



## PBT

A genuinely talented all-rounder

**SICK**  
Sensor Intelligence.



## Technical data overview

|                              |   |   |
|------------------------------|---|---|
| <b>Measuring ranges</b>      | Gauge pressure  | 0 bar ... 0.05 bar up to bar ... 1000 bar |
|                              | Absolute pressure   | 0 bar ... 0.1 bar up to 0 bar ... 25 bar  |
|                              | Compound pressure   | -1 bar ... 0 bar up to -1 bar ... +24 bar |
| <b>Pressure unit</b>         | Bar, MPa, psi and kg/cm <sup>2</sup>  |   |
| <b>Accuracy</b>              | $\leq \pm 1\%$ of the span<br>$\leq \pm 0.5\%$ of the span<br>$\leq \pm 0.25\%$ of the span<br>$\leq \pm 0.6\%$ of the span |   |
| <b>Output signal</b>         | Analog  |   |
| <b>Electrical connection</b> | M12 round connector x 1, angled plug, cable connection  |   |

## Product description

The PBT is a universal electronic pressure transmitter used in general industrial applications for pressure measurement of liquid and gaseous fluids. Suitable for standard measuring applications in machine and plant engineering, pressure control systems, hydraulics, pneumatics, etc., it supports a wide variety of configurations. and can thus provide the perfect match for individual customer requirements. Its precise and rugged measurement technology, compact dimensions, and quick and simple installation set the PBT apart as a genuinely talented all-rounder.

## At a glance

- Pressure measurement ranges from 0 bar ... 0.05 bar up to 0 bar ... 1000 bar
- Relative, absolute, and  $\pm$  measuring ranges
- Large number of process connections available
- No mechanical moving parts. Hence no wear, fatigue, or maintenance
- Circularly welded, hermetically sealed stainless steel membrane
- Output signal 4 mA ... 20 mA, 0 V ... 5 V or 0 V ... 10 V
- Electrical connection M12 x 1, angled plug (acc. to DIN 175301-803 A) or cable connection

## Your benefits

- Compact size takes up less space
- Simple and cost-saving installation
- Available in a wide selection of configurations, enabling a perfect match to individual customer requirements
- Robust design enables higher reliability
- Excellent price/performance ratio

## Type code

Other models and accessories → [www.sick.com/PBT](http://www.sick.com/PBT)

### Type code



Not all variants of the type code can be combined! Not all available variants are shown.

### Measuring range

|     | Gauge pressure measuring range | Overload limit |
|-----|--------------------------------|----------------|
| X05 | 0 ... 0.05 bar                 | 0.1 bar        |
| X10 | 0 ... 0.1 bar                  | 0.2 bar        |
| X16 | 0 ... 0.16 bar                 | 0.32 bar       |
| X20 | 0 ... 0.2 bar                  | 0.4 bar        |
| X25 | 0 ... 0.25 bar                 | 0.5 bar        |
| X40 | 0 ... 0.4 bar                  | 0.8 bar        |
| X60 | 0 ... 0.6 bar                  | 1.2 bar        |
| 1X0 | 0 ... 1 bar                    | 2 bar          |
| 1X6 | 0 ... 1.6 bar                  | 3.2 bar        |
| 2X5 | 0 ... 2.5 bar                  | 5 bar          |
| 4X0 | 0 ... 4 bar                    | 8 bar          |
| 6X0 | 0 ... 6 bar                    | 12 bar         |
| 010 | 0 ... 10 bar                   | 20 bar         |
| 016 | 0 ... 16 bar                   | 32 bar         |
| 025 | 0 ... 25 bar                   | 50 bar         |
| 040 | 0 ... 40 bar                   | 80 bar         |
| 060 | 0 ... 60 bar                   | 120 bar        |
| 100 | 0 ... 100 bar                  | 200 bar        |
| 160 | 0 ... 160 bar                  | 320 bar        |
| 250 | 0 ... 250 bar                  | 500 bar        |
| 400 | 0 ... 400 bar                  | 800 bar        |
| 600 | 0 ... 600 bar                  | 1,200 bar      |
| 1K0 | 0 ... 1,000 bar                |                |

