

IR-Opflow PVDF Precision Flowmeters

Corrosion resistant flow sensor

Manufactured in PVDF (polyvinylidene fluoride) the IR-Opflow Sensor is a precise volumetric flow meter.

Incoming liquid is forced into a twisting motion by spiral surfaces molded into the inflow section. This causes a miniature rotor to turn, virtually friction free. Each time the rotor spins, the blade interrupts a beam of infrared light generating a series of pulses that can be measured.

The precision of the IR-Opflow is not influenced by either the pressure or volume variations. The patented rotor design prevents air or gas bubbles from becoming trapped in the flowtube, making the IR-Opflow flowsensor not only rugged but extremely accurate.



Typical features:

- Manufactured in PVDF (polyvinylidene fluoride)
- Measuring range: 0.1-120 l/min. through six sizes
- Threaded or Hose Barb connections
- Accuracy: $\pm 1\%$ or $\pm 3\%$ of measured value
- Repeatability: $\pm 0.1\%$ of measured value
- Square wave Vdc frequency output
- Patented design and lightweight rotor minimizes wear, provides friction free rotational movement
- Mountable in any position

Specifications:

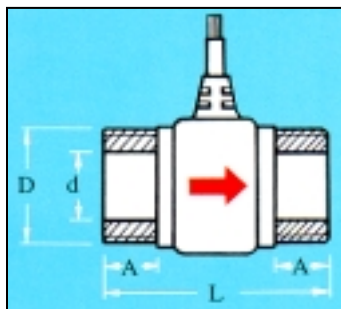
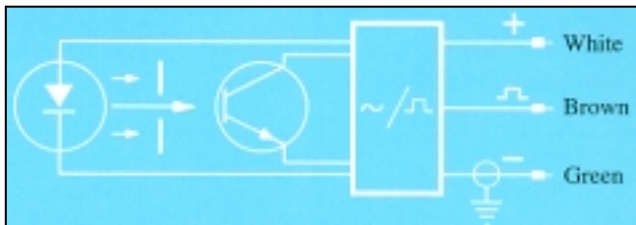
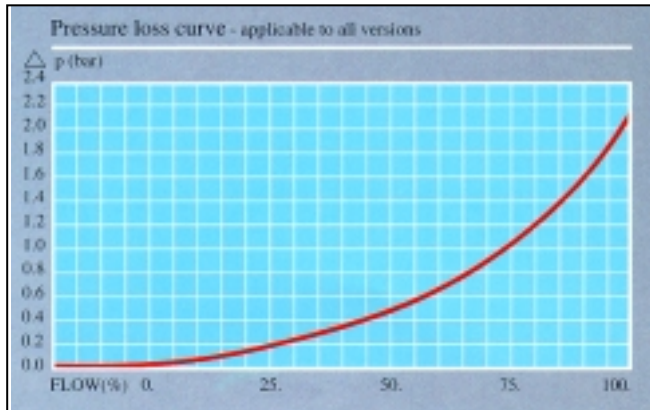
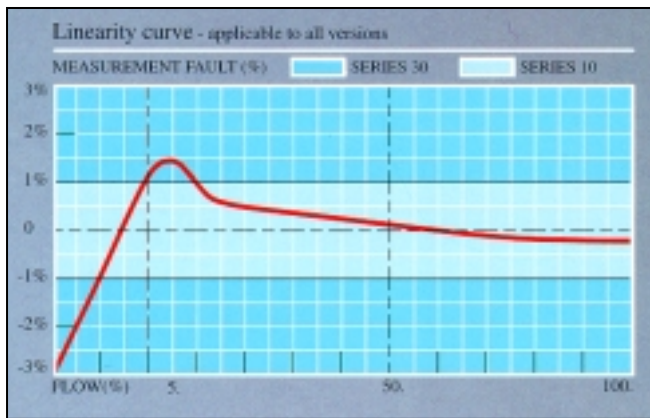
Type	Flow range		K-factor<5cSt pulses/l	Output Hz
	lpm	(gpm)		
1	0.1-2.0	(0.03-0.53)	36,000	60-1200
2	0.3-9.0	(0.08-2.38)	8,000	40-1200
3	0.5-15.0	(0.13-3.96)	3,200	26.66-800
4	1.0-30.0	(0.26-7.93)	1,200	20-600
5	2.5-75.0	(0.66-19.8)	450	18.75-562
6	4.0-120.0	(1.06-32.0)	225	15-450

