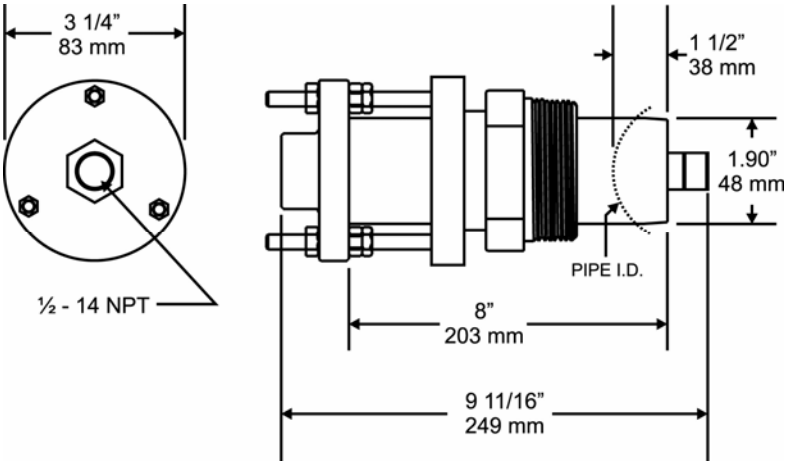
Badger Meter Europa

Insert flow sensor
Model 220PVCS

The 220PVCS flow sensor is an insertion style flow sensor constructed of non-metallic materials for all wetted parts. These sensors are designed for service in corrosive fluids. The metallic trim, in non-wetted areas, is 316 stainless steel. The sensor mounts in a 2" NPT thread and may be attached to the pipe with a saddle or other types of mounting hardware.

The 220PVCS sensor features a six bladed impeller design with a proprietary, non-magnetic sensing mechanism. The impeller shape coupled with the absence of magnetic drag provides consistent accuracy and repeatability throughout the flow range of the sensor. As the liquid turns the impeller, a low impedance signal is transmitted with a frequency proportional to the flow rate. This signal can travel up to 600 m (2000 feet) between the sensor and the display unit without the need for amplification. The sensor is supplied with 6 m (20 feet) of shielded two wire cable.

Dimensions



Wetted materials

Impeller and bearing:	Tefzel®
Shaft:	Zirconia ceramic
Housing:	Glass reinforced polyphenylene sulfide (PPS)
O-ring:	Ethylene Propylene (EPDM)
Sleeve and mounting adapter:	Polyvinyl Chloride (PVC)

Non-wetted materials

Trim:	316 stainless steel

NOTE: Optional materials available for O-ring, shaft and impeller, consult factory.

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Specifications

Mechanical	
Recommended design flow range	- 0,15 – 9 m/sec (0,5 to 30 ft/sec) - Initial detection below 0,1 m/sec (0.3 ft/sec)
Accuracy	- ± 1.0% of full scale over recommended design flow range - ± 4.0% of reading within calibration range
Repeatability	- ± 0.3% of full scale over recommended design flow range
Linearity	- ± 0.2% of full scale over recommended design flow range
Max. pressure	- 100 psi @ 20°C (68°F)
Max. temperature	- 60°C (140°F) @ 40 psi
Electrical	
Transducer excitation	- Quiescent current 600 μA @ 8 VDC to 35 VDC max. - Quiescent voltage (V_{high}) supply voltage –(600 μA*supply impedance) - ON state (V_{low}) max. 1.2 VDC @ 40 mA current limit (150 Ω+ 0.7 VDC)
Output frequency	- 3.2 Hz to 200 Hz
Output pulse width	- 5 msec ± 25%
Cable	- 6 m (20 feet) of 2-conductor 20 AWG shielded U.L. type PTLC wire provided for connection to display or analog transmitter unit. Rated to 105°C. May be extended to a maximum of 600 m (2000 feet) with similar cable and insulation appropriate for application.