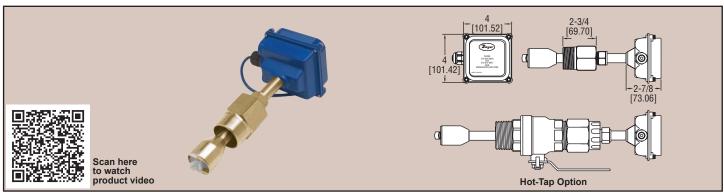


## **Series**

# **Paddlewheel Flow Sensor**

### Hot-Tap Option, Field Adjustable Insertion, Wide Flow Range



The Series IPFS Insertion Paddlewheel Flow Sensor is available for pipe sizes ranging from 3 to 40 " and available in brass, PVC or stainless steel. The Series IPFS has an available hot tap model with a bronze or stainless steel valve assembly. The bearings are made from ruby jewel to reduce the coefficient of friction and maintain high accuracy. The Series IPFS can be purchased with a variety of saddle fittings, Series SDF, that comes in iron or brass. The Series IPFS is good for large pipe and clean water applications. It is ideal for chemical proportioning applications or any applications with rapidly changing fluid conductivity.

#### PRINCIPLE OF OPERATION

The IPFS uses the rotation of an impeller to measure flow. Liquid flow pushes the rotor and the rotation is detected by a Hall-effect sensor. The output is a current sinking pulse signal which can be connected to the Series RTI to display flow rate and total or the Series BAT for a 4 to 20 mA signal conversion.

#### **APPLICATIONS**

- · Clean liquids
- Large pipes
- · Aquariums, water parks
- · Water & wastewater monitoring

#### **ACCESSORIES**

- · Series BAT, Blind Analog Transmitter, converts pulse output to 4 to 20 mA analog output. Unit is loop powered, fits on the enclosure of the meter, and is fields
- · Series RTI, Rate Total Indicator, converts pulse output to 4 to 20 mA analog output with local flow rate and totalization display. Unit is loop powered, can fit on the enclosure of the meter, and provides a high/low flow alarm.
- Series PWD, Pulse Divider, for use with pacing electronic metering pumps. Unit divides the input frequency to any number from 1 to 9999 with the use of rotary switches to suit a number of metering pump inputs.

#### **SPECIFICATIONS**

Service: Compatible clean liquids. Range: 0.3 to 30 ft/s (0.01 to 10 m/s).

Wetted Materials:

Shaft Body/Fitting: Brass, PVC, or 316 SS;

Rotor: PVDF;

Shaft: Nickel-bound tungsten carbide;

Bearings: Ruby jewel.

Valve

Assembly: IPFS-1XX: Bronze (SS optional) with bronze ball valve;

O-ring: EPDM. Accuracy: +1.5% FS.

Temperature Limits: Brass/SS: 200°F (93°C); PVC: 130°F (55°C). Pressure Limits: Brass/SS: 200 psi (13.8 bar); PVC: 150 psi (10 bar). Process Connection: IPFS-0XX: 1-1/2" male NPT; IPFS-1XX: 2" male NPT.

Output: Current sinking, square wave pulse. Power Requirements: 5 to 24 VDC @1.5 mA (3.5 to 16 VDC -LOP option).

Electrical Connection: #22 AWG, 3 conductor, 18' (5.5 m) cable length standard

Enclosure Material: Housing: Die-cast powder-coated aluminum.

Enclosure Rating: NEMA 4X (IP66).

Weight: IPFS-1XX: 4 lb (1814 g); IPFS-2XX: 6 lb (2721 g); IPFS-3XX: 13 lb

(5897 g); IPFS-4XX: 15 lb (6804 g).

Example	<b>IPFS</b>	0SB	BAF	IPFS-0SS-BAF			
Series	IPFS			Insertion Paddlewheel Flow Sensor			
Size/				Size	Hot-Tap	Material	
Material		0SB		3 to 12"	No Hot-Tap	Brass	
		0SP		3 to 12"	No Hot-Tap	PVC	
		0SS		3 to 12"	No Hot-Tap	SS	
		0LB		12 to 40"	No Hot-Tap	Brass	
		0LP		12 to 40"	No Hot-Tap	PVC	
		0LS		12 to 40"	No Hot-Tap	SS	
		1SB		3 to 12"	Hot-Tap	Brass	
		1SP		3 to 12"	Hot-Tap	PVC	
		1SS		3 to 12"	Hot-Tap	SS*	
		1LB		12 to 40"	Hot-Tap	Brass	
		1LP		12 to 40"	Hot-Tap	PVC	
		1LS		12 to 40"	Hot-Tap	SS*	
Options			CRS	Ceramic Shaft			
			BAF	2" Brass Adapter Fitting (IPFS-0XX only)			
			SAF	2" SS Adapter Fitting (IPFS-0XX only)			
			SVA	316 SS Valve Assembly (IPFS-1XX only)			
			NVA	No Valve Assembly (deduct price) (IPFS-1XX only)			
			BPT	1-1/2" Brass BPT Adapter (2 piece) (IPFS-0XX only)			
			SPT	1-1/2" SS Adapter (2 piece) (IPFS-0XX only)			
			EXT	12" Extension (IPFS-XL only)			

