



# PBT-RB010SG1SENVMC0Z

PBT

PRESSURE SENSORS

**SICK**  
Sensor Intelligence.



Illustration may differ



### Ordering information

Type	Part no.
PBT-RB010SG1SENVMC0Z	6039829

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

### Detailed technical data

#### Features

<b>Medium</b>	Liquid, gaseous
<b>Pressure type</b>	Gauge pressure
<b>Measuring range</b>	0 bar ... 10 bar
<b>Process temperature</b>	-30 °C ... +100 °C
<b>Output signal</b>	0 V ... 10 V, 3-wire

#### Performance

<b>Non-linearity</b>	≤ ± 0.5 %, (Best Fit Straight Line, BFS) according to IEC 61298-2
<b>Accuracy</b>	≤ ± 1 % of the span (with non-linearity 0.25 %) ≤ ± 0,6 % of Span (with non-linearity 0.25 % and with signal output 0 ... 5 V) ≤ ± 1,0 % of Span (with non-linearity 0.5 %) Including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement as per IEC 61298-2)
<b>Adjustment accuracy of zero signal</b>	≤ 0.5 % of span typ., ≤ 0.8 % of span max. (with non-linearity 0.5 %)
<b>Hysteresis</b>	≤ 0.16 % of the span
<b>Non-repeatability</b>	≤ 0.1 % of the span
<b>Response time</b>	< 4 ms
<b>Signal noise</b>	≤ 0.3 % of the span
<b>Long-term drift/one-year stability</b>	≤ 0.1 % of span to IEC 61298-2
<b>Rated temperature range</b>	0 °C ... +80 °C
<b>Service life</b>	Minimum 100 Mio. life cycles

#### Mechanics/electronics

<b>Process connection</b>	G ¼ A according to DIN 3852-E
<b>Wetted parts</b>	Pressure Connection: stainless steel 316L Pressure sensor: stainless steel 316L (for measurement ranges from 0 bar ... 10 bar rel stainless steel 13-8 PH)
<b>Internal transmission fluid</b>	Silicone oil (only with pressure ranges < 0 bar ... 10 bar and ≤ 0 bar abs ... 25 bar abs)
<b>Pressure port</b>	Standard
<b>Housing material</b>	Stainless steel 316L

<sup>1)</sup> The pressure transmitter must be supplied with power by a limited energy circuit compliant with 9.3 of UL/EN/IEC 601010-1 or LPS to UL/EN/IEC 60950-1 or Class 2 to UL 1310/UL1585 (NEC or CEC). The power supply must be suitable for operation above 2,000 m if the pressure transmitter is used above this altitude.

<b>Electrical connection</b>	Round connector M12 x 1, 4-pin, IP 67
<b>Supply voltage</b>	
<b>Power consumption</b>	
<b>Electrical safety</b>	
<b>Insulation voltage</b>	500 V DC
<b>CE-conformity</b>	Pressure equipment directive: 97/23/EC, EMC directive: 2004/108/EC, EN 61 326-2-3
<b>Weight sensor</b>	Approx. 80 g
<b>Seal</b>	NBR
<b>Enclosure rating</b>	IP 67
<b>Protection class III</b>	✓
<b>Reference conditions</b>	Reference conditions: According to IEC 61298-1

1) The pressure transmitter must be supplied with power by a limited energy circuit compliant with 9.3 of UL/EN/IEC 601010-1 or LPS to UL/EN/IEC 60950-1 or Class 2 to UL 1310/UL1585 (NEC or CEC). The power supply must be suitable for operation above 2,000 m if the pressure transmitter is used above this altitude.

