



Standard Sensor  
(with blue cap)

Integral Sensor

Wet-Tap Sensor

Simple to install with time-honored reliable performance, Signet 2536 Rotor-X Paddlewheel Flow Sensors are highly repeatable, rugged sensors that offer exceptional value with little or no maintenance. The Model 2536 has a process-ready open collector signal with a wide dynamic flow range of 0.1 to 6 m/s (0.3 to 20 ft/s). The sensor measures liquid flow rates in full pipes and can be used in low pressure systems.

The Signet 2536 sensors are offered in a variety of materials for a wide range of pipe sizes and insertion configurations. The many material choices including PP and PVDF make this model highly versatile and chemically compatible to many liquid process solutions. Sensors can be installed in DN15 to DN900 (½ to 36 in.) pipes using Signet's comprehensive line of custom fittings. These custom fittings, which include tees, saddles, and weldolets, seat the sensor to the proper insertion depth into the process flow. The sensors are also offered in configurations for wet-tap installation requirements.

## Features

- Operating range 0.1 to 6 m/s (0.3 to 20 ft/s)
- Wide turndown ratio of 66:1
- Open-collector output
- Highly repeatable output
- Simple, economical design
- Installs into pipe sizes DN15 to DN900 (½ to 36 in.)
- High resolution and noise immunity
- Test certificate included for -X0, -X1
- Chemically resistant materials



## Applications

- Pure Water Production
- Filtration Systems
- Chemical Production
- Liquid Delivery Systems
- Pump Protection
- Scrubber/Gas Stacks
- Gravity Feed Lines
- Not suitable for gases

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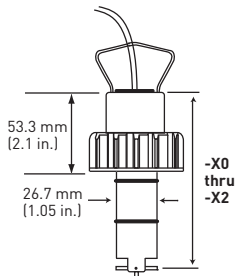
# Specifications

<b>General</b>			
Operating Range	0.1 to 6 m/s	0.3 to 20 ft/s	
Pipe Size Range	DN15 to DN900	½ to 36 in.	
Linearity	±1% of max. range @ 25 °C [77 °F]		
Repeatability	±0.5% of max. range @ 25 °C [77 °F]		
Min. Reynolds Number Required	4500		
<b>Wetted Materials</b>			
Sensor Body	Glass-filled PP (black) or PVDF (natural)		
O-rings	FPM (std) optional EPR (EPDM) or FFPM		
Rotor Pin	Titanium, Hastelloy-C or PVDF; optional Ceramic, Tantalum or Stainless Steel		
Rotor	Black PVDF or Natural PVDF; optional Tefzel®, with or w/o carbon fiber reinforced PTFE sleeve for rotor pin		
<b>Electrical</b>			
Frequency	49 Hz per m/s nominal	15 Hz per ft/s nominal	
Supply Voltage	5 to 24 VDC ±10%, regulated		
Supply Current	<1.5 mA @ 3.3 to 6 VDC	<20 mA @ 6 to 24 VDC	
Output Type	Open collector, sinking 10 mA max.		
Cable Type	2-conductor twisted pair with shield, 22 AWG		
Cable Length	7.6 m (25 ft) can be extended up to 305 m (1000 ft) maximum		
<b>Max. Temperature/Pressure Rating - Standard and Integral Sensor</b>			
	PP	12.5 bar @ 20 °C	180 psi @ 68 °F
		1.7 bar @ 85 °C	25 psi @ 185°F
	PVDF	14 bar @ 20 °C	200 psi @ 68 °F
		1.7 bar @ 85 °C	25 psi @ 185 °F
Operating Temperature			
	PP	-18 °C to 85 °C	0 °F to 185 °F
	PVDF	-18 °C to 85 °C	0 °F to 185 °F
<b>Max. Temperature/Pressure Rating - Wet-Tap Sensor</b>			
	PP	7 bar @ 20 °C	100 psi @ 68 °F
		1.4 bar @ 66 °C	20 psi @ 150 °F
Operating Temperature	-18 °C to 66 °C		0 °F to 150 °F
Max. Wet-Tap Sensor Removal Rating	1.7 bar @ 22 °C		25 psi @ 72 °F
<b>Shipping Weight</b>			
	3-2536-X0	0.454 kg	1.00 lb
	3-2536-X1	0.476 kg	1.05 lb
	3-2536-X2	0.680 kg	1.50 lb
	3-2536-X3	0.780 kg	1.72 lb
	3-2536-X4	0.800 kg	1.76 lb
	3-2536-X5	0.880 kg	1.94 lb
	3-8512-X0	0.35 kg	0.77 lb
	3-8512-X1	0.37 kg	0.81 lb
<b>Standards and Approvals</b>			
	CE		
	RoHS compliant, China RoHS		
	Manufactured under ISO 9001 for Quality and ISO 14001 for Environmental Management		

