

LIGHTSPEED™ FIBER OPTIC PADDLEWHEEL FLOW SENSORS – INHERENTLY SAFE DESIGN

FP9001A
\$225



- ✓ Unique Fiber-Optic Design for Hazardous Areas
- ✓ Fiber-Optic Signal—Insensitive to Electrical Interference
- ✓ Non-Magnetic Design Resists Fouling from Rust
- ✓ Optical Interface

The FP9001 LIGHTSPEED™ paddlewheel flow sensors are ideal for applications with low viscosity solutions (like water) which are low in suspended solids.

A patented fiber-optic sensing mechanism makes these sensors especially well suited for applications in hazardous environments, where the paddlewheel electronics can be mounted in a non-hazardous location and the near-infrared light signal can be sent down an optic cable to the paddlewheel inside the hazardous location. This non-magnetic design tolerates some rust, often found in iron pipes. FP9001A flow sensors must be used with the companion FP9001A pipe installation fittings.

The high amplitude pulse output from the FP9P opto-electronic interface is ideally suited for hook up to the model INF7 ratemeter/totalizer. For 4 to 20 mA output, connect to OMEGA's FLSC90 Series signal conditioner. (Please specify fitting and calibration range for the 4 to 20 mA output.) The FLSC90 includes the required optical interface for the FP9000 sensor.

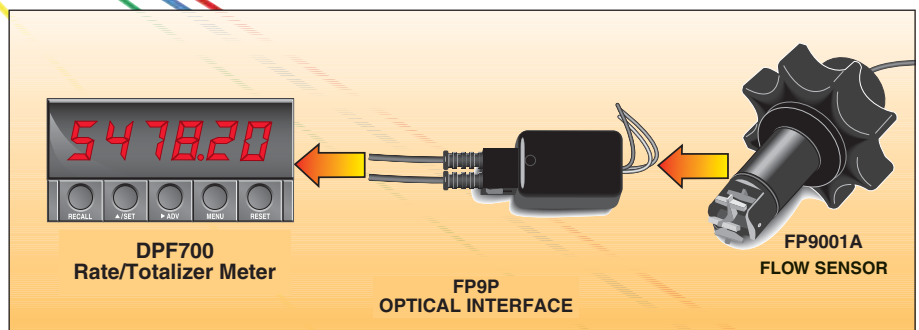
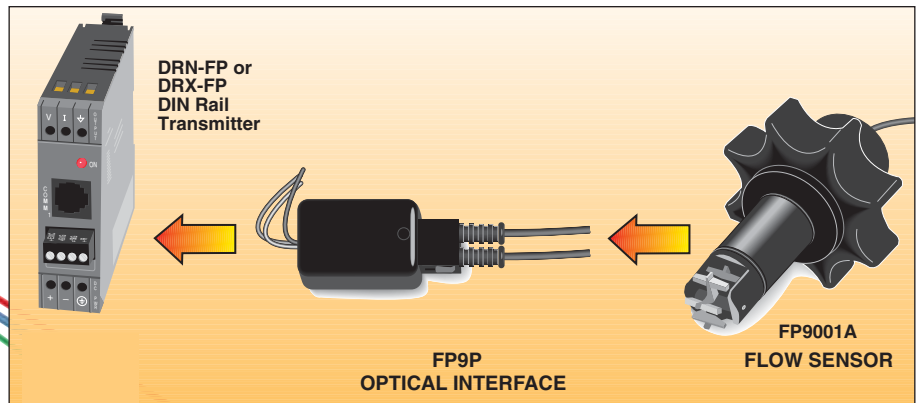
Flow Sensor Specifications

Pipe Size	Range (gpm)		Accuracy	Repeatability	Nominal	Nominal
	Min.	Max.	(% Full Scale)	(% of Full Scale)	K Factor	Hz @ 1 gpm
0.5"	1.0	20	±2%	±2%	938	15.6
0.75"	2.0	30	±2%	±2%	528	8.80
1.0"	4.0	55	±2%	±2%	322	5.37
1.25"	4.5	90	±2%	±2%	161	2.68
1.5"	8.0	125	±2%	±2%	112	1.87
2.0"	15.0	200	±2%	±2%	63.6	1.06
2.5"	20	300	±2%	±2%	48.4	0.807
3.0"	25	500	±3%	±3%	15.5	0.258

FP9001A Sensor, \$225 shown with FP9P-T interface, \$155.

PATENTED

Covered by U.S. and International patents and pending applications





FP9001A Sensor, \$225 with FP9P-T interface, \$155.

