

# PFT-FRB100SF20SCAMSSZ

PFT

PRESSURE TRANSMITTER





#### Ordering information

Туре	Part no.
PFT-FRB100SF20SCAMSSZ	6062980

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

Illustration may differ



#### Detailed technical data

#### **Features**

Medium	Liquid, gaseous
Pressure type	Gauge pressure
Pressure unit	bar
Measuring range	0 bar 100 bar
Process temperature	-30 °C +100 °C
Maximum ohmic load R <sub>A</sub>	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 ½ B flush-mounted with 0-ring		
Wetted parts	Flush-mounted membrane: Stainless steel 1.4571 with NBR O-ring or FKM O-ring (FKM with in tegrated cooling element) $\frac{1}{2}$		
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 <sub>A</sub> towards M Reverse polarity protection: L <sup>+</sup> 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)		
<b>CE-conformity</b>	Pressure equipment directive: 2014/68/EU EMC directive: 2004/108/EC, EN 61326-2-3		
Weight sensor	Approx. 200 g		

<sup>1)</sup> 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	FPM/FKM
Enclosure rating	IP67 <sup>1)</sup>
Protection class III	✓
MTTF	403 years

<sup>1)</sup> 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	$\leq$ ± 0.1 % of the span	
Response time (10 % 90 %)	$\leq$ 1 ms $\leq$ 10 ms at medium temperatures below < -30 $^{\circ}$ 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 temperature 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 10 Mio. load cycles	

#### Ambient data

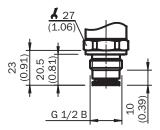
Ambient temperature	-20 °C +80 °C			
Storage temperature	–20 °C +100 °C, with flush-mounted membrane and cooling element –20 °C +100 °C			
Shock load	1000 g according to IEC 60068-2-27 (mechanical shock) 400 g according to IEC 60068-2-27 (mechanical shock) for version with integrated cooling element			
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

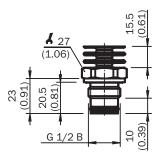
eCl@ss 5.0	27200614
eCl@ss 5.1.4	27200614
eCl@ss 6.0	27200614
eCl@ss 6.2	27200614
eCl@ss 7.0	27200614
eCl@ss 8.0	27200614
eCl@ss 8.1	27200614
eCl@ss 9.0	27200614
eCl@ss 10.0	27200614
eCl@ss 11.0	27200614
eCl@ss 12.0	27200614
ETIM 5.0	EC011478
ETIM 6.0	EC011478
ETIM 7.0	EC011478
ETIM 8.0	EC011478
UNSPSC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

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

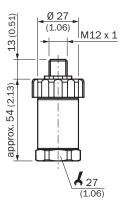
G 1/2 B without cooling section



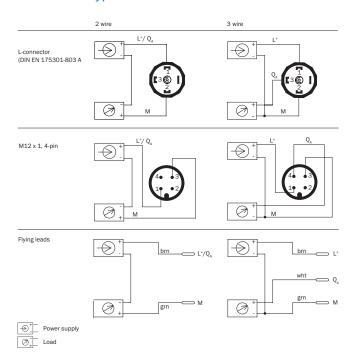
G 1/2 B with cooling section



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				
To a	Mounting bracket for simple and stable wall mounting of pressure sensors with 27 mm hexagon, Aluminum	BEF-FL-ALUPBS-HLDR	5322501		
Plug connecto	ors and cables				
	Head A: female connector, M12, 4-pin, angled Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	DOL-1204-W05MD	6020399		
1	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YF2A14- 020UB3XLEAX	2095607		
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YF2A14- 020VB3XLEAX	2096234		
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YF2A14- 050UB3XLEAX	2095608		
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YF2A14- 050VB3XLEAX	2096235		

	Brief description	Туре	Part no.
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YF2A14- 100UB3XLEAX	2095609
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YF2A14- 100VB3XLEAX	2096236
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 15 m	YF2A14- 150UB3XLEAX	2095610
1	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 15 m	YF2A14- 150VB3XLEAX	2096237
1	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 20 m	YF2A14- 200UB3XLEAX	2095611
<b>P</b>	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 20 m	YF2A14- 200VB3XLEAX	2096238
	Head A: female connector, M12, 4-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 25 m	YF2A14- 250UB3XLEAX	2095615
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 2 m	YG2A14- 020UB3XLEAX	2095766
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 2 m	YG2A14- 020VB3XLEAX	2095895
>	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 5 m	YG2A14- 050UB3XLEAX	2095767
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 5 m	YG2A14- 050VB3XLEAX	2095897
>	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 10 m	YG2A14- 100UB3XLEAX	2095768
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 10 m	YG2A14- 100VB3XLEAX	2095898
-	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 15 m	YG2A14- 150UB3XLEAX	2095769
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 15 m	YG2A14- 150VB3XLEAX	2096213
3	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 20 m	YG2A14- 200UB3XLEAX	2095770
	Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PVC, unshielded, 20 m	YG2A14- 200VB3XLEAX	2096214

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Head A: female connector, M12, 4-pin, angled, A-coded Head B: Flying leads Cable: Sensor/actuator cable, PUR, halogen-free, unshielded, 25 m	YG2A14- 250UB3XLEAX	2095771

### 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

