

Signet and Ultrasonic Flow Sensors

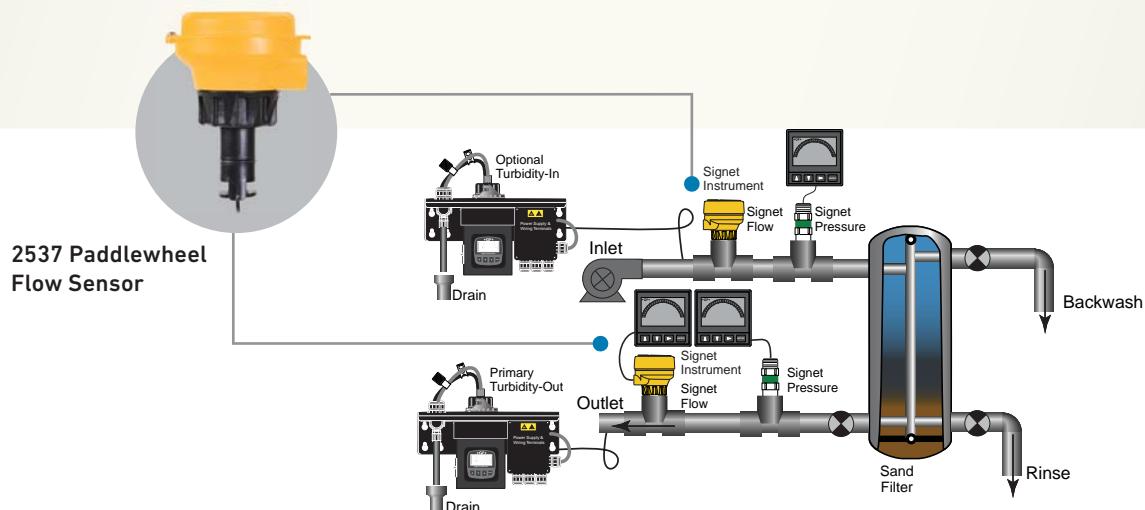
Paddlewheel, In-line Rotor,
Turbine, Magnetic, Ultrasonic



Applications

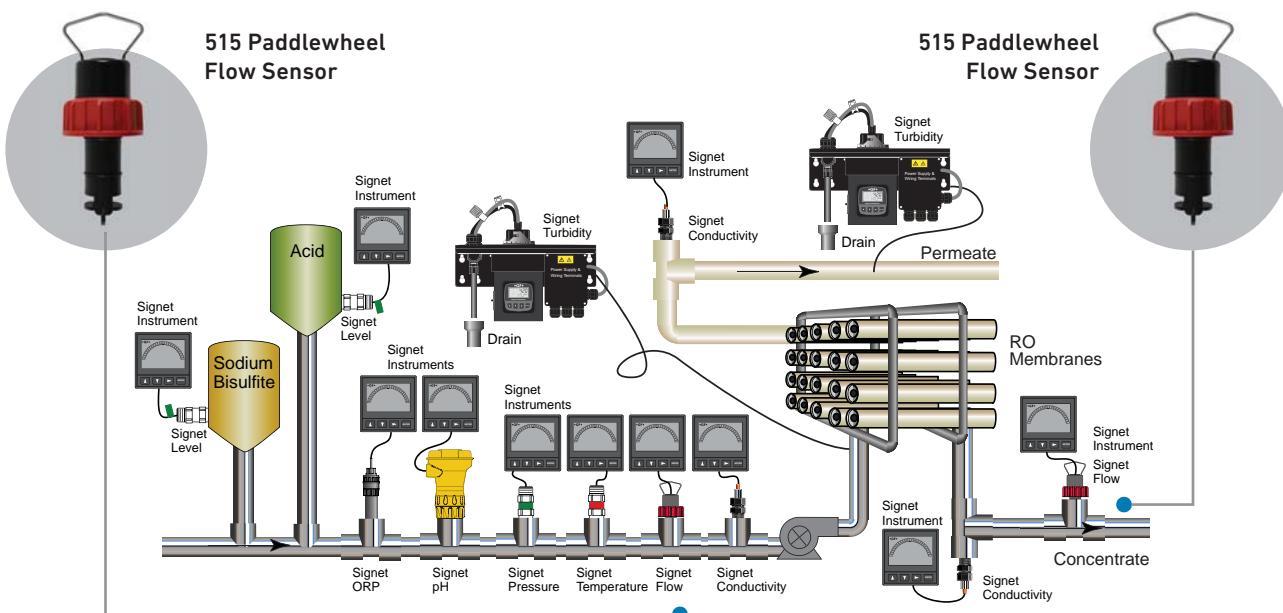
GF offers the optimal system solution behind the scenes

All GF Signet flow sensors comply with the high and specific requirements of the industry.
GF provides reliable quality systems with worldwide support, long service life and cost-efficiency.



