

# S-Series

## SPT, SPX LOW FLOW METERS

# Seametrics



SPX



SPT

### APPLICATIONS

Low flow monitoring

Chemical batching

Proportional chemical injection

Fertilizer injection

### Features

- Accurate at low flows
- Simple and durable
- Compatible with a variety of chemicals
- Visual flow monitoring (SPX Only)

These versatile impeller flowmeters are available in 3/8", 1/2", 3/4", and 1" nominal pipe sizes with female NPT threads. They employ jewel bearings to allow for very low minimum flow rates and superior life.

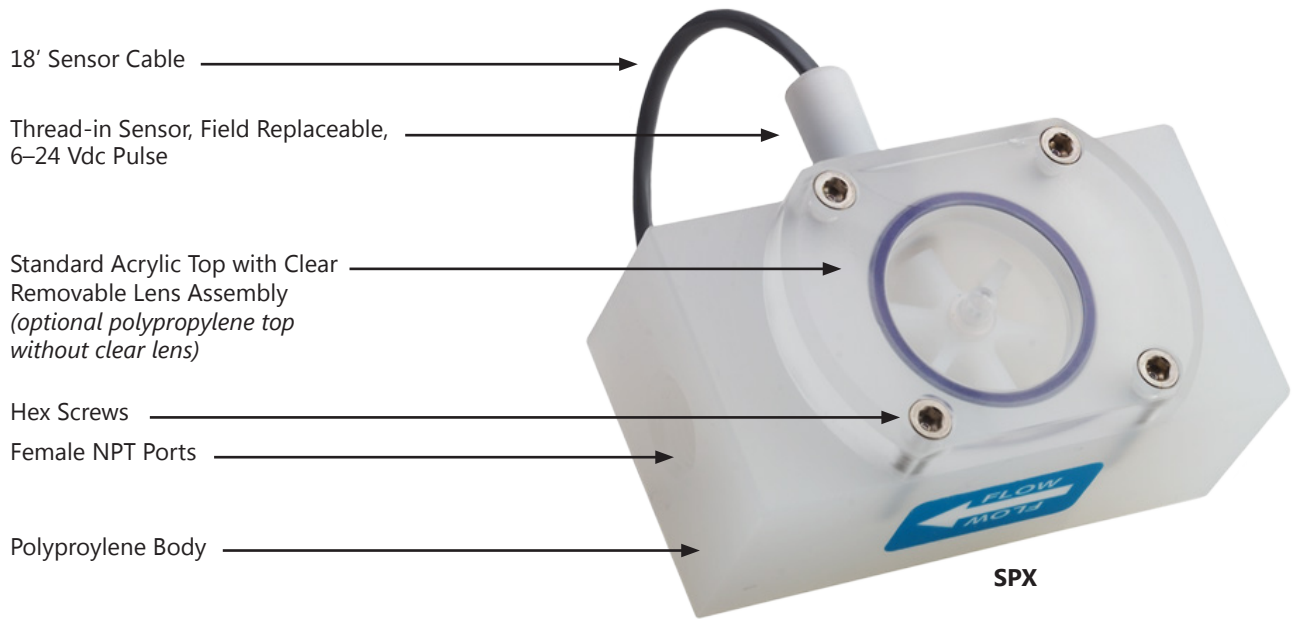
The **SPX**, with a body of polypropylene, is an economical choice for metering water or low corrosion fluids. The lens cover is available in a choice of materials: acrylic for visual flow indication of low-corrosion fluids; polypropylene when more corrosion resistance is needed. The standard rotor assembly is Kynar® with tungsten carbide shaft. The O-ring is EPDM.

The **SPT** offers greater chemical resistance with a Teflon® body and cover, Teflon®-coated Viton® O-ring, and standard Kynar®/ceramic rotor assembly.

The pulse output of these meters is compatible with many different types of controls, including a full range of Seametrics rate displays and controls. The Seametrics FT430 and FT440 provide flow rate and total flow indication. The FT440 also includes 4-20 mA output capability. The FT450 is a battery-operated rate & total display. For metering pump pacing or interfacing with low speed counters, the PD10 pulse divider is recommended. The AO55 may be used for blind 4-20 mA transmission.

