Solid State Wind Speed & Direction Sensor

The Model WS-MM-MW22 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 ±10% @125mA
- Operating Temperature: -25°C to +70°C

**Measurements:**
- Accuracy: Wind Speed: 0.5m/sec ± 3% at 20°C
- Wind Direction: ±3° at 20°C
- Threshold: 0.2m/sec
- Wind Speed: 0-25m/s
- Wind Direction: 0-360°
- Response Time: < 1 seconds

**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

**Cable Colour Code**

<table>
<thead>
<tr>
<th>Colour</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>+12 VDC @ 125mA</td>
</tr>
<tr>
<td>Brown</td>
<td>DC supply and RS232 GND</td>
</tr>
<tr>
<td>Yellow</td>
<td>Signal A (+) for RS422/RS485</td>
</tr>
<tr>
<td></td>
<td>Not used for RS232</td>
</tr>
<tr>
<td>Green</td>
<td>Signal B (-) for RS422/RS485</td>
</tr>
<tr>
<td></td>
<td>Rx for RS232</td>
</tr>
</tbody>
</table>

**ORDERING INFORMATION:**
- Model: WS-MM-MW22
- Description: Solid State Anemometer

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