

LoFlo series

Precision turbine meters

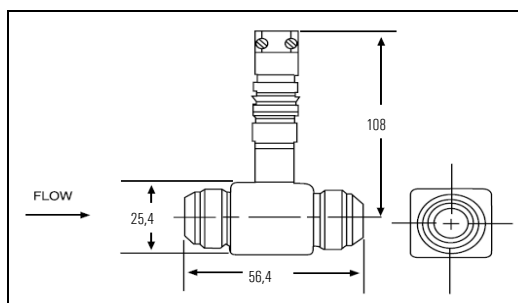


Description

A high-accuracy flowmeter widely used for flow measurements in attitude and position control rocket engines and other applications. Built for compatibility with exotic fuels and oxidizers, such as N2O4, UDMH, MMH, hydrazine, freon, etc.

The LoFlo series meters are nonlinear, but are repeatable to $\pm 0.25\%$ of reading, allowing an overall accuracy of $\pm 0.5\%$.

Dimensions (in mm)



Technical data

Model	Flow range (1:01 flow ratio)		Model	Flow range		Tube size (")	Max freq. (Hz)	* ΔP kg/cm ²
	l/m	kg/h		l/m	kg/h			
LF6-000	0.027/0.284	1.29/12.9	LFC6-000	0.024/284	0.998/12.9	3/8	1800	1.40
LF6-00	0.045/0.473	2.15/21.5	LFC6-00	0.034/473	1.54/21.5	3/8	1800	0.84
LF6-0	0.095/0.946	4.31/43.1	LFC6-0	0.053/946	2.45/43.1	3/8	1800	0.32
LF6-1	0.189/1.89	8.62/86.2	LFC6-1	0.087/1.89	3.99/86.2	3/8	1800	0.28
LF6-2	0.284/2.84	12.9/129	LFC6-2	0.140/2.89	5.99/129	3/8	1800	0.32
LF6-3	0.473/4.73	21.5/215	LFC6-3	0.227/4.73	9.98/215	3/8	1800	0.49

Features

- High accuracy
- Wide flow range
- Fast response to rate changes
- Simplicity of construction with few parts
- Cost effective
- Calibration traceable to NIST

Performance specifications

Accuracy	$\pm 0.50\%$ of reading
Repeatability	$\pm 0.25\%$ of reading
Max. frequency output	1500 to 1800 Hz
Pressure rating	410 bar @ 23 °C (6000 psi @ 75 °C)
Min. output signal	10 millivolts
Response time	20-30 ms or better

Installation

The meters can be mounted directly in the line and can be installed in any position without affecting performance. To reduce flow turbulence, a straight section of tube approximately 10 diameters in length upstream of the flowmeter is recommended, and a similar section about 5 diameters downstream. Where impractical due to space limitations, careful attention to location of valves, bends, etc., is suggested. Flow straightener sections are available from Badger Meter. Upstream filtration (10 micron) is also helpful to extend bearing life and to prevent possible damage to the rotor, but is not an absolute necessity. Electrical installation requires 2-conductor, shielded cable to the readout device.

End fittings available:

- Standard AN (MS) 37° flare
- Optional hose barb adapter

*Cox is a division of Badger Meter, Inc.