D6F-N2/-L2

MEMS Flow Sensor

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 pressure.

RoHS Compliant

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

Ordering Information

MEMS Flow Sensor

Applicable fluid	Flow rate range	Model
	0 to 1 L/min	D6F-01N2-000
Natural gas (13A)	0 to 2 L/min	D6F-02N2-000
	0 to 5 L/min	D6F-05N2-000
LP gas	0 to 2 L/min	D6F-02L2-000

Accessory (included)

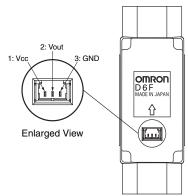
Туре	Model	
Cable	D6F-CABLE1	

Connections

D6F-01N2-000 D6F-02N2-000 D6F-05N2-000 D6F-02L2-000

Pin No.	1: Vcc
	2: Vout
	3: GND
Connector	53398 (Made by Molex Japan)

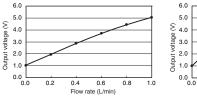
Use the following connectors for connections to the D6F: Housing 51021 (Made by Molex Japan) Terminals 50079 (Made by Molex Japan) Wires AWG28 to AWG26



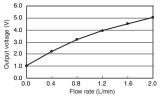


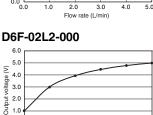
Output Voltage Characteristics

D6F-01N2-000



D6F-02N2-000





D6F-05N2-000

0.0 0.0 0.4 0.8 1.2 1.6 2.0 Flow rate (L/min)

D6F-01N2-000

Flow rate L/min (normal)	0	0.2	0.4	0.6	0.8	1.0
Output voltage	1.00	1.90	2.81	3.64	4.37	5.00
V	±0.12	±0.12	±0.12	±0.12	±0.12	±0.12

D6F-02N2-000

Flow rate L/min (normal)	0	0.4	0.8	1.2	1.6	2.0
Output voltage	1.00	2.20	3.20	3.98	4.55	5.00
V	±0.12	±0.12	±0.12	±0.12	±0.12	±0.12

D6F-05N2-000

Output voltage 1.00					
Output voltage1.00V±0.12	2.91	3.92	4.47	4.79	5.00
	±0.12	±0.12	±0.12	±0.12	±0.12

D6F-02L2-000

Flow rate L/min (normal)	0	0.4	0.8	1.2	1.6	2.0
Output voltage	1.00	3.02	3.95	4.47	4.79	5.00
V	±0.30	±0.08	±0.08	±0.08	±0.08	±0.12

Measurement conditions: Power supply voltage of 12 ± 0.1 VDC, ambient temperature of $25\pm5^{\circ}$ C, and ambient humidity of 35% to 75%.

Sas Salar Analog

Characteristics/Performance

Model	D6F-01N2-000	D6F-02N2-000	D6F-05N2-000	D6F-02L2-000				
Flow Range (See note 1.)	0 to 1 L/min	0 to 2 L/min.	0 to 5 L/min	0 to 2 L/min.				
Calibration Gas (See note 2.)	Natural gas (13A)	Natural gas (13A) Propane gas						
Flow Port Type	Rc 1/4 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	l at 25°C					
Output Voltage	1 to 5 VDC (non-linear out	put, load resistance of 10 k Ω)						
Accuracy	±3% FS (25°C characteris	tic)		±2% to ±7.5% F.S. (25°C characteristic)				
Repeatability (See note 3.)	±0.2% FS			±0.3% FS				
Output Voltage (Max.)	5.7 VDC (Load resistance:	5.7 VDC (Load resistance: 10 kΩ)						
Output Voltage (Min.)	0 VDC (Load resistance: 1	0 VDC (Load resistance: 10 kΩ)						
Rated Power Supply Voltage	26.4 VDC	26.4 VDC						
Rated Output Voltage	6 VDC	6 VDC						
Case	Aluminum alloy							
Degree of Protection	IEC IP40 (Excluding tubing	g sections.)						
Withstand Pressure	200 kPa							
Pressure Drop (See note 3.)	0.017 kPa	0.033 kPa	0.10 kPa	0.14 kPa				
Operating Temperature (See note 4.)	-10 to 60°C							
Operating Humidity (See note 4.)	35% to 85%							
Storage Temperature (See note 4.)	-40 to 80°C							
Storage Humidity (See note 4.)	35% to 85%							
Temperature Characteristics	±3% FS for 25°C characteristic at -10 to 60°C ±4% FS for 25°C characteristic at -10 to 60°C							
Insulation Resistance	Between Sensor outer cov	ver and lead terminals: 20 M Ω m	in. (at 500 VDC)					
Dielectric Strength	Between Sensor outer cov	er and lead terminals: 500 VAC	, 50/60 Hz min. for 1 min (leaka	age current: 1 mA max.)				
Weight	35.3 g							

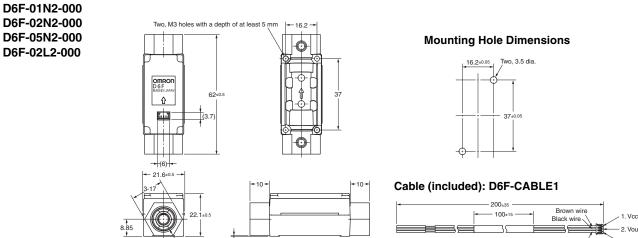
Note: 1. Volumetric flow rate at $0^{\circ}C$, 101.3 kPa.

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)



Two, tapped threads 0.35 for Rc 1/4 pipe

