

## PBS-RB600SGESSSI5A0Z PBS



**PRESSURE SWITCH** 

### PBS-RB600SGESSSI5A0Z | PBS

PRESSURE SWITCH



#### Ordering information

Туре	Part no.
PBS-RB600SGESSSI5A0Z	6062003

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

Illustration may differ



#### Detailed technical data

Features	
Medium	Liquid, gaseous
Pressure type	Gauge pressure
Pressure unit	bar
Measuring range	0 bar 600 bar
Process temperature	-20 °C +85 °C
Maximum ohmic load R <sub>A</sub>	4 mA 20 mA ( $R_A \le 0.5$ kOhm) 0 V 10 V, 3-wire ( $R_A > 10$ kOhm)
Zero point adjustment	Max. + 3 % of span
Output signal	2 x NPN + 4 mA 20 mA
Rotatable housing	Display against housing with electrical connection: 330 $^\circ$ Housing against process connection: 320 $^\circ$
Display	14-segment-LED, blue, 4-digits, height 9 mm, electronically turnable by 180° Accuracy: $\leq 1 \%$ of span $\pm 1$ digit Update: 1,000, 500, 200, 100 ms (adjustable)
Mechanics/electronics	
Process connection	G 1/2 B according to EN 837
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	3.5 mm Standard
Housing material	Lower body: stainless steel 304, Plastic head: PC + ABS, Buttons: TPE-E, Display window: PC
Connection type	Round connector M12 x 1, 5-pin
Supply voltage	15 V DC 35 V DC
Power consumption	45 mA (for configurations without analog output signal) 70 mA (for configurations with analog output signal)
Total current consumption	Max. 350 mA / 570 mA (incl. switching current)
Electrical safety	Protection class: III Overvoltage protection: 40 V DC