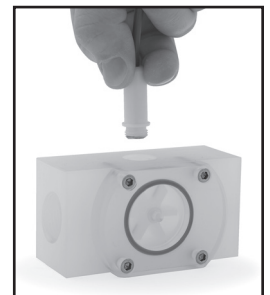
### Contact Your Supplier

**Features**

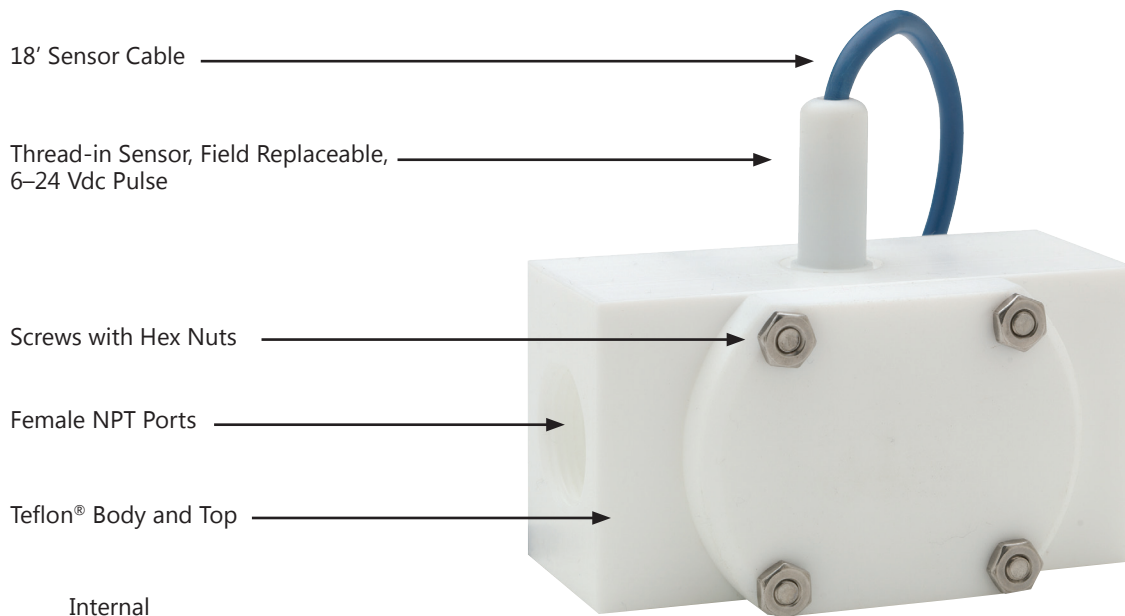


Internal

- Jewel Bearings—Ruby Ring and Ball
- Kynar®/Tungsten Carbide Rotor Assembly (*Kynar®/Ceramic or Kynar®/Silicon Carbide optional*)
- EPDM O-Ring (*Viton® or Teflon®-coated Viton® optional*)



*Field Replacement of Sensor*



Internal

- Jewel Bearings—Ruby Ring and Ball
- Kynar®/Ceramic Rotor Assembly (*Kynar®/Silicon Carbide optional*)
- Teflon®-coated Viton® O-Ring (*Viton® or EPDM optional*)

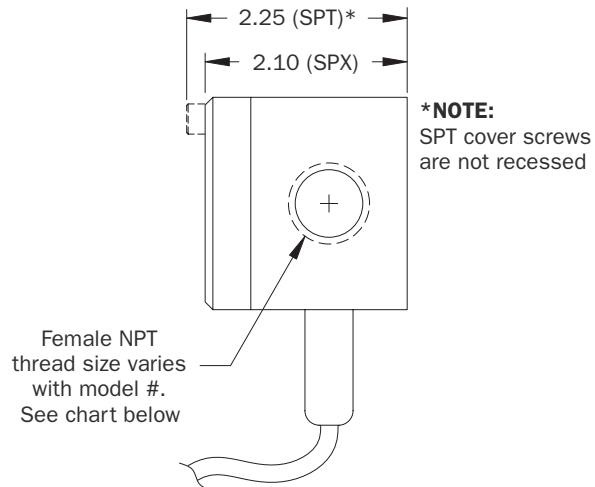
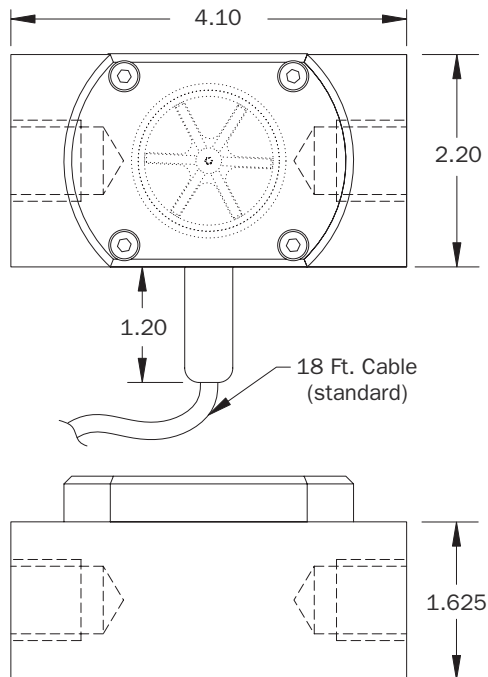
## Specifications\*