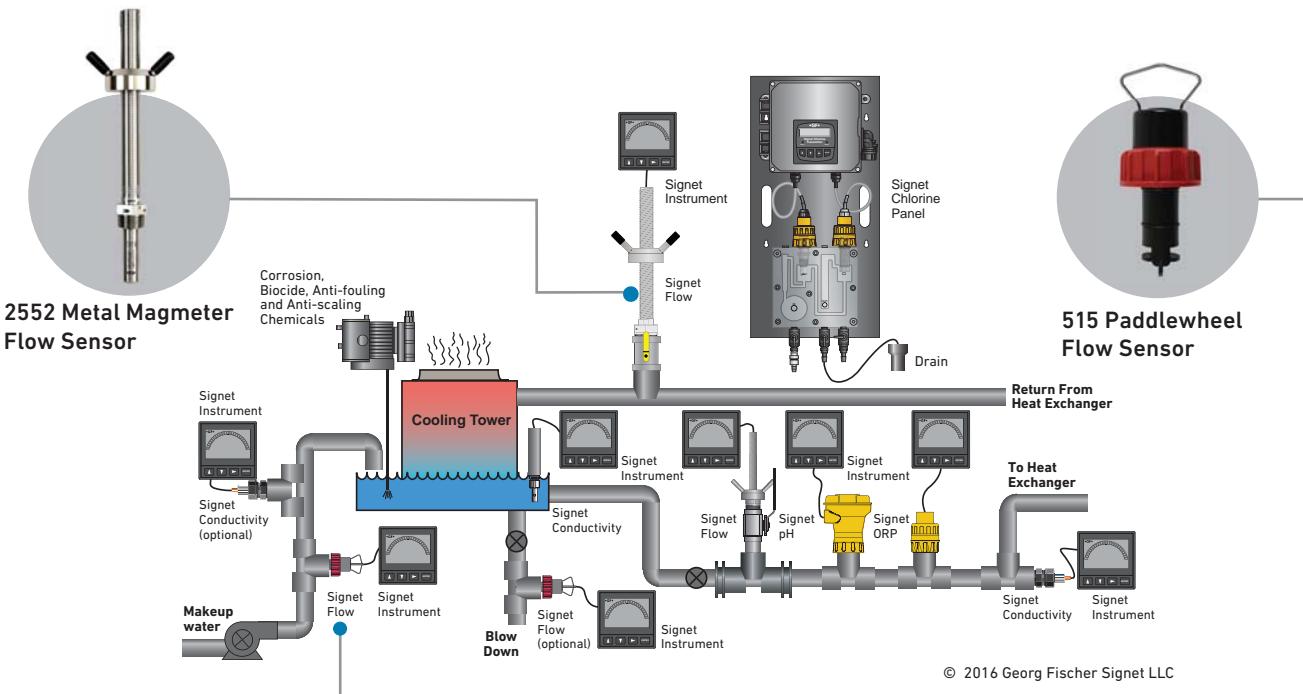
Example Application: Media Filtration

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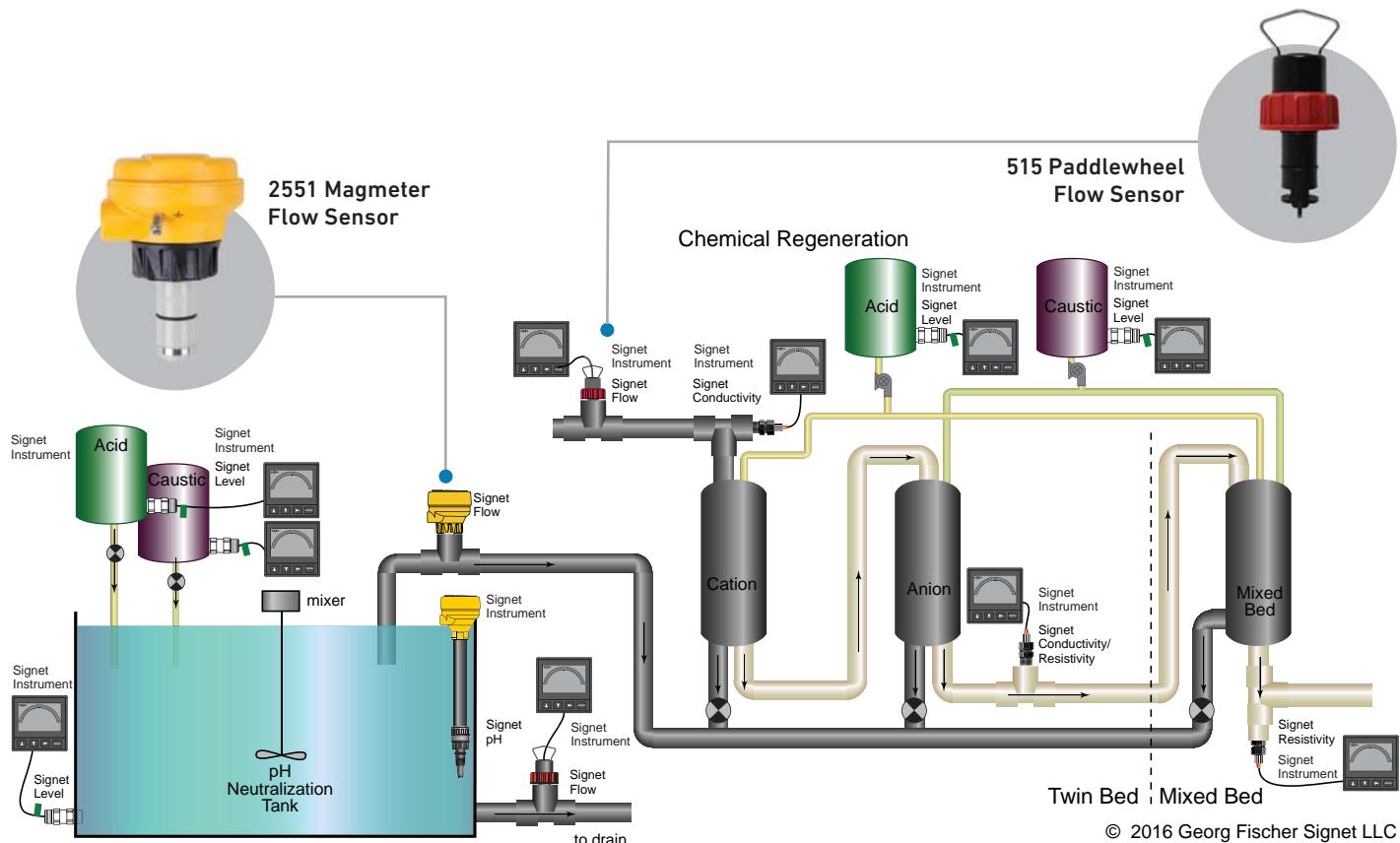


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Example Application: Reverse Osmosis



Example Application: Cooling Tower



Example Application: Deionization - Ultra-Pure water

Applications

GF flow sensors can be used in a wide variety of fluid media types.

Flow rate measurements can be conducted in media ranging from highly pure to highly contaminated, and allows a tailor made solution for almost any application in accordance with the application requirements. Refer to the charts for sensor recommendations.



