



# Flowmeter with Precision Needle Valve (for Accurate Flow Control)

## MODEL RK1250 SERIES

The Model RK1250 Series Flowmeter is a completely renewed model of existing KOFLOC RK1200, designed as a flowmeter that can be integrated into the customer's equipment. A combination of a grade high precision float type flowmeter with a needle valve capable of very accurate flow control provides a flowmeter ideal for measurement and control of trace flows.

### Features

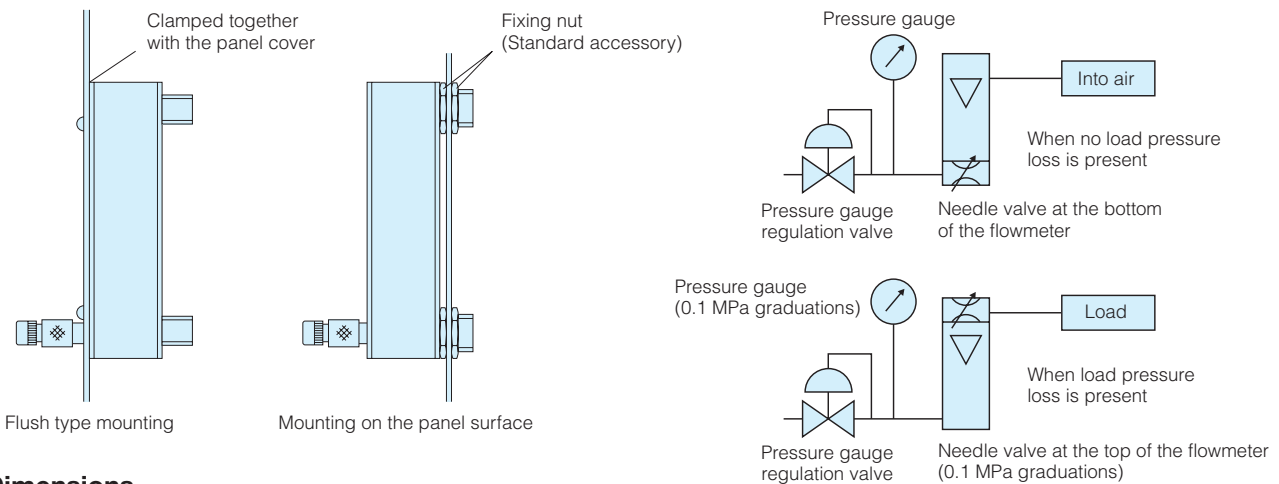
- Capable of controlling ultra-minute flows**  
 Can respond to a wide range of flows from ultra-minute flows of 0.5-3 ML/MIN to flows of 3-30 L/MIN.
- The incorporated precision needle valve allows a delicate control of flows.**  
 The effective revolving speed of the needle valve can be maximized by specifying a maximum flow and normal supply pressure.
- Wide variations**  
 Four total lengths of the flowmeter are available: 126, 156, 206, and 256 mm, for your selection according to your needs.
- Two types of valve arrangement**  
 The needle valve can be laid out either at the top or at the bottom of the meter. Choose the type that best suits your needs.
- Measurement and control of water flows also possible**  
 Measurement and control of water flows not exceeding 1 L/MIN are also possible.

### Applications

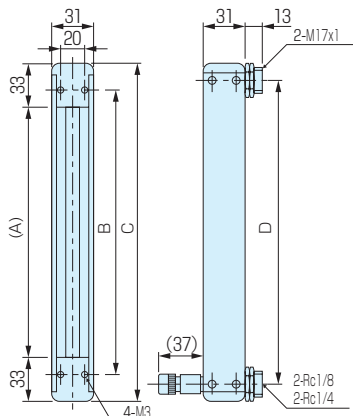
- For integration into your equipment panel
- For gas devices to be used on the semiconductor manufacturing site
- For biotechnology industries
- For vacuum line control



### Layout Example with Model RK1250



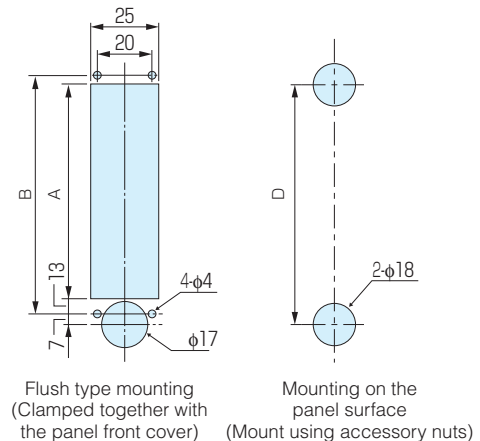
### Dimensions



Dimensions of parts per length designation code

| Code   | 12  | 15  | 20  | 25  |
|--------|-----|-----|-----|-----|
| Part A | 60  | 90  | 140 | 190 |
| B      | 86  | 116 | 166 | 216 |
| C      | 126 | 156 | 206 | 256 |
| D      | 100 | 130 | 180 | 230 |

