

ROTAMETERS

Please see the following pages for more information on Variable Area Flow Meters

- Rib-guided or fluted metering tubes facilitate stable, accurate readings.
- Magnifier lens in front shield enhances reading resolution.
- Easy-to-install flow tubes.
- “Non-rotating” adapter feature glass flow tubes are prevented from turning during the tightening phase of the assembly procedure.

Single Tube Glass Flow Meters

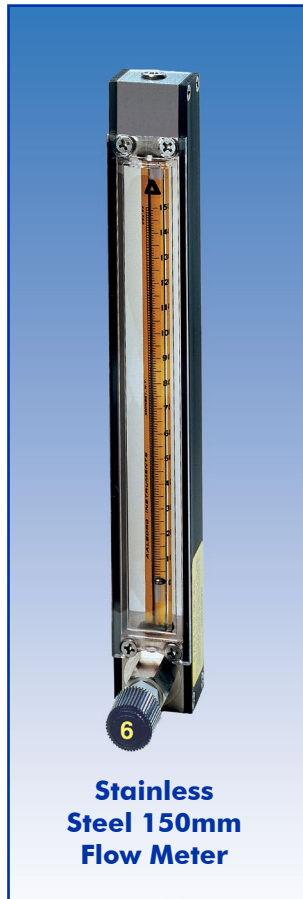
Designed for low flow rates, these single tube flow meters are precision instruments embodying the inherent simplicity, versatility and economy of the classical variable area meter. They are particularly suitable for metering carrier gases in chromatography, in manufacturing processes, liquid and gas measurements in laboratories, pilot plants, flow and level indicating and controlling gases.

Shipped completely assembled, flow meters include standard mounting fittings in a choice of materials, side plates, thick protective front shield and back plate, with or without control valves.

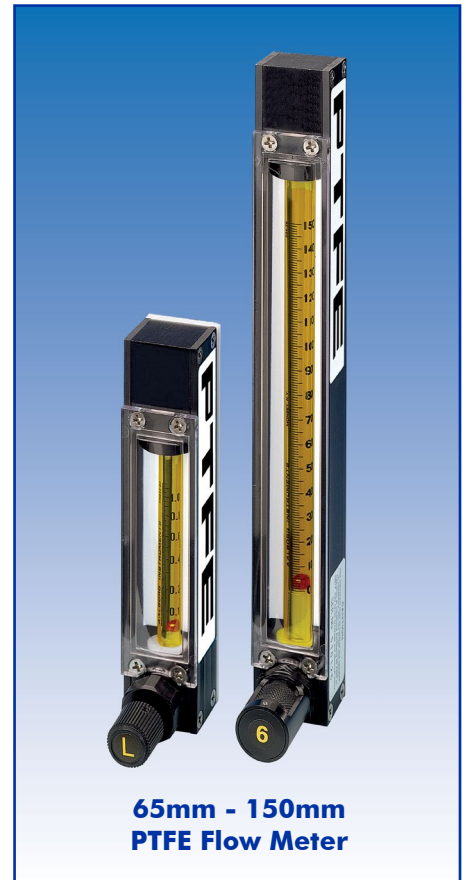
Single Tube PTFE Glass Flow Meters

The PTFE glass flow meter is designed for use with corrosive gases and liquids and for applications where contamination free flow passages are required. Fluids contact only PTFE, PCTFE and borosilicate glass.

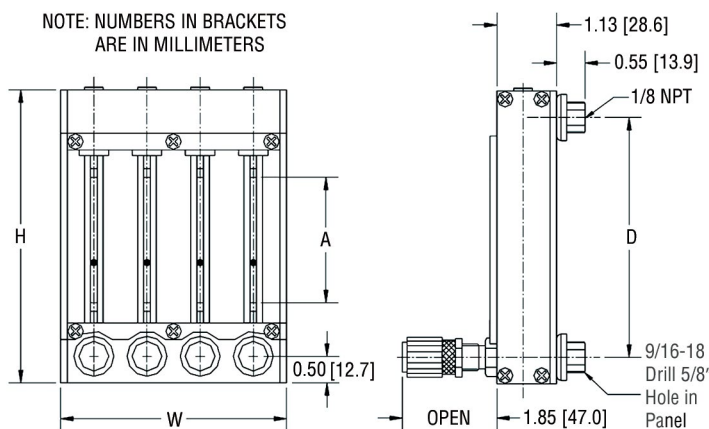
The unique design combines the rigidity of an aluminum structural frame with the desirable chemical inertness of PTFE components. Uses standard 65mm and 150mm flow tubes. Meters are equipped with built-in PTFE needle valves with Kel-F® valve spindles. Valves may be positioned either at inlet or outlet side of flow meter.



