

# LIQUID FLOW SENSORS FOR VISUAL INDICATION, REMOTE SENSING AND FLOW ALARM

FPR110 Series with Visual Indication Only



FPR111 shown actual size.



FPR113 shown actual size.

## FPR100 Series



- ✓ Low Cost
- ✓ Pulse or Alarm Output Optional
- ✓ For Flows from 0.1 to 30.0 GPM
- ✓ Flow Switch Rotor Cannot Seize in "ON" State
- ✓ Integral Mounting Holes Standard



FPR131 sensor, shown with DPF701 ratemeter.

The rugged, low-cost FPR100 Series sensors feature a one-piece composite rotor, sturdy unibody construction, ceramic shafts, and superior sealing. The FPR110 sensors, with bright orange spinning rotors, provide visual indication of flow only. The FPR120 Series features visual indication and an adjustable 0.5 A @ 110 Vac SPDT mechanical flow switch. The FPR130 Series has visual indication and a square-wave pulse output for use with remote ratemeters/

totalizers, such as the DPF700 Series meters.

For panel mounting, all polypropylene units come with mounting ears that accept #8 self-tapping screws; all brass units come with mounting holes that accept #8-32 UNC-2B screws. For all FPR100 sensors, incoming flow can be directed to either port; a minimum of 8 inches of straight inlet pipe is required. Filtration of 150 microns is recommended.

## SPECIFICATIONS

**Wetted Parts:** Brass or hydrolytically stable glass-reinforced polypropylene body; ceramic rotor pin; nylon composite rotor; polysulfone lens; and Buna O-ring with polypropylene body, FKM O-ring with brass or Stainless Steel body

### Max Pressure:

**Polypropylene:** 100 psig at 70°F, 40 psig at (180°F)

**Brass or Stainless Steel:** 200 psig at 70°F, 100 psig at 212°F

FPR130 Series with Pulse Output



Both models shown larger than actual size.

**Max Liquid Temperature:**

**Brass:** -29 to 100°C (-20 to 212°F)

**Polypropylene:** -29 to 82°C (-20 to 180°F)

**Max Pressure Drop:** 11 psid

**Max Ambient Electronics**

**Temperature:** 65.6°C (150°F)

**Max Liquid Viscosity:** 200 SSU

**FPR120 Power:** 12 Vdc, 24 Vdc, or 110 Vac (per model number)

**FPR130 Pulse Output:**

Pulse amplitude = DC power input

**FPR130 Pulse Output Range:**

15 Hz at lowest flow rate of both ranges; 225 Hz at highest flow rate of both ranges

**FPR120, FPR130 Repeatability:**

2% of rate

**FPR130 Power:**

4.5 to 24 Vdc at 70 mA maximum.0

**FPR120 SPDT Switch Rating (Resistive):**

0.5 A at 110 Vac; 1 A at 24 Vdc

**FPR120 Setpoint Deadband:** 15% of rate

**Weight:**

**PP Body:** FPR110, 340 g (12 oz);

FPR120, 454 g (1 lb);

FPR130, 397 g (14 oz)

**Brass Body:** FPR110, 680 g (1.5 lb),

FPR-120, 907 g (2 lb)

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To Order					
Sensor with Visual Indication Only					
Model No.	Body Material	Port Size NPT	Input Power	Low Range*	Flow Ranges (GPM) Std. Range
FPR111	Polypropylene	0.25	—	0.1 to 1	0.5 to 5
FPR112	Polypropylene	0.50	—	1.5 to 12	4.0 to 20
FPR113	Brass	0.25	—	0.1 to 1	0.5 to 5
FPR114	Brass	0.50	—	1.5 to 12	4.0 to 20
FPR115	Brass	0.75	—	—	5.0 to 30
Sensor with Visual Indication and Flow Switch					
FPR122	Polypropylene	0.25	24 Vdc	0.1 to 1.0	0.5 to 5
FPR123			110 Vac		
FPR125		0.50	24 Vdc	1.5 to 12.0	4.0 to 20
FPR126			110 Vac		
Sensor with Visual Indication and Pulse Output			K Factor Low - High	Accuracy (% of Full Scale)	
FPR131†	Polypropylene	0.25	10,900 - 2196	0.1 to 1 (±7%)	0.5 to 5 (±7%)
FPR132†	Polypropylene	0.50	959 - 611	1.5 to 12 (±7%)	4 to 20 (±15%)
FPR133†	Brass	0.25	10,900 - 2196	0.1 to 1 (±7%)	0.5 to 5 (±7%)
FPR134†	Brass	0.50	959 - 611	1.5 to 12 (±7%)	4 to 20 (±15%)
FPR135†	Brass	0.75	385	—	5 to 30 (±10%)
FPR136	Brass	1.00	180	—	8 to 60 (±15%)
FPR133-SS	Stainless Steel	0.25	10,900 - 2196	0.1 to 1 (±7%)	0.5 to 5 (±7%)
FPR134-SS	Stainless Steel	0.50	959 - 611	1.5 to 12 (±7%)	4 to 20 (±15%)
FPR135-SS	Stainless Steel	0.75	385	—	5 to 30 (±15%)
FPR136-SS	Stainless Steel	1.00	180	—	8 to 60 (±15%)

Comes complete with operator's manual.

For units with BSP threads add "-BSP" to model number, for additional cost.

\* With use of low flow adaptor (included).

† Pull-down resistor required.

**Ordering Example:** FPR125, flow sensor with visual indication and flow switch, polypropylene body, 0.50 NPT port size, 1.5 to 12 GPM low range, 4 to 20 GPM standard range, powered by 12 Vdc.

FPR133, flow sensor with visual indication and pulse output, brass body, 0.25 NPT port size, 0.1 to 1 GPM low range, 0.5 to 5 standard range.