<Cut Dimensions>



## Standard Specifications

|                        | Gases   | Liquids  |
|------------------------|---|--|
| Fluids                 | Air, N <sub>2</sub> , O <sub>2</sub> , H <sub>2</sub> , He, Ar, and CO <sub>2</sub> (Calibration by actual gas)<br>For other gases, consultation is necessary regarding whether conversion conditions or calibration by actual gas is to be used.<br>* Optional: Scale indicating two types of fluids | Standard fluid: Water<br>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 3-30 L/MIN (See the Capacity Table below.)<br>* Optional: 0.5-3 ML/MIN  | 0.5-5 ML/MIN to 0.1-1 L/MIN (See the Capacity Table below.)<br>* 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<br>0.7 MPa for 5 L/MIN or less<br>0.5 MPa for 10 L/MIN or more   | 1.0 MPa for 5 ML/MIN or less<br>0.7 MPa for 150 ML/MIN or less<br>0.5 MPa for 200 ML/MIN or more   |
| Available scale        | 10:1 * Optional: 20:1   |  |
| Materials              | SS  | BS   |
| Body block             | SUS316  | Brass  |
| Tapered tube           | Pyrex <sup>®</sup> , glass  |  |
| Packing                | Viton <sup>®</sup>  | NBR  |
| Float                  | Pyrex, SUS316, glass  |  |
| Protective cover       | Acrylic resin   |  |
| Temperature resistance | MAX60°C   |  |
| Connection end         | Rc1/4 (Standard); Rc1/8 (Optional)  |  |

## Capacity Table

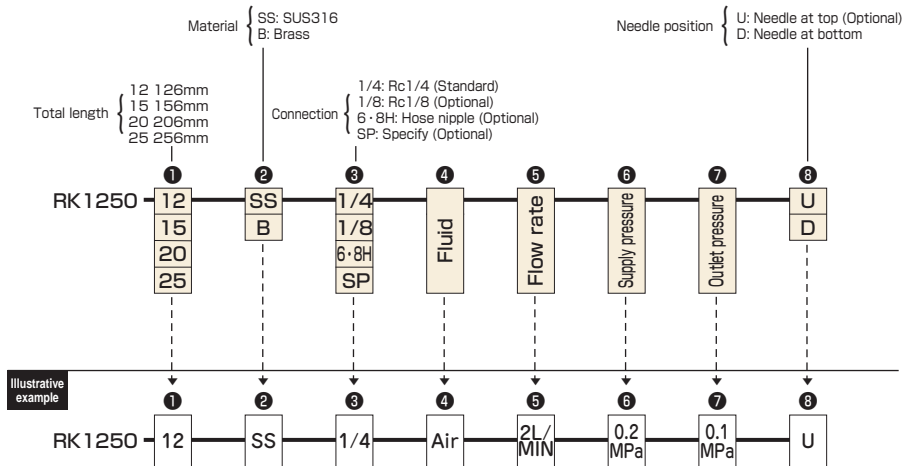
### Air (Flow rate at atmospheric pressure)

| Max. flow rate<br>Total length | Max. flow rate |        |        |        |        |        |        |        |        |        |       |       |       |       |       |       |       |       |
|--------------------------------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|-------|-------|-------|-------|-------|-------|-------|
|                                | 5              | 10     | 20     | 30     | 50     | 100    | 150    | 200    | 300    | 500    | 1     | 2     | 3     | 5     | 10    | 15    | 20    | 30    |
|                                | 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 |
| 126mm                          | ○              | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○     | ○     | ○     | ○     | ○     | ○     | ○     | ○     |
| 156mm                          | —              | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○     | ○     | ○     | ○     | ○     | ○     | ○     | ○     |
| 206mm                          | —              | —      | —      | —      | ○      | ○      | ○      | ○      | ○      | ○      | ○     | ○     | ○     | ○     | ○     | ○     | ○     | ○     |
| 256mm                          | —              | —      | —      | —      | —      | ○      | ○      | ○      | ○      | ○      | ○     | ○     | ○     | ○     | ○     | ○     | ○     | ○     |

### H<sub>2</sub>O

| Max. flow rate<br>Total length | Max. flow rate |        |        |        |        |        |        |        |        |        |       |
|--------------------------------|----------------|--------|--------|--------|--------|--------|--------|--------|--------|--------|-------|
|                                | 5              | 10     | 20     | 30     | 50     | 100    | 150    | 200    | 300    | 500    | 1     |
|                                | ML/MIN         | ML/MIN | ML/MIN | ML/MIN | ML/MIN | ML/MIN | ML/MIN | ML/MIN | ML/MIN | ML/MIN | L/MIN |
| 126mm                          | ○              | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○     |
| 156mm                          | ○              | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○     |
| 206mm                          | ○              | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○     |
| 256mm                          | ○              | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○      | ○     |

## 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.