

Type 2507 Mini Flow Sensor



Product description

The type 2507 Mini Flow Sensor contains a free-running rotor that is driven by the fluid flow. Within the given measurement range, the rotational speed of the rotor is proportional to the fluid flow rate.

Magnets built into the rotor trigger an electronic switch in the top of the sensor creating a square-wave output. Both opaque and transparent fluids can be measured with kinematic viscosities between 0.2 to 20.0 centistokes.

Features

- Operating range 100 to 12,000 ml/m (0.026 to 3.2 U.S. gpm)
- Detachable signal connector for easy servicing
- Simple installation with a G 1/4 in. (1/4 in. NPT) threaded connection
- Standard 7.6 m (25 ft) cable
- PVDF construction
- Compact assembly



Applications

- Fluid Dispensing
- Laboratory and Clinical Wet Benches
- Chemical Dosing
- Batch Processes

Technical Details

General			
Operating Range	-1V sensor	100 to 2'000 mL/m	(0.026 to 0.528 U.S. gpm)
	-2V sensor	400 to 2'800 mL/m	(0.105 to 0.740 U.S. gpm)
	-3V sensor	700 to 4'200 mL/m	(0.185 to 1.123 U.S. gpm)
	-4V sensor	1'300 to 6'000 mL/m	(0.343 to 1.585 U.S. gpm)
	-6V sensor	3'200 to 12'000 mL/m	(0.845 to 3.170 U.S. gpm)
Accuracy	±2% of reading		
Repeatability	±0.25% of full range		
Viscosity range	0.2 to 20.0 centistokes		
Connections	G 1/4 in. ports, 1/4 in. NPT pipe adapters (2 included)		

Wetted Materials

Housing	PVDF
Flow insert	PTFE
Quad ring seal	FKM
Rotor	PVDF
Pipe thread adapters	PVDF

Electrical

Power	5 to 24 VDC \pm 10 %, regulated, 10 mA max.
Output type	Open-collector, sinking, 10 mA max.
Cable Length	7.6 m (25 ft), can be extended up to 300 m (1000 ft)
Cable type	2-conductor shielded twisted-pair, 22 AWG

Max. Temperature/Pressure Rating

	5.5 bar @ -18 °C	80 psi @ 0 °F
	5.5 bar @ 24 °C	80 psi @ 75 °F
	3 bar @ 120 °C	45 psi @ 248 °F

Shipping Weight

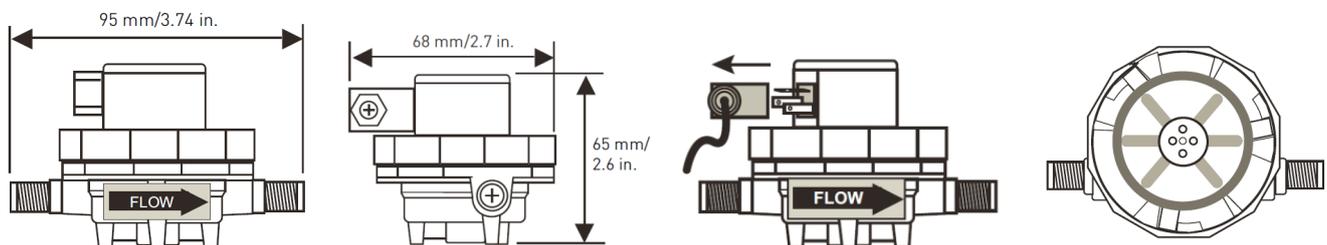
	0.115 kg	0.25 lb
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Standard and Approvals

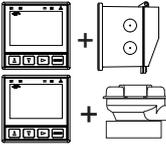
CE, UKCA, FCC
RoHS compliant, China RoHS
Manufactured under ISO 9001, ISO 14001 and ISO 45001

Dimensions

Detachable Signal Connector Top View(cover removed)



System Overview

Panel Mount	Pipe, Tank, Wall	Automation System
GF Instruments - 9900-1P - 9900-1BC - 9950 	GF Instruments - 9900-1P with Rear Enclosure - 9900-1 with 3-8050 Universal Mount Kit 	- 0486 Profibus Concentrator and Customer Supplied Programmable Logic Controller or - Programmable Automation Controller 

Type 2507 Sensor



All sold separately

GF Pipe Fitting Adapters (two included)
 Used to convert the sensor's G1/4 in. straight threads into 1/4 in. NPT threads



