

**Odyssey Series variable area flowmeters provide stable and repeatable flow indication for medium and high flow rates in aggressive and ultra pure applications.**

*Flow ranges from 0.1 - 3.5 GPM (0.4 - 13.2 l/min.) through 5.0 - 20.0 GPM (19.0 - 75.7 l/min.) in H<sub>2</sub>O*



## Odyssey<sup>®</sup>

### **Accurate, Reliable and Repeatable Performance**

- 100% functional testing including calibration for accuracy and pressure leak testing—superior performance
- PFA sight tube—media compatibility and improves float visibility
- Guide rod centers float—improved sensing accuracy
- Serialization—quality control tracking and custom configurations
- Patented valve provides stable and repeatable flow of process fluids—high resolution and improved linear flow adjustment

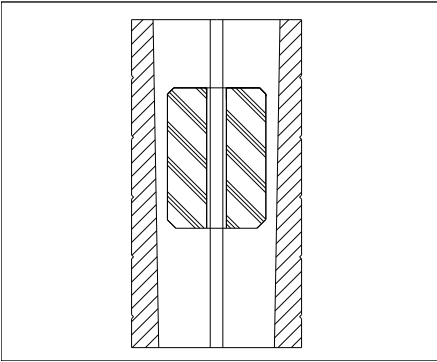
### **Ultra Pure Construction**

- Premium grade fluoropolymers and other high performance plastics—resist corrosion and prevent process contamination
- No exposed metal—eliminates metallic corrosion
- Cleanroom manufacturing and packaging—minimizes potential contamination

flowmeters

## Operation

Odyssey Series variable area flowmeters consist of a solid float inside a tapered vertical tube that widens at the top. Fluid enters at the base of the tube, causing the float to rise. As the float inside the tube rises, the area between the float and the tapered tube wall increases. The upward or downward movement of the float corresponds to the rate of fluid flow in the tube. Direct read scale labels are available. *(Consult factory)* Gradations from 1 through 10, marked on the outside of the tube, allow the observer to reference the flow rate by the position of the float in the tube.



Float in tapered tube

## Specifications

### MATERIALS

- Wetted parts:  
*PTFE, PFA, TFM and CTFE*
- Non-wetted parts:  
*PVDF, polyethylene and polypropylene*

### OPERATING

- Accuracy:  $\pm 5\%$  full scale
- Maximum temperature: 120°C (248°F)
- Maximum pressure: 100 psi

### COMPATIBLE ACCESSORIES

- Sentinel® and Electronic Sentinel® Series optical float position sensors
- Snap ring float position indicators

## Configuration Options

### STYLE

- Panel Mount
- Inline
- Inline / Panel Mount

### METERING VALVE

- With or without integral high resolution metering valve

### CONNECTION SIZES

- 1/2" and 3/4" FNPT
- 1/2", 3/4" and 1" fine thread flare
- 1/2", 3/4" and 1" coarse thread flare
- 1/2", 3/4" and 1" Pillar Super 300®

## Ordering Information

To order, select a configuration and a flow range from the following tables.  
Contact Futurestar for information on additional flow ranges and custom configurations.

Complete Part Number = Configuration + Flow Range (Example: 200-0035)

### CONFIGURATIONS

STYLE	CONNECTION SIZE		FNPT	FINE THREAD FLARE	COARSE THREAD FLARE	PILLAR SUPER 300
PANEL MOUNT	1/2	w/ valve	200	218	242	260
		w/o valve	201	219	243	261
	3/4	w/ valve	202	220	244	262
		w/o valve	203	221	245	263
	1	w/ valve		222	246	264
		w/o valve		223	247	265
INLINE	1/2	w/ valve	206	224	248	266
		w/o valve	207	225	249	267
	3/4	w/ valve	208	226	250	268
		w/o valve	209	227	251	269
	1	w/ valve		228	252	270
		w/o valve		229	253	271
INLINE/ PANEL MOUNT	1/2	w/ valve	212	230	254	272
		w/o valve	213	231	255	273
	3/4	w/ valve	214	232	256	274
		w/o valve	215	233	257	275
	1	w/ valve		234	258	276
		w/o valve		235	259	277

**NOTE: If desired flow is greater than 12 GPM with 1/2" fittings, please consult Futurestar.**

### FLOW RANGES

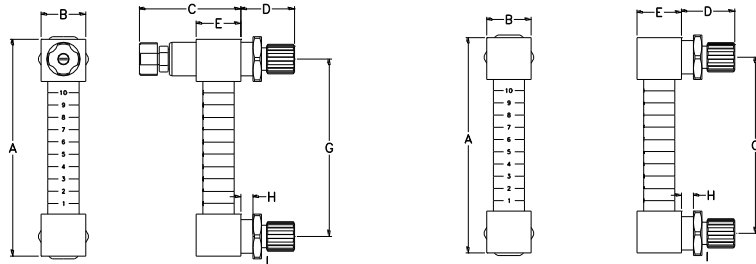
Ranges below are based on DI water at 23°C (73.4°F). Reference water flow chart supplied with each meter.  
All floats are solid PTFE unless noted.