Stainless Steel 150mm Flow Meter



65mm - 150mm PTFE Flow Meter



DIMENSIONS FOR P STYLE METERS								
SCALE LENGTH (A)	ALL P METERS		WIDTH (W)					
	HEIGHT (H)	CENTER TO CENTER (D)	1 TUBE	2 TUBE	3 TUBE	4 TUBE	5 TUBE	6 TUBE
65mm	5.500	4.500	1.250	2.250	3.250	4.250	5.250	6.250
150mm	9.813	8.813	1.250	2.250	3.250	4.250	5.250	6.250

SPECIFICATIONS FOR SINGLE TUBE FLOW METERS

- USEFUL FLOW RANGE:** 10:1 minimum with one float and better than 20:1 with combination of two floats installed in meters.
- STANDARD ACCURACY:** ±2% of full scale (mm), 5% of full scale (direct reading).
- CALIBRATED ACCURACY:** ±1% of full scale.
- REPEATABILITY:** ±0.25%.
- MAX. OPERATION PRESSURE:** 200 psig/13.8 bars (PTFE 60 psig/4.13 bars).
- MAX. OPERATION TEMPERATURE:** 250 °F/121 °C (PTFE 150 °F/66 °C).
- FLOW TUBES:** Heavy walled borosilicate glass.
- FLOATS:** Glass, Sapphire, 316 Stainless Steel, Carboloy® and Tantalum.
- CHOICE OF MOUNTING FITTINGS IN CONTACT WITH FLUIDS:**
- A) Aluminum, black anodized.
 - B) Brass, chrome plated.
 - C) 316 Stainless Steel.
- SIDE PANELS:** Aluminum, black anodized.
- FRONT SHIELD:** Lexan® with longitudinal magnifier lens for enhanced reading resolution.
- BACK PLATE:** 1/8" thick white acrylics.
- O-RINGS AND PACKING:** Buna-N® O-rings in aluminum/ brass model. FKM O-rings in stainless steel meters. **OPTIONAL:** FKM PTFE FFKM and EPR.
- CONNECTIONS** 1/8" NPT female inlet and outlet connections. **OPTIONAL:** 1/4" FNPT, hose and compression fittings are available.



The selection of materials of construction, is the responsibility of the customer. The company accepts no liability.

PTFE FLOW METERS

Multi-tube Flow Meters also Available!

PTFE flow meters are available with built-in needle valves (CVT™), high precision metering valves (HRT™) with "non-rising stems", or with no valves.

The higher cost of HRT™ valves is justified whenever high sensitivity control and resolution are desirable, particularly in conjunction with metering tubes of very low flow rates.

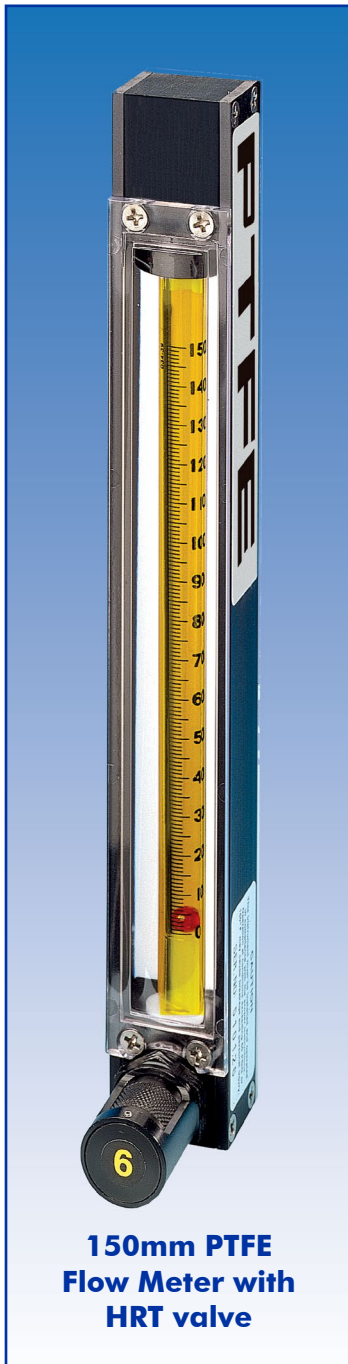
When meters with valves are ordered, the valve cartridges are installed at the inlet. For vacuum service, it is recommended that meters are ordered with valves at the outlet.

MATERIALS OF CONSTRUCTION

- FLOW TUBES:** Heavy walled borosilicate glass.
- FITTINGS IN CONTACT WITH FLUIDS:** Virgin PTFE PCTFE.
- SIDE PANELS:** Aluminum, black anodized.
- FRONT SHIELD AND BACK PLATE:** 1/8" thick clear polycarbonate and white acrylics.
- O-RINGS:** PTFE.
- CONNECTIONS:** 1/8" NPT female inlet and outlet connections.
- OPTIONAL:** Glass hose or compression fittings.



