



# PHT-RB2X5ED30S0AMS0Z

PHT

PRESSURE SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

| Type                 | Part no. |
|----------------------|----------|
| PHT-RB2X5ED30S0AMS0Z | 6070510  |

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

### Detailed technical data

#### Features

|                            |                        |
|----------------------------|------------------------|
| <b>Medium</b>              | Liquid, gaseous        |
| <b>Pressure type</b>       | Gauge pressure         |
| <b>Pressure unit</b>       | bar                    |
| <b>Measuring range</b>     | 0 bar ... 2.5 bar      |
| <b>Process temperature</b> | -20 °C ... +150 °C     |
| <b>Output signal</b>       | 4 mA ... 20 mA, 2-wire |
| <b>EHEDG approval</b>      | ✓                      |

#### Mechanics/electronics

|                                    |                                                                                                                                                                    |
|------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Process connection</b>          | Clamp (DIN 32676) DN 32                                                                                                                                            |
| <b>Wetted parts</b>                | Stainless steel 1.4435                                                                                                                                             |
| <b>Internal transmission fluid</b> | Synthetic oil, FDA approved                                                                                                                                        |
| <b>Housing material</b>            | Stainless steel 1.4571                                                                                                                                             |
| <b>Connection type</b>             | Round connector M12 x 1, 4-pin, IP67                                                                                                                               |
| <b>Supply voltage</b>              | 10 V DC ... 30 V DC<br>14 V DC ... 30 V DC with output signal 0 V ... 10 V<br>11 V DC ... 30 V DC with output signal 4 mA ... 20 mA and field housing              |
| <b>Electrical safety</b>           | Overvoltage protection: 36 V DC<br>Short-circuit protection: Q <sub>A</sub> towards M<br>Reverse polarity protection: L <sup>+</sup> to M<br>Protection class: III |
| <b>Dielectric strength</b>         | 500 V DC, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)                                                         |
| <b>CE-conformity</b>               | EMC directive: 2004/108/EC, EN 61326-2-3                                                                                                                           |
| <b>Weight sensor</b>               | Approx. 500 g                                                                                                                                                      |
| <b>Seal</b>                        | Without seal                                                                                                                                                       |
| <b>Enclosure rating</b>            | IP67                                                                                                                                                               |
| <b>Protection class III</b>        | ✓                                                                                                                                                                  |

#### Performance

|                      |                                                                            |
|----------------------|----------------------------------------------------------------------------|
| <b>Non-linearity</b> | ≤ ± 0.2 %, of span (Best Fit Straight Line, BFSL) according to IEC 61298-2 |
|----------------------|----------------------------------------------------------------------------|

|                                                           |                                                                                                                                                                                                                                                                                                                                                                          |
|-----------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>Accuracy</b>                                           | ≤ ± 0.25 % of the span                                                                                                                                                                                                                                                                                                                                                   |
| <b>Non-repeatability</b>                                  | ≤ ± 0.1 % of the span                                                                                                                                                                                                                                                                                                                                                    |
| <b>Response time (10 % ... 90 %)</b>                      | ≤ 10 ms                                                                                                                                                                                                                                                                                                                                                                  |
| <b>Long-term drift/one-year stability</b>                 | ≤ 0.2 % of the span                                                                                                                                                                                                                                                                                                                                                      |
| <b>Temperature coefficient in rated temperature range</b> | Mean TC of zero: ≤ 0.2% of span / 10 K for measuring ranges 0 bar ... 0.6 bar up to 0 bar ... 25 bar, Mean TC of zero: ≤ 0.25 % of span/ 10 K with pressure range 0 bar ... 0.4 bar ≤ 0.25 % of span/ 10 K, with pressure range 0 bar ... 0.4 bar, Mean TC of zero: ≤ 0.4% of span / 10 K for measuring range 0 bar ... 0.25 bar, Mean TC of span ≤ 0.2 % of span / 10 K |
| <b>Rated temperature range</b>                            | 0 °C ... +80 °C                                                                                                                                                                                                                                                                                                                                                          |

#### Ambient data

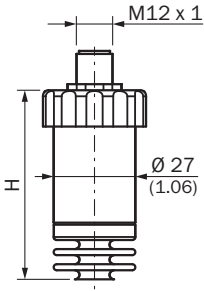
|                            |                                                             |
|----------------------------|-------------------------------------------------------------|
| <b>Ambient temperature</b> | -20 °C ... +80 °C                                           |
| <b>Storage temperature</b> | -40 °C ... +100 °C                                          |
| <b>Shock load</b>          | 500 g according to IEC 60068-2-27 (mechanical shock)        |
| <b>Vibration load</b>      | 15 g according to IEC 60068-2-6 (vibration under resonance) |

