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# **Clogged Air Filter Sensor**

Detect Clogged Fan Filters to Prevent Overheating of Equipment

- Sensor detects air flow over a 0.5 to 1.5 m/sec range; provides analog voltage output of 0 to 5 VDC
- Algorithms provide a temperature reference point to determine if a filter fan is moving the right amount of air
- Wide operating temperature range: 0° to 45°C
- Low current consumption: 60 mA
- Ideal for computer servers, routers and network devices; uninterruptible power supplies and cash registers



### Ordering Information \_\_\_\_\_

Output range	Wind velocity	Operating voltage	Part number
0.2 to 5 VDC at 1.5 m/sec velocity	0.5 to 1.5 m/sec	12 VDC	D6A

# Specifications \_\_\_\_\_

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Method of detection	Wind velocity		
Wind velocity range	0.5 to 1.5 m/sec		
Fixed temperature reference	80°C		
Supply voltage	12 VDC ±10%		
Current consumption	60 mA or less		
Leakage current	1 mA or less		
Maximum output voltage	5.2 V or less		
Output voltage	0.25 V ±1.2 V at 0.5 m/sec velocity 2.70 V ±1.35 V at 1.0 m/sec velocity 4.50 V ±1.35 V at 1.5 m/sec velocity	Power supply voltage: 12 VDC Load resistance: 1 $M\Omega$ Ambient temperature 25 ±5°C	

#### CHARACTERISTICS

Insulation resistance	20 $M\Omega$ or more for insulation between the terminal and the sensor body with 100 VDC insulation resistance meter.
Dielectric strength	Applies 500 VAC to the input of the terminal for one minute between output terminals
Operating temperature range	0° to 45°C (do not freeze)
Storage temperature range	-25° to 65°C
Relative humidity	25% to 85% RH

D6A

### Dimensions

Unit: mm (inch)



### Precautions

#### HANDLING

- 1. Do not apply a voltage of 13.2VDC or more.
- 2. The output voltage decreases when oil, moisture and dust adhere to the thermally sensitive resistor. Wipe down the resistor during maintenance.
- 3. The output voltage decreases when the terminal winds when the thermally sensitivie resistor is cleaned.
- 4. An internal circuit can be short-circuited when water or dust reaches the printed circuit board.
- 5. Avoid electrical shock. Do not touch the thermally sensitivie resistor terminal with fingers or hands.
- 6. Avoid serious burns. Do not touch the thermally sensitive resistor because it is heated to  $80^\circ C.$
- 7. Dispose of the sensor properly when it no longer operates.

NOTE: DIMENSIONS SHOWN ARE IN MILLIMETERS. To convert millimeters to inches divide by 25.4.



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Specifications subject to change without notice.

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