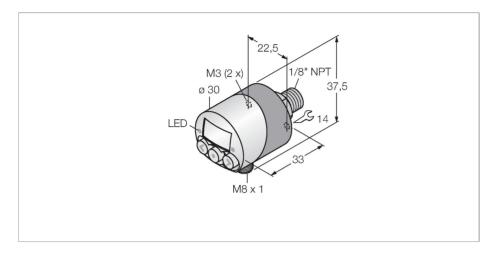


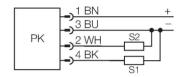
# PK010R-N14AL-2UP8X-V1141 Pressure Sensor – 2 PNP Transistor Switching Outputs



#### **Features**

- Compact design
- Pressure and vacuum monitoring
- Display rotatable by 180°
- Excellent EMC properties
- Pressure range 0...10 bar rel.

#### Wiring diagram



#### Technical data

Type	PK010R-N14AL-2UP8X-V1141
ldent. no.	6833012
Pressure range	
Relative pressure	010 bar rel.
	0145.04 psi
	01 MPa
Admissible overpressure	≤ 16 bar
Response time	< 2.5 ms
Power supply	
Operating voltage	10.830 VDC
Short-circuit/reverse polarity protection	yes / yes
Protection type and class	IP65
Outputs	
Output 1	Switching output
Output 2	switching output
Switching output	
Output function	NO/NC, PNP
Accuracy	± 1 % of final value BSL
Rated operational current	0.3 A
Switching frequency	≤ 400 Hz
Switch point:	0100%
Temperature behaviour	
Medium temperature	0+50 °C

### Functional principle

The pressure transmitters of the PK series operate with a silicon measuring cell. Through the pressure applied on the silicon, a pressure proportional signal is generated and electronically processed. The processed signal is made available as switching output. The sensors are intended only for use in non-aggressive gas and compressed air applications. With lubricated compressed air, the pressure connection should point downwards



