

# Signet 2000 MicroFlow Rotor Sensor



## Features

- Flow rate range  
0.11 to 12.11 lpm  
(0.03 to 3.2 U.S. gpm)
- Simple Mounting
- 1/4 in. NPT or ISO  
threads for simple  
pipe or tubing con-  
nection
- Measures opaque  
and transparent  
liquids
- Low pressure drop
- Standard cable  
7.6 m (25 ft.)

## Applications

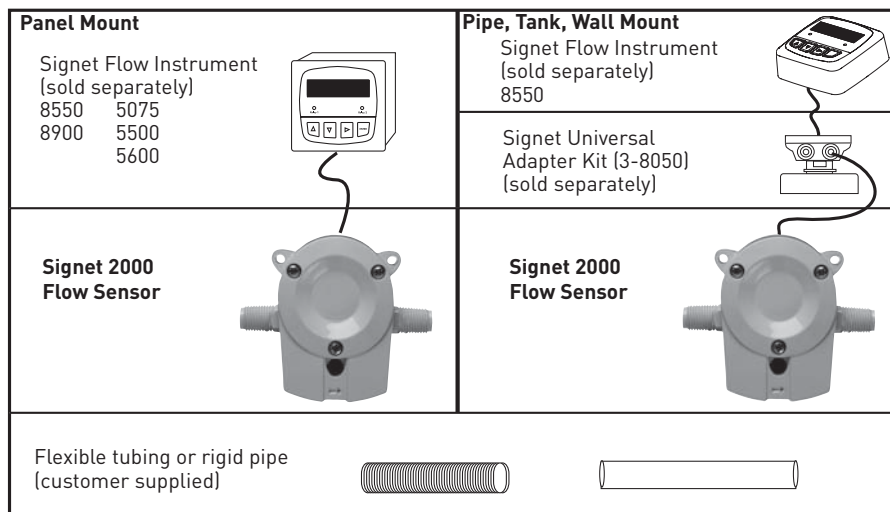
- Coolant Flow
- Dosing
- Batch Dispensing
- **Not recommended  
for strong oxidizers**

## Description

The Signet 2000 MicroFlow 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.

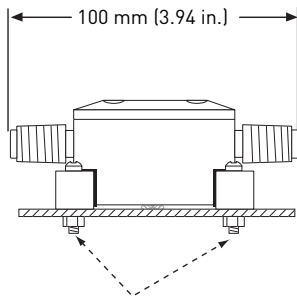
## System Overview





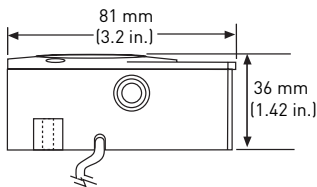
## Dimensions

Top View

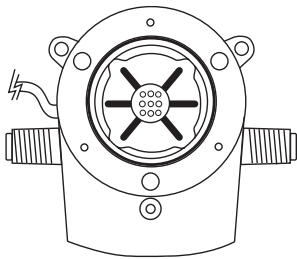


Mounting tabs for metric M3 or standard #6 screws on 68 mm (2.68 in.) bolt circle

Side View



Cover Removed



### Application Tips:

- For use in clean fluids - no suspended solids.
- Use the mounting tabs to secure the sensor to a flat surface,  $\pm 30^\circ$ .
- Verify chemical compatibility before installation.

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

## Specifications

### General

Flow rate 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:  $\pm 1.2\%$  of full range

Repeatability:  $\pm 0.5\%$  of full range

Connections: 1/4 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
- Rotor O-ring: FPM
- Cover O-ring: FPM

### Electrical

Power:

5 to 24 VDC @ 10 mA max.

Output type:

Open-collector NPN transistor,  
10 mA max. sink

Cable length: 7.6 m (25 ft), can splice up to 300 m (1000 ft)

Cable type:

2-conductor twisted pair w/shield,  
22 AWG

### Max. Pressure/Temperature Rating:

0° to 80°C @ 5.5 bar max.

(32° to 176°F @ 80 psi max.)

See Temperature and Pressure Graphs for more information

**Shipping Weight:** 0.3 kg (0.7 lbs.)

### Standards and Approvals

- Manufactured under ISO 9001:2000 for Quality and ISO 14001:2004 for Environmental Management

## Ordering Information

Sensor Part Number				
<b>3-2000</b>	MicroFlow rotor flow sensor			
↓	Flow range			
	<b>1</b>	low flow, 0.11 to 2.61 lpm (0.03 to 0.7 gpm)		
	<b>2</b>	high flow, 1.13 to 12.11 lpm (0.3 to 3.2 gpm)		
	↓	End fittings		
		<b>1</b>	0.25 NPT threads	
		<b>2</b>	ISO 7/1-R1/4 threads	
<b>3-2000</b>	<b>-1</b>	<b>1</b>	<b>Example Part Number</b>	

Mfr. Part No.	Code	Mfr. Part No.	Code
3-2000-11	<b>198 822 000</b>	3-2000-21	<b>198 822 002</b>
3-2000-12	<b>198 822 001</b>	3-2000-22	<b>198 822 003</b>

## Accessories and Replacement Parts

Mfr. Part No.	Code	Description
3-2000.390	<b>159 000 248</b>	Replacement rotor kit
1220-0029	<b>198 820 049</b>	Cover O-ring
2450-0620	<b>198 820 051</b>	Cover screw
5523-0222	<b>159 000 392</b>	Cable, per foot