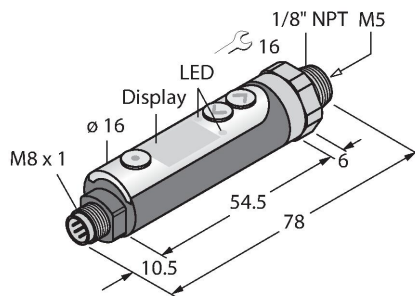


# PK010R-P14-2UP8X-V1141

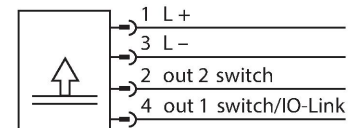
## Pressure Sensor – IO-Link with 2 PNP Transistor Switching Outputs



### 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...10 bar rel.

### Wiring diagram



### Technical data

|                                           |                                  |
|-------------------------------------------|----------------------------------|
| Type                                      | PK010R-P14-2UP8X-V1141           |
| ID                                        | 6833007                          |
| <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                        |
| 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                           |
| Switching frequency                       | ≤ 200 Hz                         |
| Switch point:                             | 0...100 %                        |
| <b>IO-Link</b>                            |                                  |
| IO-Link specification                     | V 1.1                            |
| Programming                               | FDT/DTM                          |

### 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 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>Environmental 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<br>EN 61000-6-4*<br>Intrinsically safe acc. to EN 61000-6-2*<br>* shielded connection cable recommended |
| <b>Mechanical data</b>                          |                                                                                                                                               |
| Housing material                                | Plastic, ABS                                                                                                                                  |
| Pressure transducer material                    | Silicon                                                                                                                                       |
| Process connection                              | 1/4" NPT male thread                                                                                                                          |
| Wrench size pressure connection / coupling nut  | SW 16                                                                                                                                         |
| Electrical connection                           | Connector, M8 × 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                                                                                                                                        |
| <b>Displays/Operating elements</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                           |
| <b>Tests/approvals</b>                          |                                                                                                                                               |
| 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 |