



## Model IP100/200 Series Impeller Flow Sensors

### Features

- Wide flow range
- Single moving part
- Six bladed impeller
- Rugged cast aluminum housing
- Removable jewel bearings & rotor
- Easy depth adjustable  
3" to 48" pipe sizes

### Applications

- Waste water flow accumulation
- Water Treatment systems
- Irrigation
- Groundwater remediation
- Chemical Mixing
- Process cooling systems
- Neutralization Systems
- Process flow control
- Filtration systems



### Description

The IP100/200 series are adjustable depth insertion paddlewheels that come in brass or 316 stainless models to fit 3" to 48" pipe. Installation fittings are standard 1-1/2" (101/201) NPT. Fittings such as saddles and weldolets may be purchased either locally or from AquaMetrix.

Ruby bearings and a non-drag Hall-effect sensor give these meters the widest flow range of any of the paddlewheel types. A sensor detects the passage of miniature magnets in

the six rotor blades. The resulting square-wave signal can be sent for hundreds of feet over unshielded cable without a transmitter and connected directly to many PLC's and other controls without any additional electronics.

The Shark-120/240 controller or SharkTX(P) transmitter (loop powered) models provides digital rate and total display, as well as single or dual 4 to 20 mA analog output.

# Model IP100/200 Series Impeller Flow Sensors

## Technical Data

### Sensor

Hall Effect Sensor 12 VDC current sinking pulse

**Flow Rate** 0.3 to 30 FPS (0.1 to 9 M/s)

### Materials

Housing Cast aluminum  
Sensor Body Brass or 316 SS  
Rotor PVDF  
Shaft Nickel-bound tungsten carbide  
(Zirconia ceramic optional)  
Bearings Ruby jewel

**Accuracy**  $\pm 1\text{-}1/2\%$  of full scale

**Insertion Force** 0.44 X pressure in pipe

**Power** 5 to 24 VDC 1.5mA

**Cable** #22 AWG 3-con, 18 ft (6m)

### Pipe Size

IP 101 3" to 10" (75 to 250mm)  
IP 201 10" to 48" (250 to 1200mm)

**Maximum Cable Run** 2,000 ft (650m)

**Flow Range** (GPM)

**Fitting Size** 1-1/2" NPT

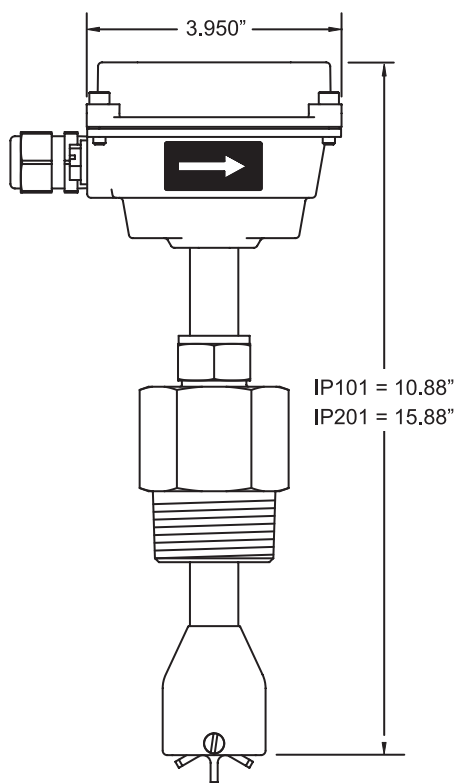
**Maximum Pressure** 200 psi (14 bar)

**Maximum Temperature** 200° F (93° C)

### Pipe Size Min Flow Max Flow

3"	7	700
4"	12	1,100
6"	30	2,500
8"	50	4,500
10"	75	7,000
12"	100	10,000
16"	175	16,000
18"	225	22,000
24"	400	35,000
30"	640	64,000
36"	900	90,000
48"	1,600	160,000

## Dimensions



## Ordering Information

IP Insertion Sensor  
101 3"-10"  
201 10"-48"  
S Stainless Steel  
B Brass

IP -



AquaMetrix Inc.  
www.aquametrix.com  
1-800-742-1413

