

PBS-RB600SN1SS0AMA0Z PBS



PRESSURE SENSORS

PBS-RB600SN1SS0AMA0Z | PBS

PRESSURE SENSORS



Ordering information

Туре	Part no.
PBS-RB600SN1SS0AMA0Z	6048104

Other models and accessories → www.sick.com/PBS

Illustration may differ



Detailed technical data

Features

Medium	Liquid, gaseous
Pressure type	Gauge pressure
Measuring range	0 bar 600 bar
Process temperature	-20 °C +85 °C
Zero point adjustment	Max. + 3 % of span
Output signal	2 x PNP
Rotatable housing	
Display	
Performance	
Non-linearity	\leq \pm 0.5 %, of span (Best Fit Straight Line, BFSL) according to IEC 61298-2
Accuracy	\leq ± 1 % of the span Including non-linearity, hysteresis, zero point and full scale error (corresponds to error of measurement as per IEC 61298-2)
Setting accuracy of switching outputs	≤ ± 0.5 % of span
Response time	3 ms
Long-term drift/one-year stability	\leq 0.2 % of the span according to IEC 61298-2
Temperature coefficient in rated tempera- ture range	Mean TC of zero point: $\leq 0.2\%$ of span / 10 K, Mean TC of span $\leq 0.2~\%$ of span / 10 K

Rated temperature range	0 °C +80 °C
Service life	Minimum 100 Mio. life cycles

Mechanics/electronics

Process connection	1⁄4" NPT
Wetted parts	Pressure connection: stainless steel 316L Pressure sensor: stainless steel 316L (for measurement ranges from 0 bar 10 bar rel stain- less steel 13-8 PH)
Internal transmission fluid	Silicone oil (only with pressure ranges < 0 bar 10 bar and \leq 0 bar abs 25 bar abs)
Pressure port	Standard

