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PRODUCT OVERVIEW

PBST

Pressure sensors

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Sensor Intelligence



PRESSURE SENSORS

PBST

Multifunctional pressure switch made from stainless steel with touchscreen, analog output and IO-Link

The PBST is a compact pressure sensor for the precise measurement, monitoring and control of pressure in machine circuits. The device can be used as a switch, measuring transducer or IO-Link sensor with display in a variety of ways. It measures both liquids and gases reliably. A rugged ceramic measuring cell delivers precise data that can be used flexibly for switching operations and system control via two separately configurable signal outputs. The touchscreen allows quick and easy configuration on the sensor. Critical statuses can be easily identified by an optionally adjustable green-red color change on the display, which considerably simplifies on-site monitoring.

PBST AT A GLANCE

BENEFITS

- Quick and easy configuration via touchscreen and IO-Link
- Ideal for harsh environments: made entirely from stainless steel and with a shatterproof display
- Universal application due to compact dimensions and commonly available standard connection options
- Long service life thanks to resistant ceramic measuring cells
- High flexibility thanks to two individually configurable signal outputs
- Safe monitoring on site with color-coded measured value display

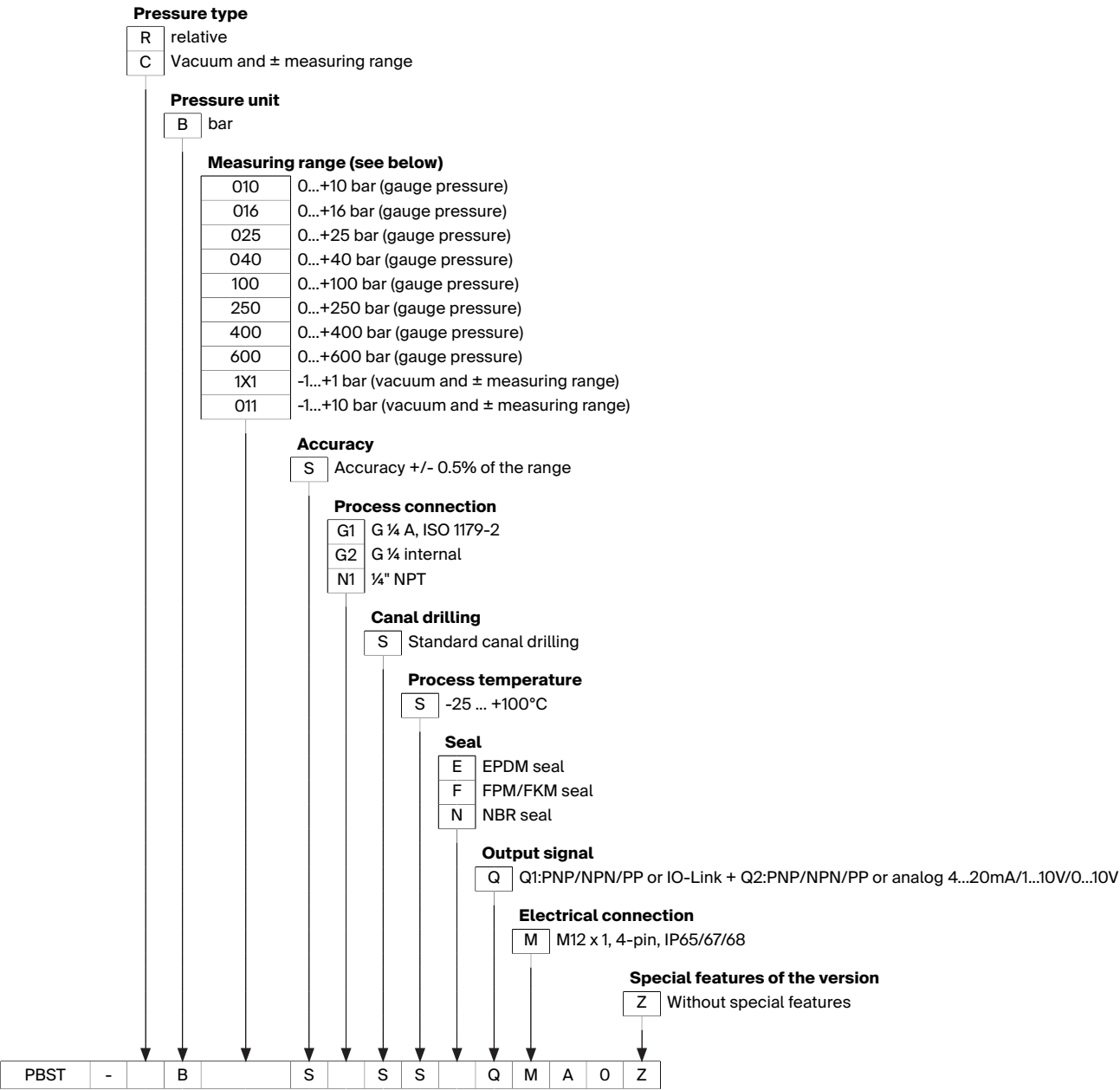
FEATURES

- Multi-color touchscreen
- Compact housing made entirely from stainless steel with IP68 enclosure rating
- Two flexibly configurable signal outputs (combination of switching output, IO-Link, analog output)