+ Paddlewheel Flow

- 515
- 525
- 2536
- 2537
- 2540



+ Rotor/Turbine Flow

- 2000
- 2507
- 2100



+ Magmeter Flow

- 2551
- 2552



+ Ultrasonic Flow

- U1000
- U3000/4000
- 220/330

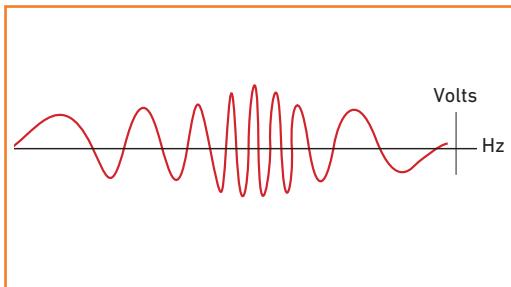
| | Paddlewheel | Ultrasonic | Turbine | Magmeter |
|------------------------------|-------------|------------|---------|----------|
| Industrial | | | | |
| Ultra-Pure | | x | | |
| DI Water | x | x | x | |
| Tap Water | x | x | x | x |
| Brackish Water | x | | x | x |
| Sea Water | x | | | x |
| Brine Water | x | | | x |
| Conductive | x | x | | x |
| Chemical Contaminants | | | | |
| Organics | x | x | x | x |
| Corrosives | x | | | x |
| Chemical Transport | x | x | x | x |
| Batch/Mix | x | x | x | |
| Waste Water | | | | |
| Particles | x | | | x |
| Fibers | | | | x |
| Municipal | | | | |
| Drinking | x | x | x | x |
| Wastewater | x | | | x |

| | 515 | 525 | 2536 | 2537 | 2540 | 2000 | 2507 | 2100 | 2551 | 2552 | U1000 | U3000 U4000 | PF220 PF330 |
|--------------------------------------|-----|-----|------|------|------|------|------|------|------|------|-------|----------------|----------------|
| Batch Process | x | | x | | | x | x | | x | | | | |
| Boiler Feedwater Monitoring | x | x | x | | | | | | | | | | |
| Chemical Dosing | | | | | | x | x | x | | | | | |
| Chemical Processing | | | | | | | | | x | x | | x | x |
| Chemical Production | x | | x | x | | | | | | | | x | x |
| Chemical Transport | | x | | | | | | | x | | | | |
| Chilled Water Metering | | | | | x | | | | x | x | x | x | |
| Clarified Effluent | | | | | x | | | | | | | | |
| Commercial Pools, Spas and Aquariums | x | | x | | x | | | | x | | | x | |
| Cooling Systems | | x | | | x | | | | x | x | | x | x |
| Demineralized Water | | | x | x | | | | | | | x | x | x |
| Fertigation | | | | | | | | x | | | | | |
| Filtration Systems | x | | x | x | | | | | | | | | |
| Fluid Dispensing | | | | | | | x | x | | | | | |
| Gravity Feed Lines | | | x | x | x | | | | | | | | |
| Ground Water Remediation | | | | | x | | | | | x | | | |
| Heat Exchangers | | x | | | | | | | | | x | | |
| High-Purity Chemical Dispensing | | | | | | | x | | | | | | |
| HVAC Systems | | x | | | x | | | | x | x | | x | |
| Hydraulic Systems | | | | | | | | | | | | x | x |
| Industrial Water Distribution | | | | | | | | x | x | | | | x |
| Irrigation | | | | | | | | x | x | | | | |
| Laboratory and Clinical Wet Benches | | | | | | x | | | | | | | |
| Leak Detection | | | | | x | | | | x | | x | x | x |
| Liquid Delivery Systems | x | | x | x | | | | | | | | | |
| Metal Recovery and Landfill Leachate | | | | | | | | x | | | | | |
| Mining Applications | | | | | | | | | x | | | | |
| Municipal Water Distribution | | | | | | | | | x | | | | |
| Neutralization Systems | x | | x | | | | | x | | | | | |
| Potable Water | | | | | | x | | | | | | | x |
| Process and Coolant Flow | | | | | | x | | | x | | x | x | x |
| Process Control | | | | | | | | | | x | x | x | x |
| Process Water Metering | x | | x | x | | | | x | | x | x | | |
| Pump Protection | x | | x | x | | | | x | | x | x | | |
| Pure Water Production | | | | | | | | | | x | x | x | |
| Reverse Osmosis | x | | x | x | | | | x | | | | | |
| River Water | | | | | | | | | | | | | x |
| Scrubber Systems | x | | x | x | | | | x | x | | | | |
| Textile Dyeing | | | | | | | x | | | | x | x | |
| Turf Irrigation | | | | | x | | | | | | | | |
| Ultra-Pure Water measurement | | | | | | | | | | x | x | x | |
| Wastewater Treatment | | | | | | | | | x | | | | |
| Water Dilution | x | | x | | | | x | x | | | | | |
| Water and Wastewater Monitoring | x | | x | x | | | | x | | | | | |
| Water Distribution | | | | | | | | | x | | | | |
| Water Process Flow | x | | x | x | x | | | x | x | | | | |
| Water/Glycol Solutions | | | | | | | | | | | x | x | |

Measuring Principals

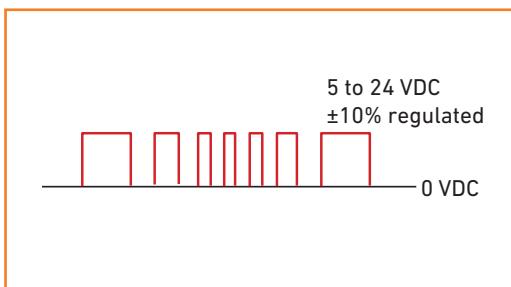
GF flow sensors have a variety of measurement types to fit your needs

All GF flow sensors belong to the broad category of velocity-based flow measurement devices. Here is a general overview. Principles of operation vary considerably. Choose the appropriate sensor for optimal flow measurement results.



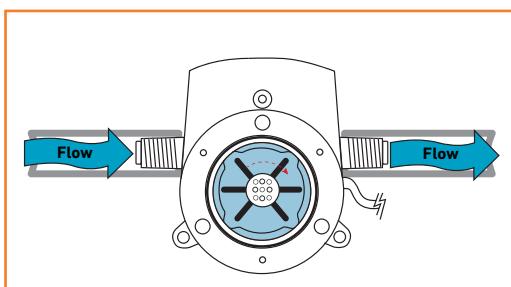
+ Sine Wave Frequency output measurements

- 515
 - 525
- Sinusoidal sensors produce a signal typical of self generating, non-powered paddlewheel sensors. The frequency and amplitude (voltage) both vary directly with flow rate.



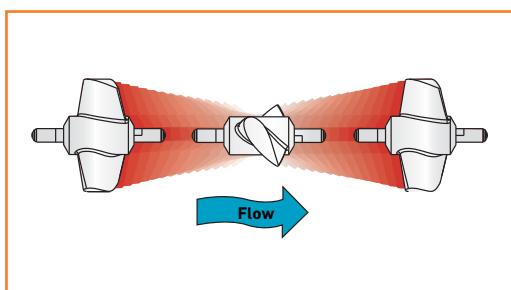
+ Open Collector frequency output measurements

- 2536
 - 2540
 - 2000
 - 2100
 - 2507
 - 2537
- Open Collector sensors produce a transistor-type square wave typical of powered flow sensors with frequency output.



