PFT-SAP100AN1SEAAMSSZ
PFT

PRESSURE SENSORS

PFT-SAP100AN1SEAAMSSZ | PFT
PRESSURE SENSORS

Illustration may differ

CE

Ordering information

Type	Part no.
PFT-SAP100AN1SEAAMSSZ	6044967

Other models and accessories ➜ www.sick.com/PFT

Detailed technical data

Features

Medium	Liquid, gaseous
Pressure type	Absolute pressure
Pressure unit	psi
Measuring range	0 psi ... 100 psi
Process temperature	–40 °C ... +125 °C
Maximum ohmic load R_A	4 mA ... 20 mA, 2-wire ($R_A \leq (L^+ - 10$ V$) / 0.02$ A [Ohm]) 0 V ... 5 V, 3-wire ($R_A > 5$ kOhm) 0 V ... 10 V, 3-wire ($R_A > 10$ kOhm)
Output signal	4 mA ... 20 mA, 2-wire
Specialty	Without

Mechanics/electronics

Process connection	¼" NPT
Wetted parts	Standard memrane: Stainless steel 1.4571, stainless steel 1.4534 for measuring ranges > 25 bar
Internal transmission fluid	Synthetic oil (Not available for version with standard membrane for pressure ranges > 25 bar)
Pressure port	Standard
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 V DC, NEC Class 02 power supply (low voltage and low current max. 100 VA even in the event of a fault)
CE-conformity	Pressure equipment directive: 2014/68/EU EMC directive: 2004/108/EC, EN 61326-2-3
Weight sensor	Approx. 200 g

[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.

Seal	Without seal
Enclosure rating	IP67 [1]
Protection class III	✔
MTTF	403 years

[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.

Performance

Non-linearity	≤ ± 0.2 %, of span (Best Fit Straight Line, BFSL) according to IEC 61298-2
Accuracy	≤ ± 0.25 % of the span
Non-repeatability	≤ ± 0.1 % of the span
Response time (10 % ... 90 %)	≤ 1 ms ≤ 10 ms at medium temperatures below < −30°C for pressure ranges up to 25 bar or with flush-mounted membrane
Long-term drift/one-year stability	≤ ± 0.2 % of span (at reference conditions)
Temperature coefficient in rated temperature range	Mean TC of zero: ≤ 0.2 % of span / 10 K (< 0.4 % for pressure ranges ≤ 0.25 bar) Mean TC of span ≤ 0.2 % of span / 10 K
Rated temperature range	0 °C ... +80 °C
Service life	Minimum 10 Mio. load cycles

Ambient data

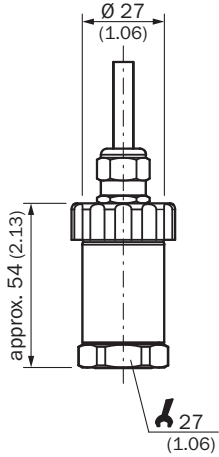|	
Ambient temperature	−20 °C ... +80 °C
Storage temperature	−40 °C ... +100 °C, with flush-mounted membrane and cooling element −20 °C ... +100 °C
Shock load	1000 g according to IEC 60068-2-27 (mechanical shock) 400 g according to IEC 60068-2-27 (mechanical shock) for version with integrated cooling element
Vibration load	20 g according to IEC 60068-2-6 (vibration under resonance) 10 g according to IEC 60068-2-6 (vibration undencr resonae) for version with integrated cooling element

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))

¼" NPT

13 (0.51)

27 (1.06)

1/4NPT

Housing with flying leads

Ø 27 (1.06)

approx. 54 (2.13)

27 (1.06)

Connection type

	2 wire	3 wire
L-connector (DIN EN 175301-803 A	L⁺/ Q_A, M	L⁺, Q_A, M
M12 x 1, 4-pin	L⁺/ Q_A, M	L⁺, Q_A, M
Flying leads	brn L⁺/Q_A, grn M	brn L⁺, wht Q_A, grn M

Power supply

Load
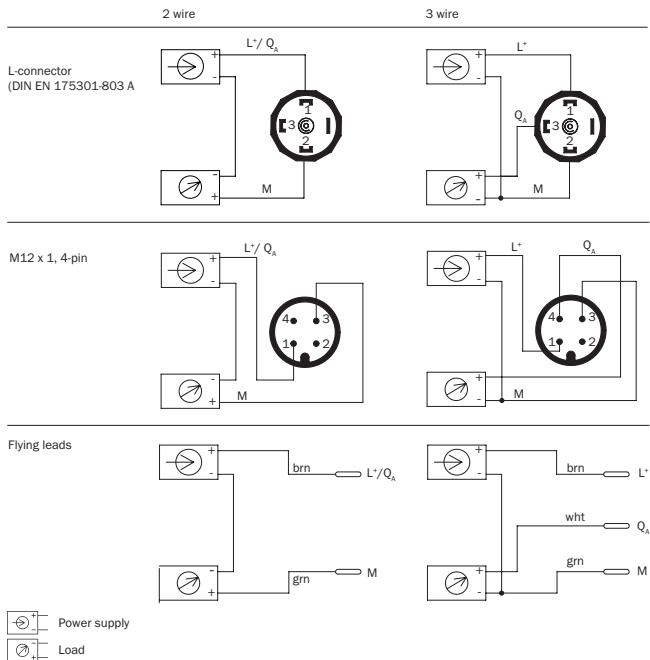
Recommended accessories

Other models and accessories ➜ www.sick.com/PFT

Brief description		Type	Part no.
Mounting brackets and plates			
	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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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.

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