

# OMRON Flow, Vibration and Tilt Sensors



## OMRON D6F SERIES: GAS MASS FLOW SENSORS

ELECTRONIC COMPONENTS

World's Smallest Flow Sensor Elements!

The exceptional performance of the D6F is achieved using the world's smallest, supersensitive flow sensor elements with an area of just 1.5mm sq., achieving a size of just 1/7th that of other flow sensors in the same class. The D6F is suitable for gas flows of up to 10m/s from any direction.

**Specifications:**

- Dielectric strength: 500VAC between terminals and base
- Operating temperature: -10 to 60°C

**Features:**

- Small size
- Fast response
- Applicable to air, non-corrosive gas, LNG Ideal for looking at low pressure medical gases, boiler emissions, and HVAC system airflow

**Applications:**

- Medical equipment
- Combustion control
- Analysis instruments

For quantities of 10 and up, call for quote.

MOUSER STOCK NO.	Omron Part No.	Fig.	Rated Range	Applicable Fluid	Case Material	Power Supply (Vcc Max)	Output Voltage (Vout Max)	Price Each		
								1	2	5
653-D6F-01A1-110	D6F-01A1-110	A	0-1L/min.	Air	PPS	26.4 VDC	6 VDC	130.85	128.29	114.42
653-D6F-02A1-110	D6F-02A1-110	A	0-2L/min.	Air	PPS	26.4 VDC	6 VDC	130.85	128.29	114.42
653-D6F-03A3-000	D6F-03A3-000	B	0-3L/min.	Air	Thermoplastic/Alum.	26.4 VDC	5.7 VDC	247.84	243.00	216.73
653-D6F-01N2-000	D6F-01N2-000	C	0-1L/min.	Natural Gas	Aluminum	26.4 VDC	6 VDC	254.22	249.26	222.32
653-D6F-05N2-000	D6F-05N2-000	C	0-5L/min.	Liquid Nat. Gas	Aluminum	26.4 VDC	6 VDC	158.62	155.53	138.71
653-D6F-02L2-000	D6F-02L2-000	C	0-2L/min.	Propane Gas	Aluminum	26.4 VDC	6 VDC	326.91	319.30	311.70
653-D6F-20A5-000	D6F-20A5-000	D	0-20L/min.	Air	PPS	26.4 VDC	6 VDC	261.09	232.86	225.81
653-D6F-50A5-000	D6F-50A5-000	D	0-50L/min.	Air	PPS	26.4 VDC	6 VDC	261.09	232.86	225.81

**Cables**

For quantities of 10 and up, call for quote.

MOUSER STOCK NO.	Omron Part No.	Description	Price Each		
			1	2	5
653-D6F-CABLE1	D6F-CABLE1	For D6F-01, D6F-02, D6F-05, D6F-10, D6F-20, D6F-50 Gas Mass Flow Sensors	8.16	7.33	6.94
653-D6F-CABLE2	D6F-CABLE2	For D6F-03 Gas Mass Flow Sensor	8.16	7.33	6.94

## OMRON D6FP SERIES: MEMS FLOW SENSORS

ELECTRONIC COMPONENTS

**Specifications:**

- Power supply voltage: Vcc, 5-10, VDC
- Output voltage: Vout, 0.5 - 2.5, VDC
- Flow range/Pressure range: +1.0 SLM (+0.84 in H2O)
- Applicable gas: Air
- Operating temperature: -10 to 60 deg C
- Output signal: Analog 0.5 to 2.5 VDC, Amplified and temperature compensated
- Withstand pressure: 50kPa (7psi)
- Current consumption: Max. 15mA (No load, Vcc=5 VDC, 25 deg C)
- Insulation resistance: 20M Ohm min.

**Features:**

- Cyclone flow structure diverts particulate from sensor element
- PCB-mounted & connector models available
- High accuracy, reliable mass flow measurement
- Alternative to differential pressure sensing
- Measure over 200 LPM with a bypass set-up

### Compact, Highly Reliable Flow-Sensor with Unique Dust Segregation System

For quantities of 10 and up, call for quote.

MOUSER STOCK NO.	Omron Part No.	Fig.	Description	Price Each		
				1	2	5
653-D6F-P0010A1	D6F-P0010A1	E	PCB Terminals	47.44	46.63	41.59
653-D6F-P0010A2	D6F-P0010A2	F	Connector JST SM03B-SR55-TB	47.44	46.63	41.59

**Cable**

For quantities of 10 and up, call for quote.

