

Flowmeter with Precision Needle Valve (for Accurate Flow Control)

MODEL RK1200 SERIES

This is a grade high precision float type flowmeter combined with a needle valve capable of very accurate flow control. It is ideal for measurement and control of minute flows.

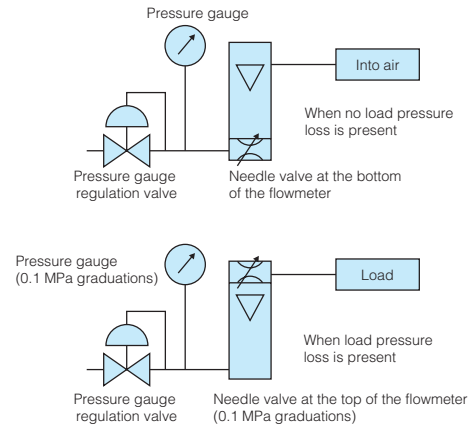
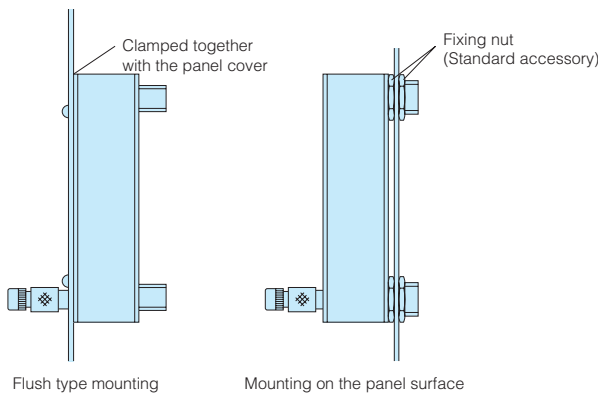


- Capable of controlling ultra-minute flows
- A needle valve incorporated to maximize precision control of flows
- Two types of valve arrangement available: at the top or bottom of the meter at the user's choice
- Wide variations

Applications

- For integration into your equipment panel
- For gas devices to be used on the semiconductor manufacturing site
- For biotechnology industries
- For vacuum line control

Example of Use with Model RK1200



Dimensions

<Dimensions (except the cut dimensions on the right)>

<Cut Dimensions>

<AIR 60-100L/MIN>

<Cut Dimensions>

Dimensions of parts per length designation code

Part	Code	12	15	20	25
A	80	110	160	210	
B	86	116	166	216	
C	120	150	200	250	
D	100	130	180	230	
E	29	29	31	31	
		(36)	(36)	(36)	(36)

* This dimensional drawing shows the bottom needle valve type. For the top needle valve type, invert dimensions.
 * Dimensions indicated in () apply to measurement of flows of 50 L/MIN.

Standard Specifications

	Gases	Liquids
Fluids	Air, N ₂ , O ₂ , H ₂ , He, Ar, and CO ₂ (Calibration by actual gas) For other gases, consultation is necessary regarding whether conversion conditions or calibration by actual gas is to be used. * Optional: Scale indicating two types of fluids	Standard fluid: Water For other liquids, consultation is necessary regarding whether conversion conditions or calibration by actual liquid is to be used.
Flow range	0.5-5 ML/MIN to 10-100 L/MIN (See the Capacity Table below.) * Optional: 0.5-3 ML/MIN	0.5-5 ML/MIN to 0.2-2 L/MIN (See the Capacity Table below.) * Optional: 0.5-3 ML/MIN
Accuracy	FS±2% (Measurement point) * Optional: FS±1% (Measurement point)	FS±2% (Measurement point)
Proof pressure	1.0 MPa for 100 ML/MIN or less 0.7 MPa for 5 L/MIN or less 0.5 MPa for 10 L/MIN or more	1.0 MPa for 5 ML/MIN or less 0.7 MPa for 150 ML/MIN or less 0.5 MPa for 200 ML/MIN or more
Available scale	10:1 * Optional: 20:1	

	SS	BS
Materials		
Body block	SUS316	Brass
Tapered tube	Hard glass	
Packing	FKM	NBR
Float	Hard glass, SUS316	
Protective cover	Acrylic resin	
Temperature resistance	MAX60°C	
Connection end	Rc1/4 (Standard)	

Capacity Table

Air (Flow rate at atmospheric pressure) at 20°C

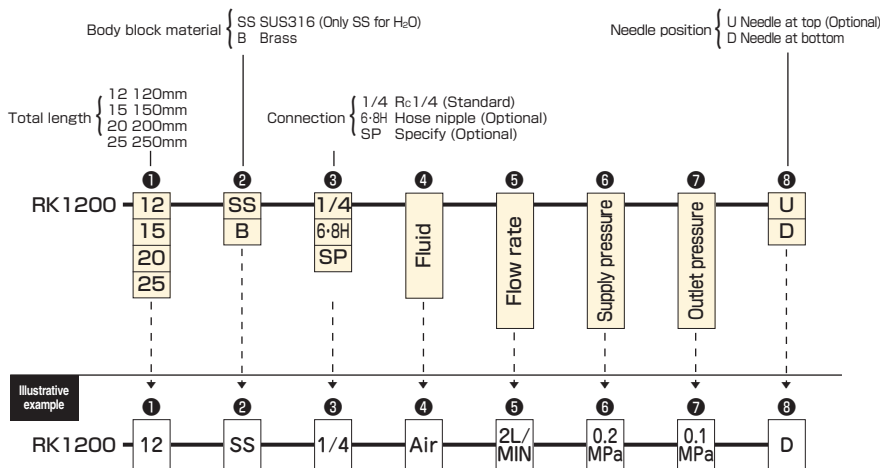
Max. flow rate Total length	* Air conversion scale for over 50L/MIN.																			
	5	10	20	30	50	100	150	200	300	500	1	2	3	5	10	15	20	30	50	100
	ML/MIN	ML/MIN	ML/MIN	ML/MIN	ML/MIN	ML/MIN	ML/MIN	ML/MIN	ML/MIN	ML/MIN	L/MIN	L/MIN	L/MIN	L/MIN	L/MIN	L/MIN	L/MIN	L/MIN	L/MIN	L/MIN
120mm	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
150mm	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
200mm	—	—	—	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○
250mm	—	—	—	—	—	○	○	○	○	○	○	○	○	○	○	○	○	○	○	○

H₂O at 20°C

Max. flow rate Total length	5	10	20	30	50	100	150	200	300	500	1	2
	ML/MIN	ML/MIN	ML/MIN	ML/MIN	ML/MIN	ML/MIN	ML/MIN	ML/MIN	ML/MIN	ML/MIN	L/MIN	L/MIN
120mm	○	○	○	○	○	○	○	○	○	○	○	—
150mm	○	○	○	○	○	○	○	○	○	○	○	○
200mm	○	○	○	○	○	○	○	○	○	○	○	—
250mm	○	○	○	○	○	○	○	○	○	○	○	—

* Air conversion scale for over 50L/MIN.

Ordering



* Refer to "Ordering" and "Illustrative example" when placing an order or requesting a quotation. Fill in the blanks in the "Order-Quotation Request Card" at the end of the catalog, and send the card by fax.

Options

- F.S. ±1% (Measurement point)
- 0.5~3ML/MIN Air (atm)
Note) length 120mm only.
- Perfluoro O-ring
Note) No needle valve shut off O-ring.
Note) No filter for under 1L/MIN full scale.
- Dual scale
- 20:1 scale