FLOW GPM (l/min.)	PART NUMBER	FLOW GPM (l/min.)	PART NUMBER
<b>MEDIUM FLOW</b>		<b>HIGH FLOW</b>	
0.1 - 3.5 (0.4 - 13.2)	<b>0035</b>	3.0 - 15.0 (11.4 - 56.7)	<b>0150</b>
0.8 - 5.0 (3.03 - 18.9)	<b>005</b>	2.0 - 15.0 (7.6 - 56.7)	<b>015**</b>
2.0 - 8.0 (7.6 - 30.2)	<b>0080</b>	5.0 - 20.0 (19.0 - 75.7)	<b>020**</b>
0.5 - 8.0 (1.9 - 30.2)	<b>008*</b>	*Encapsulated stainless steel weighted fluoropolymer float. **Encapsulated tungsten weighted fluoropolymer float.	
2.0 - 10.0 (7.6 - 37.8)	<b>0100</b>		
1.0 - 10.0 (3.79 - 37.8)	<b>010*</b>		
3.0 - 12.0 (11.4 - 45.4)	<b>012*</b>		

# Installation Drawings

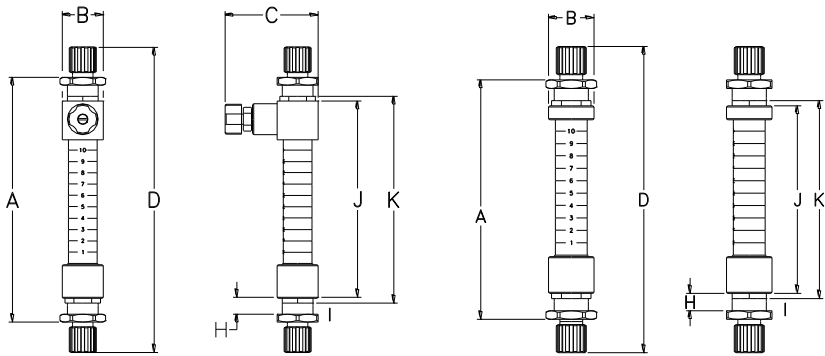
## PANEL MOUNT

		Inches	mm
A	Height	9.75	247.7
B	Width	2.00	50.8
C	Valve open	6.05	153.7
	Valve closed	5.20	132.1
D	1/2" flarenut	1.97	50.0
	3/4" flarenut	2.08	52.8
	1" flarenut	2.28	57.9
E	Depth	2.00	50.8
F	1/2" flarenut	NA	NA
	3/4" flarenut	NA	NA
	1" flarenut	NA	NA
G	Flr. cent. to cent.	8.00	203.2
H	Panel thickness	0.50	12.7
I	Panel hole dia.	1.62	47.2
J	Dimension	NA	NA
K	Dimension	NA	NA



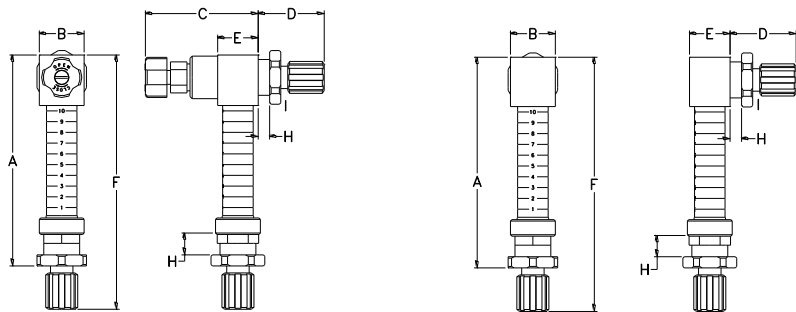
		w/valve		w/o valve	
		Inches	mm	Inches	mm
A	Height	11.81	300.0	10.55	268
B	Width	2.00	50.8	2.00	50.8
C	Valve open	6.05	153.7	NA	NA
	Valve closed	5.2	132.1	NA	NA
D	1/2" flarenut	14.15	359.4	12.89	327.4
	3/4" flarenut	14.37	365.0	13.11	333.0
	1" flarenut	14.77	375.2	13.51	343.2
E	Depth	NA	NA	NA	NA
F	1/2" flarenut	NA	NA	NA	NA
	3/4" flarenut	NA	NA	NA	NA
	1" flarenut	NA	NA	NA	NA
G	Flr. cent. to cent.	NA	NA	NA	NA
H	Panel thickness	0.5	12.7	0.5	12.7
I	Panel hole dia.	1.62	47.2	1.62	47.2
J	Dimension	9.51	241.6	8.25	209.6
K	Dimension	9.97	253.2	8.71	221.2

## INLINE



## INLINE / PANEL MOUNT

		Inches	mm
A	Height	10.66	270.86
B	Width	2.00	50.8
C	Valve open	6.05	153.7
	Valve closed	5.20	132.1
D	1/2" flarenut	1.97	50.0
	3/4" flarenut	2.08	52.8
	1" flarenut	2.28	57.9
E	Depth	2.00	50.8
F	1/2" flarenut	11.83	300.5
	3/4" flarenut	11.94	303.3
	1" flarenut	12.14	308.3
G	Flr. cent. to cent.	NA	NA
H	Panel thickness	0.50	12.7
I	Panel hole diameter	1.62	47.2
J	Dimension	NA	NA
K	Dimension	NA	NA



\*Pillar Super 300 dimensions available upon request.

U.S. Patents: 5565631, 5549277, 5381826, 5078004 • Others pending  
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 Super 300 Type Pillar Fitting® is a trademark of NIPPON PILLAR PACKING CO., LTD.