MOUSER STOCK NO.	Omron Part No.	Fig.	Description	Price Each		
				1	2	5
653-D6F-CABLE2	D6F-CABLE2	-	Cable connector assembly	8.16	7.33	6.94

## OMRON D6F-W SERIES: GAS VELOCITY AND CLOGGED FILTER SENSORS

ELECTRONIC COMPONENTS

**Features:**

- A dust-resistant design has been taken into consideration, by the original dust segregation structure of OMRON.
- ±10% Full-Scale repeatable accuracy achieves consistent air velocity measurement.
- Applications include clogged-filter detection and air velocity.

For quantities of 10 and up, call for quote.

MOUSER STOCK NO.	Omron Part No.	Fig.	Rated Range	Applicable Fluid	Case Material	Power Supply (Vcc Max)	Output Voltage (Vout Max)	Price Each		
								1	2	5
653-D6F-W01A1	D6F-W01A1	G	1 m/sec	Air	PPS	10-26.4 VDC	1-5 V non-linear	102.04	96.80	86.35
653-D6F-W04A1	D6F-W04A1	G	4 m/sec	Air	PPS	10-26.4 VDC	1-5 V non-linear	102.04	96.80	86.35
653-D6F-W03A1	D6F-W03A1	H	0-3 m/sec	Air	Thermoplastic resin	12.0 VDC	3.0 V	31.94	30.30	27.02

**Cable**

For quantities of 10 and up, call for quote.

MOUSER STOCK NO.	Omron Part No.	Description	Price Each		
			1	2	5
653-D6F-WCABLE	D6F-WCABLE	Cable for D6F Clog Sensor	4.36	3.99	3.79

## OMRON D7 SERIES: VIBRATION SENSORS

ELECTRONIC COMPONENTS

**Features:**

- Quick detection of movements that could cause damage to equipment
- D7A/D7E - Auto-resettable - no manual setting required

**Applications:**

- Industrial equipment
- Any system requiring safety shut-off during a period of vibration or tilting

For quantities of 25 and up, call for quote.

MOUSER STOCK NO.	Omron Part No.	Fig.	Detection Sensitivity	Contact Form	Description	Contact Rating	Price Each		
							1	5	10
653-D7A-1	D7A-1	I	90-170gal	SPST-NO	Horizontal PCB mount	5mA @ 3VDC - 1mA @ 3VDC	27.36	25.99	24.98
653-D7A-2	D7A-2	I	90-170gal	SPST-NO	Vertical PCB mount	5mA @ 3VDC - 1mA @ 3VDC	27.36	25.99	24.98
653-D7A-3	D7A-3	I	90-170gal	SPST-NO	Chassis mount	5mA @ 3VDC - 1mA @ 3VDC	29.15	28.41	27.45
653-D7E-1	D7E-1	J	130-200gal	SPST-NC	Sealed vibration sensor	0.1mA @ 5VDC - 100mA @ 30VDC	10.72	9.90	9.31
653-D7E-2	D7E-2	J	100-170gal	SPST-NC	Sealed vibration sensor	0.1mA @ 5VDC - 100mA @ 30VDC	8.06	7.66	7.16
653-D7E-3	D7E-3	J	- - -	SPST-NC	Tilt switch, 50-80° detection angle	0.1mA @ 5VDC - 100mA @ 30VDC	12.60	12.21	11.89

## OMRON D6BN SERIES: MICRO TILT SENSOR

ELECTRONIC COMPONENTS

**Features:**

- Surface mounting tilt sensor fits space-confined installations
- Low profile 2mm
- Detect tilting over range of 40 to 80 degrees in right-and-left inclination
- Gull wing surface mount terminals
- Operating temperature range: -10°C to 60°C

**Applications:**

- Ideal for PDAs, cell phones, test equipment, digital cameras and video cameras to change aspect ratio automatically
- Replaces mercury switches in portable space heaters and gaming machines, such as pinball games, and slot machines



RoHS Compliant

For quantities of 100 and up, call for quote.

MOUSER STOCK NO.	Omron Part No.	Fig.	Operating Voltage	Operation Angle	Price Each			
					1	10	25	50
653-D6BN-1(P)	D6BN-1(P)	K	2.4 to 3.6 VDC	40° to 80°	3.95	3.65	3.49	3.25