+ In-Line Rotor flow rate measurements

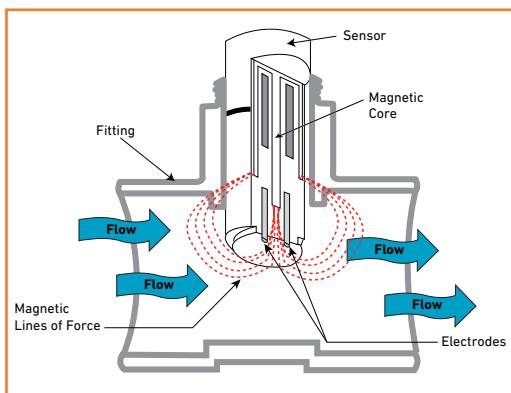
- 2000
 - 2507
- In-line rotor type sensors produce a transistor-type square wave output signal. Positioned in the flow cell, they are able to measure lower flow rates.



+ **Turbine flow rate measurements**

- 2100

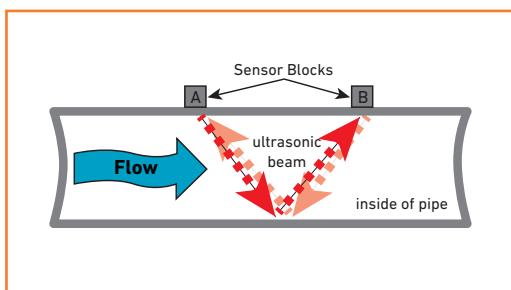
Turbine flow sensors are full-bore devices designed for low flow measurements. Similar to paddlewheels, they rely on the energy in the flow stream to spin a rotor (turbine). The difference is the shaft is in the center of, and parallel to, the flow stream. The velocity of the liquid spins the turbine for detection by external electronic circuitry, producing a transistor-type square wave with a frequency directly proportional to the flow rate.



+ **Magnetic inductive flow rate measurements**

- 2551
- 2552

Electromagnetic flow sensors operate on Faraday's principle of electromagnetic induction, and have no moving parts. As a conductive fluid ($>20\mu\text{S}$) moves through the magnetic field produced at the sensor tip, a voltage occurs that is directly proportional to the fluid velocity. Internal electronics then convert this voltage to a frequency and/or 4 to 20 mA output.



+ **Ultrasonic clamp-on flow rate measurements**

- U1000
- U3000
- U4000
- PF220
- PF330

Ultrasonic flow meters work on the basis of the Transit Time principle of ultrasonic sound in liquid media. Two transducers send and receive ultrasonic bursts into the pipe up and down stream the of flow. Depending on the flow velocity there is a noticeable time difference between the up and down stream signal. The difference is proportional to the actual flow rate.

Performance Data



515 Paddlewheel Flow Sensor



| | | |
|-----------------------|---|--|
| Sensor type | 515 insertion paddlewheel | |
| Operating range m/s | 0.3 - 6 m/s | |
| Accuracy | n/a | |
| Repeatability | ± 0.5% of max. range | |
| Linearity | ± 1% of max. range | |
| Frequency | 19.7 Hz per m/s nominal | |
| Pipe size range | 0.5 in. - 36 in. | |
| Supply voltage | None | |
| Source impedance | 8 KΩ | |
| Sensor body | PP, PVDF | |
| Rotor | PVDF, ETFE | |
| Rotor pin | Titanium, Hastelloy-C, Natural PVDF, Ceramic, Stainless Steel, Tantalum | |
| O-ring | FPM, EPDM, FFFP | |
| Operating temperature | PP: -18 °C - 90 °C PVDF: -18 °C - 100 °C | |
| Operating pressure | PP: 12.5 bar @ 20 °C PP: 1.7 bar @ 90 °C | PVDF: 14 bar @ 20 °C PVDF: 1.4 bar @ 100 °C |
| Output | AC frequency | |
| Approvals | RoHS compliant, China RoHS, Lloyd's Register, NSF (-PX version only) | |

525 Paddlewheel Flow Sensor



| Specifications | | |
|-----------------------|---------------------------------------|--|
| Sensor type | 525 insertion paddlewheel | |
| Operating range m/s | 0.5 - 6 m/s | |
| Accuracy | n/a | |
| Repeatability | ± 0.5% of max range | |
| Linearity | ± 1% of max range | |
| Frequency | 39 Hz per m/s nominal | |
| Pipe size range | 0.5 in. - 12 in. | |
| Supply voltage | None | |
| Source impedance | 11.6 KΩ | |
| Sensor body | SS 316 | |
| Rotor | 17-4PH-1 Stainless Steel | |
| Rotor pin | Tungsten Carbide, Stainless Steel 316 | |
| Operating temperature | -18 °C - 149 °C | |
| Operating pressure | 103 bar @ 149 °C | |
| Approvals | RoHS compliant, China RoHS | |

2536 Paddlewheel Flow Sensor



Specifications

| | |
|-----------------------|--|
| Sensor type | 2536 insertion paddlewheel |
| Operating range m/s | 0.1 - 6 m/s |
| Accuracy | n/a |
| Repeatability | ± 0.5% of max. range |
| Linearity | ± 1% of max. range |
| Frequency | 49 Hz per m/s nominal |
| Pipe size range | 0.5 in. - 36 in. |
| Supply voltage | 5 - 24 VDC |
| Sensor body | PP, PVDF, PVC |
| Rotor | PVDF, ETFE, PVC |
| Rotor pin | Titanium, Hastelloy-C, Natural PVDF, Ceramic, Stainless Steel, Tantalum |
| O-ring | FPM, EPDM, FFFPM |
| Operating temperature | PP: -18 °C - 85 °C PVC: 0 °C - 60 °C PVDF: -18 °C - 85 °C |
| Operating pressure | PP: 12.5 bar @ 20 °C PVC: 1.7 bar @ 85 °C PVC: 12.5 bar @ 20 °C PVC: 6.9 bar @ 60 °C PVDF: 14 bar @ 20 °C PVDF: 1.7 bar @ 85 °C |
| Approvals | CE, FCC, NSF (3-2536-PX only) |