Model FP9001A Sensor
Wetted Parts: Polypropylene body and impeller, Hastelloy C shaft, Viton® O-rings, acrylic fiber-optic cable
Maximum Fluid Viscosity: 1 centipoise
Temperature/Pressure: ½" PVC fitting: 100 psi @ 23°C (73°F), 50 psi @ 60°C (140°F); ¾ through 1½": 200 psi @ 23°C (73°F), 100 psi @ 60°C (140°F); 2 through 3": 200 psi @ 23°C (73°F), 50 psi @ 60°C (140°F)
Fiber-Optic Cable Length: 2.7 m (9')
Sensor Weight: 0.45 kg (1 lb)

Flow Sensor
 Ordering Guide

AVAILABLE FOR FAST DELIVERY!

To Order (Specify Model Number)

Model No.	Price	Description
FP9001A*	\$225	Paddlewheel sensor for pipes ½ to 3"

*Must be used with FP9P-T, FP9010, or FLSC90-A optical interface. Please order separately below. Comes with complete operator's manual.

Works With:



DP41-U Universal Panel Meter, \$645.

Search DP41-U at omega.com

iDRN-FP/iDRX-FP, \$295
 Signal Conditioners.

Search iDRN-FP/iDRX-FP at omega.com



FLSC-90A Signal Conditioner, \$390. See Page F-21.



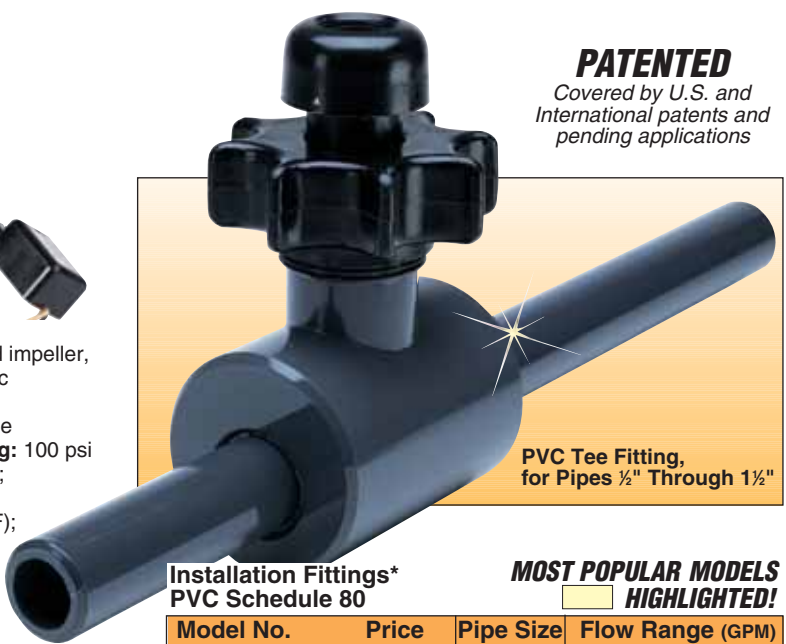
DPF403, \$590 Digital Flow Meter. See page M-7.



DPF701, \$260 Digital Flow Meter. See page F-80.

PATENTED

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PVC Tee Fitting, for Pipes ½ Through 1½"

Installation Fittings*
 PVC Schedule 80

MOST POPULAR MODELS
 HIGHLIGHTED!

Model No.	Price	Pipe Size	Flow Range (GPM)
FP9005	\$80	½"	1.0 to 20
FP9007	90	¾"	2.0 to 30
FP9010	90	1"	4.0 to 55
FP9012	100	1¼"	4.5 to 90
FP9015	100	1½"	8.0 to 125
FP9020	100	2"	15.0 to 200
FP9025	100	2½"	20 to 300
FP9030	120	3"	25 to 500

*Note: PVC fittings from ½ through 1½" are tee-style; those from 2 to 3" are saddle-type.

FP9P-T OPTO-ELECTRONIC INTERFACE

Power Input: 12 to 28 Vdc @ 25 mA maximum

Pulse Output: TTL level output versions
Dimensions: 41 L x 17 W x 15.9 mm H (1½ x 1⅙ x 5⁄8")

Weight: 170 g (6 oz)
Operating Temp. Range: 0 to 60°C (32 to 140°F)

Model No.	Price	Description
FP9P-T	\$155.00	Optical-to-TTL pulse interface
PSU-93	40.00	Wall socket plug-in transformer, 115 Vac in, 24 Vdc out on screw terminals
TX4-100	28.50	4-wire shielded cable, 30 m (100')
ME-2039	175.00	Reference Book: Fiber Optic Sensors

Ordering Example

Qty	Description	Price
1	FP9001A, sensor	\$225.00
1	FP9010, fitting for 1" pipe	90.00
1	FP9P-T, DPF701, DPF700-A optical pulse interface	155.00
1	TX4-100 4-wire shielded cable, 30 m (100')	28.50
Total		\$498.50

Viton® is a registered trademark of DuPont Dow Elastomers.



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