Technical Specifications:

Accuracy:	10 Series $\pm 1\%$ of meas. value 30 Series $\pm 3\%$ of meas. value
Repeatability	$\pm 0.1\%$ of measured value
Flow range:	See specifications
Temperature range:	-40 to 85°C (-40° to 185° F)
Maximum pressure:	150 psi
Process connection:	NPT, BSP or flexible hose fitting, see table 1 and 2
Materials:	All wetted parts PVDF

Electrical Specifications:

Power supply:	5 - 12 Vdc, 6 - 24 mA 8 - 24 Vdc, 18 - 30 mA
Pulse output:	Push-Pull
Max. load:	2k2 Ohm
Frequency:	15-1,200 Hz , see specifications
Signal cable:	3 feet, other lengths on request
Signal source:	Opto-electronic (infrared)



Optional cartridge model features

- Turbine meter accuracy with convenience of non-intrusive unit for cleaning
- Rotor assembly removable for cleaning or replacement of flow tube
- Patented design with $\pm 1\%$ or $\pm 3\%$ accuracy
- Accuracy guaranteed when replacing cartridge
- Electronics unaffected by replacement

Cartridge specifications:

Accuracy:	10 Series $\pm 1\%$ of meas. value 30 Series $\pm 3\%$ of meas. value
Repeatability:	$\pm 0.1\%$ of measured value
Flow range:	Type 1, 2 and 3
Temperature range:	-40 to 85°C (-40 to 185°F)
Maximum pressure:	150 psi
Process connection:	Flexible hose fitting, (o.d. 9mm)
Materials:	All wetted parts are PVDF

Electrical specifications:

Power supply:	5 - 12 Vdc, 6 - 24 mA
Pulse output:	Push-Pull
Max. load:	2k2 ohms
Frequency:	26.66 - 1,200 Hz, see specifications

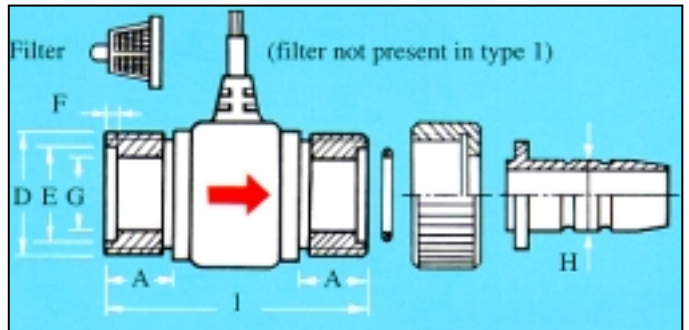


Table 1

Type	NPT or BSP				Dimensions (mm)			
	A	D	d	L	A	D	d	L
1	9.5	1/4"	6.5	39				
2	12.7	1/2"	13.0	47				
3	12.7	1/2"	13.0	47				
4	18.5	3/4"	17.0	63				
5	24.5	1 1/4"	29.0	80				
6	24.5	1 1/4"	29.0	80				

Table 2

Type	Flexible hose fittings				Dimensions (mm)				
	A	D	E	F	G	H	I	Tot L.	
1	9.0	M12x1.5	8.7	1.5	6.5	6.9	39	96	
2	12.0	M20x2	16.0	1.8	12.0	9.0	43	112	
3	12.0	M20x2	16.0	1.8	12.0	12.0	43	116	
4	16.0	M27x2	21.0	2.3	16.0	16.0	57	136	
5	16.5	BSP 1"pl.	29.4	1.6	24.5	19.5	80	182	
6	16.5	BSP 1"pl.	29.4	1.6	24.5	24.5	80	183	

