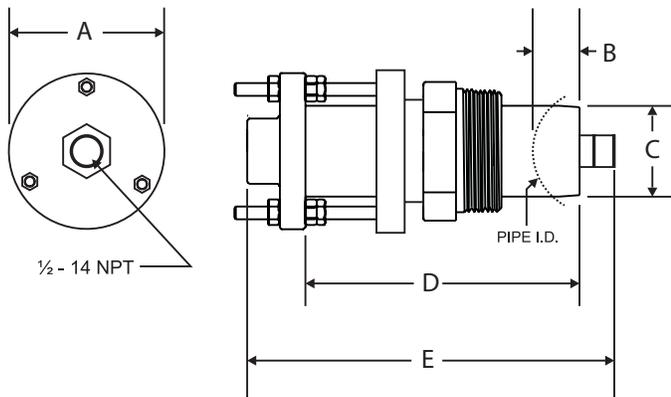


DESCRIPTION

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

The Series 220 PVCS 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 2000 feet between the sensor and the display unit without the need for amplification. The sensor is supplied with 20 feet of shielded two-wire cable.



A	B	C	D	E
3-1/4 in.	1-1/2 in.	1-9/10 in.	8 in.	9-11/16 in.
83 mm	38 mm	48 mm	203 mm	249 mm

Figure 1: Dimensions for model 220 PVCS



ORDERING MATRIX

	Example: 2	20	BR	00	0	5	-	1	2	1	1
STYLE	Standard Flow	20									
MATERIAL	Brass		BR								
	Stainless Steel		SS								
	PVC Sleeve w/Stainless Steel Trim		PVS								
SIZE	Insert Style for pipe sizes 3" and up	00									
ELECTRONICS HOUSING	PPS				0						
ELECTRONICS	CSA Approved					4					
	Standard Flow (STANDARD)					5					
	IR-irrigation					6					
O-RING	Viton®							0			
	EPDM (STANDARD)							1			
	Buna N							8			
SHAFT	Zirconia Ceramic									0	
	Tungsten Carbide (STANDARD)									2	
	316 Stainless Steel									6	
IMPELLER	Nylon (STANDARD)										1
	Tefzel®										2
BEARING	UHMWPE (STANDARD)										1
	Tefzel®										2
	Teflon®										3

SPECIFICATIONS

MECHANICAL	
Recommended Design Flow Range	0.5...30 ft/sec (0.15...9 m/sec) Initial detection below 0.3 ft/sec (0.9 m/sec)
Accuracy	± 1.0% of reading within calibration range
	± 4.0% of full scale over recommended design flow 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 (6.9 bar) @ 68° F (20° C)
Max Temperature	140° F (60° C) @ 40 psi (2.7 bar)
Wetted Materials	Impeller & Bearing: Tefzel®
	Shaft: Zirconia ceramic
	Housing: Glass reinforced polyphenylene sulfide (PPS)
	O-Ring: Ethylene propylene (EPDM)
	Sleeve & Mounting Adapter: Polyvinyl chloride (PVC)
Non-Wetted Materials	Trim: 316 stainless steel
	NOTE: Optional materials available for O-Ring, Shaft and Impeller. Consult factory.
ELECTRICAL	
Transducer Excitation	Quiescent current 600 uA @ 8...35V DC max.
	Quiescent voltage (V_{High})
	Supply voltage (600 uA supply impedance)
	ON State (V_{Low}) max. 1.2V DC @ 40 mA current limit (15 Ω + 0.7V DC)
Output Frequency	3.2...200 Hz
Output Pulse Width	5 msec \pm 25%
Cable	20 ft (6 m) of 2-conductor 20 AWG shielded UL type PTLC wire provided for connection to display or analog transmitter unit. Rated to 221° F (105° C). May be extended to a maximum of 2000 ft (610 m) with similar cable and insulation appropriate for application.

Control. Manage. Optimize.

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