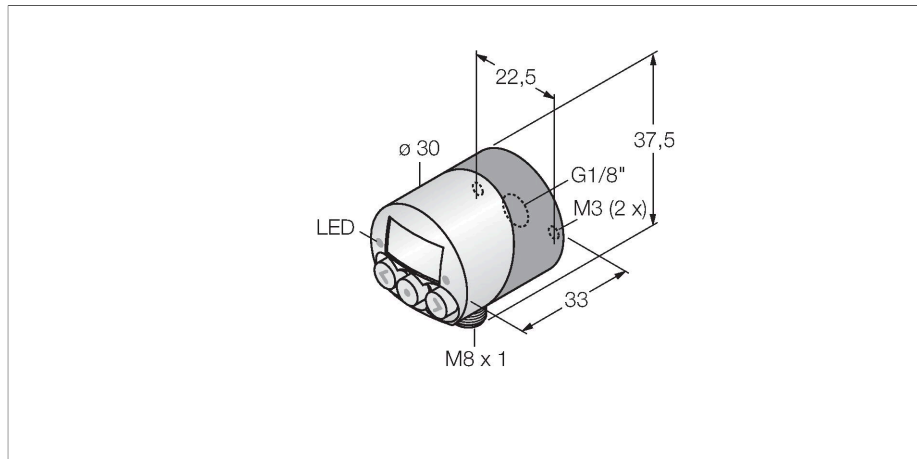


# PK010R-N12AL-2UP8X-V1141

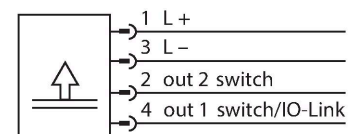
## Pressure Sensor – IO-Link with 2 PNP Transistor Switching Outputs



### Features

- Compact design
- For pressure and vacuum monitoring
- Display rotatable by 360°
- Excellent EMC properties
- 2 × PNP outputs, IO-Link
- Pressure range 0...10 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

Type	PK010R-N12AL-2UP8X-V1141
ID	6833010
Medium temperature	0...+60 °C
<b>Pressure range</b>	
Pressure type	Relative pressure
Pressure range	0...10 bar
	0...145.04 psi
	0...1 MPa
Admissible overpressure	≤ 15 bar
Response time	< 2.8 ms
<b>Power supply</b>	
Operating voltage	10.8...30 VDC
Short-circuit/reverse polarity protection	yes / yes
<b>Outputs</b>	
Output 1	Switching output or IO-Link mode
Output 2	Switching output
<b>Switching output</b>	
Output function	NO/NC, PNP
Accuracy	± 2 % FS BSL
Rated operational current	0.25 A
Switching frequency	≤ 200 Hz
Switch point:	0...100 %
<b>IO-Link</b>	
IO-Link specification	V 1.1
Transmission physics	Complies with 3-wire technology (PHY2)
Frame type	2.2

## Technical data

Transmission rate	COM 2/38.4 kbps
Programming	FDT/DTM
Programming options	Switching/release points; NC/NO; hysteresis/window mode; switch-on/switch-off delay; pressure unit; diagnostic mode
Housing material	Aluminium, Al/PVC
Process connection	G 1/8" female thread
Pressure transducer material	Silicon
Wrench size pressure connection / coupling nut	SW 14
Electrical connection	Connector, M8 × 1
Protection class	IP65
Ambient temperature	-10...+60 °C
Storage temperature	-20...+85 °C
Shock resistance	10 g (11 ms) , acc. to IEC 68-2-27
Vibration resistance	10 to 55 Hz, 1.5 mm, XYZ 2 h
EMV	Emitted interference acc. to EN 61000 EN 61000-6-4* Intrinsically safe acc. to EN 61000-6-2* * shielded connection cable recommended

### 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

Display	3-digit 7-segment display, rotatable by 360°
Switching state	2 × LEDs, Yellow/Yellow

### Temperature behaviour

MTTF	319 years acc. to SN 29500 (Ed. 99) 40 °C
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## Technical data

Type	PK010R-N12AL-2UP8X-V1141
ID	6833010
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Pressure type	Relative pressure
Pressure range	0...10 bar
	0...145.04 psi
	0...1 MPa
Admissible overpressure	≤ 15 bar
Response time	< 2.8 ms

## Technical data

<b>Power supply</b>	
Operating voltage	10.8...30 VDC
Short-circuit/reverse polarity protection	yes / yes
Protection type and class	IP65
<b>Outputs</b>	
Output 1	Switching output or IO-Link mode
Output 2	Switching output
<b>Switching output</b>	
Output function	NO/NC, PNP
Accuracy	± 2 % FS BSL
Rated operational current	0.25 A
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Switch point:	0...100 %
<b>IO-Link</b>	
IO-Link specification	V 1.1
Programming	FDT/DTM
Transmission physics	Complies with 3-wire technology (PHY2)
Transmission rate	COM 2/38.4 kbps
Frame type	2.2
<b>Temperature behaviour</b>	
Medium temperature	0...+60 °C
Temperature coefficient	± 0.2 % of full scale/10 K
<b>Ambient conditions</b>	
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 recommend- ed
<b>Mechanical data</b>	
Housing material	Aluminium, Al/PVC
Pressure transducer material	Silicon
Process connection	G 1/8" female thread
Wrench size pressure connection / coupling nut	SW 14
Electrical connection	Connector, M8 × 1
<b>Reference conditions acc. to IEC 61298-1</b>	
Temperature	15...+25 °C
Atmospheric pressure	860...1060 hPa abs.

## Technical data

Humidity	45...75 % rel.
Auxiliary power	24 VDC
<b>Display</b>	
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
MTTF	319 years acc. to SN 29500 (Ed. 99) 40 °C

## Accessories

Dimension drawing	Type	ID	
	PKW4M-2/TXL	6625559	Connection cable, female M8, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>
	PKG4M-2/TXL	6625553	Connection cable, female M8, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>
	PKW4M-2/TEL	6625067	Connection cable, female M8, angled, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>
	PKG4M-2/TEL	6625061	Connection cable, female M8, straight, 4-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>