See Temperature and Pressure Graphs for more information

# Dimensions

## Standard Mount

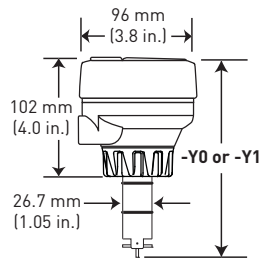


### Pipe range

<b>0.5 to 4 in.</b>	-X0 = 104 mm (4.1 in.)
<b>5 to 8 in.</b>	-X1 = 137 mm (5.4 in.)
<b>10 in. and up</b>	-X2 = 213 mm (8.4 in.)

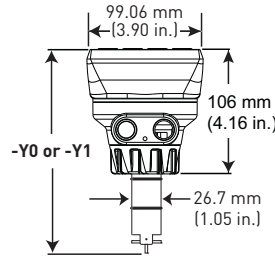
## Integral Mount

(shown with Transmitter sold separately)



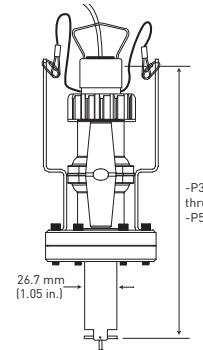
### Pipe range

<b>0.5 to 4 in.</b>	-Y0 = 152 mm (6.0 in.)
<b>5 to 8 in.</b>	-Y1 = 185 mm (7.3 in.)



## Wet-Tap Mount Sensor with 3519 Wet-Tap Valve

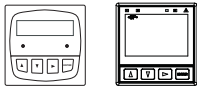




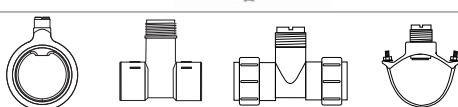
(See 3519 product page for more information).



### Pipe range

<b>0.5 to 4 in.</b>	-P3 = 297 mm (11.7 in.)
<b>5 to 8 in.</b>	-P4 = 333 mm (13.1 in.)
<b>10 in. and up</b>	-P5 = 409 mm (16.1 in.)

System Overview

Panel Mount	Field Mount - Pipe, Tank, Wall	Integral Mount
Signet Instruments 5090 5600 8550 8900 9900 	Signet Instruments 8550 9900 with 3-8050 Universal Mount Kit 	Signet Instruments 8550 9900 with 3-8051-X Integral Mount Kit 
<b>Signet 2536 Standard or Wet-Tap Flow Sensor</b> 	<b>Signet 8512 Integral Mount Flow Sensor</b> 	
Signet Fittings 		

All sold separately

For overview of Wet-Tap System, see 3519 product page

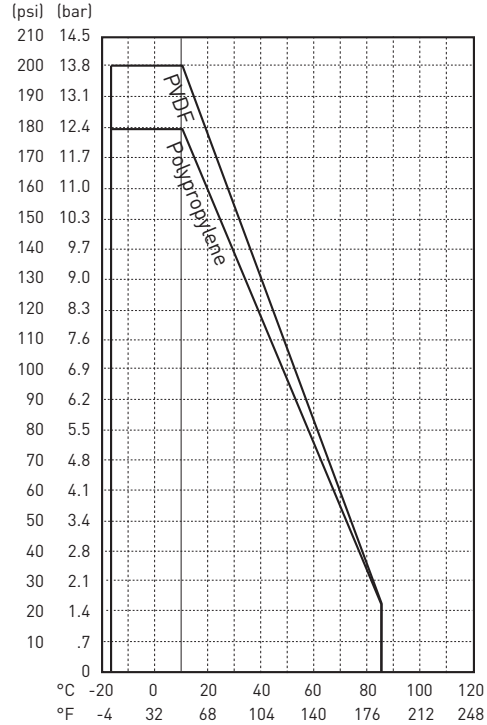
## Application Tips

- Use the Conduit Adapter Kit to protect the cable-to-sensor connection when used in outdoor environments. See Accessories section for more information.
- Use a sleeved rotor in abrasive liquids to reduce wear.
- Sensor plug can be used to plug installation fitting after extraction of sensor from pipe.
- For liquids containing ferrous particles, use Signet Magmeters.
- For systems with components of more than one material, the maximum temperature/pressure specification must always be referenced to the component with the lowest rating.

