

Flow Transmitter / Monitor PSF20x

- ♦ Excellent price-to-performance ratio
- ♦ Unique ultra-light-rotor technology
- ♦ Exceptional accuracy and reliability
- ♦ Operates with liquids with viscosity from 1 to 1000 CST
- ♦ Linear voltage or current output
- ♦ RS232 interface available
- ♦ Local programmable LED display
- ♦ Chemically resistant variant available

PSF20x is a programmable flow transmitter/monitor designed for use with low-viscous clear or translucent liquids, transmitting IR light. The operating principle is based on the liquid volume measurement through light-weight rotor, IR sensor, and sophisticated electronics converting flow rate into a standard linear output signal. An RS232 serial interface is also available. The material types used (PVDF, Vectra®, Viton®, EPDM, etc.) have a good thermal (up to 90 °C) resistance. A special variant with increased chemical resistance also extends the transmitter application. Other ranges except the standard 0.5...20 l/min flow range are available on request. PSF20x is equipped with a keyboard and a local 3-digit LED display for easy programming and flow monitoring and can be used both as a flow meter and transmitter suitable for water treatment and other applications.

Technical specifications

Input

Liquid type	clear or translucent liquid transmitting IR light ⁽¹⁾
Liquid viscosity	1...1000 CST
Flow range	0.5...20 l/min ⁽²⁾

Measurement accuracy

Accuracy	± 1.00%
Interchangeability	1.00%
Reproducibility	max. ± 0.30%

Analog output (user selectable)

Current signal	0(4)...20 mA, 3-wire
Voltage signal	0...10 V
Output function	input signal info retransmission
Maximum output load	750 Ω at 24V/20 mA

Interface

Interface type	RS232
Function	data transmission
Protocol	ASCII, free

Power supply

Supply voltage	15...32 VDC
Admissible variations	4 Vp-p at 50 Hz
Consumption	max. 55 mA

⁽¹⁾ Liquid medium must be compatible with wetted part and seal materials!

⁽²⁾ Other ranges are available on request.

⁽³⁾ Radial, axial, and DIN-rail mounting accessories for 80x80x60 mm box can be ordered separately (see 'Accessories').

⁽⁴⁾ On top of case 'H'; on the right side of cases 'V'

Ordering code PSF20* - G0.G9

Code	Feature or option	Code values
*	Variant	0 - standard, 1 - chemically resistant ⁽⁵⁾
G0	Case	H - for horizontal left-to-right flow, V1 - for vertical up-to-down flow, V2 - for vertical down-to-up flow
G9	Serial interface	X - none, A - RS232

⁽⁵⁾ Limited with wetted part and seal material resistance!



Local indicator

Digital display	3 LED indicators, 14 mm
Display resolution	0.1
Display refresh	1 s
Device calibration	through the keyboard
Accuracy	0.2% from span
Temperature drift	0.01% from span for 1 °C
Keyboard	2 membrane keys

Operating conditions

Process temperature	-20...90 °C
Ambient temperature	-10...65 °C
Storage temperature	-20...85 °C
Process pressure	max. 12 bar

Design and materials

	PSF200	PSF201
Wetted parts	PVDF, POM, Viton®, Vectra®, SS 316	PVDF, Viton®, Vectra®, SS 316
Seals	EPDM, epoxy	PTFE
Case material	ABS/PC plastic	ABS/PC plastic
Mounting	free ⁽³⁾	free ⁽³⁾
Process connection	2 x G1/2", male	2 x G3/8", male
Wiring	4-pin connector M12 ⁽⁴⁾	4-pin connector M12 ⁽⁴⁾
Dimensions	105x92x60 mm	105x92x60 mm
Weight	max. 270 g	max. 250 g
Protection class (housing)	IP65	IP65