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ieresReverse polarity protection: L* to Misolation voltageReverse polarity protection: L* to Misolation voltageRessure equipment directive: This instrument is a pressure accessory as defined by the directive: 2004/108/EC, EN 61326-2-3Veight sensorApprox 200 gSealApprox 200 gSealSainless stellForloction class III/Protection class III/Non-linearty20 yearsReformanceSain Sain Sain Sain Sain Sain Sain Sain		Short-circuit protection: $Q_A$ , $Q_1$ , $Q_2$ towards M
ContentionPresure equipment directive: This instrument is a pressure accessory as defined by the directive: 2004/108/EC, EN directive: 2004/2004/EC, EN directive:		
Weight sensorKe 97/23/E0, EMC directive: 2004/108/E0, EN 61328-23Weight sensorApprox.200 gSalApprox.200 gEnclosure ratingPP67Protection class IIIImage: Control of Sal (Control of Sal (C	Isolation voltage	500 V DC
SalBinles stealForcesure ratingPF7Protection class III✓Protection class III✓Protection class III✓Protection class III✓Protection class III✓Protection class IIIProtection class IIIIProtection class IIIIProtection class IIIIIProtection class IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	CE-conformity	
Bendsame rating     IPe7       Enclosure rating     IPe7       Protection class III     J2 years       Performance     S 10.5% of span (Best Fit Straight Line, BFSL) according to IEC 61298/2       Accuracy     S 10.5% of span (Best Fit Straight Line, BFSL) according to IEC 61298/2       Accuracy of switching output     S 10.5% of span       String accuracy of switching output     S 20.5% of span       Response time     S 0.5% of span       Ingetter diff(one-year stability     S 20.2% of span / 10 K       String accuracy of switching output     S 20.2% of span / 10 K       Response time     S 0.2% of span / 10 K       Temperature coefficient in rated temperature ange     0 ° C + 80 ° C       String accuracy of switching output     S 20.2% of span / 10 K       Store temperature ange     0 ° C + 80 ° C       Store temperature ange     O ° C + 80 ° C       Store temperature ange     S 0 ° C + 80 ° C       Store temperature ange     S 0 ° C + 80 ° C       Store temperature ange     S 0 ° C + 80 ° C       Store temperature ange     S 0 ° C + 80 ° C       Store temperature ange     S 0 ° C + 80 ° C       Store temperatur	Weight sensor	Approx. 200 g
Protection class III     ✓       Protection class III     202 years       Performance     Set 15 % of span (Best Fit Straight Line, BFSL) according to EC 61298.2       Accuracy     5 ± 1 % of the span       Setting accuracy of switching outputs     5 ± 0.5 % of span       Response time     3 ms       Congreen diffVone-year stability     5 0.2 % of the span according to EC 61298.2       Temperature coefficient in rated temperature     Wean TC of zero point: \$ 0.2 % of span / 10 K       Reade temperature ange     0.2 % of the span according to EC 61298.2       Service IIF     Mean TC of zero point: \$ 0.2 % of span / 10 K       Service IIF     Mean TC of zero point: \$ 0.2 % of span / 10 K       Service IIF     Minimum 100 Moi. load cycles       Arbient temperature ange     0.2 % of the span 3 0.2 % of span / 10 K       Service IIF     Minimum 100 Moi. load cycles       Arbient temperature     -0.2 ° C +80 ° C       Service IIF     Maint temperature       Jos go conding to EC 60088.2.27 (mechanical shock)     Uter ange       Vibration Iad     102 gocozia       Selfes 5.1.4     0.2 gocozia       Selfes 5.1.4     7200620       Selfes 5.1.4	Seal	Stainless steel
MTF     202 years       Performance     < 0.05%, of span (best Fit Straight Line, BFSL) according to IEC 61298.2       Accuracy     < 4.1% of the span       Setting accuracy of witching outputs     < 4.0.5%, of span       Response time     < 0.2% of the span according to IEC 61298.2       Tomperature coefficient in rated temperature       Arbitent data        Arbitent data        Straig demperature        Straig demperat	Enclosure rating	IP67
Performance       Non-linearity     \$40.5 %, of span (Best Fit Straight Line, BFSL) according to IEC 61298-2       Accuracy     \$41 % of the span       Setting accuracy of switching outputs     \$40.5 % of span       Response time     3 ms       Longterm diff/one-year stability     \$0.2 % of span / 10 K       Temperature coefficient in rated temperature range     0 *0+80 *0       Service life     Mannour 100 Mol. load coyoles       Arbitent data     -20 *0+80 *0       Arbitent temperature     20 *0+80 *0       Strage temperature     -20 *0+80 *0       Strage temperature     -20 *0+80 *0       Storage temperat	Protection class III	✓
