

Flow Controller PSF21x

- ◆ Excellent price-to-performance ratio
- ◆ Unique ultra-light-rotor technology
- ◆ Exceptional accuracy and reliability
- ◆ Operates with liquids with viscosity from 1 to 1000 CST
- ◆ Pulse output with 6000 pulses per liter of water
- ◆ Alarm/Control output with 2 programmable limits
- ◆ Local programmable LED display
- ◆ Chemically resistant variant available

PSF21x is a programmable flow controller designed for use with low-viscose 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 for measurement and control. 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 controller application. Other ranges except the standard 0.5...20 l/min are available on request. PSF21x is equipped with a local 3-digit LED display and a hidden key for easy programming and flow monitoring. Output capabilities include TTL pulse output as well as PNP or NPN alarm output that activates when either of the programmable alarm limits is reached. PSF21x can be used as a flow meter, flow transmitter with pulse output, ON/OFF flow controller, or alarm unit 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%

Outputs

Pulse output	TTL, 100...2000 Hz, max. 0.5 mA
Sensitivity	6000 pulses per liter of water
Alarm output	PNP/NPN, max. 100mA/40V, NO
Alarm type	'window'
Alarm function	ON/OFF

Power supply

Supply voltage	18...30 VDC
Admissible variations	2 Vp-p at 50 Hz
Consumption	max. 200 mA

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

⁽²⁾ Other ranges are available on request.

Local indicator

Digital display	3 LED indicators, 10 mm
Display resolution	0.1 l/min
Display refresh	1 s
Temperature drift	0.01% from span for 1 °C
LED indicator	for alarm event
Keyboard	1 hidden key

Operating conditions

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

Design and materials

	PSF210	PSF211
Wetted parts	POM, PVDF, Viton®, Vectra®, EPDM	SS, PVDF, Viton®, Vectra®, EPDM
Seals	NBR	PTFE
Case material	POM	POM
Mounting	free	free
Process connection	2 x G1/2", male	2 x G1/2", male
Wiring	3(4)-wire PVC cable	3(4)-wire PVC cable
Dimensions	105x60x45 mm	105x60x45 mm
Weight	max. 200 g	max. 250 g
Protection class (housing)	IP67	IP67

Ordering code PSF21★ - G5.G9.G12

Code	Feature or option	Code values
*	Variant	0 - standard, 1 - chemically resistant ⁽³⁾
G5	Relay output	E - NPN, F - PNP
G9	Pulse output	X - none, P - 6000 TTL pulses/l
G12	Cable length [m] and type	1PV...10PV - PVC

⁽³⁾ Limited with wetted part and seal material resistance!