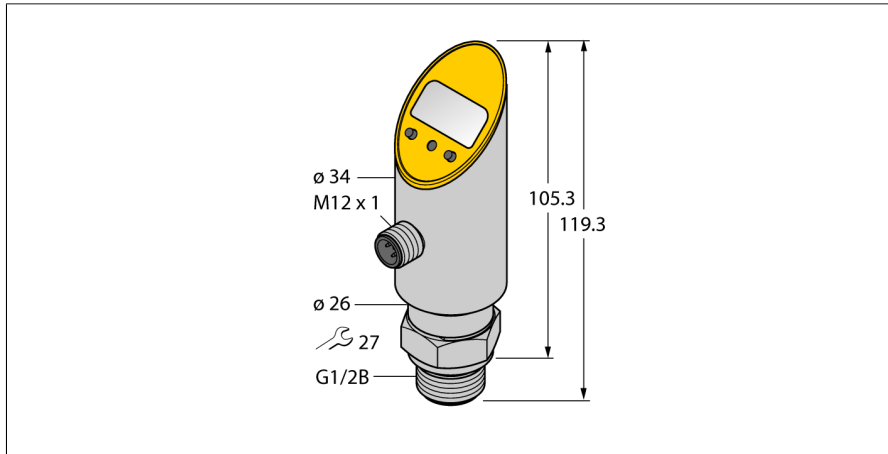
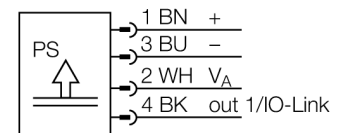


Pressure Transmitter (Front-Flush) With Voltage Output and PNP/NPN Transistor Switching Output PS250R-609-LUUPN8X-H1141



- Front-flush mounted diaphragm
- Reading of adjusted values without tool
- Recessed pushbutton and keylock for secure programming
- Permanent indication of pressure (bar, psi, kPa, MPa...)
- Peak pressure memory
- Pressure range 0...250 bar rel.

Wiring Diagram



Functional principle

The pressure sensors in the PS product series operate with ceramic measuring cells. As a result of the pressure acting on the ceramic substrate, a signal that is proportional to the pressure is generated and processed electronically. The processed signal is available either as a switching or an analog output signal, depending on the sensor type used. Maximum flexibility thanks to a rigid or rotatable sensor body, a variety of thread types, front-flush or dead-space-free pressure membranes and an accuracy of 0.5 % of full scale guarantee a safe connection to the process.

Type	PS250R-609-LUUPN8X-H1141
ID	6833038
Pressure type	Relative pressure
Pressure range	0...250 bar
	0...3625.94 psi
	0...25 MPa
Admissible overpressure	≤ 500 bar
Burst pressure	≥ 500 bar
Response time	< 3 ms
Power supply	
Operating voltage U _s	18...30 VDC
Current consumption	≤ 50 mA
Voltage drop at I _s	≤ 2 V
Protective measure	SELV; PELV according to EN 50178
Short-circuit/reverse polarity protection	yes / yes
Protection class	IP67
Insulation class	III
Outputs	
Output 1	Switching output or IO-Link mode
Output 2	Analog output
Switching output	
Communication protocol	IO-Link
Output function	NO/NC, PNP/NPN
Accuracy	± 0.5 % FS BSL
Rated operational current	0.2 A
Switching frequency	≤ 180 Hz
Switching point distance	≥ 0.5 %
Switch point:	(Min. + 0.005 × range)...100 % of full scale
Release point(s)	min up to (SP - 0.005 × range)
Switching cycles	≥ 100 mil.

Analog output	
Voltage output	0...10 V
Load	$\geq 2 \text{ k}\Omega$
Accuracy LHR	$\pm 0.5 \text{ \% FS BSL}$

IO-Link	
IO-Link specification	V 1.0
Programming	FDT / DTM
Transmission physics	corresponds to 3-wire physics (PHY2)
Transmission rate	COM 2 / 38.4 kbps
Process data width	16 bit
Measured value information	14 bit
Switchpoint information	2 bit
Frame type	2.2
Accuracy	$\pm 0.5 \text{ \% FS BSL}$
Included in the SIDI GSDML	Yes

Temperature behaviour	
Medium temperature	-10...+85 °C
Temperature coefficient zero point TK ₀	$\pm 0.15 \text{ \% of full scale/10 K}$
Temperature coefficient range TK _s	$\pm 0.15 \text{ \% of full scale/10 K}$

Environmental conditions	
Ambient temperature	-40...+80 °C
Storage temperature	-40...+80 °C
Vibration resistance	20 g (9...2000 Hz), according to IEC 68-2-6
Shock resistance	50 g (11 ms) acc. to IEC 68-2-27
EMV	EN 61000-4-2 ESD:4 kV CD / 8 kV AD EN 61000-4-3 HF radiated: 15 V/m EN 61000-4-4 Burst: 2 kV EN 61000-4-5 Surge: 1000 V, 42 Ohm EN 61000-4-6 HF cable bound: 10 V

Mechanical data	
Housing material	Stainless-steel/Plastic, 1.4305 (AISI 303)
Pressure connection material	Stainless steel 1.4435 (AISI 316L)
Sealing material	FPM spez.
Process connection	G 1/2" front-flush
Wrench size pressure connection / coupling nut	30
Electrical connection	Connector, M12 × 1
Max. tightening torque of housing nut	25 Nm

Reference conditions acc. to IEC 61298-1	
Temperature	15...+25 °C
Atmospheric pressure	860...1060 hPa abs.
Humidity	45...75 % rel.
Auxiliary power	24 VDC

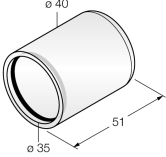
Display	4-digit 7-segment display, rotatable by 180°, with switch-off function
Switching state	2 × LEDs, Yellow
Unit display	5 x LEDs green (bar, psi, kPa, MPa, misc)

Programming options	start/end value analog output; switch/release point; PNP/NPN; NO/NC contact; hysteresis/window mode; damping; pressure unit; peak pressure memory
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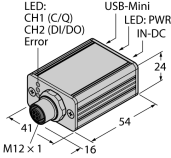
Tests/approvals	
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MTTF	439 years acc. to SN 29500 (Ed. 99) 40 °C
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Accessories

Type code	Ident-No.		Dimension drawing
PTS-COVER	A9350	Protective housing	

Function accessories

Type code	Ident-No.		Dimension drawing
USB-2-IOL-0002	6825482	IO-Link Master with integrated USB port	
TBEN-S2-4IOL	6814024	Compact multiprotocol I/O module, 4 IO-Link Master 1.1 Class A, 4 universal PNP digital channels 0.5 A	