MEMS Air Velocity Sensor VOS

Unique dust separating structure, developed by OMRON, in a compact and highly efficient FLOW-SENSOR.

- Unique dust segregation structure.
- +/-10% Full-Scale repeatable accuracy achieves consistent air velocity measurement, in a cost efficient package.
- Applications include clogged-filter detection and air velocity.
- RoHS Compliant



力材料 886-3-5753170 特 胜特力电子(上海) 86-21-34970699 胜特力电子(深圳) 86-755-83298787 Http://www. 100y. com. tw

Ordering Information

Description	Case	Applicable Gas	Flow Range	Model
Velocity Sensor	PBT	Air (See note 1.)	0-3 m/sec	D6F-V03A1
Cable Connector Assembly	ON	COM. COM	Www W	D6F-CABLE2

Note: 1. Dry gas must not contain large particles, eg dust, oil, mist.

2. Cable Assembly is sold separately.

Application examples

- · Cassette (ceiling / suspended), multi-modular air conditioners
- Duct connected heating and air conditioning systems
- Alternative for thermal dispersion measurement
- · Air & water cooled chillers, indoor packaged AC systems
- · Window / split, multi-split residential AC coolers

- · Air purifiers, dehumidifiers
- · Fan assisted space heaters
- Air cooled, high power indoor lighting
- Mission critical PC, Workstation ventilation
- Watchdog ventilation systems

Ratings

Absolute maximum rating

Item	Symbol	Rating	Unit
Power supply	V _{cc}	12.0	VDC
Output voltage	V _{OUT}	3.0	VDC

Electrical Performance

Electrical Performance						
Item	Symbol	Condition	Min.	Max.	Unit	
Power supply	V _{cc}	W HIN COM.	3.15	9.45	VDC	
Operating temperature	T _{OPR}	No condensation or icing	-10	60	°C	
Output voltage (max.)	V _{OH}	Load resistance: $10k\Omega$		2.7	VDC	
Output voltage (min.)	V _{OL}	Load resistance: $10k\Omega$	0		VDC	

Characteristics

Model	D6F-V03A1			
Flow Range	0 – 3 m/s @ 25°C, 1 atmosphere			
Case Material	Thermoplastic resin			
Applicable Gas	Air			
Operating Temperature	-10 to 60°C (with no icing or condensation)			
Storage Temperature	-40 to 80°C (with no icing or condensation)			
Operating and Storage Humidity	85% RH max. (with no icing or condensation)			
Power Supply Voltage	3.15 to 9.45 VDC			
Output Signal	0.5 to 2 VDC, Analog output (non-linear output) (Load resistance: $10k\Omega$ min.)			
Current Consumption	15mA max. (No-Load with V_{CC} = 3.3 VDC and 25°C)			
Insulation Resistance	20M Ω min. at 500 VDC, between lead terminal and case			
Dielectric Strength	500VAC, 50/60Hz, for 1 minute. (Leakage current typ < 1mA), between the lead terminals and case			

Operating Characteristics

D6F-V03A1



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D6F-V03A1

Flow Velocity (m/sec)	0 001	0.75	1.50	2.25	3.00	V.COM
Output Voltage (VDC)	0.50±0.15	0.70±0.15	1.11±0.15	1.58±0.15	2.00±0.15	100
leasurement condition: Powe	r-supply voltage 3 3VDC amb	ient temperature 25	°C and dry air	The second	N	01.0-
	-supply voltage 5.5VDC, all		lotion wind tunnel aki	10 CONL		
Iote: I. Air velocity is the val	ue converted from the mass-fi	ow in OlviRON regul	lation wind tunnel phi-	48mm.		
The air velocity, set to	o the Measurement Law, is no	t shown. Please cor	nfirm in a real use env	vironment in use.		

3. Temperature characteristics:

Over ambient temperature range -10 to +60°C: within ±20% F.S. of detected characteristics WWW.100Y.COM. Of at +25°C.

Test Results (typical performance)



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Dimensions

Unit: mm

D6F-V03A1



Note: Mount using M3 panhead screws, tightened to 0.59 N•m max. torque

Applicable Cable for D6F-V03A1 (Optional - sold separately)

part number: D6F-CABLE2



Note: Be sure to read the precautions and information common to all D6F sensors, contained in the Technical User's Guide, "D6F Technical Information" for correct use.