

PBS-RB250SG1SSND5A0G PBS



PRESSURE SENSORS

PBS-RB250SG1SSND5A0G | PBS

PRESSURE SENSORS



Ordering information

Туре	Part no.
PBS-RB250SG1SSND5A0G	6042076

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

Illustration may differ



Detailed technical data

Features

1 outdilloo	
Medium	Liquid, gaseous
Pressure type	Gauge pressure
Measuring range	0 bar 250 bar
Process temperature	-20 °C +85 °C
Zero point adjustment	Max. + 3 % of span
Output signal	2 x PNP + 4 mA 20 mA
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	$\leq \pm 0.5$ % 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	G ¼ A according to DIN 3852-E
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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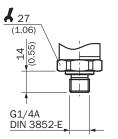
Electrical connection Round connector M12 x 1, 5-pin, IP 67 Supply voltage Acconnector M12 x 1, 5-pin, IP 67 Power consumption Max. 350 mA (incl. switching current) Total current consumption Max. 350 mA (incl. switching current) Electrical safety Sol V DC Insolation voltage 500 V DC CE-conformity Pressure 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 NBR Enclosure rating IP 67 Protection class III Ambient temperature -20 °C +80 °C Storage temperature -20 °C		
Supply votage Here is the restrict of the restrind of the restrict of the restrind of the restrict of	Housing material	Lower body: stainless steel 304, Plastic head: PC + ABS, Buttons: TPE-E, Display window: PC
Power consumptionAm. 350 mA / 570 mA (incl. switching current)Total current consumptionMax. 350 mA / 570 mA (incl. switching current)Electrical safety500 VCElectrical safetySossue equipment directive: This instrument is a pressure accessory as defined by the directive: trive 37/32 (Sec. MG directive: 2004/108/EC, EN 613262-33Weight sensorAprox. 200 gSalaNBREnclosure ratingP67Protection class IIIAbient temperature-01 °C. +80 °CSorage temperature-02 °C. +80 °CSorage temperature-02 °C. +80 °CStorage temperature-03 °C. +80	Electrical connection	Round connector M12 x 1, 5-pin, IP 67
Total current on sumptionMex.350 mA / 570 mA (incl. switching current)Electrical safety500 VDCInsolation voltage500 VDCOctonformityPressure equipment directive: This instrument is a pressure accessory as defined by the directive: 2004/108/EC, EN 61328-2-3Weight sensorAprox.200 gSealNBREnclosure ratingP67Protection class III-Ambient data-Storage temperature-0°C480 °CShock load-20°C480 °CVariaton Load-20°C480 °CStorage temperature-20°C480 °CStorage temperature	Supply voltage	
Electrical safetyImage: Constraint of the series of the serie	Power consumption	
Isolation voltage500 VDCCF-conformityResure quipment directive: This instrument is a pressure accessory as defined by the directive: 2004/108/EC, EN 613262-3Velight sensorAprox. 200 gSealNBREnclosure ratingPo7Protection class IIIAmbient tamperature-Coll C 480 °CAmbient tamperature-Solo C 480 °CRelative hundity>Solo C 480 °CStorage tamperature-O'C 480 °CStorage tamperature-Solo C 480 °CRelative hundity>Solo C 480 °CStorage tamperature-Storage tamperature-Solo C 480 °CStorage tamperature-Solo C 480 °C-Storage tamperature-Storage tamperature<	Total current consumption	Max. 350 mA / 570 mA (incl. switching current)
CE-conformilyPressure equipment directive: This instrument is a pressure accessory as defined by the directive: 2004/108/EC, EN 61326-2-3Weight sensorApprox. 200 gSealNBREnclosure ratingP67Protection class IIIIAmbient tamperature-01 °C +80 °CAmbient tamperature-02 °C +80 °CStorage temperature-02 °C +80 °C </th <th>Electrical safety</th> <th></th>	Electrical safety	