Non-linearity\$ ± 0.5 %, of span (Best Fit Straight Line, BFSL) according to IEC 61298.2Accuracy\$ ± 1 % of the spanSetting accuracy of switching outputs\$ ± 0.5 % of spanResponse time3 msLongterm diff/one-year stability\$ 0.2 % of span / 10 KResponse time range0 * 0 + 80 * 0Bart of dargo point: \$ 0.2 % of span / 10 KMaan To dargo point: \$ 0.2 % of span / 10 KReted temperature range0 * 0 + 80 * 0Bartier dargo point: \$ 0.2 % of span / 10 KMaan To dargo point: \$ 0.2 % of span / 10 KReted temperature range0 * 0 + 80 * 0Bartier dargo- 20 * 0 + 80 * 0Constraint- 20 * 0 + 80 * 0Constraint- 20 * 0 + 80 * 0Storage temperature- 20 * 0 + 80 * 0Constraint- 20 * 0 + 80 * 0Storage temperature- 20 * 0 + 80 * 0Constraint- 20 * 0.0 + 80 * 0Colses 5.0- 27 0.0.200colses 6.1- 27 0.0.200colses 6.1- 27 0.0.200colses 8.1- 27 0.0.200 <th>MTTF</th> <th>202 years</th>	MTTF	202 years
Accuracy≤± 1% of the spanSetting accuracy of switching outputs≤± 0.5% of spanResponse time3 msLong-term diffyone-year stability<0.2% of the span according to IEC 61298.2Temperature coefficient in rated temperature rangeMann TC of zero point: 50.2% of span / 10 K Mann TC of span / 10 K Mann TC of span / 10 K Mann TC of span / 10 KRated temperature range0 °C +80 °CService lifeMinimum 100 Mio. load cyclesAmbient temperature-20 °C +80 °CStorage temperature-20 °C +80 °CRelative humidity590 %Storage temperature-20 °C +80 °CRelative humidity50 g according to IEC 60068-2-27 (mechanical shock)Yibration load10 g according to IEC 60068-2-27 (mechanical shock)Cless 5.027200620celless 5.1.427200620celless 6.127200620celless 6.227200620celless 6.127200620celless 6.227200620<	Performance	
Setting accuracy of switching outputs\$ 4 : 0.5 % of spanResponse time3 msLong-term drift/one-year stability5 : 0.2 % of the span according to IEC 61298-2Imperature coefficient in rated temperature fure rangeCore opini: 5 : 0.2% of span / 10 KReade temperature coefficient in rated temperature fure range0 * C 480 °CService IIfeMinimu 100 Mio. load cyclesAmbient temperature action of C	Non-linearity	≤ ± 0.5 %, of span (Best Fit Straight Line, BFSL) according to IEC 61298-2
Response timeI msLong-term drift/one-year stabilityAll C > 2 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 ×	Accuracy	$\leq \pm 1\%$ of the span
Response timeI msLong-term drift/one-year stabilityAll C > 2 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 × 0 ×	Setting accuracy of switching outputs	≤ ± 0.5 % of span
Temperature coefficient in rated temperature true rangeMean TC of zero point: ≤ 0.2% of span / 10 K Mean TC of span ≤ 0.2% of span / 10 KRated temperature range0 °C +80 °CService lifeMinimum 100 Mio. load cyclesAmbient data-20 °C +80 °CStorage temperature-20 °C +80 °CStorage temperature-20 °C +80 °CStorage temperature-20 °C +80 °CRelative humiditySig according to IEC 60068-2-27 (mechanical shock)Vibration load50 g according to IEC 60068-2-27 (mechanical shock)Classifications27200620Classifications27200620ecless 5.027200620ecless 6.227200620ecless 6.327200620ecless 6.427200620ecless 6.527200620ecless 6.127200620ecless 6.227200620ecless 6.327200620ecless 6.427200620ecless 6.527200620ecless 6.127200620ecless 6.227200620ecless 6.327200620ecless 6.427200620ecless 6.127200620ecless 6.127200620ecless 6.127200620ecless 6.227200620ecless 6.327200620ecless 6.427200620ecless 6.527200620ecless 6.627200620ecless 6.727200620ecless 6.827200620ecless 6.927200620ecless 6.127200620ecless 6.127200620 <th></th> <th>3 ms</th>		3 ms
ture rangeMean TC of span ≤ 0.2 % of span / 10 KRated temperature range0 °C +80 °CService IffeMinimum 100 Mio. load cyclesAmbient data-20 °C +80 °CAmbient temperature-20 °C +80 °CStorage temperature-20 °C +80 °CRelative humidityS0 ga coording to IEC 60068-2.27 (mechanical shock)Yobation load0 ga coording to IEC 60068-2.27 (mechanical shock)Vibration load20 ga coording to IEC 60068-2.27 (mechanical shock)Classifications20 ga coording to IEC 60068-2.27 (mech	Long-term drift/one-year stability	$\leq$ 0.2 % of the span according to IEC 61298-2
Service lifeMinimum 100 Mio. load cyclesAmbient data<20 °C+80 °CStorage temperature<20 °C+80 °C <p< th=""><th></th><th></th></p<>		
Ambient data     -20°C+80°C       Ambient temperature     -20°C+80°C       Storage temperature     -20°C+80°C       Relative humidity     500%       Shock load     500 ga coording to IEC 60068-2-27 (mechanical shock)       Vibration load     10 ga coording to IEC 60068-2-27 (mechanical shock)       Vibration load     10 ga coording to IEC 60068-2-27 (mechanical shock)       Vibration load     10 ga coording to IEC 60068-2-27 (mechanical shock)       Classifications     10 ga coording to IEC 60068-2-27 (mechanical shock)       Classifications     10 ga coording to IEC 60068-2-27 (mechanical shock)       Classifications     10 ga coording to IEC 60068-2-27 (mechanical shock)       Classifications     10 ga coording to IEC 60068-2-27 (mechanical shock)       Classifications     10 ga coording to IEC 60068-2-27 (mechanical shock)       Classifications     10 ga coording to IEC 60068-2-27 (mechanical shock)       classifications     10 ga coording to IEC 60068-2-26 (vibration under resonance)       classifications     17206520       classifications     17206520       classifications     1720620       classifications     1720620       classifications     1720620	Rated temperature range	0 °C +80 °C
