DESCRIPTION

Used in conjunction with any Badger flow monitor or transmitter, Badger Meter non-magnetic Impeller flow sensors provide an accurate reading of the rate of liquid flow as well as total accumulated flow. A number of sensor models are offered, which cover applications for a wide range of pipe sizes and pressure/temperature specifications.

The flow sensors generate a frequency which is proportional to flow rate. An internal preamplifier allows the pulse signal to travel up to 2000 feet without further amplification. The impeller bearing assembly, shaft and o-rings are replaceable in the field.

Badger Model 735 Impeller flow sensors feature a fourbladed impeller design, using a proprietary, non-magnetic sensing technology. As the liquid flow turns the impeller, a low impedance signal is transmitted with a frequency proportional to the flow rate.

Sensors of similar type are interchangeable, so there is no need for recalibration after servicing or replacement.

Badger® Model 735PV

These models feature a modified PVC tee with solvent weld socket end connections, and a removable, PPS sensor insert. Sizes of $1/2^{\circ}$, $3/4^{\circ}$, and 1° are available.

"IR" Sensor

Designed for below grade applications such as irrigation, municipal, and groundwater monitoring where the flow rates are between 2-20 feet/second and temperatures are below 110°F. IR sensors are supplied with two single conductor, 18 AWG solid copper wire leads.



735PV Plastic Tee Sensors Matric (1/2" to 1")



SPECIFICATIONS

Wetted Materials (except tees)

See Ordering Matrix

Materials

- Tee: PVC Type 1, white
- Adapter: PVC Type 1, gray
- Sensor Housing: PPS
- Retaining Nut: Acetal copolymer, black
- Locating Pin: 300SST
- Impeller: 300SST
- Shaft: Tungsten Carbide
- Bearing: UHMWPE
- O-Rings: EPDM
- Wires: 18AWG Irrigation Wire (solid copper)

Pressure, Temperature Ratings

- 150 PSIG @ 73° F
- 75 PSIG @ 110° F

Recommended Design Flow Range

2 to 20 FPS

Accuracy

• ± 3.0% of full scale over recommended design flow range

Repeatability

± 1.5% of full scale over recommended design flow range

Linearity

• ± 1.5% of full scale over recommended design flow range

Transducer Excitation

- Quiescent current 600uA@8VDC to 35VDC max.
- Quiescent voltage (V_{high}) Supply Voltage-(600uA*Supply impedance)
- ON State (V_{low}) Max. 1.2VDC@40mA current limit (15Ω+0.7VDC)

Output Frequency

• 3.2 Hz to 200 Hz

Output Pulse Width

5 msec ± 25%

Electrical Cable for IR Sensor Electronics

 U.L. Style 116666 copper solid AWG 18 wire w/direct burial insulation. Rated to 105° C.



Dimensions

Α	В	
Soc Size, NPS	C/L to Top	L
1/2" [ø.840"]	3.85"	3.06"
3/4" [ø1.050"]	3.85"	3.31"
1" [ø1.315"	3.94"	3.50"

Badger® and Data Industrial® are registered trademarks of Badger Meter Inc.



Please see our website at www.badgermeter.com for specific contacts.

Copyright © Badger Meter, Inc. 2009. All rights reserved.

Due to continuous research, product improvements and enhancements, Badger Meter reserves the right to change product or system specifications without notice, except to the extent an outstanding contractual obligation exists.



BadgerMeter, Inc.

6116 E. 15th Street, Tulsa, Oklahoma 74112 (918) 836-8411 / Fax: (918) 832-9962 www.badgermeter.com