

PBS-RB160SG1SSND5A0Z PBS



PRESSURE SENSORS

PBS-RB160SG1SSND5A0Z | PBS

PRESSURE SENSORS



Ordering information

Туре	Part no.
PBS-RB160SG1SSND5A0Z	6042269

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 160 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 \pm 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 ± 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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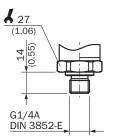
Electrical connection Round connector M12 x 1, 5pin, IP 67 Supply voltage		
Supply voltage Automatical and the server of t	Housing material	Lower body: stainless steel 304, Plastic head: PC + ABS, Buttons: TPE-E, Display window: PC
Power consumption Am. 350 mA / 570 mA (incl. switching current) Total current consumption Max. 350 mA / 570 mA (incl. switching current) Electrical safety Solv DC Insolation voltage 500 V DC CF-conformity Solv DC Weight sensor Approx. 200 g Seal NBR Enclosure rating Pe 67 Protection class III ✓ Ambient data ✓ Ambient data ✓ Storage temperature <0° C +80 °C Classifications Ecless 5.0 S7371814 Ecless 6.1 <7371814 Ecless 6.2 <7371814 Ecless 8.1 <7371814 Ecless 8.0 <7371814 Ecless 8.0 <7371814 </th <th>Electrical connection</th> <th>Round connector M12 x 1, 5-pin, IP 67</th>	Electrical connection	Round connector M12 x 1, 5-pin, IP 67
Total current onsumption Max. 350 mA / 570 mA (incl. switching current) Electrical safety 500 V DC Insolation voltage 500 V DC CE-conformity Solov DC Weight sensor Approx. 200 g Solal NBR Enclosure rating P67 Protection class III P67 Ambient temperature -20 °C +80 °C Storage temperature -20 °C +80 °C Classifications -20 °C +80 °C Ecless 5.0 -20 °C +80 °C Classifications -20 °C +80 °C Ecless 5.1.4 7371814 Ecless 6.1 27371814 Ecless 6.2 27371814 Ecless 8.0 27371814 Ecless 8.1 27371814 Ecless 8.1 27371814 Ecless 8.1 27371814	Supply voltage	
Electrical safety 500 V DC CE-conformity Pressure equipment directive: This instrument is a pressure accessory as defined by the directive 3004/108/EC, EN 61326-2-3 Weight sensor Approx. 200 g Seal NBR Enclosure rating P 67 Protection class III Image: Content of the directive: This instrument is a pressure accessory as defined by the directive: 3004/108/EC, EN 61326-2-3 Ambient canse P 67 Protection class III Image: Content of the directive: 3004/108/EC, EN 61326-2-3 Ambient data - Ambient temperature -0° C +80°C -20° C +80°C - Storage temperature -20° C +80°C -20° C +80°C - Storage temperature -20° C +80°C Storage temperature -20° C +80°C Storage temperature -20° C +80°C Colges 5.0 27371814 Ecless 5.0 27371814 Ecless 5.1.4 27371814 Ecless 8.0 27371814 Ecless 8.1 27371814 Ecless 8.1 27371814 Ecless 9.0 27371814 Ecless 9.0 27371814	Power consumption	
Insolation voltage 500 V DC CE-conformity Pressure equipment directive: This instrument is a pressure accessory as defined by the directive: 2004/108/EC, EN 61326-2-3 Weight sensor Approx. 200 g Seal NBR Enclosure rating P6 7 Protection class III Image: Control of the sensor Ambient data -20 °C +80 °C Ansteint 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 8.0 27371814 ECless 8.0 27371814 ECless 8.0 27371814 <	Total current consumption	Max. 350 mA / 570 mA (incl. switching current)