#### Classifications

|                       |          |
|-----------------------|----------|
| <b>ECI@ss 5.0</b>     | 27200614 |
| <b>ECI@ss 5.1.4</b>   | 27200614 |
| <b>ECI@ss 6.0</b>     | 27200614 |
| <b>ECI@ss 6.2</b>     | 27200614 |
| <b>ECI@ss 7.0</b>     | 27200614 |
| <b>ECI@ss 8.0</b>     | 27200614 |
| <b>ECI@ss 8.1</b>     | 27200614 |
| <b>ECI@ss 9.0</b>     | 27200614 |
| <b>ECI@ss 10.0</b>    | 27200614 |
| <b>ECI@ss 11.0</b>    | 27200614 |
| <b>ETIM 5.0</b>       | EC011478 |
| <b>ETIM 6.0</b>       | EC011478 |
| <b>ETIM 7.0</b>       | EC011478 |
| <b>UNSPSC 16.0901</b> | 41112410 |

**Dimensional drawing** (Dimensions in mm (inch))

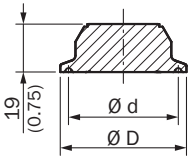
Housing with circular connector M12 x 1, IP67



**With accuracy H**

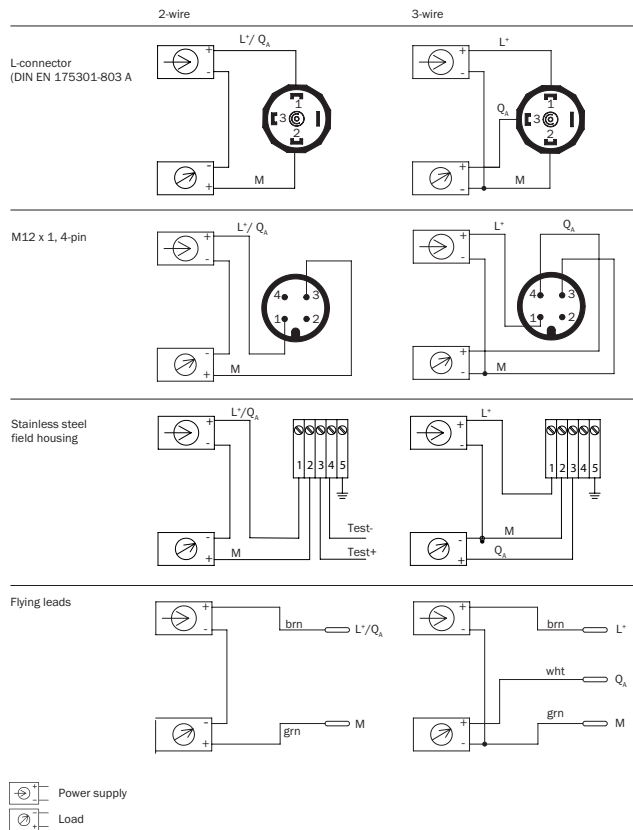
|               |           |
|---------------|-----------|
| <b>0.5 %</b>  | 64 (2.52) |
| <b>0.25 %</b> | 84 (3.31) |

Clamp



| Design           |         | Ø D          | Ø d            |
|------------------|---------|--------------|----------------|
| <b>Tri-Clamp</b> | 1 1/2"  | 50<br>(1.97) | 43.5<br>(1.71) |
|                  | 2"      | 64<br>(2.52) | 56.6<br>(2.23) |
| <b>DIN 32676</b> | DN 32   | 50<br>(1.97) | 43.5<br>(1.71) |
|                  | DN 40   | 50<br>(1.97) | 43.5<br>(1.71) |
|                  | DN 50   | 64<br>(2.52) | 56.6<br>(2.23) |
| <b>ISO 2852</b>  | DN 33.7 | 50<br>(1.97) | 43.5<br>(1.71) |
|                  | DN 38   | 50<br>(1.97) | 43.5<br>(1.71) |
|                  | DN 40   | 64<br>(2.52) | 56.6<br>(2.23) |
|                  | DN 51   | 64<br>(2.52) | 56.6<br>(2.23) |

## Connection type



## 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:

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