2537 Paddlewheel Flow Sensor



Specifications

| | |
|-----------------------|---|
| Sensor type | 2537 insertion paddlewheel |
| Operating range m/s | 0.1 - 6 m/s |
| Accuracy | n/a |
| Repeatability | ± 0.5% of max. range |
| Linearity | ± 1% of max. range |
| Frequency | n/a |
| Pipe size range | 0.5 in. - 8 in. |
| Supply voltage | 5 - 24 VDC |
| Sensor body | PP, PVDF |
| Rotor | PVDF, ETFE |
| Rotor pin | Titanium, Hastelloy-C, Natural PVDF, Ceramic, Stainless Steel, Tantalum |
| O-ring | FPM, EPDM, FFFPM |
| Other | n/a |
| Operating temperature | PP: -18 °C - 90 °C PVDF: -18 °C - 100 °C |
| Operating pressure | PP: 12.5 bar @ 20 °C PP: 1.7 bar @ 90 °C PVDF: 14 bar @ 20 °C PVDF: 1.4 bar @ 100 °C |
| Output | Open collector, 4-20 mA, Digital (S3L), DCR relay, SSR relay |
| Approvals | CE, FCC, UL, NSF (3-2537-XC-PX version only) |

2540 Paddlewheel Flow Sensor



Specifications

| | |
|-----------------------|---------------------------------------|
| Sensor type | 2540 (insertion paddlewheel) |
| Operating range m/s | 0.1 - 6 m/s |
| Accuracy | n/a |
| Repeatability | ± 0.5% of max. range |
| Linearity | ± 1% of max. range |
| Frequency | 49 Hz per m/s nominal |
| Pipe size range | 1.5 in. - 36 in. |
| Supply voltage | 5 - 24 VDC |
| Sensor body | SS 316 |
| Rotor | 17-4PH-1 Stainless Steel |
| Rotor pin | Tungsten Carbide, Stainless Steel 316 |
| O-ring | FPM, EPDM |
| Other | Carbon fiber reinforced PTFE bearing |
| Operating temperature | -18 °C - 100 °C |
| Operating pressure | 17 bar @ 100 °C |
| Output | Open collector |
| Approvals | CE, FCC, RoHS compliant, China RoHS |

2551 Magmeter



- Additional features:
- Empty pipe detection
 - Bi-directional
 - Relay
 - Multi-language display version
 - Min. conductivity 20 uS/cm

Specifications

| | |
|-----------------------|--|
| Sensor type | 2551 Insertion magmeter |
| Operating range m/s | 0.05 - 10 m/s |
| Accuracy | n/a |
| Repeatability | ± 0.5% of reading |
| Linearity | ± 1% of reading |
| Pipe size range | 0.5 in. - 36 in. |
| Supply voltage | 5 - 24 VDC |
| Sensor body | PP, PVDF |
| Other | SS 316L, Hastelloy-C, Titanium |
| Operating temperature | Ambient -10 °C - 70 °C Media 0 °C - 85 °C |
| Operating pressure | 10.3 bar @ 25 °C 1.4 bar @ 85 °C |
| Output | Frequency, S ³ L, 4 to 20 mA |
| Approvals | CE, UL, CUL, RoHS compliant |

2552 Metal Magmeter



- Additional features:
- Empty pipe detection
 - Bi-directional
 - Min. conductivity 20 uS/cm

Specifications

| | |
|-----------------------|--|
| Sensor type | 2552 Insertion magmeter |
| Operating range m/s | 0.05 - 10 m/s |
| Accuracy | ± 2% of measured value |
| Repeatability | ± 0.5% of reading |
| Linearity | ± 1% of reading |
| Frequency | 5 to 6.5 VDC 15 mA maximum |
| Pipe size range | 2 in. - 102 in. |
| Supply voltage | 5 - 24 VDC |
| Sensor body | SS 316L |
| Other | PVDF |
| Operating temperature | Ambient -15 °C - 70 °C Media -15 °C - 85 °C |
| Operating pressure | 20.7 bar @ 25 °C |
| Output | Frequency, S ³ L, 4-20 mA |
| Approvals | CE, RoHS compliant |

2000 Micro Flow Sensor



- Additional features:
- Lowest flow range 110 mL/min.
 - PPS body for tough service
 - Good chemical resistance

Specifications

| | |
|-----------------------|--------------------|
| Sensor type | 2000 In-line rotor |
| Operating range m/s | 0.11 to 12.11 l/m |
| Accuracy | n/a |
| Pipe size range | 1/4 in. tubing |
| Supply voltage | 5 - 24 VDC |
| Sensor body | PPS |
| Rotor | PEEK™ |
| O-ring | FPM |
| Operating temperature | 0 °C to 80 °C |
| Operating pressure | 80 psi |
| Output | Open collector |

2507 Micro Flow Sensor



- Additional features:
- Detachable signal connector
 - Replacement inserts for different flow ranges
 - Good chemical resistance

Specifications

| | |
|-----------------------|-------------------------------------|
| Sensor type | 2507 In-line rotor |
| Operating range m/s | 0.4 to 12.0 l/m |
| Accuracy | ± 2.0% of reading |
| Repeatability | ± 0.25% of full range |
| Pipe size range | 1/4 in. tubing |
| Supply voltage | 5 - 24 VDC |
| Sensor body | PVDF |
| Rotor | PVDF |
| O-ring | FPM |
| Operating temperature | -30 °C to 120 °C |
| Operating pressure | 80 psi |
| Output | Open collector |
| Approvals | CE, FCC, RoHS compliant, China RoHS |

2100 Turbine Flow Sensor



Specifications

| | |
|-----------------------|-------------------------------------|
| Sensor type | 2100 In-line turbine |
| Operating range m/s | 0.38 to 38.0 l/m |
| Accuracy | ± 3% of reading |
| Repeatability | ± 0.5% of reading |
| Pipe size range | ¼", ⅜", ½" (tubing), ½" (piping) |
| Supply voltage | 5 ~ 24 VDC |
| Sensor body | PVDF |
| Rotor | PVDF |
| O-ring | FPM, EPDM |
| Other | Ceramic bearing |
| Operating temperature | -20 °C to 70 °C |
| Operating pressure | 130 psi |
| Output | Open collector |
| Approvals | CE, FCC, RoHS compliant, China RoHS |

U1000 Ultraflow Ultrasonic Flow Sensor



Additional features:

- Bi-directional

Specifications

| | |
|-----------------------|--|
| Sensor type | U1000 Ultrasonic Clamp-on |
| Operating range m/s | 0.1 ~ 10 m/s |
| Accuracy | ±3 % of flow reading |
| Repeatability | ±5 % of measured flow |
| Pipe size range | 1 in. - 4.5 in. |
| Supply voltage | 12 to 24 VAC or DC |
| Enclosure material | Polycarbonate |
| Keypad | 4 key tactile feedback membrane keypad |
| Operating temperature | 0 °C to 85 °C |
| Operating humidity | Max. 90% relative humidity @ 50 °C |
| Output | Analog, Pulse output |
| Approvals | CE |