CE-conformity Pressure equipment directive: This instrument is a pressure accessory as defined by the directive: 2004/108/EC, EN 61326-2-3 Weight sensor Approx. 200 g Seal NBR Enclosure rating IP 67 Protection class III ✓ Ambient data -20°C +80°C Ambient temperature -20°C +80°C Storage temperature -20°C +80°C Storage temperature -20°C +80°C Storage temperature -20°C +80°C Storage temperature -20°C +80°C Classifications 27371814 EtGess 5.0 27371814 EtGess 5.1.4 27371814 EtGess 6.2 27371814 EtGess 5.0 27371814 EtGess 5.1 2737181	Electrical safety	
Weight sensorApprox. 200 gSealNBREnclosure ratingIP 67Protection class III✓Ambient data✓Ambient dataStorage temperature-20 °C +80 °CStorage temperature-20 °C +80 °CClassifications-20 °C +80 °CEtGess 5.0-27 731814EtGess 6.1-27 731814EtGess 6.2-27 731814EtGess 6.3-27 731814EtGess 6.4-27 731814EtGess 6.0-27 731814EtGess 6.0-27 731814EtGess 6.0-27 731814EtGess 6.1-20 °C	Insolation voltage	500 V DC
SealNREnclosure ratingP67Protection class III✓Ambient data✓Ambient data-20 °C +80 °CStorage temperature-20 °C +80 °CRelative humidity<90 %Shock load✓Vibration loadClassificationsEcless 5.020 701814Ecless 6.220 71814Ecless 6.320 71814Ecless 6.420 71814Ecless 6.120 71814Ecless 6.220 71814Ecless 6.320 71814Ecless 6.420 71814Ecless 6.420 71814Ecless 6.420 71814Ecless 6.520 71814Ecless 6.620 71814Ecless 6.720 71814Ecless 6.620 71814Ecless 6.720 71814Ecless 6.620 71814Ecless 6.720 71814 <td< th=""><th>CE-conformity</th><th>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</th></td<>	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
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Storage temperature-0° C +80° CRelative humidity90%Shock load90%Vibration load-Vibration load-Classifications7371814ECless 5.027371814ECless 6.027371814ECless 6.227371814ECless 7.027371814ECless 8.027371814ECless 8.127371814ECless 9.027371814ECless 9.027371814ECless 9.027371814ECless 9.027371814ECless 9.027371814ECless 9.027371814ECless 9.027371814ECless 9.027371814ECless 9.027371814ECless 9.0200243ETIM 5.0ECO00243ETIM 6.0ECO00243	Ambient data	
Relative humidity ≤ 90 % Shock load Vibration load Classifications ECless 5.0 27371814 ECless 5.1.4 27371814 ECless 6.0 27371814 ECless 6.1 27371814 ECless 6.2 27371814 ECless 6.2 27371814 ECless 7.0 27371814 ECless 8.0 27371814 ECless 8.1 27371814 ECless 8.1 27371814 ECless 8.1 27371814 ECless 9.0	Ambient temperature	-20 °C +80 °C
Shock load Image: Shock load Vibration load Image: Shock load Vibration load Image: Shock load Classifications Image: Shock load Ecless 5.0 27371814 Ecless 6.0 27371814 Ecless 6.0 27371814 Ecless 6.1 27371814 Ecless 7.0 27371814 Ecless 8.0 27371814 Ecless 8.1 27371814 Ecless 9.0 27371814	Storage temperature	-20 °C +80 °C
Vibration load Vibration load Vibration load Vibration load Classifications 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 27371814 Ecless 9.0	Relative humidity	≤ 90 %
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 27371814 Ecless 8.0 27371814 Ecless 8.0 27371814 Ecless 8.0 27371814 Ecless 8.1 27371814 Ecless 9.0 27371814 <th>Shock load</th> <th></th>	Shock load	
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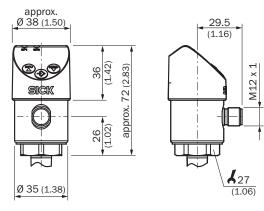
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Dimensional drawing (Dimensions in mm (inch))

G ¼ A DIN 3852-E





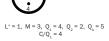
Connection type

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



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





(1) L^+ : Positive supply connection

- ② M: Negative supply connection
- ③ Q₁: 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
No.	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

