

PFT-FRB400SF20SCAMSSZ



PRESSURE SENSORS

PRESSURE SENSORS



Ordering information

Туре	Part no.
PFT-FRB400SF20SCAMSSZ	6041060

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





Detailed technical data

Features

Medium	Liquid, gaseous	
Pressure type	Gauge pressure	
Pressure unit	bar	
Measuring range	0 bar 400 bar	
Process temperature	-30 °C +100 °C	
Maximum ohmic load R _A	4 mA 20 mA, 2-wire ($R_A \le (L^+ - 10 \text{ V}) / 0.02 \text{ A [Ohm]}$) 0 V 5 V, 3-wire ($R_A > 5 \text{ kOhm}$) 0 V 10 V, 3-wire ($R_A > 10 \text{ kOhm}$)	
Output signal	4 mA 20 mA, 2-wire	
Specialty	Without	
Mechanics/electronics		
Process connection	G 1/2 B flush-mounted with O-ring	
Wetted parts	Flush-mounted membrane: Stainless steel 1.4571 with NBR O-ring or FKM O-ring (FKM with integrated cooling element)	
Internal transmission fluid	Synthetic oil (Not available for version with standard membrane for pressure ranges > 25 bar)	
Pressure port	Front-flush membrane	
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.

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Seal	FPM/FKM
Enclosure rating	IP67 ¹⁾
Protection class III	\checkmark
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	\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	$\leq \pm 0.1$ % of the span
Response time (10 % 90 %)	\leq 1 ms \leq 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	\leq ± 0.2 % of span (at reference conditions)
Temperature coefficient in rated tempera- ture range	Mean TC of zero: \leq 0.2 % of span / 10 K (< 0.4 % for pressure ranges \leq 0.25 bar) Mean TC of span \leq 0.2 % of span / 10 K
Rated temperature range	0 °C +80 °C
Service life	Minimum 100 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 ele- ment
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 cool- ing element

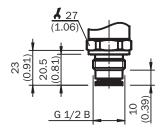
Classifications

	07000044
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

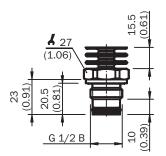
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Dimensional drawing (Dimensions in mm (inch))

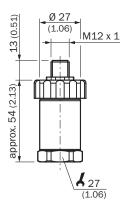
G 1/2 B without cooling section



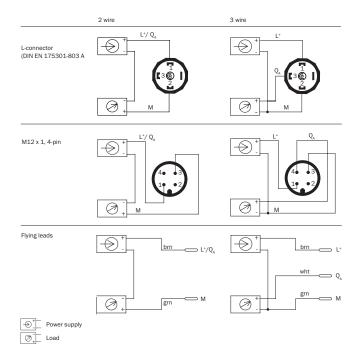
G 1/2 B with cooling section



Housing with circular plug-in connector M12 x 1



Connection type



Recommended accessories

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

	Brief description	Туре	Part no.	
Mounting bra	Mounting brackets and plates			
Fat	Mounting bracket for simple and stable wall mounting of pressure sensors with 27 mm hexagon, Aluminum	BEF-FL-ALUPBS-HLDR	5322501	
Others				
N.	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 15 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YF2A14- 150UB3XLEAX	2095610	
N.	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 20 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YF2A14- 200UB3XLEAX	2095611	
1	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 25 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YF2A14- 250UB3XLEAX	2095615	

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	Brief description	Туре	Part no.
>	 Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 15 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YG2A14- 150UB3XLEAX	2095769
	 Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 20 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YG2A14- 200UB3XLEAX	2095770
	 Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 25 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YG2A14- 250UB3XLEAX	2095771
N 0	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals 	YF2A14- 050VB3XLEAX	2096235
3	 Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals 	YG2A14- 020VB3XLEAX	2095895
A.C.	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 10 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals 	YF2A14- 100VB3XLEAX	2096236
A.C.	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 15 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals 	YF2A14- 150VB3XLEAX	2096237
40	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 20 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals 	YF2A14- 200VB3XLEAX	2096238
×.	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YF2A14- 050UB3XLEAX	2095608
×.	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 10 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YF2A14- 100UB3XLEAX	2095609

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	Brief description	Туре	Part no.
>	 Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YG2A14- 020UB3XLEAX	2095766
	 Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YG2A14- 050UB3XLEAX	2095767
>	 Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 10 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YG2A14- 100UB3XLEAX	2095768
×.	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 4-wire, PUR, halogen-free Description: Sensor/actuator cable, unshielded Application: Zones with oils and lubricants, Drag chain operation, Robot 	YF2A14- 020UB3XLEAX	2095607
N O	 Connection type head A: Female connector, M12, 4-pin, straight, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 2 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals 	YF2A14- 020VB3XLEAX	2096234
3	 Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 10 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals 	YG2A14- 100VB3XLEAX	2095898
*	 Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 15 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals 	YG2A14- 150VB3XLEAX	2096213
*	 Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 20 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals 	YG2A14- 200VB3XLEAX	2096214
	 Connection type head A: Female connector, M12, 4-pin, angled, A-coded Connection type head B: Flying leads Signal type: Sensor/actuator cable Cable: 5 m, 4-wire, PVC Description: Sensor/actuator cable, unshielded Application: Zones with chemicals 	YG2A14- 050VB3XLEAX	2095897

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."

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