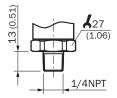
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Housing material Lower body: stainless steel 304, Plastic head: PC + ABS, Buttoms: TPEE, Display window: PC G Electrical connection Round connector M12 x 1, 4-pin, IP 67 Supply voltage Max. 350 mA / 570 mA (incl. switching current) Electrical safety Max. 350 mA / 570 mA (incl. switching current) Electrical safety Max. 350 mA / 570 mA (incl. switching current) Electrical safety Max. 350 mA / 570 mA (incl. switching current) Electrical safety Max. 350 mA / 570 mA (incl. switching current) Electrical safety Max. 350 mA / 570 mA (incl. switching current) Electrical safety Max. 350 mA / 570 mA (incl. switching current) Electrical safety Max. 350 mA / 570 mA (incl. switching current) Electrical safety Max. 350 mA / 570 mA (incl. switching current) Weight sensor Approx. 200 g Seal Motor seal Enclosure rating P 67 Protection class III Image: Seal Arbient temperature -20 °C +80 °C Storage temperature -20 °C +80 °C Storage temperature -20 °C +80 °C Storage temperature -20 °C +80 °C Eless 5.0 27371814 Eless 5.0 <th></th> <th></th>		
Supply voltage Automatical set	Housing material	Lower body: stainless steel 304, Plastic head: PC + ABS, Buttons: TPE-E, Display window: PC
Power consumption Max. 350 mA / 570 mA (incl. switching current) Electrical safety 500 V DC Electrical safety 500 V DC CE-conformity Pressure equipment directive: This instrument is a pressure accessory as defined by the directive: 970/4706/EC, ENG directive: 2004/108/EC, ENG 61326-2-3 Weight sensor Approx. 200 g Seal Without seal Enclosure rating IP 67 Protection class III - Ambient temperature -20 °C +80 °C Storage temperature -20 °C +80 °C Classifications -20 °C +80 °C Ecless 5.0 27371814 Ecless 6.0 27371814 Ecless 6.0 27371814 Ecless 6.0 27371814 Ecless 8.1 27371814 Ecless 8.1 27371814 Ecless 9.0 27371814 <t< th=""><th>Electrical connection</th><th>Round connector M12 x 1, 4-pin, IP 67</th></t<>	Electrical connection	Round connector M12 x 1, 4-pin, IP 67
Total current consumption Max. 350 mA / 570 mA (incl. switching current) Electrical safety 500 V DC CE-conformity 500 V DC CE-conformity Pressure equipment directive: This instrument is a pressure accessory as defined by the directive: 97/23/EC, EM 61326-2-3 Weight sensor Approx. 200 g Seal Without seal Enclosure rating IP 67 Protection class III ✓ Ambient data ✓ Ambient temperature -20 °C +80 °C Storage temperature -20 °C +80 °C Vibration load > Vibration load > Elesses temperature -20 °C +80 °C Classifications > Elesses temperature > Vibration load > Classifications 27371814 Eless 5.0 27371814 Ecless 6.0 27371814 Ecless 6.1 27371814 Ecless 6.2 27371814 Ecless 6.3 27371814 Ecless 6.4 27371814 Ecless 6.1 27371814	Supply voltage	
Electrical safety Sold V DC CE-conformity Pressure equipment directive: This instrument is a pressure accessory as defined by the directive 97/23/EC, EMC directive: 2004/108/EC, EN 61326-2-3 Weight sensor Approx. 200 g Seal Without seal Enclosure rating IP 67 Protection class III ✓ Ambient data ✓ Ambient data Storage temperature -20 °C +80 °C Storage temperature -20 °C +80 °C Storage temperature -20 °C +80 °C Vibration load Vibration load ECless 5.0 27371814 ECless 5.1.4 27371814 ECless 6.0 27371814 ECless 6.0 27371814 ECless 6.1 27371814 ECless 6.2 27371814 ECless 6.3 27371814 ECless 6.4 27371814 ECless 6.1 27371814 ECless 6.2 27371814 ECless 7.0 27371814 ECless 6.1 27371814 <t< th=""><th>Power consumption</th><th></th></t<>	Power consumption	
Insolation voltage500 V DCCE-conformityPressure equipment directive: This instrument is a pressure accessory as defined by the directive 97/23/EC, EMC directive: 2004/108/EC, EN 61326-2-3Weight sensorApprox. 200 gSealWithout sealEnclosure ratingP67Protection class IIIImage: Control of the sensorAmbient data-20 °C +80 °CAmbient temperature-20 °C +80 °CEtative humidity≤90 %Shock load-20 °C +80 °CVibration load200 %Etatise function class III-20 °C +80 °CBeck load-20 °C +80 °CRelative humidity≤90 %Etatise function class-20 °C +80 °CClassifications-20 °C +80 °CEtatise function class-20 °C +80 °CEtatise function c	Total current consumption	Max. 350 mA / 570 mA (incl. switching current)
CE-conformityPressure equipment directive: This instrument is a pressure accessory as defined by the directive 97/23/EC, EMC directive: 2004/108/EC, EN 61326-2-3Weight sensorApprox. 200 gSealWithout sealEnclosure ratingIP 67Pretection class IIIIP 67Ambient data-20 °C +80 °CAmbient temperature-20 °C +80 °CStorage temperature-20 °C +80 °CRelative humiditys 90 %Shock load-20 °C +80 °CVibration load-20 °C +80 °CClassifications-20 °C +80 °CEcless 5.027371814Ecless 5.1.4-27371814Ecless 6.2-27371814Ecless 6.2-27371814Ecless 6.3-27371814Ecless 8.1-27371814Ecless 8.1-27371814Ecless 9.0-27371814Ecless 9.0-27371814Erloss 9.0-27371814Erlos 9.0-27371814Erlos 9.0-27371814Erlos 9.0-27371814Erlos 9.0-27371814Erlos 9.0-27371814Erlos 9.0-27371814Erlos 9.0-27371814Erlos 9	Electrical safety	