### Ambient data

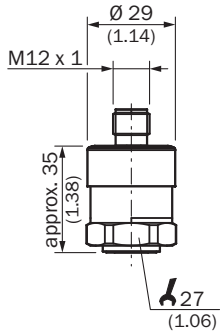
<b>Ambient temperature</b>	0 °C ... +80 °C
<b>Storage temperature</b>	-30 °C ... +100 °C
<b>Relative humidity</b>	45 % ... 75 %
<b>Shock load</b>	
<b>Vibration load</b>	

### Classifications

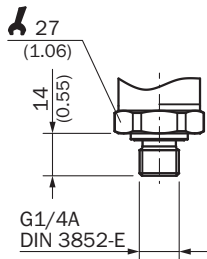
<b>ECl@ss 5.0</b>	27200614
<b>ECl@ss 5.1.4</b>	27200614
<b>ECl@ss 6.0</b>	27200614
<b>ECl@ss 6.2</b>	27200614
<b>ECl@ss 7.0</b>	27200614
<b>ECl@ss 8.0</b>	27200614
<b>ECl@ss 8.1</b>	27200614
<b>ECl@ss 9.0</b>	27200614
<b>ETIM 5.0</b>	EC002476
<b>ETIM 6.0</b>	EC002476
<b>UNSPSC 16.0901</b>	41112410

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

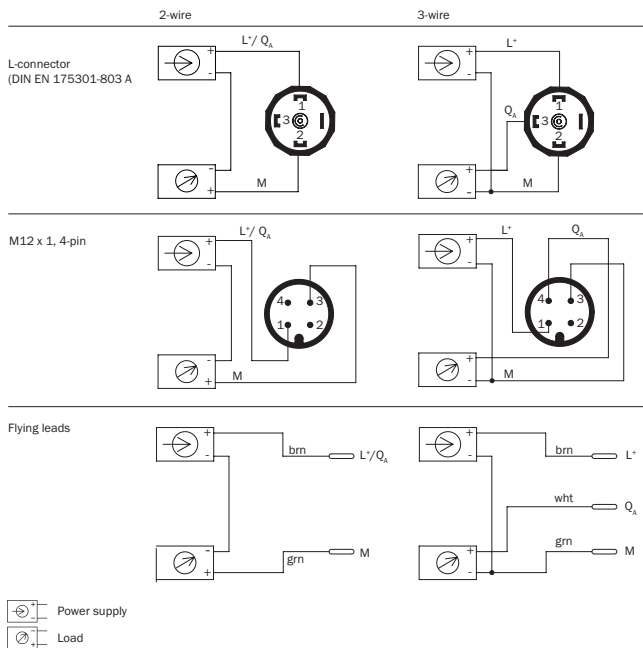
Housing with circular connector M12 x 1, IP 67



G ¼ A DIN 3852-E




**Connection type**



## Recommended accessories

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

	Brief description	Type	Part no.
<b>Mounting brackets and mounting plates</b>			
	Mounting bracket for simple and stable wall mounting of pressure sensors with 27 mm hexagon, Aluminum	BEF-FL-ALUPBS-HLDR	5322501
<b>Plug connectors and cables</b>			
	Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-G02M	6009382
	Head A: female connector, M12, 4-pin, straight Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 2 m	DOL-1204-G02MC	6025900
	Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 5 m	DOL-1204-G05M	6009866
	Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 10 m	DOL-1204-G10M	6010543
	Head A: female connector, M12, 4-pin, straight Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 10 m	DOL-1204-G10MC	6025902
	Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 15 m	DOL-1204-G15M	6010753
	Head A: female connector, M12, 4-pin, straight Head B: cable Cable: PVC, unshielded, 20 m	DOL-1204-G20M	6034401
	Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 2 m	DOL-1204-W02M	6009383
	Head A: female connector, M12, 4-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 2 m	DOL-1204-W02MC	6025903
	Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 5 m	DOL-1204-W05M	6009867
	Head A: female connector, M12, 4-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 5 m	DOL-1204-W05MC	6025904
	Head A: female connector, M12, 4-pin, angled Head B: cable Cable: drag chain use, Welding spark resistant, PUR, halogen-free, unshielded, 5 m	DOL-1204-W05MD	6020399
	Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 10 m	DOL-1204-W10M	6010541
	Head A: female connector, M12, 4-pin, angled Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 10 m	DOL-1204-W10MC	6025905

	Brief description	Type	Part no.
	Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 15 m	DOL-1204-W15M	6036474
	Head A: female connector, M12, 4-pin, angled Head B: cable Cable: PVC, unshielded, 20 m	DOL-1204-W20M	6033559

## 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)