

L TEFLON® PTFE-PFA FLOWMETERS

Incorporating the principles of traditional variable area flow technology, these rugged Teflon® PTFE-PFA flowmeters offer solutions to low to medium flow range measurements of highly corrosive or ultra-pure liquids.

Model L Meters are constructed of inert materials such as PFA, Teflon® PTFE and PCTFE. Wetted inert components are surrounded by structurally rigid materials such as PFA-clad aluminum, KYNAR®. The resultant design represents a unique combination of a rugged mechanically rigid frame and the chemically inert wetted parts.

Flowmeters are also resistant to external, ambient corrosives. For the protection of personnel each flowmeter is supplied with a safety shield.

Flowmeters are supplied with or without built-in needle valves and they are panel mountable, by means of KYNAR® panel nuts.

design features

- ✓ Chemically inert wetted components constructed from PFA Teflon® PTFE and PCTE.
- ✓ Non-fluid contacting structurally rigid frame constructed from PFA-clad aluminum and KYNAR®.
- ✓ Overlapping flow ranges are available for water from 5 ml/min (0.00132 GPM) to 45 L/min (12 GPM).
- ✓ Individually leak tested.

LEAK INTEGRITY

Flowmeters are individually tested on a Mass Spectrometer Leak Detector and certified to a leak integrity rating of 1×10^{-7} sccs Helium or better.

High Range Teflon® meter with Valve



Low Range Teflon® meter without Valve

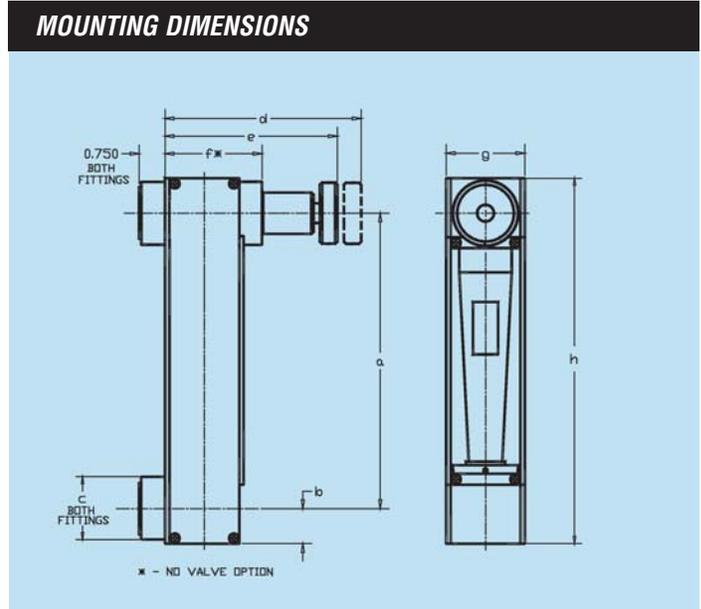


PRINCIPLES OF OPERATION

A cylindrical float freely moving inside a tapered flowtube comprises the flow measurement element of Teflon® PTFE - PFA flowmeters. The translucent PFA flowtube is installed vertically in-line in the liquid stream.

As flow takes place the float is propelled up inside the flowtube. The area between the float and the inside diameter of the flowtube gradually increases with increasing flow and correspondingly the pressure lifting the float decreases until the weight of the float and its buoyant force come to equilibrium.

At equilibrium the top of the float is lined up with a scale graduation on the flowtube denoting a discrete rate of flow.



SPECIFICATIONS	
SCALES	0 to 10 markings (see dimension table for scale lengths).
ACCURACY	±5% of full scale.
MAXIMUM TEMPERATURE	250° F (121°C).
MAXIMUM PRESSURE	100 psig (6.7 bars).
LEAK INTEGRITY	Individually pressure and leak tested and certified to a rating of 1 x 10 ⁻⁷ sccs of Helium.

DIMENSIONS FOR L STYLE METERS									
METER SIZE	A	B	C	D	E	F	G	H	SCALE LENGTH
A	4.97	0.56	1.06	3.35	3.15	1.52	1.25	6.16	75mm
B	4.97	0.56	1.25	4.65	4.25	1.82	1.50	6.16	75mm
C	8.72	0.88	1.75	4.57	4.07	2.12	2.00	10.4	125mm
D	8.47	1.00	1.75	5.95	5.00	2.32	2.25	10.4	125mm

MATERIALS OF CONSTRUCTION	
FLOWTUBES	Teflon® PFA.
FLOATS	Teflon® PTFE.
WETTED PARTS	PFA (flowtubes) and Teflon® PTFE (end fittings and floats) and PCTFE (guide rods).

* Dimensions are in inches, except as shown in [mm]; for certified dimensions contact the company.

ORDERING INFORMATION

L STYLE LOW RANGE METERS				
MODEL NUMBER		CONNECTION	MAXIMUM FLOW	
BUILT IN VALVE	NO VALVE		mL/min WATER	gpm WATER
L6C-L01-01-TF	L3C-L01-01-TF	1/4" FNPT	75	1.19
L6C-L02-01-TF	L3C-L02-01-TF	1/4" FNPT	250	3.96
L6C-L03-01-TF	L3C-L03-01-TF	1/4" FNPT	400	6.34
L6C-L04-01-TF	L3C-L04-01-TF	1/4" FNPT	500	7.92
L6C-L05-01-TF	L3C-L05-01-TF	1/4" FNPT	1000	15.85
L6C-L06-01-TF	L3C-L06-01-TF	3/8" FNPT	2000	31.69
L6C-L07-01-TF	L3C-L07-01-TF	3/8" FNPT	2500	39.62
L6C-L08-01-TF	L3C-L08-01-TF	3/8" FNPT	3000	47.54
L6C-L09-01-TF	L3C-L09-01-TF	3/8" FNPT	5000	79.23

L STYLE HIGH RANGE METERS				
MODEL NUMBER		CONNECTION	MAXIMUM FLOW	
BUILT IN VALVE	NO VALVE		mL/min WATER	gpm WATER
L6C-L10-01-TF	L3C-L10-01-TF	1/2" FNPT	13	3.43
L6C-L11-01-TF	L3C-L11-01-TF	1/2" FNPT	20	5.28
L6C-L12-01-TF	L3C-L12-01-TF	3/4" FNPT	30	7.93
L6C-L13-01-TF	L3C-L13-01-TF	3/4" FNPT	40	10.57
L6C-L14-01-TF	L3C-L14-01-TF	3/4" FNPT	45	11.89