

PHT-RB010ST20S0AMS0Z

PHT

PRESSURE SENSORS





Ordering information

Туре	Part no.
PHT-RB010ST20S0AMS0Z	6041345

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

Illustration may differ



Detailed technical data

Features

Medium	Liquid, gaseous	
Pressure type	Gauge pressure	
Pressure unit	bar	
Measuring range	0 bar 10 bar	
Process temperature	-20 °C +150 °C	
Maximum ohmic load R _A	4 mA 20 mA, 2-wire ($R_A \le (L^+ - 10 \text{ V}) / 0.02 \text{ A [Ohm]}$) The variant with field housing and current output 4 mA 20 mA features test terminals that allow metering of the signal current without having to disconnect the device.the signal current without having to disconnect the device. 0 V 10 V, 3-wire ($R_A > 10 \text{ kOhm}$) 0 V 5 V, 3-wire ($R_A > 5 \text{ kOhm}$)	
Output signal	4 mA 20 mA, 2-wire	

Mechanics/electronics

Process connection	Tri-Clamp 2"	
Wetted parts	Stainless steel 1.4435	
Internal transmission fluid	Synthetic oil, FDA approved	
Housing material	Stainless steel 1.4571	
Connection type	M12 round connector x 1, 4-pin	
Supply voltage	10 V DC 30 V DC	
Electrical safety	Overvoltage protection: 36 V DC Short-circuit protection: Q _A towards M Reverse polarity protection: L ⁺ to M Protection class: III	
Dielectric strength	$500\ \text{V}$ DC, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)	
CE-conformity	EMC directive: 2004/108/EC, EN 61326-2-3	
Weight sensor	Approx. 500 g	
Seal	Without seal	

¹⁾ Enclosure rating IP per IEC 60529. The enclosure rating classes specified only apply when connected with female connectors that provide the corresponding enclosure rating.

Enclosure rating	IP67 ¹⁾
Protection class III	✓
MTTF	403 years

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Performance

Non-linearity	\leq \pm 0.2 %, of span (Best Fit Straight Line, BFSL) according to IEC 61298-2	
Accuracy	\leq ± 0.5 % of the span	
Non-repeatability	\leq ± 0.1 % of the span	
Response time (10 % 90 %)	≤ 10 ms	
Long-term drift/one-year stability	≤ 0.2 % of the span	
Temperature coefficient in rated temperature range	Mean TC of zero: $\le 0.2\%$ of span / 10 K for measuring ranges 0 bar 0.6 bar up to 0 bar 25 bar Mean TC of zero: $\le 0.25\%$ of span/ 10 K with pressure range 0 bar 0.4 bar $\le 0.25\%$ of span/ 10 K, with pressure range 0 bar 0.4 bar Mean TC of zero: $\le 0.4\%$ of span / 10 K for measuring range 0 bar 0.25 bar Mean TC of span $\le 0.2\%$ of span / 10 K	
Rated temperature range	0 °C +80 °C	

Ambient data

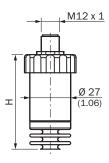
Ambient temperature	-20 °C +80 °C
Storage temperature	-40 °C +100 °C
Shock load	500 g according to IEC 60068-2-27 (mechanical shock)
Vibration load	15 g according to IEC 60068-2-6 (vibration under resonance)

Classifications

ECLASS 5.0	27200614
ECLASS 5.1.4	27200614
ECLASS 6.0	27200614
ECLASS 6.2	27200614
ECLASS 7.0	27200614
ECLASS 8.0	27200614
ECLASS 8.1	27200614
ECLASS 9.0	27200614
ECLASS 10.0	27200614
ECLASS 11.0	27200614
ECLASS 12.0	27200614
ETIM 5.0	EC011478
ETIM 6.0	EC011478
ETIM 7.0	EC011478
ETIM 8.0	EC011478
UNSPSC 16.0901	41112410

Dimensional drawing (Dimensions in mm (inch))

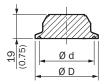
Housing with circular connector M12 x 1, IP67



With accuracy H

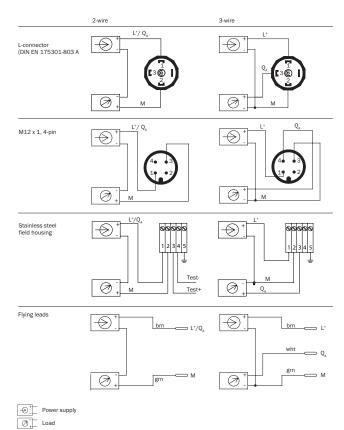
0.5 %	64 (2.52)
0.25 %	84 (3.31)

Clamp



Design		ØD	Ø d
Tri-Clamp	1 ½"	50 (1.97)	43.5 (1.71)
	2"	64 (2.52)	56.6 (2.23)
DIN 32676	DN 32	50 (1.97)	43.5 (1.71)
	DN 40	50 (1.97)	43.5 (1.71)
	DN 50	64 (2.52)	56.6 (2.23)
ISO 2852	DN 33.7	50 (1.97)	43.5 (1.71)
	DN 38	50 (1.97)	43.5 (1.71)
	DN 40	64 (2.52)	56.6 (2.23)
	DN 51	64 (2.52)	56.6 (2.23)

Connection type



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For us, that is "Sensor Intelligence."

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