



FSI-S Series SADDLE TYPE FLOW SENSOR

Creative Sensor Technology FSI-S series flow sensors feature proven impeller based technology designed for flow monitoring/flow control applications in irrigation, water conservation and related industries.

The saddle type sensor mounts on PVC piping systems using a wedge to hold the sections together. Prior to installation, an opening is drilled in the pipe allowing the sensor insert to position the impeller inside the pipe.

Designed by the same team who created the original irrigation impeller flow sensor, CST's sensor is completely new, not a redesign. The sensor features a digital output signal proportional to flow. The output signal duplicates existing impeller flow sensor signals making the FSI series sensor compatible with all manufacturer's control products.

The pulse signal will travel up to 2,000 feet without amplification.

The insert, held in place with a retaining nut, contains the detection circuitry and carries the unique four-bladed ultra light impeller on a transverse axle.



The saddle series sensors utilize the same flow sensor insert used in the tee series sensors

The insert mounts in a housing that controls the depth and alignment of the impeller unlike insert type sensors that may be mis-aligned or set to the wrong depth. The housing is permanently attached to the PVC saddle therefore no additional mounting hardware is required.



KEY FEATURES:

- Flow Range :
 - 3 inch - 6 to 300 gpm
 - 4 inch - 10 to 480 gpm
 - 6 inch - 45 to 1100 gpm
- Working Pressure Rating: 150 psi @ 90°F
- Outputs: 001 Two wire standard pulse
004 Three wire standard pulse
008 Three wire low frequency

Specifications

Wetted Materials

- Impeller – HDPE (High Density Polyethylene)
- Shaft – Tungsten Carbide
- O-ring — BUNA N
- Saddle, Sensor Housing, Retaining Nut — Type 1 PVC

Pressure Rating

- Pressure Rated: 150 psi @ 90° F.

Temperature Range

- 32°F to 140° F (0° to 60° C)

Output Signal

- Frequency Range 0.3 Hz to 200 Hz

Transducer Excitation

- Quiescent current 120 uA@8 VDC to 35 VDC max.
- Off state (VHigh)= Supply Voltage - (120uA X Source Resistance)
- On State (VLow)= Max. .85 VDC@50mA current limit, (10Ω+0.7VDC)

Flow Range

- 1/4 to 12 FPS - 3 and 4 inch
- 1/2 to 12 FPS - 6 inch

Electrical Cable

- 2 single conductor solid copper U.L. listed #18 AWG leads with direct burial insulation
- Lead length 48 inches
- Wiring may be extended up to 2,000 feet with direct burial, twisted pair shielded cable

Sensor Dimensions

- Minimum Clearance Above sensor Required for Removal — 3.75 inches (96 mm)

| Size | Model Number | Overall length | Overall width | Overall Height |
|--------|--------------|------------------|---------------------|----------------------|
| 3 inch | FSI-S30-001 | 5 inches (127mm) | 5.5 inches (140mm) | 6.5 inches (165mm) |
| 4 inch | FSI-S40-001 | 5 inches (127mm) | 6.5 inches (165mm) | 7.5 inches (190mm) |
| 6 inch | FSI-S60-001 | 5 inches (127mm) | 8.5 inches (216 mm) | 9.75 inches (248 mm) |

Ordering Information

- FSI-S30-001 3 inch saddle mount 2 wire sensor– includes PVC saddle
- FSI-S40-001 4 inch saddle mount 2 wire sensor– includes PVC saddle
- FSI-S60-001 6 inch saddle mount 2 wire sensor– includes PVC saddle

.Other electronic configurations available, consult factory.

All data is subject to change , consult factory for latest information.

