



Proven Performance  
for Over 50 Years

# Precision Turbine Flow Meters—LoFlo Series

## FOR MEASURING FLOWS AS LOW AS 0.006 GPM

### ADVANTAGES

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

### 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  $\pm 0.5\%$ .

### INSTALLATION

COX Turbine Flowmeters mount 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 COX). 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.

### Performance Specifications

Turbine Meter Accuracy (% of reading)	$\pm 0.50\%$
Repeatability (% of reading)	$\pm 0.25\%$
Frequency Output (maximum)	1500 TO 1800 Hz
Pressure Rating (at 75°F)	6000 psi
Output Signal (minimum)	10 millivolts
Response Time (milliseconds)	20-30 or better



# Flow Ranges and Dimensions

## ENGLISH UNITS

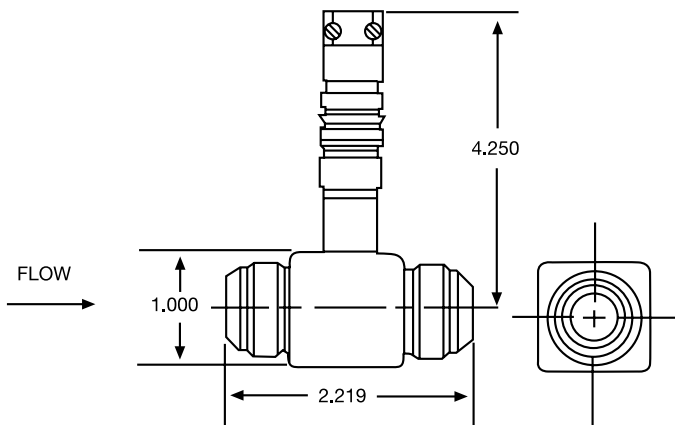
COX Model	Flow Range (1:01 flow ratio)		COX Model	Flow Range		Tube Size (IN.)	Max. Freq. (Hz)	* $\Delta P$	Notes
	Gal./minute	Lbs./Hour		Gal./minute	Lbs./hour				
LF6-000	0.007-0.075	2.85-28.5	LFC6-000	0.006-0.075	2.2-28.5	3/8	1800	20.0	LoFlo Series meters are not linear but repeat to .25% of reading.
LF6-00	0.012-0.125	4.75-47.5	LFC6-00	0.009-0.125	3.4-47.5	3/8	1800	12.0	
LF6-0	0.025-0.25	9.50-95.0	LFC6-0	0.014-0.25	5.4-95.0	3/8	1800	4.5	
LF6-1	0.050-0.50	19.0-190	LFC6-1	0.023-0.50	8.8-190	3/8	1500	4.0	repeat to .25% of reading.
LF6-2	0.075-0.75	28.5-285	LFC-6-2	0.037-0.75	13.2-285	3/8	1500	4.5	
LF6-3	0.125-1.25	47.5-475	LFC6-3	0.06-1.25	22-475	3/8	1350	7.0	

\* Pressure drop in table is based on liquid, specific gravity 0.76 at maximum frequency.

## METRIC UNITS

COX Model	Flow Range (1:01 flow ratio)		COX Model	Flow Range		Tube Size (IN.)	Max. Freq. (Hz)	* $\Delta P$ Kg/cm <sup>2</sup>	Notes
	Lit./minute	Kg./hour		Lit./minute	Kg./hour				
LF6-000	.027/.284	1.29/12.9	LFC6-000	.024/.284	.998/12.9	3/8	1800	1.4	LoFlo Series meters are not linear but repeat to .25% of reading.
LF6-00	.045/.473	2.15/21.5	LFC6-00	.034/.473	1.54/21.5	3/8	1800	.84	
LF6-0	.095/.946	4.31/43.1	LFC6-0	.053/.946	2.45/43.1	3/8	1800	.32	
LF6-1	.189/1.89	8.62/86.2	LFC6-1	.087/1.89	3.99/86.2	3/8	1500	.28	repeat to .25% of reading.
LF6-2	.284/2.84	12.9/129	LFC-6-2	.140/2.89	5.99/129	3/8	1500	.32	
LF6-3	.473/4.73	21.5/215	LFC6-3	.227/4.73	9.98/215	3/8	1350	.49	

\* Pressure drop in table is based on liquid, specific gravity 0.76 at maximum frequency.



### END FITTINGS AVAILABLE:

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

For more information, contact COX Instruments or your local COX Instruments representative.



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