|     | Absolute pressure measuring range | Overload limit |
|-----|-----------------------------------|----------------|
| X10 | 0 ... 0.1 bar abs                 | 0.2 bar abs    |
| X16 | 0 ... 0.16 bar abs                | 0.32 bar abs   |
| X25 | 0 ... 0.25 bar abs                | 0.5 bar abs    |
| X40 | 0 ... 0.4 bar abs                 | 0.8 bar abs    |
| X60 | 0 ... 0.6 bar abs                 | 1.2 bar abs    |
| 1X0 | 0 ... 1 bar abs                   | 2 bar abs      |
| 1X6 | 0 ... 1.6 bar abs                 | 3.2 bar abs    |
| 2X5 | 0 ... 2.5 bar abs                 | 5 bar abs      |
| 4X0 | 0 ... 4 bar abs                   | 8 bar abs      |
| 6X0 | 0 ... 6 bar abs                   | 12 bar abs     |
| 010 | 0 ... 10 bar abs                  | 20 bar abs     |
| 016 | 0 ... 16 bar abs                  | 32 bar abs     |
| 025 | 0 ... 25 bar abs                  | 50 bar abs     |

|     | ± measuring range | Overload limit |
|-----|-------------------|----------------|
| X05 | -0.05 ... 0 bar   |                |
| X10 | -0.1...0 bar      |                |
| X16 | -0.16...0 bar     |                |
| X25 | -0.25...0 bar     |                |
| X40 | -0.4...0 bar      |                |
| X60 | -0.6...0 bar      |                |
| 1X0 | -1...0 bar        |                |
| 1X1 | -1...+1 bar       | 2 bar          |
| 1X6 | -1 ... +0.6 bar   | 3.2 bar        |
| 2X5 | -1 ... +1.5 bar   | 5 bar          |
| 4X0 | -1 ... +3 bar     | 8 bar          |
| 6X0 | -1 ... +5 bar     | 12 bar         |
| 010 | -1 ... +9 bar     | 20 bar         |
| 016 | -1 ... +15 bar    | 32 bar         |
| 025 | -1 ... +24 bar    | 50 bar         |

|     | Gauge pressure measuring range | Overload limit |
|-----|--------------------------------|----------------|
| 1X0 | 0 ... 1 psi                    | 2 psi          |
| 5X0 | 0 ... 5 psi                    | 10 psi         |
| 010 | 0 ... 10 psi                   | 20 psi         |
| 015 | 0 ... 15 psi                   | 30 psi         |
| 025 | 0 ... 25 psi                   | 60 psi         |
| 030 | 0 ... 30 psi                   | 60 psi         |
| 050 | 0 ... 50 psi                   | 100 psi        |
| 100 | 0 ... 100 psi                  | 200 psi        |
| 160 | 0 ... 160 psi                  | 290 psi        |
| 200 | 0 ... 200 psi                  | 400 psi        |
| 300 | 0 ... 300 psi                  | 600 psi        |
| 500 | 0 ... 500 psi                  | 1,000 psi      |
| 1K0 | 0 ... 1,000 psi                | 1,740 psi      |
| 1K5 | 0 ... 1,500 psi                | 2,900 psi      |
| 2K0 | 0 ... 2,000 psi                | 4,000 psi      |
| 3K0 | 0 ... 3,000 psi                | 6,000 psi      |
| 5K0 | 0 ... 5,000 psi                | 10,000 psi     |
| 8K0 | 0 ... 8,000 psi                | 17,400 psi     |
| 10K | 0 ... 10,000 psi               | 20,000 psi     |
| 15K | 0 ... 15,000 psi               | 30,000 psi     |

|     | Absolute pressure measuring range | Overload limit |
|-----|-----------------------------------|----------------|
| 5X0 | 0 ... 5 psi abs                   | 10 psi abs     |
| 015 | 0 ... 15 psi abs                  | 30 psi abs     |
| 025 | 0 ... 25 psi abs                  | 60 psi abs     |
| 030 | 0 ... 30 psi abs                  | 60 psi abs     |
| 050 | 0 ... 50 psi abs                  | 100 psi abs    |
| 100 | 0 ... 100 psi abs                 | 200 psi abs    |
| 150 | 0 ... 160 psi abs                 | 290 psi abs    |
| 200 | 0 ... 200 psi abs                 | 400 psi abs    |
| 300 | 0 ... 300 psi abs                 | 600 psi abs    |