- For relative pressure measurement of liquids and gases in the range of -1 to 600 bar
- Diagnostic options via IO-Link
- M12 male connector for voltage supply
- Commonly available standard process connections (male thread G 1/4", female thread G 1/4", NPT male thread 1/4")

TECHNICAL DATA OVERVIEW

Medium	Liquid, gaseous
Pressure type	Gauge pressure Compound pressure
Pressure unit	bar
Measuring chamber type	Ceramic (thick film)
Accuracy	≤ 0.5 %
Process connection	G ¼ A (ISO 1179-2) G ¼ female (EN 837) ¼" NPT
Connection type	M12 round connector x 1, 4-pin
Enclosure rating	IP65 IP67 IP68
Process temperature	-25 °C ... +100 °C
Seal	NBR EPDM FKM
Communication interface	IO-Link
Supply voltage	9 V DC ... 30 V DC

TYPE CODE



Not all variants of the type code can be combined!

ADVANTAGES



Compact, rugged and flexible

The PBST offers numerous functions at low cost. The sensor can be used both as a switch and as a measuring transducer. The integrated display simultaneously shows the measured value and, optionally, the two outputs. The sensor can be used for control in Industry 4.0 systems via IO-Link. The compact housing made entirely of stainless steel with a shatter-proof touchscreen makes the sensor particularly rugged. Thanks to IP68, the PBST product family is also resistant to water and dust – making it suitable for a wide range of industrial applications.



Compact design

The PBST can also be easily integrated into applications with limited installation space.

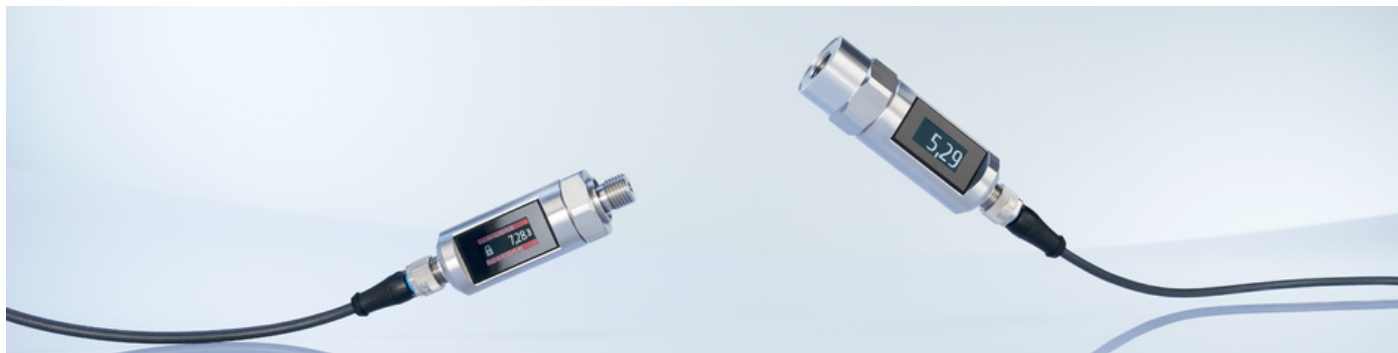


Rugged housing and a wide range of applications

Vibrations, shocks, splash water and dust cannot harm the rugged sensor. Thanks to its freely configurable outputs and IO-Link, the PBST is also suitable for numerous applications.