U3000/U4000 Ultraflow Ultrasonic Flow Sensor



Additional features:

- Datalogger 198K data points

Specifications

| | |
|-----------------------|--|
| Sensor type | U3000-4000 Ultrasonic Clamp-on |
| Operating range m/s | 0.1 ~ 20 m/s |
| Accuracy | ±0.5% to ±3% of flow reading for Pipe ID >75 mm ±3% of flow reading Pipe ID 13 mm - 75 mm |
| Repeatability | ±0.5% of measured value or ±0.2 m/s whichever is greater |
| Pipe size range | 0.5 in. - 78 in. |
| Supply voltage | 12 - 24 VAC or DC; 86 - 264 VAC |
| Operating temperature | -20 °C to 50 °C |
| Pipe wall temperature | -20 °C to 135 °C |
| Operating humidity | Max. 90% relative humidity @ 50 °C |
| Output | 4 to 20 mA, 0 to 20 mA, 0 to 16 mA, Pulse output, 2 Alarm outputs |
| Approvals | CE |

220/330 Portaflow Portable Ultrasonic Flow Sensor



Specifications

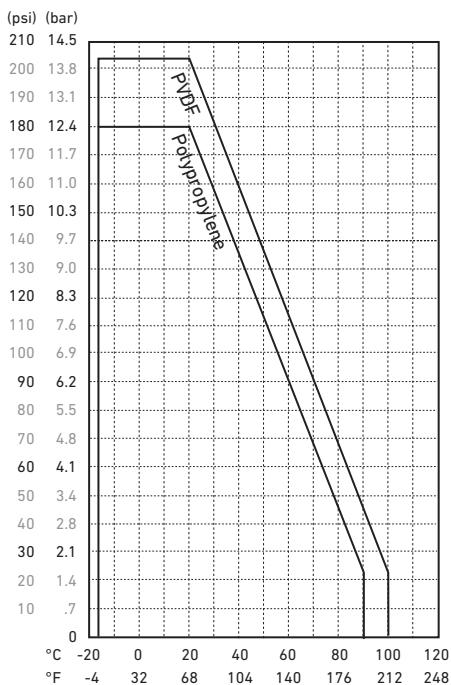
| | |
|-------------------------|--|
| Sensor type | 220/330 Ultrasonic Clamp-on |
| Operating range m/s | 0.1 ~ 20 m/s |
| Accuracy | ±0.5% to ±3% of flow reading for Pipe ID >75 mm ±3% of flow reading Pipe ID 13 mm - 75 mm |
| Repeatability | ±0.5% of measured value or ±0.2 m/s whichever is greater |
| Pipe size range | 13 mm to 2000 mm OD |
| Supply voltage | Battery power |
| Enclosure material | ABS and aluminium |
| Operating temperature | -20 °C to 50 °C |
| Pipe wall temperature | -20 °C to 135 °C |
| Output | Analog, Pulse output, USB, RS232 |
| Approvals - Electrical | UL, CUL, TUV, CB, CE |
| Approvals - Data logger | CE, RoHS compliant |

Temperature/ Pressure Graphs

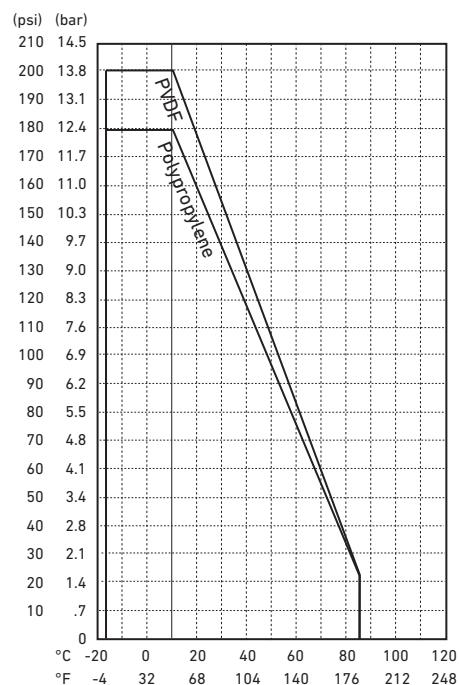
Note:

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.

515 Paddlewheel Flow Sensor

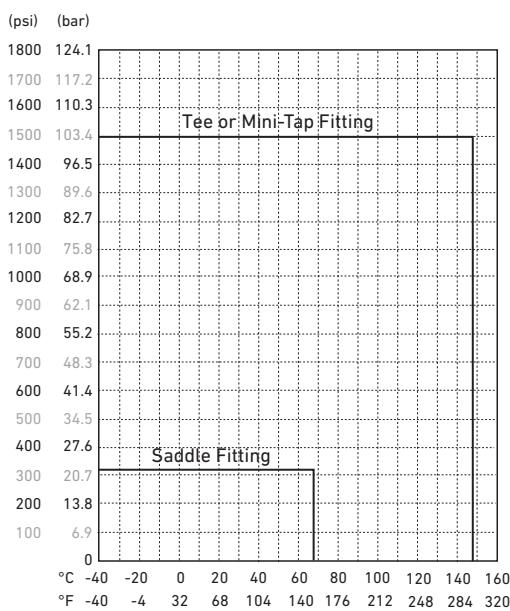


2536 & 2537 Paddlewheel Flow Sensor

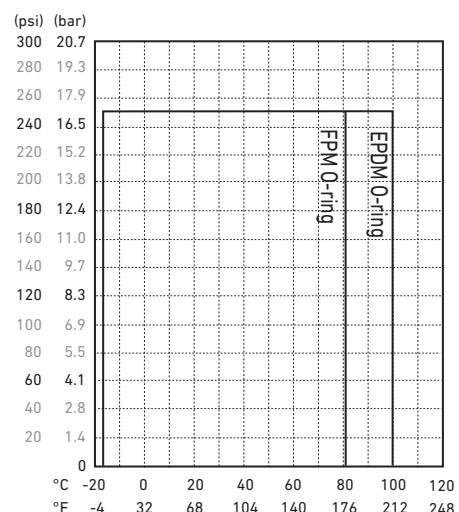


*2537 Only: Graph applies to wetted materials (sensor) only.
Maximum ambient temperature is 65°C.

