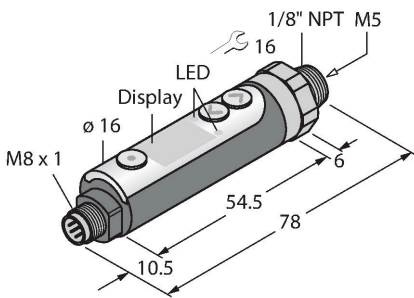


PK012R-P14-2UP8X-V1141

Pressure Sensor – IO-Link with 2 PNP Transistor Switching Outputs



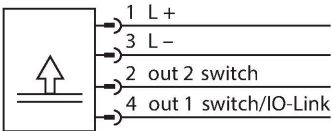
Technical data

Type	PK012R-P14-2UP8X-V1141
ID	100042131
Pressure type	Relative pressure
Pressure range	0...12 bar
	0...174.05 psi
	0...1.2 MPa
Admissible overpressure	≤ 15 bar
Response time	< 2.8 ms
Power supply	
Operating voltage U _B	10.8...30 VDC
Short-circuit/reverse polarity protection	yes / yes
Protection class	IP65
Outputs	
Output 1	Switching output or IO-Link mode
Output 2	Switching output
Switching output	
Output function	NO/NC, PNP
Accuracy	± 2 % FS BSL
Rated operational current	0.25 A
Switching frequency	≤ 200 Hz
Switch point:	0...100 %
IO-Link	
IO-Link specification	V 1.1
Programming	FDT/DTM
Transmission physics	Complies with 3-wire technology (PHY2)

Features

- Compact design
- For pressure and vacuum monitoring
- Rotatable sensor body
- Display rotatable by 360°
- Excellent EMC properties
- 2 × PNP outputs, IO-Link
- Pressure range 0...12 bar rel.

Wiring diagram



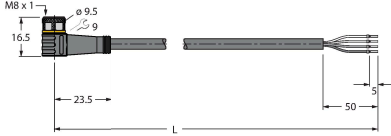
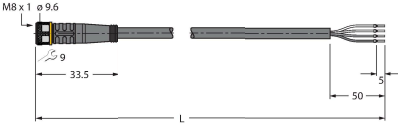
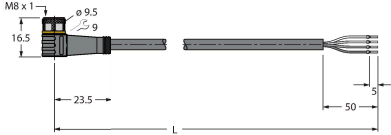
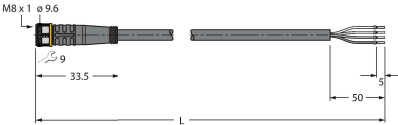
Functional principle

The pressure sensors of the PK product series operate using a silicon measuring cell. As a result of the pressure acting on the silicon, a signal that is proportional to the pressure is generated and processed electronically. The processed signal is available as a switching output or as digital process parameters. The sensors are intended only for use in non-aggressive gas and compressed-air applications. In the case of lubricated compressed air, it is recommended that the pressure connection points downward.

Technical data

Transmission rate	COM 2/38.4 kbps
Frame type	2.2
Temperature behaviour	
Medium temperature	0...+60 °C
Temperature coefficient	± 0.2 % of full scale/10 K
Environmental conditions	
Ambient temperature	-10...+60 °C
Storage temperature	-20...+85 °C
Vibration resistance	10 to 55 Hz, 1.5 mm, XYZ 2 h
Shock resistance	10 g (11 ms) acc. to IEC 68-2-27
EMV	Emitted interference acc. to EN 61000 EN 61000-6-4* Intrinsically safe acc. to EN 61000-6-2* * shielded connection cable recommended
Mechanical data	
Housing material	Plastic, ABS
Material pressure transducer	Silicon
Process connection	1/8" NPT male thread 1/4" NPT male thread
Wrench size pressure connection / coupling nut	SW 16
Electrical connection	Connector, M8 × 1
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
Displays/Operating elements	
Display	3-digit 7-segment display, rotatable by 360°
Switching state	2 × LEDs, Yellow/yellow
Programming options	Switching/release points; NC/NO; hysteresis/window mode; switch-on/switch-off delay; pressure unit; diagnostic mode
Tests/approvals	
MTTF	318 years acc. to SN 29500 (Ed. 99) 40 °C

Accessories

Dimension drawing	Type	ID	
	PKW4M-2/TXL	6625559	Connection cable, M8 female connector, angled, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval
	PKG4M-2/TXL	6625553	Connection cable, M8 female connector, straight, 4-pin, cable length: 2 m, jacket material: PUR, black; cULus approval
	PKW4M-2/TEL	6625067	Connection cable, M8 female connector, angled, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval
	PKG4M-2/TEL	6625061	Connection cable, M8 female connector, straight, 4-pin, cable length: 2 m, jacket material: PVC, black; cULus approval