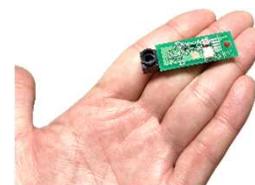




Compact Wind Speed Sensor (TP-MW Series)

Our **Compact Wind Speed Sensor** applies semiconductor technology to realize **small size and quick response**, so it is easy to install into various equipment. It adopts our original mechanism, and can measure wind including dust, moisture, and other particles. By changing the attachment, it is possible to use for many kinds of applications.



Appearance

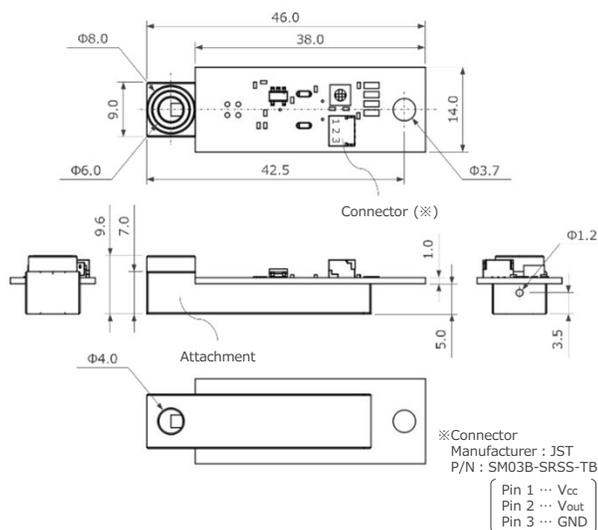


Applications

- Built-in to dryer, vacuum cleaner, air conditioner, drone, and so on
- Visualization of energy saving and preventive maintenance by air flow management in piping
- Air conditioning and dust removal management for house, building, factory, data center, etc.
- Air circulation and ventilation/inlet management for laboratory, clean room, etc.
- Detection of clogging in intake/exhaust filter, and visualization of timing for replacement and maintenance
- Application to security equipment, VR equipment, and so on
- Detection of strength of breathing

Dimensions

Unit : mm



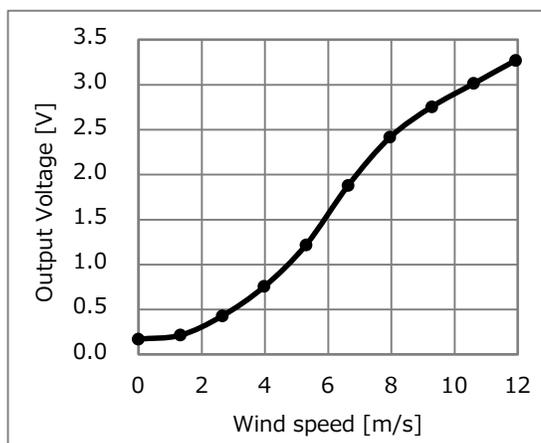
Specifications

Item	Specification	Measuring Condition
Detection range	0~12m/s	-
Detected output voltage V_{out}	3.00V±0.18V	Wind speed 10.6m/s ※ (Our measurement standard)
Shift voltage V_{os}	0.170V±0.026V	V_{out} under no wind ※
Maximum applied voltage	+3.5V	Maximum voltage that can be applied to the circuit. Recommended operating voltage is 3.30V
Power Consumption	Typ. 0.11W	Representative power consumption ※
Responsiveness	Typ. 20ms	Time until the detected wind speed reaches 63.2% of the target wind speed under our measurement standard, wind speed 10.6m/s ※
Detected output voltage Temperature coefficient (reference value)	-0.07%/°C	Wind speed 10.6m/s $V_{cc}=3.30V$, In the ambient temperature range of 0~40°C
Operating temperature range	-10°C~60°C	There must be no condensation

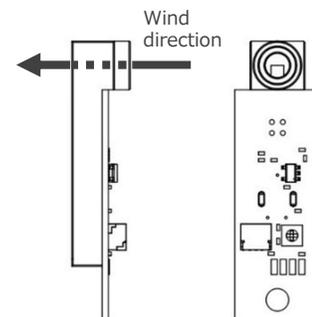
※Ambient Temp. 25°C, $V_{cc} = 3.30V$

Table data (For Reference)

Wind speed [m/s]	Output Voltage [V]
0	0.17
1.3	0.21
2.7	0.43
4.0	0.76
5.3	1.22
6.6	1.88
8.0	2.41
9.3	2.75
10.6	3.01
11.9	3.27



Measuring Method



$V_{cc} = 3.30V$
 Ambient Temp. 25°C
 According to Our Measurement System

Note: Performance and appearance are subject to change without prior notice.





Compact Wind Speed Sensor (TP-MW Series)

Expansion of Lineup

1. Attachment Variation

Compact Wind Speed Sensor **can respond to a wide range of applications and user needs by changing the attachment.** Please feel free to consult us about what kind of wind you would like to measure and in what kind of environment you plan to use it.



2. Adaptation to Low Wind Speed Range

We are **currently developing a highly sensitive Wind Speed Sensor that can detect very low wind speed ranges, including subtle air fluctuation levels.** By covering each wind speed range, we believe we can respond to even broader needs.

Status	Sensor Name (Tentative)	Appearance	Wind Speed Detection Range
Under development	Ultra-Low Wind Speed Sensor		0~1 m/s (Target range)
Under development	Low Wind Speed Sensor		0~3 m/s (Accuracy below 1 m/s is limited)
Mass production started	Compact Wind Speed Sensor		0~12m/s (Accuracy below 3 m/s is limited)

Level	Wind Speed (m/s)	Observed Situation
0	0.0 ~ 0.2	Smoke rises straight upward
1	0.3 ~ 1.5	Smoke drifts sideways
2	1.6 ~ 3.3	Wind is felt on the face; Leaves begin to move
3	3.4 ~ 5.4	Leaves move continuously; Light flags flutter
4	5.5 ~ 7.9	Small branches begin to sway; Tree limbs move
5	8.0 ~ 10.7	Small trees sway; Ripples appear on moving water
6	10.8 ~ 13.8	Large branches move; Difficult to use an umbrella
7	13.9 ~ 17.1	Whole trees sway; Walking against the wind becomes difficult

Source: Wind Force Scale by the Japan Meteorological Agency

If you have any questions or concerns regarding sensing solutions, please feel free to contact us.