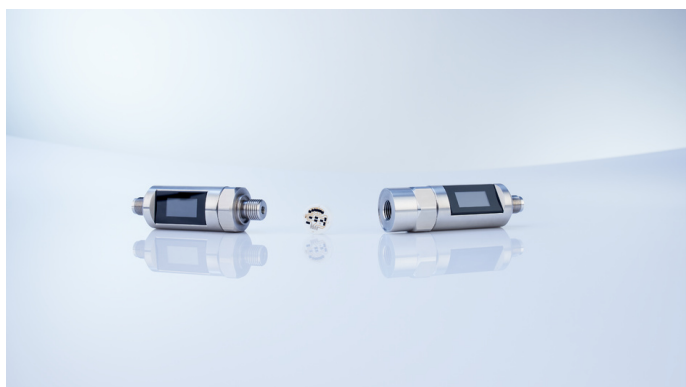


The PBST reduces the sensor variance in the process and thereby the storage costs as well.



Fast integration and simple monitoring

With quick and uncomplicated installation and parameterization, the PBST achieves high system availability. The pressure sensor is easy to operate during operation – without the need for teach-in. Critical measured values are visible thanks to the multi-color touchscreen. Above a predefined threshold, the display changes from green to red, which facilitates monitoring directly on the system.



Uncomplicated installation

Thanks to standard process connections and an M12 male connector for the voltage and signal output, the PBST can be easily integrated into almost any environment.

Intuitive and flexible

All values are set quickly and easily using swipe gestures on the touchscreen and are saved directly. The sensor can be configured remotely via IO-Link and monitors in real time.



The simple handling reduces costs and effectively prevents system downtimes.

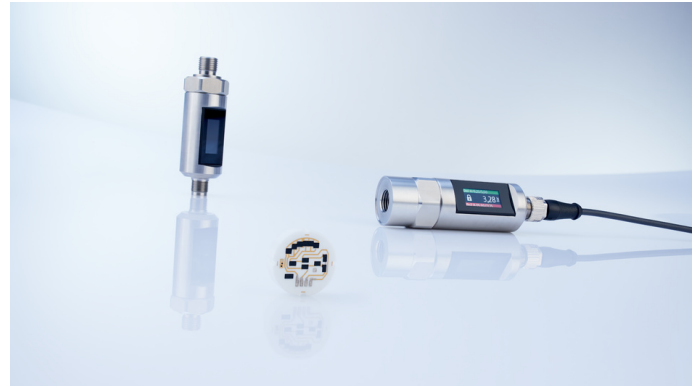
Reliable and precise pressure monitoring

The ceramic/thick film measuring cell in the PBST transmits the media pressure that is applied to the process connection. The value is converted into an electrical output signal. Whether viscous liquids or high-pressure gases, the sensor reliably measures the relative pressure from -1 to 600 bar. The PBST also monitors and controls low-pressure processes precisely, while the ceramic measuring cell offers high overload resistance.



Flexible signal transmission

Depending on the system and requirements, the PBST triggers a switching contact and outputs an analog signal or a digital IO-Link signal.



Insensitive measuring element

The stable ceramic measuring cell easily withstands pressure spikes, sudden pressure surges and load cycles over its entire service life. This leads to a consistent accuracy of the measured values.



In continuous pressure measurement, the PBST ensures high process reliability over the long term.

Select the right product variant and accessories directly online. There you will also find example applications as well as downloads such as CAD dimensional models, operating instructions and software.

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SICK AT A GLANCE

SICK is a leading global technology company for intelligent sensors and integrated solutions in industrial automation. Our technologies set benchmarks, making your industrial processes more efficient, safer and more sustainable – both in logistics and manufacturing operations.

SICK combines sensor intelligence with industry expertise and certified consulting services. We provide the ideal foundation for scalable as well as tailor-made automation solutions and create added value along the entire value chain. Our close partnership with our customers is more than just a promise: Together, we optimize productivity, elevate quality, protect health and safety, and sustain the future. All with empathy and trust.

Since 1946, we have been developing innovative technologies with passion and a pioneering spirit. With a global network in around 40 countries, SICK has a global presence and is always close by. The company's headquarters are located in Waldkirch near Freiburg, Germany. Our customers benefit from our understanding of both local and global requirements, which enables us to deliver tailor-made solutions.

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