D6F-A3

MEMS Flow Sensor

High-accuracy Sensing with a Thin, Compact Body.

Air Analog



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

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**

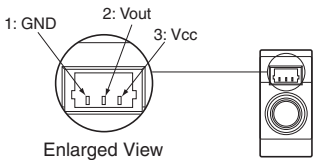
Accessory (Sold separately)

Type	Model
Cable	**D6F-CABLE2**
	D6F-CABLE2-L

Note: Refer to *Accessories for the D6F Series* on page 39.

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:

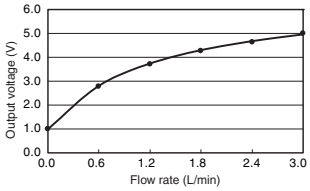
- Pressure-welded Connector
  Socket: 03SR-3S
  Wires: AWG30

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



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

Measurement conditions: Power supply voltage of 12±0.1 VDC, ambient temperature of 25±5°C, and ambient humidity of 35% to 75%.

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 kΩ)
Accuracy	±5% FS (25°C characteristic)
Repeatability (See note 3.)	±0.7% FS
Output Voltage (Max.)	5.7 VDC (Load resistance: 10 kΩ)
Output Voltage (Min.)	0 VDC (Load resistance: 10 kΩ)
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.)	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 MΩ 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

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