

# Solid State Wind Speed & Direction Sensor

The Model WS-MMW-005 Solid State Anemometer is a 2-dimensional, no-moving-parts wind sensor.

The sensor uses a special solid state device to measure wind speed and wind direction based on the temperature differences on the chip surface. These temperature differences are processed by a microprocessor in the sensor to produce serial output signals indicating wind speed and wind direction.

The sensor base attaches onto a flat surface with 3 bolts and the sensor head clips in to allow easy orientation to North or to the front of the vehicle or vessel in mobile applications.

## SPECIFICATIONS:

### General Requirements:

Power: 12VDC / 150mA  
 Operating Temperature: -25°C to +70°C

### Measurements:

Accuracy: Wind Speed:  $\pm(0.5\text{m/sec} + 5\%)$  at 20°C  
 Wind Direction:  $\pm 3^\circ$  at 20°C  
 Threshold: 0.2m/sec  
 Range: 0-25m/s range  
 Response Time: < 2second  
 Sample Rate: 3 Hz

### Environmental Protection:

Sealed to IP65

### Materials:

Stapron N

### Outputs:

Serial string encoding wind speed and wind direction  
 Baud rate: 4800  
 Data bits: 8  
 Stop bits: 1  
 Parity: None

### Cable:

4-wire cable with shield, length 20 metres

### Dimensions:

Head: 120 mm diameter x 45 mm high  
 Mounting Base: 60 mm x 43 mm diameter  
 Overall height: approx. 110 mm  
 Base mount holes: 4 mm diameter  
 Weight: 200 grams



WS-MMW-005 shown clipped into orientation mount. Mount is bolted to a flat surface

Sensor slips into mount with cable through hole in mount & base. Sensor is orientated to North and clipped into position in mount.



Mount attaches to flat surface with 3 bolts



Flat Surface

## ORDERING INFORMATION:

| Model | Description |
|-------|-------------|
|-------|-------------|

|            |                        |
|------------|------------------------|
| WS-MMW-005 | Solid State Anemometer |
|------------|------------------------|

WSMMW005-2.2-1

| Cable Colour Code |  |
|-------------------|--|
| White             | +12 VDC / 150mA                          |
| Brown             | GND<br>(both RS232 & RS422)              |
| Yellow            | Signal + for RS422<br>Not used for RS232 |
| Green             | Signal - for RS-422<br>Rx for RS232      |