Ive 97/23/EC, EMC directive: 2004/108/EC, EN 61326-2-3Weight sensorApprox. 200 gSealWithout sealEnclosure ratingIP 67Protection class III✓Ambient data✓Ambient temperature-20 °C +80 °CStorage temperature-20 °C +80 °CShock load✓Vibration load20 °C +80 °CStorage temperature-20 °C +80 °CClassifications-20 °C +80 °CEffections-20 °C +80 °C </th <th>Insolation voltage</th> <th>500 V DC</th>	Insolation voltage	500 V DC
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Enclosure ratingP 67Protection class IIIImage: Class IIIProtection class IIIImage: Class IIIAmbient data-20 °C +80 °CAmbient temperature-20 °C +80 °CStorage temperature-20 °C +80 °CRelative humiditys 90 %Shock load-20 °C +80 °CVibration load-20 °C +80 °CClassifications	Weight sensor	Approx. 200 g
Protection class IIIIAmbient dataAmbient temperature-20 °C +80 °CStorage temperature-20 °C +80 °CRelative humidity<90 %Shock loadVibration loadClassifications27371814Ecless 5.027371814Ecless 6.027371814Ecless 6.227371814Ecless 8.027371814Ecless 8.127371814Ecless 8.127371814Ecless 9.027371814Erless 9.027371814 </th <th>Seal</th> <th>Without seal</th>	Seal	Without seal
Ambient data -20 °C+80 °C Ambient temperature -20 °C+80 °C Storage temperature -20 °C+80 °C Relative humidity ≤ 90 % Shock load Vibration load Classifications Ecl@ss 5.0 27371814 Ecl@ss 6.0 27371814 Ecl@ss 6.2 27371814 Ecl@ss 7.0 27371814 Ecl@ss 8.0 27371814 Ecl@ss 8.1 27371814 Ecl@ss 8.2	Enclosure rating	IP 67
Ambient temperature-20 °C +80 °CStorage temperature-20 °C +80 °CRelative humidityRelative humidityShock loadVibration loadClassificationsEcless 5.027371814Ecless 5.1.427371814Ecless 6.027371814Ecless 6.227371814Ecless 7.027371814Ecless 8.027371814Ecless 8.127371814Ecless 8.127371814Ecless 8.127371814Ecless 9.027371814Ecless 9.027371814Ecless 9.027371814Erlm 5.0Ecool243Erlm 6.0Ecol243	Protection class III	
Storage temperature-20 °C +80 °CRelative humidity-90%Shock load90%Vibration load-20 °C +80 °CClassifications-20 °C +80 °CECless 5.02737181ECless 5.1.427371814ECless 6.027371814ECless 6.227371814ECless 7.027371814ECless 8.027371814ECless 8.127371814ECless 9.027371814ECless 9.027371814ETIM 5.0EColo243ETIM 6.0EColo243	Ambient data	
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Shock loadImage: Shock loadVibration loadVibration loadClassifications27371814Ecless 5.027371814Ecless 6.027371814Ecless 6.227371814Ecless 7.027371814Ecless 8.027371814Ecless 8.127371814Ecless 9.027371814Ecless 9.02737181	Storage temperature	-20 °C +80 °C
Vibration loadImage: ClassificationsECless 5.027371814ECless 5.1.427371814ECless 6.027371814ECless 6.227371814ECless 7.027371814ECless 8.027371814ECless 8.127371814ECless 9.027371814ECless 9.027371814ETIM 5.0EClo0243ETIM 6.0ECO0243	Relative humidity	≤ 90 %
Classifications ECless 5.0 27371814 ECless 5.1.4 27371814 ECless 6.0 27371814 ECless 6.2 27371814 ECless 6.2 27371814 ECless 7.0 27371814 ECless 8.0 27371814 ECless 8.1 EColo243	Shock load	
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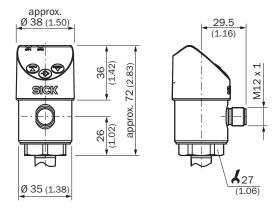
Dimensional drawing (Dimensions in mm (inch))

1⁄4" NPT



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Connection type

M12 x 1, 4-pin 2 switching outputs/ 1 switching output + 1 analog output



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M12 x 1, 5-pin 2 switching outputs + 1 analog output

- (1) L^+ : Positive supply connection
- ② M: Negative supply connection
- \bigcirc Q₁: Switching output 1
- O C/Q₁: With IO-Link: Communication/ switching output 1
- (5) Q₂: Switching output 2
- 6 Q_A: Analog output

Recommended accessories

Other models and accessories -> www.sick.com/PBS

	Brief description	Туре	Part no.
Mounting brackets and mounting plates			
Fa	Mounting bracket for simple and stable wall mounting of pressure sensors with 27 mm hexagon, Aluminum	BEF-FL-ALUPBS-HLDR	5322501
Plug connecto	rs and cables		
-	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

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	Brief description	Туре	Part no.
	Head A: female connector, M12, 4-pin, straight Head B: cable Cable: drag chain use, PUR, halogen-free, unshielded, 5 m	DOL-1204-G05MC	6025901
	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	DOI-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	DOI-1204-W10MC	6025905
	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



Online data sheet