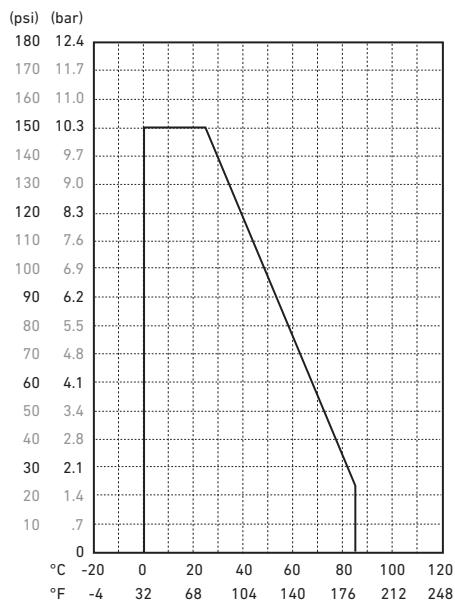
525 Paddlewheel Flow Sensor



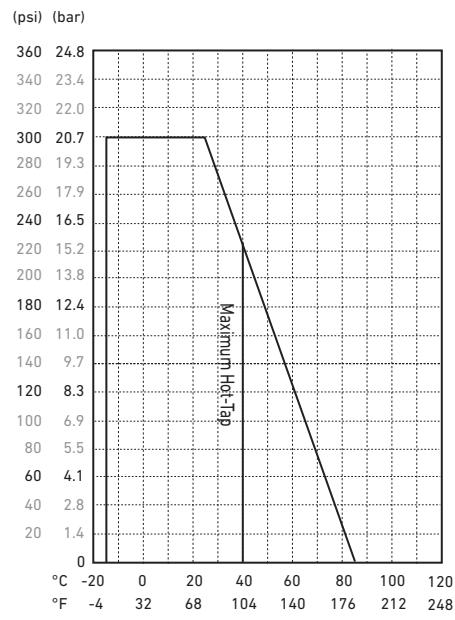
2540 Paddlewheel Flow Sensor



2551 Magmeter

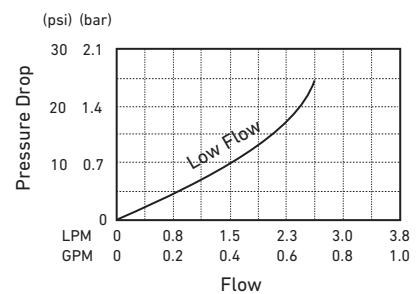


2552 Metal Magmeter

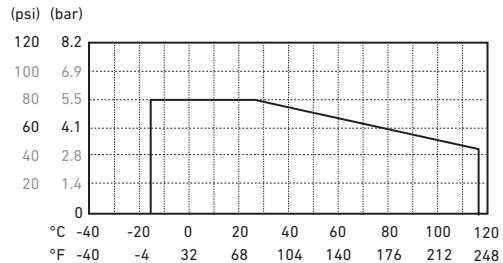


2000 Micro Flow Sensor

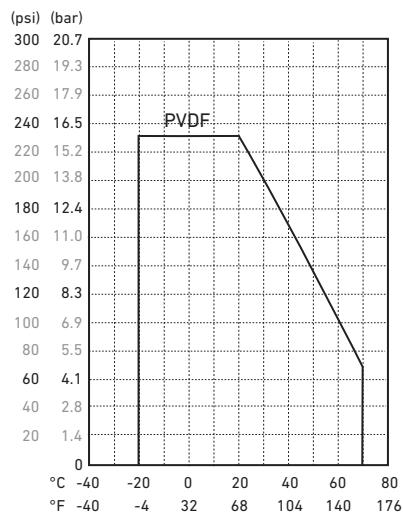
Pressure Drop - Low Flow



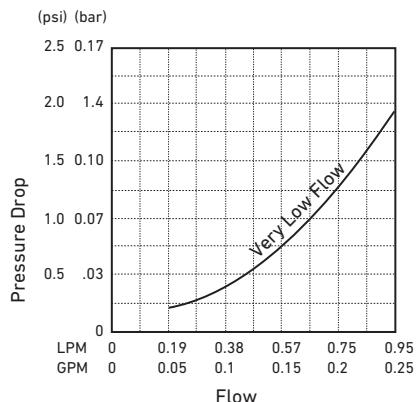
2507 Micro Flow Sensor



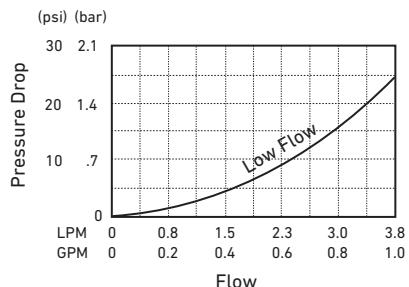
2100 Turbine Flow Sensor



Pressure Drop - Very Low Flow



Pressure Drop - Low Flow



Flow Range Charts

Paddlewheel and Electromagnetic Sensors -GPM

Signet Models 515, 525, 2536, 2537, 2540, 2551, 2552

GPM Flow Rates for DN15 to DN450 (½ in. to 18 in.) pipe sizes

| Nominal Pipe Size | | 2551/2552 | | 2536/8512/2537/2540 | | 515 and 8510 | | 525 | |
|-------------------|----------------|-----------|----------|---------------------|----------|--------------|----------|----------|---------|
| Inch | Metric DN (mm) | Min | Max | Min | Max | Min | Max | Min | Max |
| | | 0.15 ft/s | 33 ft/s | 0.3 ft/s | 20 ft/s | 1 ft/s | 20 ft/s | 1.6 ft/s | 20 ft/s |
| 0.5 | 15 | 0.14 | 31.25 | 0.28 | 18.94 | 0.95 | 18.94 | 1.52 | 18.94 |
| 0.75 | 20 | 0.25 | 54.85 | 0.50 | 33.24 | 1.66 | 33.24 | 2.66 | 33.24 |
| 1 | 25 | 0.40 | 88.89 | 0.81 | 53.88 | 2.69 | 53.88 | 4.31 | 53.88 |
| 1.25 | 32 | 0.70 | 153.84 | 1.40 | 93.24 | 4.66 | 93.24 | 7.46 | 93.24 |
| 1.5 | 40 | 0.95 | 209.40 | 1.90 | 126.91 | 6.35 | 126.91 | 10.15 | 126.91 |
| 2 | 50 | 1.57 | 345.15 | 3.14 | 209.18 | 10.46 | 209.18 | 16.73 | 209.18 |
| 2.5 | 65 | 2.24 | 492.45 | 4.48 | 298.46 | 14.92 | 298.46 | 23.88 | 298.46 |
| 3 | 80 | 3.46 | 760.39 | 6.91 | 460.84 | 23.04 | 460.84 | 36.87 | 460.84 |
| 4 | 100 | 5.95 | 1309.40 | 11.90 | 793.57 | 39.68 | 793.57 | 63.49 | 793.57 |
| 5 | 125 | 9.35 | 2057.74 | 18.71 | 1247.12 | 62.36 | 1247.12 | 99.77 | 1247.12 |
| 6 | 150 | 13.51 | 2971.57 | 27.01 | 1800.95 | 90.05 | 1800.95 | 144.08 | 1800.95 |
| 8 | 200 | 23.39 | 5145.63 | 46.78 | 3118.57 | 155.93 | 3118.57 | 249.49 | 3118.57 |
| 10 | 250 | 36.87 | 8110.73 | 73.73 | 4915.59 | 245.78 | 4915.59 | 393.25 | 4915.59 |
| 12 | 300 | 52.33 | 11512.97 | 104.66 | 6977.56 | 348.88 | 6977.56 | 558.20 | 6977.56 |
| 14 | 350 | - | - | 126.49 | 8432.82 | 421.64 | 8432.82 | - | - |
| 16 | 400 | - | - | 165.24 | 11015.97 | 550.80 | 11015.97 | - | - |
| 18 | 450 | - | - | 209.16 | 13943.74 | 697.19 | 13943.74 | - | - |

