Signet 2507 Mini Flow Rotor Sensor



The Signet 2507 Mini Flow Rotor 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 400 to 12,000 ml/m (0.1 to 3.2 U.S. gpm)**
- **Detachable signal connector for easy servicing**
- **Simple installation with a G 1/4 in. (¼ in. NPT) threaded connection**
- **Standard 7.6 m (25 ft) cable**
- **PVDF construction**
- **Compact assembly**

Applications

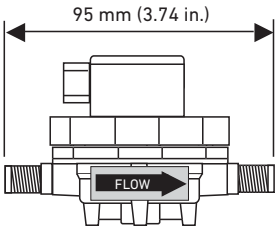
- **Fluid Dispensing**
- **Laboratory and Clinical Wet Benches**
- **Chemical Dosing**
- **Batch Processes**

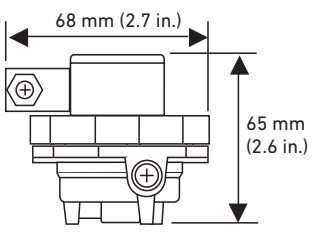
Specifications

General			
Operating Range	-2V sensor	400 to 2800 mL/m	0.105 to 0.740 U.S. gpm
	-3V sensor	700 to 4200 mL/m	0.185 to 1.123 U.S. gpm
	-4V sensor	1300 to 6000 mL/m	0.343 to 1.585 U.S. gpm
	-6V sensor	3200 to 12000 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 ¼ in. ports, ¼ 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 ±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	
Standards and Approvals			
	CE, FCC		
	RoHS compliant, China RoHS		
	Manufactured under ISO 9001 for Quality and ISO 14001 for Environmental Management and OHSAS 18001 for Occupational Health and Safety		

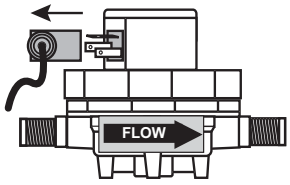
See Temperature and Pressure graphs for more information.

Dimensions

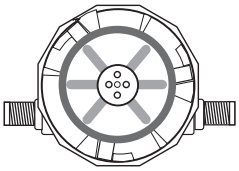




Detachable Signal Connector

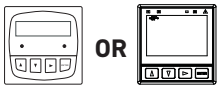


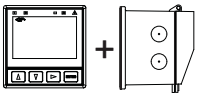
Top View (cover removed)

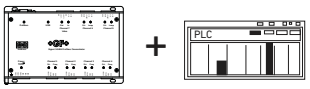


System Overview

Panel Mount	Pipe, Tank, Wall Mount	Automation System
Signet Instruments 8900 9900 9900-1BC 9950	Signet Instruments 9900-1P 9900-1BC with Rear Enclosure 9950	0486 Profibus Concentrator and Customer Supplied Programmable Logic Controller or Programmable Automation Controller







Signet 2507
Mini Flow Sensor



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



All sold separately

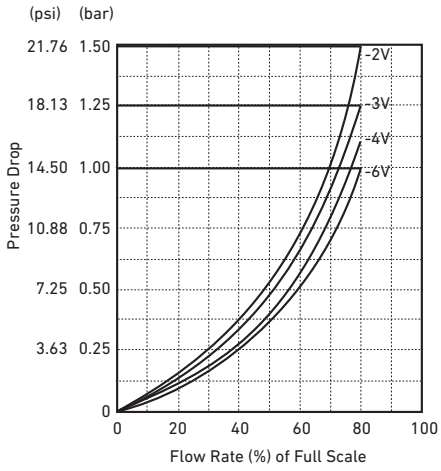
Application Tips

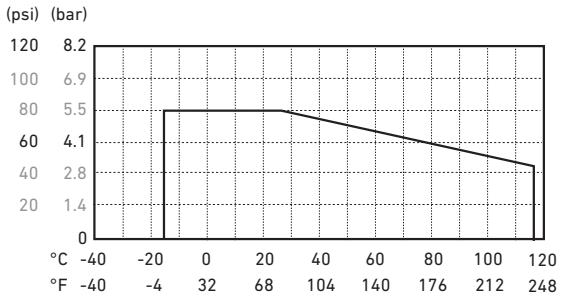
- Use the threaded ports on bottom of sensor to secure the sensor to any flat surface.
- The range of any sensor can be changed by replacing the flow insert.
- Suitable only for clean fluids without particles.

Temperature/Pressure Graphs

Note:
The pressure/temperature graphs are specifically for the Signet 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.

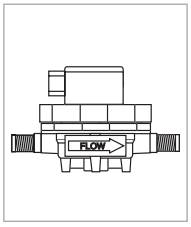
High Flow





Please refer to Wiring, Installation, and Accessories sections for more information.

Ordering Information



Mfr. Part No.	Code	Insert Option
Mini Flow low flow sensor with free-running rotor		
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 No.	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
3-2507.081-2	**198 801 502**	2 mm insert
3-2507.081-3	**198 801 503**	3 mm insert
3-2507.081-4	**198 801 558**	4 mm insert
5523-0222	**159 000 392**	Cable (per foot), 2 cond. w/shield, 22 AWG

3-2507.099 Rev G (07/18)
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