

### A Compact, High-accuracy Sensor That Measures Low Flow Rates.

- High accuracy of  $\pm 3$  FS.
- Flow rates can be measured without being affected by temperature or voltage.

RoHS Compliant



### Ordering Information

| Appearance | Case                | Applicable fluid | Measured flow rate range | Model number | Minimum order |
|------------|---------------------|------------------|--------------------------|--------------|---------------|
|            | Thermoplastic resin | Air (See note.)  | 0 to 1 L/min             | D6F-01A1-110 | 1             |
|            |                     |                  | 0 to 2 L/min             | D6F-02A1-110 |               |

**Note:** The fluid must be clean, dry gas, with no dust or oil mist.

### Absolute Maximum Ratings

| Item                 | Symbol | Rating | Unit |
|----------------------|--------|--------|------|
| Power supply voltage | Vcc    | 26.4   | VDC  |
| Output voltage       | Vout   | 6      | VDC  |

### Performance

| Item                  | Model number            | D6F-01A1-110                                                                                                 | D6F-02A1-110                     |
|-----------------------|-------------------------|--------------------------------------------------------------------------------------------------------------|----------------------------------|
| Flow rate             |                         | 0 to 1L/min normal (See note.)                                                                               | 0 to 2L/min (normal) (See note.) |
| Joints                |                         | Barb joint (Inside diameter: 4 mm, Maximum external diameter: 8.6 mm, Minimum external diameter: 7.4 mm.)    |                                  |
| Case material         |                         | Thermoplastic resin                                                                                          |                                  |
| Operating conditions  | Applicable fluid        | Air<br>(The fluid must be clean, dry gas, with no dust or oil mist.)                                         |                                  |
|                       | Max. allowable pressure | 200 kPa                                                                                                      |                                  |
|                       | Operating temperature   | -10 to 60°C (with no condensation or icing)                                                                  |                                  |
|                       | Operating humidity      | 85% max. (with no condensation or icing)                                                                     |                                  |
|                       | Storage temperature     | -40 to 80°C (with no condensation or icing)                                                                  |                                  |
|                       | Storage humidity        | 85% max. (with no condensation or icing)                                                                     |                                  |
| Power supply voltage  |                         | 10.8 to 26.4 VDC                                                                                             |                                  |
| Output signal         |                         | Analog output, 1 to 5 VDC (non-linear output)                                                                |                                  |
| Current consumption   |                         | Without load: Vcc = 12 to 24 VDC, Vss = 0 V, 25°C, 15 mA max.                                                |                                  |
| Insulation resistance |                         | Between Sensor outer cover and lead terminals: 20 MΩ min. (at 500 VDC)                                       |                                  |
| Withstand voltage     |                         | Between Sensor outer cover and lead terminals: 500 VAC, 50/60 Hz min. for 1 min (leakage current: 1 mA max.) |                                  |

**Note:** "L/min (normal)" is the volume flow rate at 0°C and 101.3 kPa.

### Connections

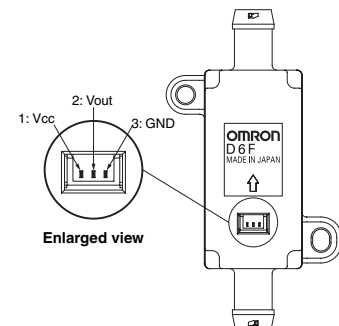
D6F-01A1-110  
D6F-02A1-110

Pin No. 1: Vcc  
2: Vout  
3: GND

Connectors Molex 51021

Terminals Molex 50079

Wires AWG26 or AWG28

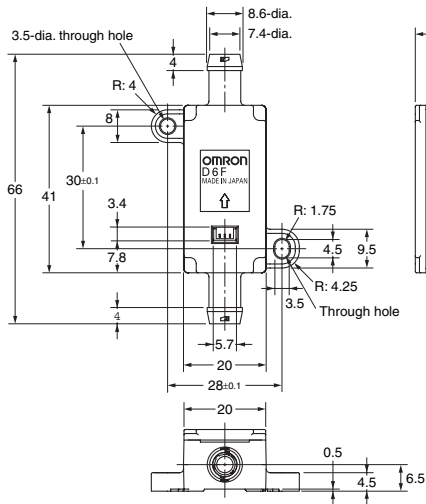
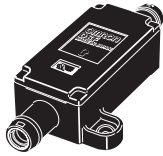


#### Tubes

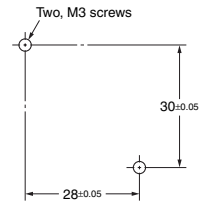
Install tubes made of materials such as rubber or urethane so that they will not come out. For urethane tubes, tubes with an outer diameter of 12 mm and an inner diameter of 8 mm are recommended.

## Dimensions

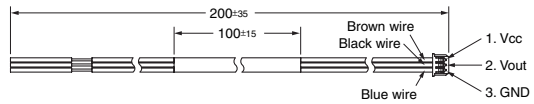
(Unit: mm)

D6F-01A1-110  
D6F-02A1-110

## Mounting Hole Dimensions



## Lead Wires (Included)

**ALL DIMENSIONS SHOWN ARE IN MILLIMETERS.**

To convert millimeters into inches, multiply by 0.03937. To convert grams into ounces, multiply by 0.03527.

Cat. No. A179-E1-01 **In the interest of product improvement, specifications are subject to change without notice.****OMRON Corporation**  
Electronic Components CompanySemiconductor Division H.Q.  
Micro Devices Division686-1 Ichimiyake, Yasu,  
Shiga, 520-2326 JAPAN  
Tel: (81)77-587-7486/Fax: (81)77-587-7503Printed in Japan  
0109