Paddlewheel and Electromagnetic Sensors - LPM

Signet Models 515, 525, 2536, 2537, 2540, 2551, 2552

LPM Flow Rates for DN15 to DN450 (½ in. to 18 in.) pipe sizes

| Nominal Pipe Size | | 2551/2552 | | 2536/8512/2537/2540 | | 515 and 8510 | | 525 | |
|-------------------|----------------|-----------------|---------------|---------------------|--------------|----------------|--------------|----------------|--------------|
| Inch | Metric DN (mm) | Min 0.05 m/s | Max 10 m/s | Min 0.1 m/s | Max 6 m/s | Min 0.3 m/s | Max 6 m/s | Min 0.5 m/s | Max 6 m/s |
| 0.5 | 15 | 0.6 | 117.6 | 1.2 | 70.6 | 3.5 | 70.6 | 5.9 | 70.6 |
| 0.75 | 20 | 1.0 | 206.4 | 2.1 | 123.9 | 6.2 | 123.9 | 10.3 | 123.9 |
| 1 | 25 | 1.7 | 334.5 | 3.3 | 200.7 | 10.0 | 200.7 | 16.7 | 200.7 |
| 1.25 | 32 | 2.9 | 579.0 | 5.8 | 347.4 | 17.4 | 347.4 | 28.9 | 347.4 |
| 1.5 | 40 | 3.9 | 788.1 | 7.9 | 472.8 | 23.6 | 472.8 | 39.4 | 472.8 |
| 2 | 50 | 6.5 | 1298.9 | 13.0 | 779.4 | 39.0 | 779.4 | 64.9 | 779.4 |
| 2.5 | 65 | 9.3 | 1853.3 | 18.5 | 1112.0 | 55.6 | 1112.0 | 92.7 | 1112.0 |
| 3 | 80 | 14.3 | 2861.7 | 28.6 | 1717.0 | 85.9 | 1717.0 | 143.1 | 1717.0 |
| 4 | 100 | 24.6 | 4927.8 | 49.3 | 2956.7 | 147.8 | 2956.7 | 246.4 | 2956.7 |
| 5 | 125 | 38.7 | 7744.2 | 77.4 | 4646.5 | 232.3 | 4646.5 | 387.2 | 4646.5 |
| 6 | 150 | 55.9 | 11183.3 | 111.8 | 6710.0 | 335.5 | 6710.0 | 559.2 | 6710.0 |
| 8 | 200 | 96.8 | 19365.3 | 193.7 | 11619.2 | 581.0 | 11619.2 | 968.3 | 11619.2 |
| 10 | 250 | 152.6 | 30524.2 | 305.2 | 18314.5 | 915.7 | 18314.5 | 1526.2 | 18314.5 |
| 12 | 300 | 216.6 | 43328.4 | 433.3 | 25997.0 | 1299.9 | 25997.0 | 2166.4 | 25997.0 |
| 14 | 350 | - | - | 523.7 | 31419.1 | 1571.0 | 31419.1 | - | - |
| 16 | 400 | - | - | 684.1 | 41043.4 | 2052.2 | 41043.4 | - | - |
| 18 | 450 | - | - | 865.9 | 51951.7 | 2597.6 | 51951.7 | - | - |

In-line Rotor and Turbine Sensors - GPM/LPM

Signet Models 2000, 2100, and 2507

GPM and LPM Flow Rates

| Model and Size | Description | GPM | | LPM | |
|---------------------------------|----------------------------|-------|--------|-------|--------|
| | | Min | Max | Min | Max |
| 3-2000-1X | Micro Flow - Low | 0.030 | 0.700 | 0.110 | 2.600 |
| 3-2000-2X | Micro Flow - High | 0.300 | 3.200 | 1.130 | 12.110 |
| 3-2100-XL and -31 Kits | Turbine Low - 1/2" Tubing | 0.100 | 1.000 | 0.380 | 3.800 |
| 3-2100-XL and -32 Kits | Turbine Low - 3/8" Tubing | 0.100 | 1.000 | 0.380 | 3.800 |
| 3-2100-XL and -33 Kits | Turbine Low - 1/4" Tubing | 0.100 | 1.000 | 0.380 | 3.800 |
| 3-2100-XL and -34 thru -38 Kits | Turbine Low - 1/2" Pipe | 0.100 | 1.000 | 0.380 | 3.800 |
| 3-2100-XH and -31 kits | Turbine High - 1/2" Tubing | 0.800 | 10.000 | 3.000 | 38.000 |
| 3-2100-XH and -34 thru -38 Kits | Turbine High - 1/2" Pipe | 0.800 | 10.000 | 3.000 | 38.000 |
| 3-2507.100-2V | Mini Flow - 2 mm Insert | 0.106 | 0.740 | 0.500 | 2.800 |
| 3-2507.100-3V | Mini Flow - 3 mm Insert | 0.198 | 1.123 | 0.750 | 4.250 |
| 3-2507.100-4V | Mini Flow - 4 mm Insert | 0.330 | 1.585 | 1.250 | 6.000 |
| 3-2507.100-6V | Mini Flow - 6 mm Insert | 0.792 | 3.170 | 3.000 | 12.000 |

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