## Technical data

Temperature coefficient span T <sub>ss</sub> ± 0.15 % of full scale/10 K  Ambient conditions  Ambient temperature -10+50 °C  Storage temperature -20+85 °C  Vibration 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  Housing  Housing material Aluminium, Al/PVC  Pressure transducer material Silicon  Process connection NPT #" male thread  Wrench size pressure connection / coupling nut  Electrical connection Connector, M8 × 1  Reference conditions acc. to IEC 61298-1  Temperature 15+25 °C  Atmospheric pressure 8601060 hPa abs.  Humidity 4575 % rel.  Auxiliary power 24 VDC  Display  Display 3-digit 7-segment display, rotatable by 180°  Switching state 2 × LEDs, Red/Green  Programming options switch/release point, hysteresis/window mode, NO/NC, muting, peak pressure memory  Unit display LEDs for display of output status report  MTTF acc. to SN 29500 (Ed. 99) 40 °C	Temperature coefficient zero point Tk0	$\pm0.15$ % of full scale/10 K
Ambient temperature  Storage temperature  -20+85 °C  Vibration resistance  10 g (11 ms), acc. to IEC 68-2-27  EMIV  Emitted interference acc. to EN 61000 EN 61000-6-4*	Temperature coefficient span T <sub>ks</sub>	± 0.15 % of full scale/10 K
Storage temperature  -20+85 °C  Vibration resistance  10 g (11 ms), acc. to IEC 68-2-27  EMV  Emitted interference acc. to EN 61000 EN 61000-6-4*	Ambient conditions	
Vibration resistance 1055 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  Housing Housing material Aluminium, Al/PVC  Pressure transducer material Silicon  Process connection NPT #" male thread  Wrench size pressure connection / coupling nut  Electrical connection Connector, M8 × 1  Reference conditions acc. to IEC 61298-1  Temperature 15+25 °C  Atmospheric pressure 8601060 hPa abs.  Humidity 4575 % rel.  Auxiliary power 24 VDC  Display  Display 3-digit 7-segment display, rotatable by 180°  Switching state 2 × LEDs, Red/Green  Programming options switch/release point, hysteresis/window mode, NO/NC, muting, peak pressure memory  Unit display LEDs for display of output status report	Ambient temperature	-10+50 °C
Shock resistance 10 g (11 ms), acc. to IEC 68-2-27  EMIV Emitted interference acc. to EN 61000 EN 61000-6-4* Intrinsically safe acc. to EN 61000-6-2* * shielded connection cable recommended  Housing Housing material Aluminium, Al/PVC  Pressure transducer material Silicon  Process connection NPT #" male thread  Wrench size pressure connection / coupling nut  Electrical connection Connector, M8 × 1  Reference conditions acc. to IEC 61298-1  Temperature 15+25 °C  Atmospheric pressure 8601060 hPa abs.  Humidity 4575 % rel.  Auxiliary power 24 VDC  Display  Display 3-digit 7-segment display, rotatable by 180°  Switching state 2 × LEDs, Red/Green  Programming options switch/release point, hysteresis/window mode, NO/NC, muting, peak pressure memory  Unit display LEDs for display of output status report	Storage temperature	-20+85 °C
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Housing   Housing material   Aluminium, Al/PVC	Shock resistance	10 g (11 ms) , acc. to IEC 68-2-27
Housing material Aluminium, Al/PVC  Pressure transducer material Silicon  Process connection NPT #" male thread  Wrench size pressure connection / coupling nut  Electrical connection Connector, M8 × 1  Reference conditions acc. to IEC 61298-1  Temperature 15+25 °C  Atmospheric pressure 8601060 hPa abs.  Humidity 4575 % rel.  Auxiliary power 24 VDC  Display  Display 3-digit 7-segment display, rotatable by 180°  Switching state 2 × LEDs, Red/Green  Programming options switch/release point, hysteresis/window mode, NO/NC, muting, peak pressure memory  Unit display of output status report	EMV	61000-6-4* Intrinsically safe acc. to EN 61000-6-2*
Pressure transducer material  Process connection  NPT #" male thread  Wrench size pressure connection / coupling nut  Electrical connection  Connector, M8 × 1  Reference conditions acc. to IEC 61298-1  Temperature  15+25 °C  Atmospheric pressure  8601060 hPa abs.  Humidity  4575 % rel.  Auxiliary power  24 VDC  Display  Display  Display  Switching state  2 × LEDs, Red/Green  Programming options  switch/release point, hysteresis/window mode, NO/NC, muting, peak pressure memory  Unit display of output status report	Housing	
Process connection  Wrench size pressure connection / coupling nut  Electrical connection  Connector, M8 × 1  Reference conditions acc. to IEC 61298-1  Temperature  15+25 °C  Atmospheric pressure  8601060 hPa abs.  Humidity  4575 % rel.  Auxiliary power  24 VDC  Display  Display  Display  Switching state  2 × LEDs, Red/Green  Programming options  switch/release point, hysteresis/window mode, NO/NC, muting, peak pressure memory  Unit display of output status report	Housing material	Aluminium, Al/PVC
Wrench size pressure connection / coupling nut  Electrical connection Connector, M8 × 1  Reference conditions acc. to IEC 61298-1  Temperature 15+25 °C  Atmospheric pressure 8601060 hPa abs.  Humidity 4575 % rel.  Auxiliary power 24 VDC  Display  Display 3-digit 7-segment display, rotatable by 180°  Switching state 2 × LEDs, Red/Green  Programming options switch/release point, hysteresis/window mode, NO/NC, muting, peak pressure memory  Unit display LEDs for display of output status report	Pressure transducer material	Silicon
Reference conditions acc. to IEC 61298-1  Temperature  15+25 °C  Atmospheric pressure  8601060 hPa abs.  Humidity  4575 % rel.  Auxiliary power  Display  Display  Display  Switching state  Programming options  acc. to IEC  8601060 hPa abs.  4575 % rel.  24 VDC  Display  3-digit 7-segment display, rotatable by 180°  Switch/release point, hysteresis/window mode, NO/NC, muting, peak pressure memory  Unit display  LEDs for display of output status report	Process connection	NPT #" male thread
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Temperature 15+25 °C  Atmospheric pressure 8601060 hPa abs.  Humidity 4575 % rel.  Auxiliary power 24 VDC  Display  Display 3-digit 7-segment display, rotatable by 180°  Switching state 2 × LEDs, Red/Green  Programming options switch/release point, hysteresis/window mode, NO/NC, muting, peak pressure memory  Unit display LEDs for display of output status report	Electrical connection	Connector, M8 × 1
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Humidity 4575 % rel.  Auxiliary power 24 VDC  Display  Display 3-digit 7-segment display, rotatable by 180°  Switching state 2 × LEDs, Red/Green  Programming options switch/release point, hysteresis/window mode, NO/NC, muting, peak pressure memory  Unit display LEDs for display of output status report	Temperature	15+25 °C
Auxiliary power  Display  Display  3-digit 7-segment display, rotatable by 180°  Switching state  2 × LEDs, Red/Green  Programming options  switch/release point, hysteresis/window mode, NO/NC, muting, peak pressure memory  Unit display  LEDs for display of output status report	Atmospheric pressure	8601060 hPa abs.
Display  Display  3-digit 7-segment display, rotatable by 180°  Switching state  2 × LEDs, Red/Green  Programming options  switch/release point, hysteresis/window mode, NO/NC, muting, peak pressure memory  Unit display  LEDs for display of output status report	Humidity	4575 % rel.
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Switching state 2 × LEDs, Red/Green  Programming options switch/release point, hysteresis/window mode, NO/NC, muting, peak pressure memory  Unit display LEDs for display of output status report	Display	
Programming options  switch/release point, hysteresis/window mode, NO/NC, muting, peak pressure memory  Unit display  LEDs for display of output status report	Display	3-digit 7-segment display, rotatable by 180°
mode, NO/NC, muting, peak pressure memory  Unit display  LEDs for display of output status report	Switching state	2 × LEDs, Red/Green
	Programming options	mode, NO/NC, muting, peak pressure
MTTF acc. to SN 29500 (Ed. 99) 40 °C	Unit display	LEDs for display of output status report
	MTTF	acc. to SN 29500 (Ed. 99) 40 °C