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150mm PTFE Flow Meter with HRT valve

MAXIMUM FLOW RATE					VALVE OPTION		
AIR		WATER		FLOAT MATERIAL	NO VALVE	CARTRIDGE VALVE CVT	HIGH PRECISION VALVE (HRT)
mL/min	scfh	mL/min	gph		MODEL NO.	MODEL NO.	MODEL NO.
11.6	0.024	N/A		Glass	6AT3101N1	6AT3101C1	6AT3101M1
18.3	0.038			Sapphire	6AT3102N1	6AT3102C1	6AT3102M1
34	0.07			316 S.S.	6AT3103N1	6AT3103C1	6AT3103M1
62.8	0.13			Carboloy®	6AT3104N1	6AT3104C1	6AT3104M1
46.6	0.098	0.50	0.007	Glass	6AT3105N1	6AT3105C1	6AT3105M1
73.1	0.154	0.99	0.015	Sapphire	6AT3106N1	6AT3106C1	6AT3106M1
138.3	0.293	2.36	0.037	316 S.S.	6AT3107N1	6AT3107C1	6AT3107M1
239.1	0.506	4.60	0.072	Carboloy®	6AT3108N1	6AT3108C1	6AT3108M1
91.6	0.194	1.13	0.020	Glass	6AT3109N1	6AT3109C1	6AT3109M1
144.3	0.306	2.19	0.035	Sapphire	6AT3110N1	6AT3110C1	6AT3110M1
262.2	0.556	4.97	0.079	316 S.S.	6AT3111N1	6AT3111C1	6AT3111M1
431.7	0.915	9.23	0.146	Carboloy®	6AT3112N1	6AT3112C1	6AT3112M1
370.6	0.784	5.71	0.090	Glass	6AT3113N1	6AT3113C1	6AT3113M1
513.3	1.087	10.00	0.158	Sapphire	6AT3114N1	6AT3114C1	6AT3114M1
816.0	1.729	19.2	0.301	316 S.S.	6AT3115N1	6AT3115C1	6AT3115M1
1216.9	2.579	31.6	0.500	Carboloy®	6AT3116N1	6AT3116C1	6AT3116M1
817	1.731	15.2	0.240	Glass	6AT3117N1	6AT3117C1	6AT3117M1
1093	2.316	24.9	0.394	Sapphire	6AT3118N1	6AT3118C1	6AT3118M1
1665	3.528	44.3	0.702	316 S.S.	6AT3119N1	6AT3119C1	6AT3119M1
2405	5.096	69.0	1.094	Carboloy®	6AT3120N1	6AT3120C1	6AT3120M1
2214	4.690	49.9	0.792	Glass	6AT3121N1	6AT3121C1	6AT3121M1
2975	6.300	77.7	1.234	Sapphire	6AT3122N1	6AT3122C1	6AT3122M1
4494	9.520	132.5	2.092	316 S.S.	6AT3123N1	6AT3123C1	6AT3123M1
6467	13.70	203.2	3.218	Carboloy®	6AT3124N1	6AT3124C1	6AT3124M1
3780	8.00	89	1.411	Glass	6AT3125N1	6AT3125C1	6AT3125M1
4942	10.47	134	2.124	Sapphire	6AT3126N1	6AT3126C1	6AT3126M1
7720	16.35	226	3.582	316 S.S.	6AT3127N1	6AT3127C1	6AT3127M1
10780	22.84	343	5.437	Carboloy®	6AT3128N1	6AT3128C1	6AT3128M1
8555	18.12	200	3.170	Glass	6AT3129N1	6AT3129C1	6AT3129M1
11140	23.60	301	4.771	Sapphire	6AT3130N1	6AT3130C1	6AT3130M1
16493	34.94	498	7.893	316 S.S.	6AT3131N1	6AT3131C1	6AT3131M1
23001	48.73	736	11.67	Carboloy®	6AT3132N1	6AT3132C1	6AT3132M1
23105	48.95	579	9.177	Glass	6AT3133N1	6AT3133C1	6AT3133M1
29410	62.30	833	13.2	Sapphire	6AT3134N1	6AT3134C1	6AT3134M1
42860	90.80	1339	21.22	316 S.S.	6AT3135N1	6AT3135C1	6AT3135M1
60212	127.5	1972	31.26	Carboloy®	6AT3136N1	6AT3136C1	6AT3136M1

Carboloy® is only recommended for ultra pure fluids and is NOT recommended for corrosive