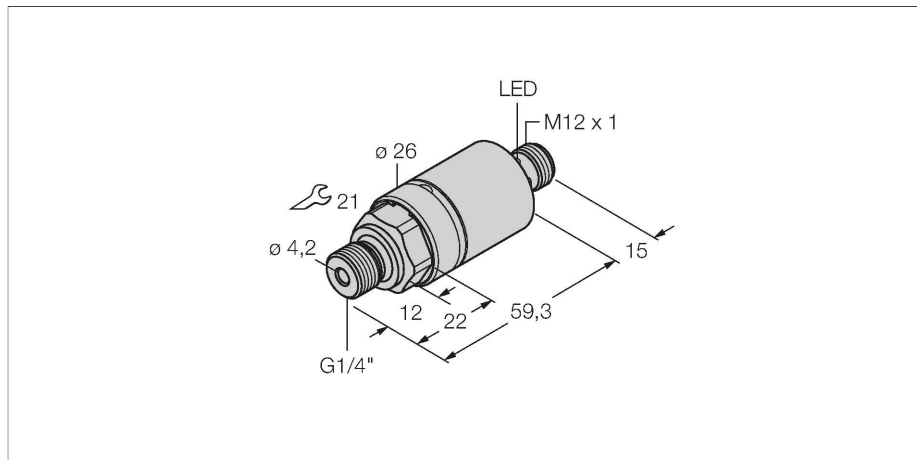


# PC250R-204-2UPN8X-H1141

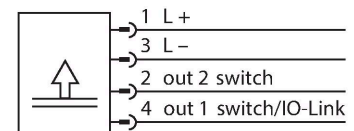
## Pressure Sensor – 2 PNP/NPN Transistor Switching Outputs



### Features

- Cylindrical version without display
- 2 PNP/NPN switching outputs
- Communication via IO-Link
- Display of communication via LED at M12 connector
- Pressure range 0...250 bar rel.

### Wiring diagram



### Technical data

Type	PC250R-204-2UPN8X-H1141
ID no.	6833758
Medium temperature	-40...+85 °C
<b>Pressure range</b>	
Relative pressure bar	0...250 bar rel.
	0...3625.95 psi
	0...25 MPa
Admissible overpressure	≤ 500 bar
Burst pressure	≥ 500 bar
Response time	< 3 ms
<b>Power supply</b>	
Operating voltage	15...30 VDC
Current consumption	≤ 12 mA
Protective measure	SELV; PELV according to EN 50178
Short-circuit/reverse polarity protection	yes / yes
Insulation class	III
<b>Outputs</b>	
Output 1	Switching output or IO-Link mode
Output 2	switching output
<b>Switching output</b>	
Communication protocol	IO-Link
Output function	NO/NC, PNP/NPN
Accuracy	± 0.5 % FS BSL
Rated operational current	0.15 A
Switching frequency	≤ 180 Hz
Switching point distance	≥ 0.5 %
Switch point:	(min + 0.005 x range) up to 100% f.s.

### Functional principle

The IO-Link pressure transmitters of the PC 200 series operate with piezoresistive ceramic measuring cells. The ceramic diaphragm is unbalanced in proportion to the pressure applied. The digitally processed signal is made available via IO-Link or as switching output. Highest flexibility and 0.5 % f.s.accuracy guarantee secure connection to your processes.

## Technical data

Release point(s)	min up to (SP - 0.005 x range)
Switching cycles	≥ 100 mil.
<b>IO-Link</b>	
IO-Link specification	V 1.0
Transmission physics	corresponds to 3-wire physics (PHY2)
Frame type	2.2
Transmission rate	COM 2 / 38.4 kbps
Process data width	16 bit
Measured value information	14 bit
Switchpoint information	2 bit
Programming	FDT / DTM
Accuracy	± 0.5 % FS BSL
Included in the SIDI GSDML	Yes
Programming options	switch/release point, PNP/NPN, NO/NC, hysteresis/window mode, muting, pressure unit, peak pressure memory
Housing material	Stainless steel, 1.4305 (AISI 303)/PBT-GF15
Process connection	G 1/4" male thread
Pressure connection material	Stainless steel 1.4305 (AISI 303)
Pressure transducer material	Ceramics Al <sub>2</sub> O <sub>3</sub>
Sealing material	FPM
Wrench size pressure connection / coupling nut	21
Electrical connection	Connectors, M12 × 1
Type of protection	IP67 IP69K
Ambient temperature	-40...+80 °C
Storage temperature	-40...+80 °C
Shock resistance	50 , acc. to IEC 68-2-27
Vibration resistance	20 g (9...2000 Hz), according to IEC 68-2-6
<b>Reference conditions acc. to IEC 61298-1</b>	
Temperature	15...+25 °C
Atmospheric pressure	860...1060 hPa abs.
Humidity	45...75 % rel.
Auxiliary power	24 VDC
<b>Temperature behaviour</b>	
Temperature coefficient span T <sub>KS</sub>	± 0.15 % of full scale/10 K
Temperature coefficient zero point Tk0	± 0.15 % of full scale/10 K
MTTF	2079 years acc. to SN 29500 (Ed. 99) 40 °C

