

LF-F Series

Liquid Flow Meter Specification

Model	LF-F20M-A	LF-F30M-A	LF-F40M-A	LF-F50M-A	LF-F60M-A
Flow Range (g/min)	0.02/0.05/0.1	0.2/0.5	1/2/5	10/20	50/100
Measurement Range	5 to 100% F.S.				
Application Liquid*1	All liquids except those corrosive to stainless steel (ex, HCl and HF)				
Viscosity*2	max. 0.1 Pa·s (100cp)				
Accuracy*3	±1% F.S.				
Linearity	±0.5% F.S.				
Repeatability	±0.5% F.S.				
Response	Less than 3sec (T98)		Less than 2sec (T98)		
Operating Temperature*5	5 to 50°C				
Temperature coefficient	± 0.1%F.S./°C max± 1%				
Operating Pressure*6	Max. 5MPa (as flow meter) / 50 to 300kPa (with piezo control valve)				
Pressure Resistance	10MPa (as flow meter)				
Pressure Drop*7	max. 500Pa				
Flow Rate Signal	Analog: 0 to 5 VDC Digital: RS485				
Power Supply	+15 V ± 5%, 200 mA -15 V ± 5%, 200 mA				
Leak Integrity	5×10^{-12} Pa·m ³ /s (He)				
Wetted Material	SUS316L, Ni				
Standard Fitting	1/16" , 1/8" compression fitting, 1/8" VCR type		1/8" compression fitting 1/8" VCR type	1/4" compression fitting 1/4" VCR type	

*1 With the LF-F/LV-F Series, flow rate calibration is performed using one specified type of liquid. (Please indicate the type of liquid to be used when ordering the device.)

- Liquids containing solid materials cannot be measured. - Please consult us in advance if you plan to use these devices with liquid mixture for which the mixture ratio may vary.

- With the LV-F Series, if the liquid to be measured contains particle etc., please install a 0.2 μm (Abs) filter on the primary side.

*2 The LV-F Type can be used with a maximum viscosity of 0.01Pa·s depending on the flow rate range. Please consult us in advance if you plan to use this device with high-viscosity liquids.

*3 Specification of accuracy, linearity and repeatability is guaranteed against calibrated liquid based on SEMI E56-1296.

*4 It is the specification which is adjusted by Auto-PID function with our piezo control valve.

*5 In order to ensure precise measurement, please maintain incoming liquid temperature to be within 10 deg.C lower or 3 deg.C higher than the ambient temperature.

*6 Specification of Operating Pressure is the pressure range when liquid viscosity is 0.001Pa·s.

*7 Specification of pressure drop is when liquid (with viscosity of 0.001Pa·s) is introduced at 100% F.S. of measurement point.