Ambient temperature-20 °C +80 °CStorage temperature-20 °C +80 °CRelative humidity-20 °C +80 °CRelative humidity<90 %	Service life	Minimum 100 Mio. load cycles
Storage temperature-20 °C +80 °CRelative humidity> 90 %Shock loadS 0 g according to IEC 60068-2-27 (mechanical shock)Shock load0 g according to IEC 60068-2-6 (vibration under resonance)Vibration load20 900008-2-6 (vibration under resonance)Classifications2700620ecless 5.02700620ecless 6.12700620ecless 6.22700620ecless 7.02700620ecless 8.12700620ecless 8.12700620ecless 9.02700620ecless 1.02700620ecless 1.02700620ecless 1.102700620ecless 1.202700620ecless 1.202700620	Ambient data	
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Shock load50 gaccording to IEC 60068-2-27 (mechanical shock)Vibration load10 gaccording to IEC 60068-2-27 (mechanical shock)Vibration load10 gaccording to IEC 60068-2-6 (vibration under resonance)Classifications2700620ecless 5.02700620ecless 6.02700620ecless 6.027200620ecless 7.027200620ecless 8.027200620ecless 8.127200620ecless 9.027200620ecless 9.027200620ecless 1.027200620ecless 1.027200620	Storage temperature	-20 °C +80 °C
Vibration load10 g according to IEC 60068-2-6 (vibration under resonance)Classificationsecless 5.027200620ecless 5.1427200620ecless 6.027200620ecless 6.227200620ecless 7.027200620ecless 8.027200620ecless 8.127200620ecless 9.027200620ecless 1.027200620ecless	Relative humidity	≤ 90 %
Classifications       eCless 5.0     27200620       eCless 5.1.4     27200620       eCless 6.0     27200620       eCless 6.1     27200620       eCless 6.2     27200620       eCless 7.0     27200620       eCless 8.1     27200620       eCless 8.1     27200620       eCless 9.0     27200620       eCless 1.0.0     2000243	Shock load	50 g according to IEC 60068-2-27 (mechanical shock)
eCless 5.02700620eCless 5.1.42720620eCless 6.02720620eCless 6.22720620eCless 7.02720620eCless 8.02720620eCless 8.12720620eCless 9.02720620eCless 10.02720620eCless 11.02720620eCless 11.02720620eCless 12.02720620eCless 12.02720620ETIM 5.0E00243ETIM 5.0E00243	Vibration load	10 g according to IEC 60068-2-6 (vibration under resonance)
eCless 5.1.4     2720620       eCless 6.0     2720620       eCless 6.2     2720620       eCless 6.2     2720620       eCless 7.0     2720620       eCless 8.0     2720620       eCless 8.1     2720620       eCless 9.0     2720620       eCless 10.0     2720620       eCless 11.0     2720620       eCless 12.0     2720620       ETIM 5.0     EClo0243       ETIM 6.0     EClo0243	Classifications	
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eCless 9.0   2720620     eCless 10.0   2720620     eCless 11.0   2720620     eCless 12.0   2720620     ETIM 5.0   E000243     ETIM 6.0   E000243     ETIM 7.0   E000243	eCl@ss 8.0	27200620
eCl@ss 10.0   27200620     eCl@ss 11.0   27200620     eCl@ss 12.0   27200620     ETIM 5.0   EC00243     ETIM 6.0   EC00243     ETIM 7.0   EC00243	eCl@ss 8.1	27200620
eCless 11.0   27200620     eCless 12.0   27200620     ETIM 5.0   EC00243     ETIM 6.0   EC00243     ETIM 7.0   EC00243	eCl@ss 9.0	27200620
eCl@ss 12.0 27200620   ETIM 5.0 EC00243   ETIM 6.0 EC00243   ETIM 7.0 EC00243	eCl@ss 10.0	27200620
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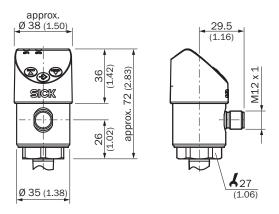
### PBS-RB600SGESSSI5A0Z | PBS

PRESSURE SWITCH

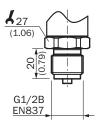
#### UNSPSC 16.0901

#### 41112409

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



G 1/2 B according to EN 837



#### Connection type









#### Recommended accessories

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

	Brief description	Туре	Part no.
Heating and cooling devices			
	Cooling element, extension of the process temperature up to 150 °C. Maximum ambient temperature 30 °C. Max. process pressure 200 bar. Not suitable for pressure measurement in steam. Outer thread G 1/2, inner thread G 1/2.	BEF-CE- G12G12-150C	5324393

# PBS-RB600SGESSSI5A0Z | PBS PRESSURE SWITCH

	Brief description	Туре	Part no.
Mounting bra	ckets and plates		
100	Mounting bracket for simple and stable wall mounting of pressure sensors with 27 mm hexagon, Aluminum	BEF-FL-ALUPBS-HLDR	5322501

## 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



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