## Technical data

Type	PC250R-204-2UPN8X-H1141
ID no.	6833758
<b>Pressure range</b>	
Relative pressure bar	0...250 bar rel.
	0...3625.95 psi
	0...25 MPa
Admissible overpressure	≤ 500 bar
Burst pressure	≥ 500 bar
Response time	< 3 ms
<b>Power supply</b>	
Operating voltage	15...30 VDC
Current consumption	≤ 12 mA
Voltage drop at I <sub>e</sub>	≤ 2 V
Protective measure	SELV; PELV according to EN 50178
Short-circuit/reverse polarity protection	yes / yes
Protection type and class	IP67 IP69K / III
<b>Outputs</b>	
Output 1	Switching output or IO-Link mode
Output 2	switching output
<b>Switching output</b>	
Communication protocol	IO-Link
Output function	NO/NC, PNP/NPN
Accuracy	± 0.5 % FS BSL
Rated operational current	0.15 A
Switching frequency	≤ 180 Hz
Switching point distance	≥ 0.5 %
Switch point:	(min + 0.005 x range) up to 100% f.s.
Release point(s)	min up to (SP - 0.005 x range)
Switching cycles	≥ 100 mil.
Switch point SP1	configurable
Release point rP1	customized
<b>IO-Link</b>	
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

## Technical data

Accuracy	± 0.5 % FS BSL
Included in the SIDI GSDML	Yes
<b>Temperature behaviour</b>	
Medium temperature	-40...+85 °C
Temperature coefficient zero point Tk0	± 0.15 % of full scale/10 K
Temperature coefficient span T <sub>KS</sub>	± 0.15 % of full scale/10 K
<b>Ambient conditions</b>	
Ambient temperature	-40...+80 °C
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Vibration resistance	20 g (9...2000 Hz), according to IEC 68-2-6
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<b>Housing</b>	
Housing material	Stainless steel, 1.4305 (AISI 303)/PBT-GF15
Pressure connection material	Stainless steel 1.4305 (AISI 303)
Pressure transducer material	Ceramics Al <sub>2</sub> O <sub>3</sub>
Sealing material	FPM
Process connection	G 1/4" male thread
Wrench size pressure connection / coupling nut	21
Electrical connection	Connectors, M12 × 1
<b>Reference conditions acc. to IEC 61298-1</b>	
Temperature	15...+25 °C
Atmospheric pressure	860...1060 hPa abs.
Humidity	45...75 % rel.
Auxiliary power	24 VDC
Programming options	switch/release point, PNP/NPN, NO/NC, hysteresis/window mode, muting, pressure unit, peak pressure memory
MTTF	2079 years acc. to SN 29500 (Ed. 99) 40 °C

## Accessories

Dimension drawing	Type	ID no.	
	WKC4.4T-2/TEL	6625025	Connection cable, female M12, 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>
	RKC4.4T-2/TEL	6625013	Connection cable, female M12, 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>
	RKC4.4T-2/TXL	6625503	Connection cable, female M12, straight, 4-pin, cable length: 2 m, sheath material: PUR, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>
	WKC4.4T-2/TXL	6625515	Connection cable, female M12, angled, 4-pin, cable length: 2 m, sheath material: PUR, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>
	RKC4.4T-P7X2-10/TXL	6626184	Connection cable, female M12, angled, 4-pin, cable length: 10m, sheath material: PUR, black; cULus approval; other cable lengths and qualities available, see <a href="http://www.turck.com">www.turck.com</a>