

XF Series Mass flow meter

Model	XF-122	XF-132	XF-124	XF-134	XF-127	XF-137
Flow range (g/min) ¹	0.2/0.5/1/2	5/10/20/30	0.2/0.5/1/2	5/10/20/30	0.2/0.5/1/2	5/10/20/30
Measurement range	5-100% F.S.					
Liquid	Except those corrosive to stainless steel (ex, HCl and HF)					
Viscosity	Max.0.01Pa·s (10cP)					
Accuracy ²	±0.8% F.S.					
Linearity ²	±0.4% F.S.					
Repeatability ²	±0.4% F.S.					
Response ³	0.1sec (when combined with a piezo valve: Close to set point within 0.8sec)					
Operating temperature	5-50 °C					
Temperature influence	±0.1% F.S./°C (15°C ≤ Ambient temperature ≤ 45°C)					
Operating pressure ⁴	100-300kPa (G) @23±2°C					
Proof pressure	1MPa(G)					
Pressure drop	Max.90kPa (D) @23±2°C					
Flow rate setting signal ⁵	Analog : 0.25~5VDC (input impedance 1 MΩ or higher) Digital : RS485 (F-Net Protocol)		DeviceNet™ Protocol		EtherCAT® Protocol	
Flow rate output signal	Analog : 0~5VDC (input impedance 2 MΩ or higher) Digital : RS485 (F-Net Protocol)					
Leak Integrity	≤ 5×10 ⁻¹² Pa·m ³ /s (He)					
Wetted material ⁶	SUS316L, SPRON510 ,Ni					
Power supply	+15V±5% 200mA	-15V±5% 200mA	DC24V(DC11-25V) 6VA max. 540mA at11V		DC24±4V 6VA	
Standard Fitting	1/4 inch VCR Male type, 1/8 inch VCR Male type					
Interface	Analog connector : D-Subminiature 9contact pin in connector with M3 screw type Digital connector : RJ45 connector Valve connector : EGG.00.302.CYM by LEMO		DeviceNet™ connector : Shield type micro-connector Digital connector : RJ45 connector Valve connector : EGG.00.302.CYM by LEMO		Power supply connector : M8 5pin male connector EtherCAT® connector : RJ45 Service port : φ 2.5 RS485 communication Valve connector : EGG.00.302.CYM by LEMO	

*1: Full scale flow rate when IPA is used. Please contact us for figures when real liquid is used.

*2: The accuracy, linearity, and repeatability in the above table are according to our own conditions (SEMI E56-0309 compliant, 23±2°C, calibration liquid used).

*3: The responsiveness in the above table is the time from PID adjustment (Less than 0.8 sec. (Converge to the larger of the ±2% S.P. or ±0.5% F.S. regions in the range of total flow control), 23±2°C, calibration liquid used).

*4: Operating pressure at 23±2°C. This does not apply to cases outside the range.

*5: This product can be used in combination with our piezo valve and vaporizer.

*6: SPRON510 is Ni-Co alloy manufactured by SII.

- In the notation of pressure units, (G) indicates gauge pressure and (D) indicates differential pressure.
- The %F.S. is a percentage of the full scale flow rate.
- The %S.P. is a percentage of the setting flow rate.

MV Series

Model	MV-2000
Liquid	Except those corrosive to stainless steel (ex, HCl and HF)
Proof pressure	1MPa (G)
External Leak Integrity	≤1×10 ⁻⁸ Pa·m ³ /s (He)
Internal leak Integrity	Control valve : ≤1×10 ⁻⁶ Pa·m ³ /s (He) 以下 (at working temperature)
Setting temperature	Mixing valve : max.140 °C Vaporizer : max.200 °C
Operating temperature	15-50 °C
Wetted materials	SUS316L , PFA
Temperature sensor	Thermocouple type K (Mixing valve, Vaporizer)
Standard fitting	Liquid inlet : 1/8 VCR Male type, Carrier gas inlet : 1/4 VCR Female type, Gas outlet : 1/2 VCR Male type
Option	Pneumatic valve (Internal leak Integrity : ≤1×10 ⁻⁹ Pa·m ³ /s (He) (at working temperature))

- The generation flow rate may differ depending on the liquid material, amount of generation, generation conditions, etc. We will recommend the model most suited to your needs upon consultation.
- The vaporizer has a heater, temperature sensor, and switch inside of it. Please contact us for more details on their specification.