



SERIES PDWS & PWF

# PADDLEWHEEL FLOW SENSOR

Low Friction Bearings, Long Life, 1/2 to 8" Pipe (12.7 to 203 mm)



PWF-B-PXX



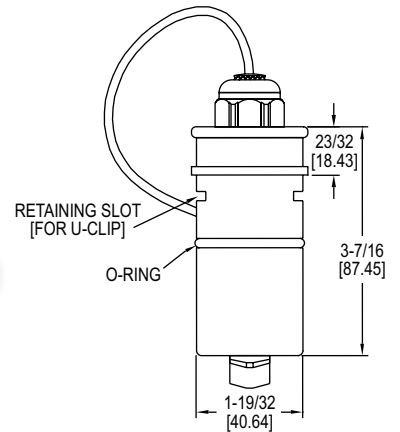
PWF-S-BXX



PWF-S-DXX



PWF-T-SFT-SS



The Series PDWS Insertion Paddlewheel Flowmeter is designed for pipe size ranges from 1/2 to 8" with available materials of brass, stainless steel, PVC, and polypropylene. The Series PDWS is intended to be used with the Series PWF, a wide variety of custom tee, saddle, or welded fittings that come in bronze, PVC, and stainless steel.

**FEATURES/BENEFITS**

- The bearings are made from ruby jewel to reduce the coefficient of friction and maintain high accuracy
- PVC and polypropylene body material offers resistance against corrosive media

**APPLICATIONS**

- Industrial water & wastewater treatment
- Cooling water monitoring
- Industrial fluid control
- Chemical proportioning
- Fluctuating fluid conductivity applications

MODEL CHART			
Example	PDWS	-1B	-CRS
Series	PDWS		Insertion paddlewheel flowmeter
Size/ Material		1B	1/2 to 3", brass
		1S	1/2 to 3", 316 SS
		1P	1/2 to 3", PVC
		1Y	1/2 to 3", polypropylene
		2B	4 to 8", brass
		2S	4 to 8", 316 SS
Options		2P	4 to 8", PVC
		2Y	4 to 8", polypropylene
		CRS	Ceramic shaft
		IMM	Immersible (urethane potted electrical connection)
	FOR	Fluoroelastomer O-ring	
	HPO	High pressure options (Use with SS only)	

**Note:** Need to purchase with Series PWF fitting for proper installation.

**SPECIFICATIONS**

**Service:** Compatible clean liquids.  
**Range:** 0.3 to 30 ft/s (0.09 to 9.14 m/s).  
**Wetted Materials:** Sensor: Brass, 316 SS, PVC, or polypropylene; Rotor: PVDF; Shaft: Nickel-bonded tungsten carbide (ceramic optional); Bearings: Ruby jewel; O-ring: EPDM (fluoroelastomer optional).  
**Accuracy:** ±1.5% FS.  
**Temperature Limits:** Brass, 316 SS: 200°F (93°C); PVC, Polypropylene: 130°F (55°C).

**Pressure Limits:** Brass: 200 psi (14 bar); 316 SS: 250 psi (17 bar); PVC, polypropylene: 175 psi (12 bar) @ 75°F (24°C); High pressure option: 400 psi (28 bar) (SS only).  
**Process Connection:** See below.  
**Output:** Current sinking, square wave pulse, opto-isolated.  
**Power Requirements:** 6-24 VDC, 2 mA (max. 20 mA).  
**Electrical Connection:** #22 AWG, 3 conductor, 18' (5.5 m) cable (max. 2000' run).  
**Enclosure Rating:** NEMA 4X (IP66).  
**Weight:** 2 lb (907 g).

**ACCESSORIES**

Series	Description
BAT	Blind analog transmitter; converts pulse output to 4-20 mA analog output; unit is loop powered, fits on the enclosure of the meter, and is field spannable.
RTI2	Rate total indicator; converts pulse output to 4-20 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.
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. (See website)

**MODEL CHART - TEE FITTING**

Model	Description	PDWS-1XX						
		1/2"	3/4"	1"	1-1/2"	2"	3"	4"
PWF-T-BFS	Bronze/female sweat (for copper tubing)	X	X	X	X	X	X	X
PWF-T-BFT	Bronze/female thread	X	X	X	X	X	X	X
PWF-T-PME	PVC/male stub end	X	X	X	X	X	X	X
PWF-T-CFT	Carbon steel/female thread	X	X	X	X	X	X	X
PWF-T-SFT	304 SS/female thread	X	X	X	X	X	X	X
-SS	All 316 SS option	X	X	X	X	X	X	X
-HP	High pressure option (SS or CS only)	X	X	X	X	X	X	X

**MODEL CHART - SADDLE FITTING**

Model	Description	PDWS-1XX		PDWS-2XX	
		3"	4"	6"	8"
PWF-S-DXX	Ductile iron	X	X	X	X
PWF-S-PXX	PVC	X	X	X	X
PWF-S-BXX	Bronze	X	X	X	X
-LPS	Installed on 16" long pipe stub option (PVC only)	X	X	X	X

**MODEL CHART - WELD/BRAZE FITTING**

Model	Description	PDWS-1XX		PDWS-2XX	
		3"	4"	6"	8"
PWF-W-BXX	Bronze	X	X	X	X
PWF-W-CXX	Carbon steel	X	X	X	X
PWF-W-SXX	316 SS	X	X	X	X
-HP	High pressure option (SS or CS only)	X	X	X	X

**Example:** PWF-T-CFT-0050-SS  
 To order an all 316 SS female thread 1/2" tee for Series PDWS-1XX Paddlewheel Flow Meter.

USA: California Proposition 65  
 ⚠️WARNING: Cancer and Reproductive Harm - www.P65Warnings.ca.gov

FLOW  
 Flow Transmitters, Paddlewheel, Fixed Insertion