

## Product Information

The SM-PWM-03A series product is a dust sensor that can measure air quality by detecting dust over 1 $\mu$ m in the surrounding environment.

An infrared light emitting diode (IR LED) and a photo-sensor are optically arranged in this device.

This dust sensor can detect the small particle like cigarette smoke and it can distinguish small particles like smoke from large house dust by PWM pulse pattern of signal output.



### Electrical Characteristic

characteristic	Rating
Detectable particle size	approx. 1 $\mu$ m (minimum.)
Detectable range	800,000 PCS/ft <sup>3</sup>
Supply voltage	DC 5 $\pm$ 10%, Ripple <100mV at 60HZ
Current Consumption	< 100 +5% mA
Operating Temp./Humidity	(P1,P2) Hi : > 4.5V, Lo : <0.7V, Negative Logic Pulse output
Operating Temp. Range	-10~45 $^{\circ}$ C
Operating Humi. Range	95%RH or less (without dew condensation)
Storage temperature	-30~60 $^{\circ}$ C
Power up time	60 Sec
Dimensions	59(W)x H46(T)x D18(D) mm
weight	23g

### Absolute Maximum Ratings

characteristic	Rating
Supply voltage	-0.3 to + 7.0
Operating temperature	-10 to 60
Storage temperature	-30 to 80

### Connector Pin Configuration

Connector : JST S5-EH

1. COMMON (GND)
2. Output (P2)
3. Input (5V DC / 100mA)
4. Output (P1)
5. No Connection

### Application Ideas

- ✓ Air Purifier
- ✓ Air Quality Monitor
- ✓ Air Conditioner
- ✓ Ventilator
- ✓ Smoke type Fire alarm applicator  
by different sensor adjustments  
(customer option)

### Product Inquiry

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