

# TECHNICAL DATA SHEET

## LOW FLOW TURBINE FLOWMETER FOR PROCESS LIQUID MEASUREMENT - LF

Turbines, Inc. is a leader in the design and manufacture of reliable and accurate turbine flow metering equipment, electronic monitors, and accessories. All of our products are engineered, manufactured, and calibrated using premium quality materials by a skilled engineering team, using state-of-the-art equipment.

The LF Series from Turbines Incorporated offers measurement capability from .007 to 3 GPM. The LF Series is designed to operate in clean fluid applications with low viscosities.

The LF Series meter can handle working pressures up to 5000 psig (based on end connection used) and delivers +/- .25% repeatability over the specified flow range. For every LF series meter manufactured by Turbines Inc., a 20pt NIST traceable calibration is performed that documents the meter's unique flow profile. For additional outputs or local indication the LF Series can be combined with one of our reliable linearized signal conditioners or rate indicator totalizers.



### PERFORMANCE SPECIFICATIONS

SIZE	NOMINAL FLOW RANGE U.S. Gallons (Liters) Per Minute		ΔP psi (bar)
	Minimum Repeatable	Maximum Repeatable	
LF020	0.007 (0.026)	0.070 (0.265)	30
LF030	0.008 (0.030)	0.090 (0.341)	17
LF040	0.010 (0.038)	0.170 (0.644)	14
LF050	0.013 (0.049)	0.250 (0.946)	10
LF060	0.017 (0.064)	0.350 (1.325)	12
LF070	0.020 (0.076)	0.450 (1.703)	12
LF080	0.030 (0.114)	0.650 (2.461)	18
LF090	0.040 (0.151)	0.750 (2.839)	16
LF100	0.030 (0.114)	0.950 (3.596)	33
LF125	0.040 (0.151)	1.500 (5.678)	33
LF150	0.055 (0.208)	2.000 (7.571)	34
LF175	0.070 (0.265)	3.000 (11.356)	52

Pressure drop based on water at a viscosity of 1 Cpse

### PERFORMANCE DATA

Repeatability	+/- 0.25% Over Flow Range
Operating Temperature	-70°F to +450°F
Connections	NPT, 37° AN Flare, Others available upon request
Flow rate	From 0.007 to 3.00 GPM
Pressure Rating	Up to 5000 psi
<b>Materials</b>	
Meter body/Internals	316 Stainless Steel, Others available upon request
Rotor	17-4 PH, Nickel 200, Duplex Stainless Steel
Bearing	440C Stainless Steel raceway and balls, self-lubricating retainer

### Certifications

Turbines, Inc.'s quality management systems are ISO 9001 and AS 9100 compliant, NIST and Canadian CRN certified.

## APPLICATIONS

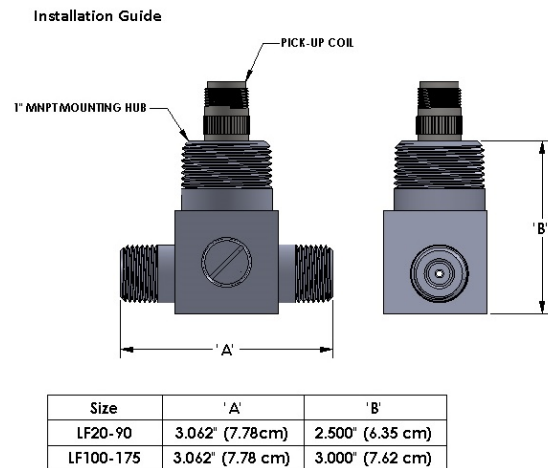
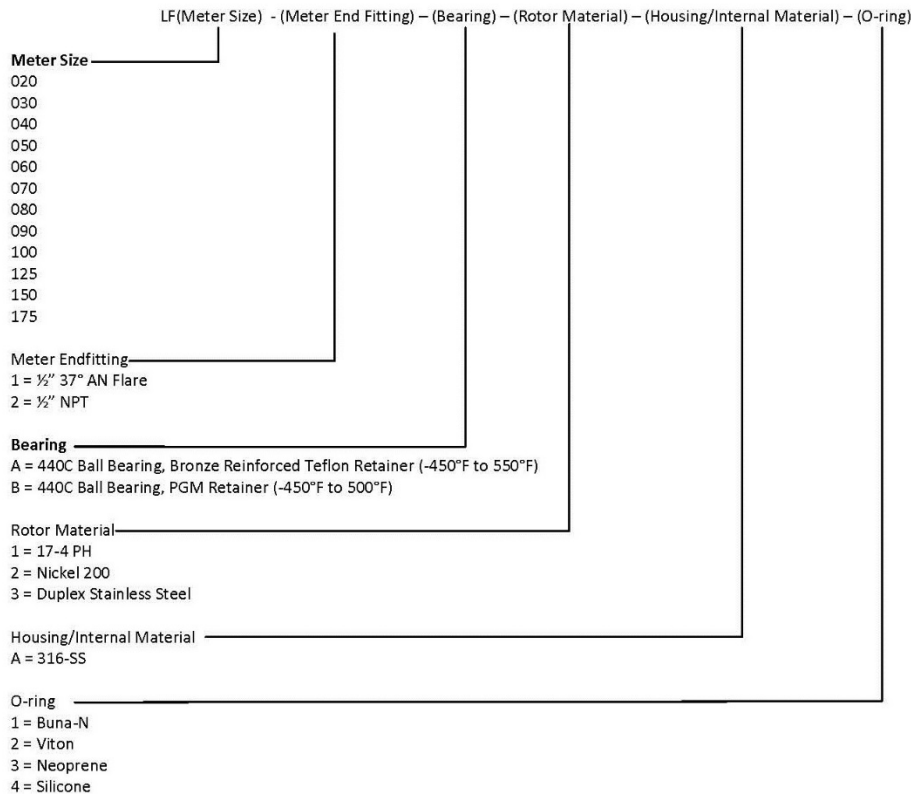
### Turnkey Metering Solutions

- Fuel Flow Metering
- Leak Detection
- Fuel Additives
- Blending of Chemical Additives
- Measurement of Pharmaceutical Compounds
- Anti-Foam for Down-Hole Injection
- Refrigerants
- Solvents

### Typical Liquid Applications

- Liquid Ammonia
- Butane
- LPG
- Ethanol
- Water-DI
- Liquid CO2
- Freon
- Glycols
- Mercaptan

Model Number Designation for LF Series Meter



### Support and Service

Our full time, dedicated service group offers 100% trustworthy support and recertification for flow meters – whether our own or a competitor’s brand. Our meter proving services are performed by our trained technicians and the latest testing equipment.

Custom meters and instrumentation options for your application are readily available. TI maintains an extensive inventory and most products typically ship within 24 hours.



15935 U.S. Highway 283, PO Box 933  
 Altus, OK 73522 USA  
 Tel: +1-864-882-4544  
 Fax: +1-864-882-4457

[www.turbinesincorporated.com](http://www.turbinesincorporated.com)

*Turbines, Inc. products and operations are certified to industry standards for safety and performance. Visit our website for details.*

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### Worldwide Support

Turbines, Incorporated serves customers worldwide with U.S. offices in Cranston, RI (headquarters); Houston and Odessa-Midland, TX; Altus, OK; Seneca, SC; as well as locations in Edmonton, Alberta (Canada).

**Contact your Turbines, Inc. Field Application Engineer for Assistance.**

**Name:** \_\_\_\_\_

**Phone:** \_\_\_\_\_

**Email:** \_\_\_\_\_



**All Turbines, Inc. products are proudly made in the U.S.A.**