

Chipsmall Limited consists of a professional team with an average of over 10 year of expertise in the distribution of electronic components. Based in Hongkong, we have already established firm and mutual-benefit business relationships with customers from, Europe, America and south Asia, supplying obsolete and hard-to-find components to meet their specific needs.

With the principle of "Quality Parts, Customers Priority, Honest Operation, and Considerate Service", our business mainly focus on the distribution of electronic components. Line cards we deal with include Microchip, ALPS, ROHM, Xilinx, Pulse, ON, Everlight and Freescale. Main products comprise IC, Modules, Potentiometer, IC Socket, Relay, Connector. Our parts cover such applications as commercial, industrial, and automotives areas.

We are looking forward to setting up business relationship with you and hope to provide you with the best service and solution. Let us make a better world for our industry!



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## D6F-A3

**MEMS Flow Sensor** 

# High-accuracy Sensing with a Thin, Compact Body.

- A thin, lightweight flow sensor.
- Unique flow path structure provides high precision and fast response.

## Air Analog



## RoHS Compliant



Refer to the Common Precautions for the D6F Series on page 40.

## **Ordering Information**

#### **MEMS Flow Sensor**

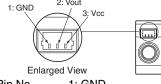
Applicable fluid	Flow rate range	Model
Air	0 to 3 L/min	D6F-03A3-000

#### Accessory (Sold separately)

Туре	Model	
Cable	D6F-CABLE2	

#### **Connections**

#### D6F-03A3-000



Pin No.

1: GND

2: Vout

3: Vcc

Connector

SM03B-SRSS-TB (Made by J.S.T. Mfg. Co.)

Use the following connectors made by J.S.T. Mfg. Co. for connections to the Sensor:

• Pressure-welded Connector

Socket: 03SR-3S Wires: AWG30

Or

• Crimp Connector

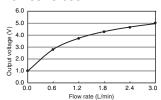
Contacts: SSH-003T-P0.2

Housing: SHR-03V-S or SHR-03V-S-B

Wires: AWG32 to AWG28

## **Output Voltage Characteristics**

#### D6F-03A3-000



#### D6F-03A3-000

	Flow rate L/min (normal)	0	0.6	1.2	1.8	2.4	3.0
-	Output voltage	1.00	2.83	3.77	4.34	4.72	5.00
,	V	±0.2	±0.2	±0.2	±0.2	±0.2	±0.2

Measurement conditions: Power supply voltage of  $12\pm0.1$  VDC, ambient temperature of  $25\pm5^{\circ}$ C, and ambient humidity of 35% to 75%.

D6F-A3

MEMS Flow Sensor

## **Characteristics/Performance**

Model	D6F-03A3-000		
Flow Range (See note 1.)	0 to 3 L/min		
Calibration Gas (See note 2.)	Air		
Flow Port Type	M5 thread		
Electrical Connection	Three-pin connector		
Power Supply	10.8 to 26.4 VDC		
Current Consumption	15 mA max. with no load, with a Vcc of 12 to 24 VDC, and at 25°C		
Output Voltage	1 to 5 VDC (non-linear output, load resistance of 10 k $\Omega$ )		
Accuracy	±5% FS (25°C characteristic)		
Repeatability (See note 3.)	±0.7% FS		
Output Voltage (Max.)	5.7 VDC (Load resistance: 10 $k\Omega$ )		
Output Voltage (Min.)	0 VDC (Load resistance: 10 k $\Omega$ )		
Rated Power Supply Voltage	26.4 VDC		
Rated Output Voltage	6 VDC		
Case	PPS		
Degree of Protection	IEC IP40 (Excluding tubing sections.)		
Withstand Pressure	200 kPa		
Pressure Drop (See note 3.)	0.45 kPa		
Operating Temperature (See note 4.)	0 to 50°C		
Operating Humidity (See note 4.)	35% to 85%		
Storage Temperature (See note 4.)	-10 to 60°C		
Storage Humidity (See note 4.)	4.) 35% to 85%		
Temperature Characteristics	±5% FS for 25°C characteristic at an ambient temperature of 0 to 50°C		
Insulation Resistance	Between Sensor outer cover and lead terminals: 20 M $\Omega$ min. (at 500 VDC)		
Dielectric Strength	Between Sensor outer cover and lead terminals: 500 VAC, 50/60 Hz min. for 1 min (leakage current: 1 mA max.)		
Weight	5.3 g		

Note: 1. Volumetric flow rate at 0°C, 101.3 kPa.

Note: 2. Dry gas. (must not contain large particles, e.g., dust, oil, or mist.)

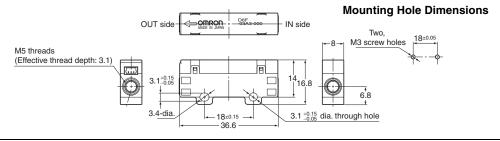
Note: 3. Reference (typical)

Note: 4. With no condensation or icing.

## Dimensions (Unit: mm)

## ■ MEMS Flow Sensors

## D6F-03A3-000



### ● Cable (Sold separately)

#### **D6F-CABLE2**