|     | ± measuring range  | Overload limit |
|-----|--------------------|----------------|
| 015 | -14.5 ... +0 psi   | 30 psi         |
| 030 | -14.5 ... +15 psi  | 60 psi         |
| 045 | -14.5 ... +25 psi  | 100 psi        |
| 075 | -14.5 ... +30 psi  | 200 psi        |
| 115 | -14.5 ... +100 psi | 290 psi        |
| 175 | -14.5 ... +160 psi | 400 psi        |
| 215 | -14.5 ... +200 psi | 400 psi        |
| 315 | -14.5 ... +300 psi | 600 psi        |

|     | Gauge pressure measuring range | Overload limit |
|-----|--------------------------------|----------------|
| X10 | 0 ... 0.1 MPa                  | 0.2 MPa        |
| X16 | 0 ... 0.16 MPa                 | 0.32 MPa       |
| X25 | 0 ... 0.25 MPa                 | 0.5 MPa        |
| X40 | 0 ... 0.4 MPa                  | 0.8 MPa        |
| X60 | 0 ... 0.6 MPa                  | 1.2 MPa        |
| 1X0 | 0 ... 1 MPa                    | 2 MPa          |
| 1X6 | 0 ... 1.6 MPa                  | 3.2 MPa        |
| 2X5 | 0 ... 2.5 MPa                  | 5 MPa          |
| 4X0 | 0 ... 4 MPa                    | 8 MPa          |
| 6X0 | 0 ... 6 MPa                    | 12 MPa         |
| 010 | 0 ... 10 MPa                   | 20 MPa         |
| 016 | 0 ... 16 MPa                   | 32 MPa         |
| 025 | 0 ... 25 MPa                   | 50 MPa         |
| 040 | 0 ... 40 MPa                   | 80 MPa         |
| 060 | 0 ... 60 MPa                   | 120 MPa        |
| 100 | 0 ... 100 MPa                  | 200 MPa        |

|     | Absolute pressure measuring range | Overload limit |
|-----|-----------------------------------|----------------|
| X10 | 0 ... 0.1 MPa abs                 | 0.2 MPa abs    |
| X16 | 0 ... 0.16 MPa abs                | 0.32 MPa abs   |
| X25 | 0 ... 0.25 MPa abs                | 0.5 MPa abs    |
| X40 | 0 ... 0.4 MPa abs                 | 0.8 MPa abs    |
| X60 | 0 ... 0.6 MPa abs                 | 1.2 MPa abs    |
| 1X0 | 0 ... 1 MPa abs                   | 2 MPa abs      |
| 1X6 | 0 ... 1.6 MPa abs                 | 3.2 MPa abs    |
| 2X5 | 0 ... 2.5 MPa abs                 | 5 MPa abs      |

|     | ± measuring range  | Overload limit |
|-----|--------------------|----------------|
| X10 | -0.1 ... +0 MPa    | 0.2 MPa        |
| X16 | -0.1 ... +0.06 MPa | 0.12 MPa       |
| X25 | -0.1 ... +0.15 MPa | 0.3 MPa        |
| X40 | -0.1 ... +0.3 MPa  | 0.6 MPa        |
| X60 | -0.1 ... +0.5 MPa  | 1 MPa          |
| 1X0 | -0.1 ... +0.9 MPa  | 1.8 MPa        |
| 1X6 | -0.1 ... +1.5 MPa  | 3 MPa          |
| 2X5 | -0.1 ... +2.4 MPa  | 4.8 MPa        |

