



### Description

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The IP100/200 series are adjustable depth insertion paddle-wheels 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 paddle-wheel 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.

### Features

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- Low-friction, long-life jewel bearings
- Single moving part
- Six bladed impeller
- Fully field-repairable
- Choice of stainless steel or brass
- Integrated Tee and sensor
- Fits 1/2" to 8" pipe sizes
- Fixed depth in fitting ensures proper placement in pipe
- High level signal can be sent up to 2000 feet
- Each fitting individually calibrated and marked with K-factor (Pulses per Gallon)

### Applications

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

# Model IP100 Series Impeller Flow Sensors Technical Data

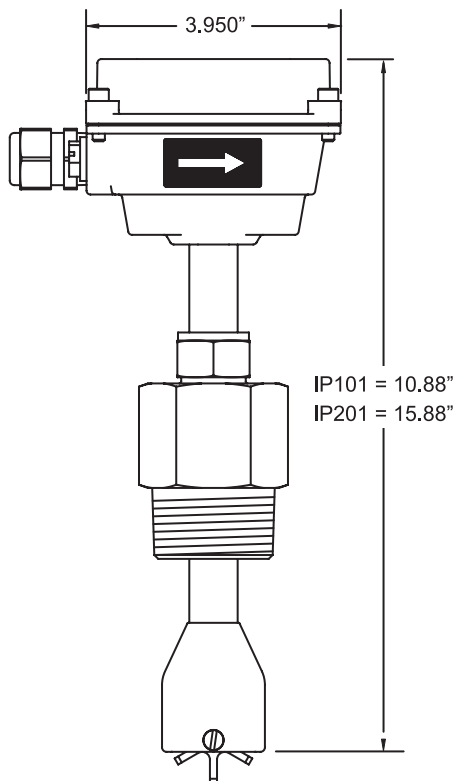
## Technical Data

Sensor	
Hall Effect	12 VDC current sinking pulse
Materials	
Sensor	
Sensor Body	Brass, or 316 SS
Housing	Cast aluminum
Rotor	PVDF
Shaft	Nickel-bonded tungsten carbide (Zirconia ceramic optional)
Bearings	Ruby jewel
O-Ring	EPDM (Viton optional)
Pipe Size	
IP101	3" to 10" (75 to 250 mm)
IP201	10" to 48" (250 to 1200 mm)
Max. Pressure	200 PSI (14 bar)
Max. Temperature	200°F (93°C)
Flow Rate	0.3 to 30 FPS (0.1 to 9 M/s)
Accuracy	1-1/2% of full scale
Insertion Force	0.44 X pressure in pipe
Power	5-24 Vdc, 1.5 mA
Max. Current	20 mA
Cable	#22 AWG 3-con, 18 ft. (6m)
Max. Cable	2000 ft (650 m)

## Flow Range (GPM)

Pipe Size	Min. Flow	Max. Flow
3	7	700
4	12	1100
6	30	2500
8	50	4500
10	75	7000
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	1600	160,000

## Dimensions



## Ordering Information

### Sensor Mounting

Insertion style with MNPT connection (3" - 10")	101
Insertion style with MNPT connection (10" - 48")	201

### Sensor Material

Stainless Steel	S
Brass	B

### Mounting Fitting (Iron only)

3" Saddle fitting (Iron)	300
4" Saddle fitting (Iron)	400
4" Saddle fitting (Bronze)	400B
6" Saddle fitting (Iron)	600
8" Saddle fitting (Iron)	800
10" Saddle fitting (Iron)	1000
12" Saddle fitting (Iron)	1200
14" Saddle fitting (Iron)	1400
16" Saddle fitting (Iron)	1600
18" Saddle fitting (Iron)	1800
20" Saddle fitting (Iron)	2000
24" Saddle fitting (Iron)	2400