Weight sensorApprox.200 gSealApprox.200 gEnclosure ratingPe 7Protection class IIIPe 7Ambient data-Ambient data-20 °C+80 °CStorage temperature-20 °C+80 °CRelative humidity-20 °C+80 °CStock load-20 °C+80 °CVibraton load-20 °C+80 °CStorage temperature-20 °C+80 °CRelative humidity-20 °C+80 °CStock load-20 °C+80 °CVibraton load-20 °C+80 °CStock load-20 °C+80 °CVibraton load-20 °C+80 °CEfcless 5.0-20 °C+80 °CEfcless 5.1.4-21 731814Efcless 6.0-21 731814Efcless 6.1-21 731814Efcless 7.0-21 731814Efcless 8.0-21 731814Efcless 8.1-21 731814Eff 5.0-21 731814Eff 5.0-21 731814Eff 5.1-21 731814Eff 5.2-21 731814 <th>Insolation voltage</th> <th>500 V DC</th>	Insolation voltage	500 V DC
NewNewReloance antingP67Protection class IIIP67Ambient dataAmbient data=00 °C +80 °CStorage temperature=00 °C +80 °CRelative humidity=00 %Shock load=00 °C +80 °CVibration load=00 °C +80 °CClassifications=00 °C +80 °CEcless 5.0=00 %Ecless 6.0=00 °C +80 °CEcless 6.0=00 °C +80 °CEcless 6.1=00 °C +80 °CEcless 6.2=00 °C +80 °CEcless 7.0=00 °C +80 °CEcless 8.0=00 °C +80 °CEcless 8.1=00 °C +80 °CEcless 9.0=00 °C +80 °CErless 9.0=00 °C +80 °C <t< th=""><th>CE-conformity</th><th></th></t<>	CE-conformity	
Enclosure ratingP 67Protection class IIIP 67Protection class IIIP 67Ambient dataP 60 °C	Weight sensor	Approx. 200 g
Protection class IIIImage: Comparison of the section class IIIAmbient class-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 6.027371814ECless 6.227371814ECless 7.027371814ECless 8.127371814ECless 8.127371814ECless 9.027371814ECless 9.027371814ETIM 5.0C00243ETIM 6.0C00243	Seal	NBR
Ambient data Ambient temperature	Enclosure rating	IP 67
Ambient temperature-20 °C +80 °CStorage temperature-20 °C +80 °CRelative humidity<90 %	Protection class III	✓
Storage temperature=20 °C +80 °CRelative humidity= 20 °C +80 °CRelative humidity= 90 %Shock load= 90 %Vibration load= 77 70 %Classifications= 77 71 81 4ECless 5.0273 71 81 4ECless 5.1.4273 71 81 4ECless 6.0273 71 81 4ECless 6.2273 71 81 4ECless 6.3273 71 81 4ECless 7.0273 71 81 4ECless 8.0273 71 81 4ECless 8.1273 71 81 4ECless 9.0273 71 81 4ECless 9.0273 71 81 4ETIM 5.0ECO0243 CETIM 6.0ECO0243 C	Ambient data	
Relative humidity ≤ 90 % Shock load Vibration load Classifications ECl@ss 5.0 27371814 ECl@ss 5.1.4 27371814 ECl@ss 6.0 27371814 ECl@ss 6.2 27371814 ECl@ss 7.0 27371814 ECl@ss 8.1 27371814 ECl@ss 8.1 27371814 ECl@ss 8.1 27371814 ECl@ss 9.0 27371814 ETIM 5.0 E000243 ETIM 5.0 E000243	Ambient temperature	-20 °C +80 °C
Shock loadHereins and the second	Storage temperature	-20 °C +80 °C
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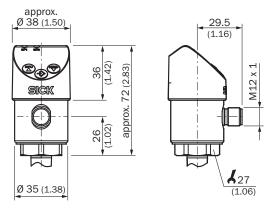
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Dimensional drawing (Dimensions in mm (inch))

G 1/4 A DIN 3852-E





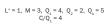
Connection type

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





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



$\textcircled{1} L^+: \text{Positive supply connection}$

- ② M: Negative supply connection
- $\textcircled{3} \ Q_1: \text{Switching output 1}$
- ④ 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			
Fai	Mounting bracket for simple and stable wall mounting of pressure sensors with 27 mm hexagon, Aluminum	BEF-FL-ALUPBS-HLDR	5322501

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	Brief description	Туре	Part no.
Plug connecto	ors 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
	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	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

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	Brief description	Туре	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



Online data sheet