# Operating 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.



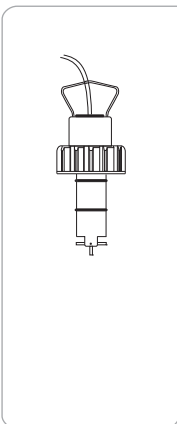
**Ordering Notes**

- 1) Most common part number combinations shown. For all other combinations contact factory.
- 2) Other rotor and pin materials are available for purchase from the factory and can be easily replaced in the field. See Accessories section.

**Ordering Information**

**Model 2536 Standard Mount Paddlewheel**

When choosing this style of sensor, the instrument can be mounted nearby on a pipe or wall or in a remote location up to 305 m (1000 ft) by connecting the sensor through a standard 3-8050-1 universal junction box. Standard cable length is 7.6 m (25 ft). Use Signet fittings for proper seating of the sensor into the process flow.

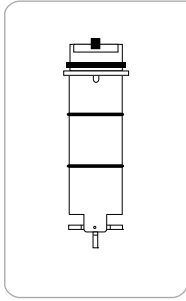


Mfr. Part No.	Code	Body	Rotor	Pin Material
Flow Sensor for use with remote mount instrument				
DN15 to DN100 - ½ to 4 in.				
3-2536-P0	<b>198 840 143</b>	Polypropylene	Black PVDF	Titanium
3-2536-T0	<b>198 840 149</b>	Natural PVDF	Natural PVDF	Natural PVDF
3-2536-V0	<b>198 840 146</b>	Natural PVDF	Natural PVDF	Hastelloy-C
DN125 to DN 200 - 5 to 8 in				
3-2536-P1	<b>198 840 144</b>	Polypropylene	Black PVDF	Titanium
3-2536-V1	<b>198 840 147</b>	Natural PVDF	Natural PVDF	Hastelloy-C
DN250 - DN900 - 10 to 36 in.				
3-2536-P2	<b>198 840 145</b>	Polypropylene	Black PVDF	Titanium

## Ordering Information (continued)

### Model 2536 Integral Mount Paddlewheel

When choosing this style of sensor, the instrument is mounted directly onto the sensor for a local display. See guidelines below for instructions.



Mfr. Part No.	Code	Body	Rotor	Pin Material
Flow sensor for integral mounting on the 8150 or 8550 instrument using the 3-8051-X Flow Sensor Integral Mount Kit (sold separately)				
DN15 to DN100 - ½ to 4 in.				
3-8512-P0	<b>198 864 513</b>	Polypropylene	Black PVDF	Titanium
3-8512-T0	<b>198 864 518</b>	Natural PVDF	Natural PVDF	Natural PVDF
3-8512-V0	<b>198 864 516</b>	Natural PVDF	Natural PVDF	Hastelloy-C
DN125 to DN200 - 5 to 8 in. (PP only)				
3-8512-P1	<b>198 864 514</b>	Polypropylene	Black PVDF	Titanium

\*\*Natural PVDF available ½ in. to 4 in. only

### Guidelines: Combining a 2536 integral mount flow sensor with an integrally mounted instrument

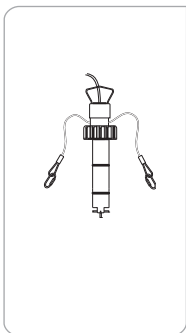
#### Option 1

Once an integral mount sensor is chosen, it can be mounted directly to a field mount transmitter by following these guidelines:

- a) Order the 3-8051-X flow sensor integral mounting kit (sold separately) to connect the sensor to an instrument.
- b) Order a field mount transmitter (sold separately). The following part numbers are compatible: 3-8550-1, 3-8550-2, 3-8550-3, 3-9900-1.
- c) Assembling the sensor with the integral adapter and instrument is quick and simple.