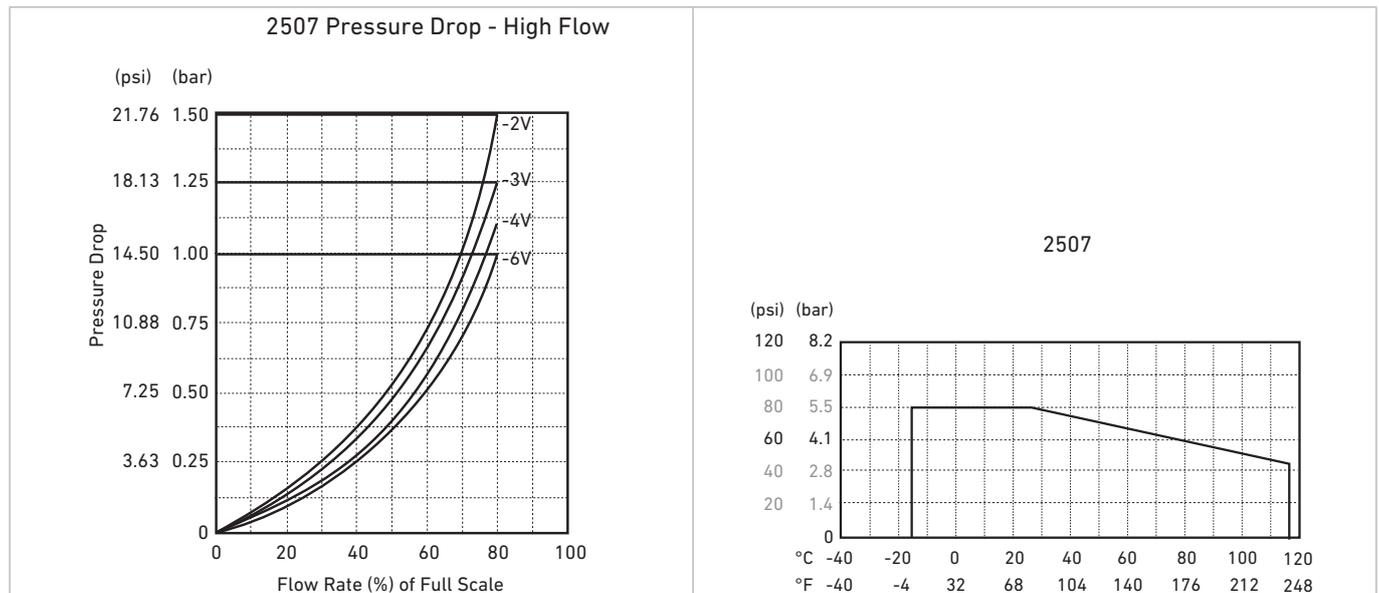
Application Tips

- Use the threaded ports on bottom of sensor to secure the sensor to any flat surface.
- The range of any sensor can be changed by replacing the flow insert.
- Suitable only for clean fluids without particles.

Pressure-temperature diagram

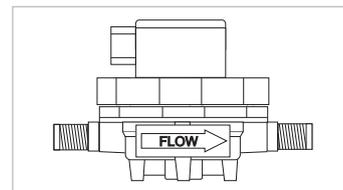
Note

The pressure-temperature diagrams are specifically for the GF sensor. During system design the specifications of all components must be considered. In the case of a metal piping system, a plastic sensor will reduce the system specification. When using a PVDF sensor in a PVC piping system, the fitting will reduce the system specification.



Ordering Information

Mfr. Part No	Code	Insert Option
Mini Flow low flow sensor with free-running rotor		
3-2507.100-1V	198 801 731	With 1 mm insert; for 0.026 to 0.528 gpm (100 to 2000 mL/m)
3-2507.100-2V	198 801 732	With 2 mm insert; for 0.15 to 0.740 gpm (400 to 2800 mL/m)
3-2507.100-3V	198 801 733	With 3 mm insert, for 0.185 to 1.123 gpm (700 to 4200 mL/m)
3-2507.100-4V	198 801 734	With 4 mm insert, for 0.343 to 1.585 gpm (1300 to 6000 mL/m)
3-2507.100-6V	198 801 736	With 6 mm inlet, no insert, for 0.845 to 3.170 gpm (3200 to 12000 mL/m)



Accessories and replacement parts

Mfr. Part	Code	Description
3-2507.080-2	198 801 550	Rotor, 2507
3-2507.080-3	198 801 547	Quad ring, 2507
3-2507.080-5	198 801 508	DIN connector, 2507
3-2507.081-1	198 801 548	1 mm insert
3-2507.081-2	198 801 502	2 mm insert
3-2507.081-3	198 801 503	3 mm inser
3-2507.081-4	198 801 558	4 mm insert
5523-0222	198 000 392	Cable (per foot), 2 cond. w/shield, 22 AWG

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