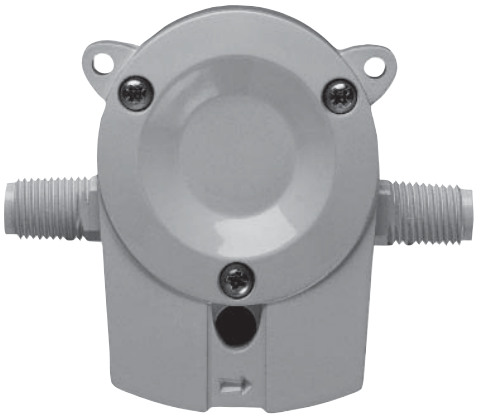
Signet 2000 Micro Flow Rotor Sensor



Features

- **Operating range 0.11 to 12.11 lpm (0.03 to 3.2 U.S. gpm)**
- **Simple mounting**
- **¼ in. NPT or ISO threads for simple pipe or tubing connection**
- **Measures opaque and transparent liquids**
- **Low pressure drop**
- **Standard cable 7.6 m (25 ft)**

The Signet 2000 Micro Flow Rotor Sensor is constructed of Polyphenylene Sulfide (PPS) which provides high material strength. The 2000 offers two flow ranges starting at 0.11 or 1.13 lpm (0.03 or 0.3 gpm), for clean process liquids, regardless of fluid color or opacity.

This sensor can be connected to flexible tubing or rigid pipe, and uses standard hardware for mounting. Only one moving part and a low pressure drop across the sensor reduces operating costs and maintenance requirements.

Applications

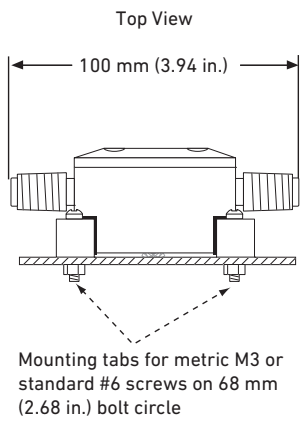
- **Coolant Flow**
- **Dosing**
- **Batch Dispensing**
- **Not recommended for Strong Oxidizers**

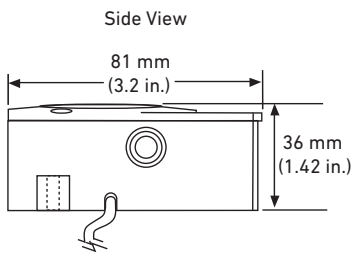
Specifications

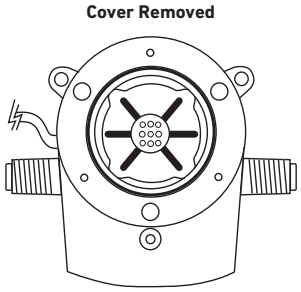
General			
Operating Range	-11 & -12 version	0.11 to 2.6 lpm	0.03 to 0.7 U.S. gpm
	-21 & -22 version	1.13 to 12.11 lpm	0.3 to 3.2 U.S. gpm
Linearity	±1.2% of full range		
Repeatability	±0.5% of full range		
Connections	¼ in. NPT (male) or ISO 7/1 - R1/4 (male)		
Wetted Materials			
Sensor Body and Cover	40% glass filled Polyphenylene Sulfide (PPS)		
Rotor	PEEK®, natural, unfilled		
Cover O-ring	FKM		
Electrical			
Power	5 to 24 VDC ±10%, regulated, 10 mA max.		
Output Type	Open-collector, sinking, 20 mA max.		
Cable Length	7.6 m (25 ft), can be extended up to 300 m (1,000 ft)		
Cable Type	2-conductor twisted pair w/shield, 22 AWG		
Max. Temperature/Pressure Rating			
	0 °C to 80 °C @ 5.5 bar max.	32 °F to 176 °F @ 80 psi max.	
Shipping Weight			
	0.03 kg	0.7 lb	
Standards and Approvals			
	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







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 2000 Flow Sensor		
Flexible tubing or rigid pipe (customer supplied)		

All sold separately

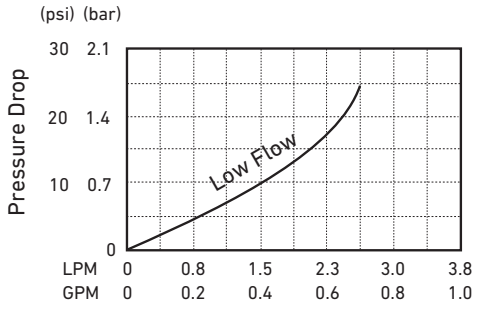
Application Tips

- For use in clean fluids - no suspended solids.
- Use the mounting tabs to secure the sensor to a flat horizontal surface, ±30°.
- Verify chemical compatibility before installation.

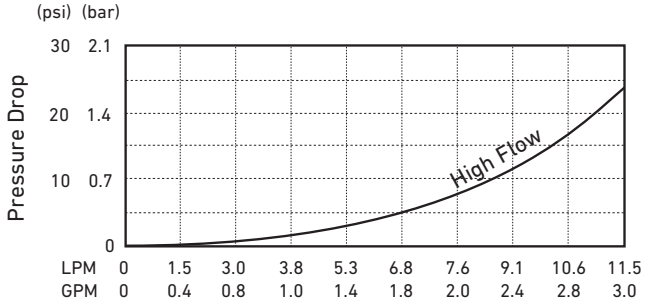
Temperature/Pressure Graphs

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.

Low Flow

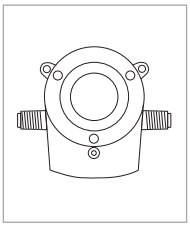


High Flow



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

Ordering Information



Mfr. Part No.	Code	Flow Range	End Fittings
Micro Flow Rotor Flow Sensor			
3-2000-11	**198 822 000**	Low flow, 0.11 to 2.61 lpm (0.03 to 0.7 gpm)	¼ NPT threads
3-2000-12	**198 822 001**	Low flow, 0.11 to 2.61 lpm (0.03 to 0.7 gpm)	ISO 7/1-R1/4 threads
3-2000-21	**198 822 002**	High flow, 1.13 to 12.11 lpm (0.3 to 3.2 gpm)	¼ NPT threads
3-2000-22	**198 822 003**	High flow, 1.13 to 12.11 lpm (0.3 to 3.2 gpm)	ISO 7/1-R1/4 threads

Accessories and Replacement Parts

Mfr. Part No.	Code	Description
3-2000.390	**159 000 248**	Replacement rotor kit
1220-0029	**198 820 049**	Cover O-ring
2450-0620	**198 820 051**	Cover screw, each
5523-0222	**159 000 392**	Cable (per foot), 2 cond. w/shield, 22 AWG
3-8050-1	**159 000 753**	Universal junction box

3-2000.099 Rev H (07/18)
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