|                            |                   | SPX   | SPT  |
|----------------------------|-------------------|---|--|
| <b>Connection Ports</b>    |                   | 3/8", 1/2", 3/4", 1" —Female NPT thread                                       | 3/8", 1/2", 3/4", 1" —Female NPT thread                              |
| <b>Sensor Cable</b>        |                   | 18 ft (6 m) standard—maximum cable run 2000 ft (607 m)                        | 18 ft (6 m) standard—maximum cable run 2000 ft (607 m)               |
| <b>Materials</b>           | <b>Body</b>       | Polypropylene   | TFE Teflon®  |
|                            | <b>Rotor</b>      | PVDF (Kynar®)—2 magnet<br><i>(6 magnet high resolution optional)</i>          | PVDF (Kynar®)—2 magnet<br><i>(6 magnet high resolution optional)</i> |
|                            | <b>Shaft</b>      | Nickel tungsten carbide<br><i>(ceramic or silicon carbide optional)</i>       | Zirconia ceramic<br><i>(silicon carbide optional)</i>                |
|                            | <b>O-Ring</b>     | EDPM (Viton® or Teflon®-coated Viton® optional)                               | Teflon®-coated Viton® (Viton® or EDPM optional)                      |
|                            | <b>Bearings</b>   | Ruby ring and ball  | Ruby ring and ball   |
|                            | <b>Cover</b>      | Acrylic with clear lens<br><i>(polypropylene without clear lens optional)</i> | TFE Teflon®  |
| <b>Maximum Temperature</b> |                   | 160° F (70° C)  | 180° F (82° C)   |
| <b>Maximum Pressure</b>    |                   | 150 psi (10 bar)  | 150 psi (10 bar)   |
| <b>Accuracy</b>            |                   | ±1% of full scale   | ±1% of full scale  |
| <b>Power</b>               | <b>Standard</b>   | 6–36 Vdc, 2 mA min.   | 6–36 Vdc, 2 mA min.  |
|                            | <b>Micropower</b> | 3.1–16 Vdc (for use with FT450 and DL76 only)                                 | 3.1–16 Vdc (for use with FT450 and DL76 only)                        |
| <b>Outputs</b>             |                   | Current sinking pulse, 6–24 Vdc   | Current sinking pulse, 6–24 Vdc                                      |

\* Specifications subject to change. Please consult our website for current data ([seametrics.com](http://seametrics.com))

Kynar is a registered trademark of Arkema, Inc., Teflon and Viton are registered trademarks for DuPont Corporation

## Dimensions



| Model # | NPT Thread Size |
|---------|-----------------|
| -038    | 3/8"            |
| -050    | 1/2"            |
| -075    | 3/4"            |
| -100    | 1"              |

## How to Order

| Model                                      | Size   | Options   |  |
|--|--|---|--|
|  |  | SPX   | SPT  |
| SPX = Polypro/Acrylic<br>SPT = TFE Teflon® | -038 = 3/8" (0.07–5 gpm)<br>-050 = 1/2" (0.1–10 gpm)<br>-075 = 3/4" (0.2–20 gpm)<br>-100 = 1" (0.5–40 gpm) | -01 = Ceramic shaft<br>-04 = Micropower pickup (for use with FT450 or DL76 only)<br>-06 = Standard power, LMI 4-pin connector<br>-07 = Standard power, Seametrics control connector<br>-12 = Polypro cover<br>-13 = High resolution rotor<br>-25 = Teflon®-coated Viton® o-ring<br>-60 = Viton® o-ring<br>-68 = Silicon carbide shaft<br>-70 = SAE threads<br>-106 = Roytronic® Series A Pump 5-pin connector<br>-116 = BSP threads | -04 = Micropower pickup (for use with FT450 or DL76 only)<br>-06 = Standard power, LMI 4-pin connector<br>-07 = Standard power, Seametrics control connector<br>-13 = High resolution rotor<br>-60 = Viton® o-ring<br>-68 = Silicon carbide shaft<br>-69 = EPDM o-ring<br>-70 = SAE threads<br>-106 = Roytronic® Series A Pump 5-pin connector<br>-116 = BSP threads |

### Accessories

|   |   |
|---|---|
| FT430 = Rate and Total Indicator, DC powered      | DL76 = Data Logger  |
| FT440 = Rate and Total Indicator, loop powered    | PC3 = Plug-in Power Converter, 100–115 Vac, 24 Vdc            |
| FT450 = Rate and Total Indicator, battery powered | PC12 = DIN or Wall Mount Power Converter, 100–115 Vac, 24 Vdc |
| AO55 = Blind Analog Transmitter (4-20 mA)         | PD10 = Pulse Divider  |
| FT520 = Batch Flow Processor                      | PS40 = Pulse Splitter   |

*Kynar is a registered trademark of Arkema, Inc., Roytronic is a registered trademark of Milton Roy Company, Teflon and Viton are registered trademarks of DuPont Corporation*

## Flow Range

| Model # | K-Factor* (pulses/gal) |      | Gal/Min | Liter/Min |
|---------|------------------------|------|---------|-----------|
|         | SPT                    | SPX  |         |           |
| -038    | 1394                   | 1417 | 0.07–5  | 0.27–18.9 |
| -050    | 634                    | 658  | 0.1–10  | 0.38–37.9 |
| -075    | 476                    | 468  | 0.2–20  | 0.75–75   |
| -100    | 250                    | 254  | 0.5–40  | 1.9–150   |

*\*Nominal K-factors (based on averages) for standard 2-magnet SPT and SPX. High resolution (6-magnet) K-factors are approximately tripled.*

## Pressure Drop Curves