### Model 2536 Wet-Tap Mount Paddlewheel Flow Sensor

When choosing this style of sensor, the instrument can be mounted nearby on a pipe or wall or in a remote location up to 305 m (1000 ft) by connecting the sensor through a standard 3-8050-1 universal junction box. Standard cable length is 7.6 m (25 ft). This style of sensor uses the 3519 Wet-Tap valve only (see individual product page for more information).



Mfr. Part No.	Code	Body	Rotor	Pin Material
Flow Sensor for wet-tap mounting with the 3519 Wet-Tap Valve (sold separately)				
DN15 to DN100 - ½ to 4 in.				
3-2536-P3	<b>159 000 758</b>	Polypropylene	Black PVDF	Titanium
DN125 to DN200 - 5 to 8 in.				
3-2536-P4	<b>159 000 759</b>	Polypropylene	Black PVDF	Titanium
DN250 to DN900 - 10 to 36 in.				
3-2536-P5	<b>159 000 760</b>	Polypropylene	Black PVDF	Titanium

### Guideline: Combining a 2536 Wet-Tap Sensor with a 3519 Wet-Tap Valve

- a) Once a sensor is chosen, it can be mounted in a 3519 Wet-Tap Valve (sold separately)
- b) Assembling a sensor with a 3519 Wet-Tap valve is quick and simple. These parts can also be ordered as complete assemblies. See 3519 product page.

#### \*Model 2536 Ordering Notes

- 1) Other rotor and pin materials are available for purchase from the factory and can be easily replaced in the field. See Accessories section.

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

Mfr. Part No.	Code	Description
<b>Rotors</b>		
3-2536.320-1	<b>198 820 052</b>	Rotor, PVDF Black
3-2536.320-2	<b>159 000 272</b>	Rotor, PVDF Natural
3-2536.320-3	<b>159 000 273</b>	Rotor, Tefzel®
3-2536.322-1	<b>198 820 056</b>	Sleeved rotor, PVDF Black
3-2536.322-2	<b>198 820 057</b>	Sleeved rotor, PVDF Natural
3-2536.322-3	<b>198 820 058</b>	Sleeved rotor, Tefzel®
<b>Rotor Pins</b>		
M1546-1	<b>198 801 182</b>	Pin, Titanium
M1546-2	<b>198 801 183</b>	Pin, Hastelloy-C
M1546-3	<b>198 820 014</b>	Pin, Tantalum
M1546-4	<b>198 820 015</b>	Pin, Stainless Steel
P51545	<b>198 820 016</b>	Pin, Ceramic
<b>O-Rings</b>		
1220-0021	<b>198 801 000</b>	O-ring, FPM (2 required per sensor)
1224-0021	<b>198 820 006</b>	O-ring, EPR (EPDM) (2 required per sensor)
1228-0021	<b>198 820 007</b>	O-ring, FFPM (2 required per sensor)
<b>Miscellaneous</b>		
P31536	<b>198 840 201</b>	Sensor plug, Polypropylene
P31542-3	<b>159 000 464</b>	Sensor cap, Blue
P31934	<b>159 000 466</b>	Conduit cap
P51589	<b>159 000 476</b>	Conduit adapter kit
5523-0222	<b>159 000 392</b>	Cable (per foot), 2 cond. w/shield, 22 AWG
3-2536.321	<b>198 820 054</b>	PVDF natural, rotor kit
3-8050	<b>159 000 184</b>	Universal mount kit
3-8050.390-3	<b>159 310 116</b>	Retaining nut replacement kit, NPT, PP
3-8050.390-4	<b>159 310 117</b>	Retaining nut replacement kit, NPT, PVDF
3-8050.390-1	<b>159 001 702</b>	Retaining nut replacement kit, NPT, Valox
3-8051	<b>159 000 187</b>	Transmitter integral mount kit, NPT, Valox (for use with 8510 and 8512)
3-8051-1	<b>159 001 755</b>	Transmitter integral mount kit, NPT, PP (for use with 8510 and 8512)
3-8051-2	<b>159 001 756</b>	Transmitter integral mount kit, NPT, PVDF (for use with 8510 and 8512)
3-8050-1	<b>159 000 753</b>	Universal junction box

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