|     | Gauge pressure measuring range | Overload limit           |
|-----|--------------------------------|--------------------------|
| 1X0 | 0 ... 1 kg/cm <sup>2</sup>     | 2 kg/cm <sup>2</sup>     |
| 1X6 | 0 ... 1.6 kg/cm <sup>2</sup>   | 3.2 kg/cm <sup>2</sup>   |
| 2X5 | 0 ... 2.5 kg/cm <sup>2</sup>   | 5 kg/cm <sup>2</sup>     |
| 4X0 | 0 ... 4 kg/cm <sup>2</sup>     | 8 kg/cm <sup>2</sup>     |
| 6X0 | 0 ... 6 kg/cm <sup>2</sup>     | 12 kg/cm <sup>2</sup>    |
| 010 | 0 ... 10 kg/cm <sup>2</sup>    | 20 kg/cm <sup>2</sup>    |
| 016 | 0 ... 16 kg/cm <sup>2</sup>    | 32 kg/cm <sup>2</sup>    |
| 025 | 0 ... 25 kg/cm <sup>2</sup>    | 50 kg/cm <sup>2</sup>    |
| 040 | 0 ... 40 kg/cm <sup>2</sup>    | 80 kg/cm <sup>2</sup>    |
| 060 | 0 ... 60 kg/cm <sup>2</sup>    | 120 kg/cm <sup>2</sup>   |
| 100 | 0 ... 100 kg/cm <sup>2</sup>   | 200 kg/cm <sup>2</sup>   |
| 160 | 0 ... 160 kg/cm <sup>2</sup>   | 320 kg/cm <sup>2</sup>   |
| 250 | 0 ... 250 kg/cm <sup>2</sup>   | 500 kg/cm <sup>2</sup>   |
| 400 | 0 ... 400 kg/cm <sup>2</sup>   | 800 kg/cm <sup>2</sup>   |
| 600 | 0 ... 600 kg/cm <sup>2</sup>   | 1,200 kg/cm <sup>2</sup> |
| 1K0 | 0 ... 1,000 kg/cm <sup>2</sup> | 2,000 kg/cm <sup>2</sup> |

|     | Absolute pressure measuring range | Overload limit             |
|-----|-----------------------------------|----------------------------|
| 1X0 | 0 ... 1 kg/cm <sup>2</sup> abs    | 2 kg/cm <sup>2</sup> abs   |
| 1X6 | 0 ... 1.6 kg/cm <sup>2</sup> abs  | 3.2 kg/cm <sup>2</sup> abs |
| 2X5 | 0 ... 2.5 kg/cm <sup>2</sup> abs  | 5 kg/cm <sup>2</sup> abs   |
| 4X0 | 0 ... 4 kg/cm <sup>2</sup> abs    | 8 kg/cm <sup>2</sup> abs   |
| 6X0 | 0 ... 6 kg/cm <sup>2</sup> abs    | 12 kg/cm <sup>2</sup> abs  |
| 010 | 0 ... 10 kg/cm <sup>2</sup> abs   | 20 kg/cm <sup>2</sup> abs  |
| 016 | 0 ... 16 kg/cm <sup>2</sup> abs   | 32 kg/cm <sup>2</sup> abs  |
| 025 | 0 ... 25 kg/cm <sup>2</sup> abs   | 50 kg/cm <sup>2</sup> abs  |

|     | ± measuring range              | Overload limit        |
|-----|--------------------------------|-----------------------|
| 1X0 | -1 ... +0 kg/cm <sup>2</sup>   |                       |
| 1X6 | -1 ... +0.6 kg/cm <sup>2</sup> | 1 kg/cm <sup>2</sup>  |
| 2X5 | -1 ... +1.5 kg/cm <sup>2</sup> | 3 kg/cm <sup>2</sup>  |
| 4X0 | -1 ... +3 kg/cm <sup>2</sup>   | 6 kg/cm <sup>2</sup>  |
| 6X0 | -1 ... +5 kg/cm <sup>2</sup>   | 10 kg/cm <sup>2</sup> |
| 010 | -1 ... +9 kg/cm <sup>2</sup>   | 18 kg/cm <sup>2</sup> |
| 016 | -1 ... +15 kg/cm <sup>2</sup>  | 30 kg/cm <sup>2</sup> |
| 025 | -1 ... +24 kg/cm <sup>2</sup>  | 48 kg/cm <sup>2</sup> |

## SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

## WORLDWIDE PRESENCE:

Contacts and other locations –[www.sick.com](http://www.sick.com)