

# PADDLEWHEEL FLOW SENSORS

## Non-Magnetic Design Tolerates Some Rust

FP8000 Series  
**\$210**  
 Basic Unit



Sensor shown with DPF700 series pulse input ratemeter/totalizer (\$260).



- ✓ **Unique, Non-Magnetic Design Eliminates Errors Caused by Rust**
- ✓ **Noise-Free Pulse Signal Transmits up to 600 m (2000')**
- ✓ **Encapsulated Electronics and Cap with Integral Cord Grip Provides Environmental Protection**
- ✓ **Sensor Secured to Fitting with Locking Pin—No Threaded Adaptor**

OMEGA® FP8000 Series paddlewheel flow sensors are ideal for applications in which the solutions have low viscosity (are water-like) and are low in suspended solids. Some typical applications include water distribution, irrigation monitoring, HVAC flowrates, meter purification, and process monitoring.

A unique non-magnetic sensing technique makes these sensors especially well-suited for applications where the impeller is exposed to metallic particles or rust commonly found in steel or iron pipes. The high amplitude pulse output is ideally suited for direct hook-up to the OMEGA® DPF700 ratemeter/totalizer.

The Model FP8001 (polypropylene) and FP8002 (PVDF) flow sensors have encapsulated electronics and are used with special installation fittings. A locking pin/retaining ring supplied with the fittings secures the sensor in the tee and facilitates removal and replacement. Two O-rings on the sensor body provide a double process seal. The zirconia ceramic shaft is compatible with a variety of salt solutions; however, it is not recommended for use with acids or bases.

### SPECIFICATIONS FP8000 SENSOR

- Accuracy:** ±1% full scale
- Repeatability:** 0.5% of full scale
- Wetted Parts:** Transformation toughened zirconia ceramic shaft
- FP8001:** Polypropylene body and impeller, EPR O-rings
- FP8002:** PVDF body and impeller, Viton® O-rings
- Maximum Fluid Viscosity:** 1 centipoise
- Power Input (dc):** 12 to 24 Vdc

**Pulse Output:** Amplitude equals dc power input; the square wave is offset from zero by approximately 1 Vdc. An external resistor is required.

#### Temp-Press:

- PVC Fitting:** 100 psig from 0 to 25°C (32 to 77°F), declines linearly to 40 psig @ 60°C (140°F)
- PVDF Fitting:** with FP8001: 100 psig from 0 to 25°C (32 to 77°F), declines linearly to 40 psig @ 60°C (140°F); with FP8002: 230 psig from 0 to 20°C (32 to 68°F), declines linearly to 100 psig @ 80°C (176°F)
- Bronze Fitting:** with FP8001: 400 psig from 0 to 80°C (32 to 176°F); with FP8002: 400 psig from 32 to 221°F (0 to 105°C)

#### Pressure Drop @ Maximum Flowrate:

FP8005, FP8007, FP8010, FP8015BR: 5 psid; FP8010BR: 11 psid; FP8012BR: 8 psid. 1 psid for all other fittings

**Standard Cable Length:** 6 m (20 ft), 2-wire plus shield

**Sensor Weight:** 0.5 kg (1 lb)

**Dimensions:** 133 mm (5.25") above fitting is minimum clearance required to remove sensor from fitting



**HIGHLIGHTED MODELS IN STOCK FOR FAST DELIVERY!**

### To Order (Specify Model Number)

Model No.	Price	Description
<b>FP8001</b>	<b>\$210.00</b>	Polypropylene/EPR/ceramic paddlewheel sensor, comes with complete operators manual
<b>FP8002</b>	<b>360.00</b>	PVDF/Viton/ceramic paddlewheel sensor, comes with complete operators manual
Accessories		
<b>PSU-93</b>	<b>40.00</b>	Wall socket plug-in transformer, 115 Vac in, 24 Vdc out on screw terminals
<b>TX4-100</b>	<b>28.50</b>	4-wire shielded cable, 30 m (100')
<b>FP8001-RK</b>	<b>75.00</b>	FP8001 sensor repair kit
<b>FP8002-RK</b>	<b>95.00</b>	FP8002 sensor repair kit (includes impeller, shaft and O-rings)
<b>FP8-PIN</b>	<b>7.00</b>	Locking pin, (fixes sensor into fitting)

\*To order, please specify fitting, pipe schedule, and desired 4-20 mA output flow range.

### Installation Fittings

**HIGHLIGHTED MODELS IN STOCK FOR FAST DELIVERY!**

Size	PVC SCH 80				PVDF				Bronze			
	Model No.	Price	Min. Flow (GPM)	Max Flow (GPM)	Model No.	Price	Min. Flow (GPM)	Max. Flow (GPM)	Model No.	Price	Min. Flow (GPM)	Max. Flow (GPM)
½"	<b>FP8005</b>	<b>\$105</b>	1	35	N/A				N/A			
¾"	<b>FP8007</b>	<b>105</b>	1	35	N/A				N/A			
1"	<b>FP8010</b>	<b>105</b>	1	35	N/A				<b>FP8010BR</b>	<b>\$170</b>	3	65
1¼"	N/A			N/A	N/A				<b>FP8012BR</b>	<b>190</b>	3	90
1½"	<b>FP8015</b>	<b>105</b>	6	190	<b>FP8115</b>	<b>\$395</b>	11	380	<b>FP8015BR</b>	<b>195</b>	4	125
2"	<b>FP8020</b>	<b>115</b>	12	380	<b>FP8120</b>	<b>510</b>	13	410	N/A			
3"	<b>FP8030</b>	<b>165</b>	37	870	N/A				N/A			
4"	<b>FP8040</b>	<b>180</b>	47	1630	<b>FP8140</b>	<b>760</b>	56	1580	N/A			

PVC and PVDF tees have socket-weld connections; bronze tees have FNPT connections. All fittings include locking pin.

Ordering Example: **FP8001** paddlewheel sensor, **FP8010** 1" fitting, **DPF701** panel meter, \$210 + 105 + 260 = **\$575**.

Unit comes with complete operator's manual.



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