Radiation Shields
Passive and Fan Aspirated

Davis radiation shields help maximize accuracy of sensor readings. The passive Radiation Shield (product number 7714) protects temperature sensors from solar radiation and radiated or reflected heat sources. The 24-Hour Fan Aspirated Radiation Shield includes a solar- and battery-powered, motor-driven fan that draws a constant airflow through the sensor chamber. At night, when the effects of radiation are less, the fan runs on battery. This provides more accurate temperature readings than passive shielding alone.

**General**

- **Operating Temperature**: -40° to +150° F (-40° to +65° C)
- **Housing Material**: UV-resistant PVC plastic

**Passive Radiation Shield (7714)**

- **Dimensions (with bracket)**: 5.25" H X 8.75" L X 7.75" W (133 mm x 222 mm x 197 mm)
- **Weight (with bracket)**: 3.5 (1.6 kg)

**24-Hour Fan Aspirated Radiation Shield (6838)**

- **Dimensions**: 16" H X 11" L X 10.25" W (406 mm x 280 mm x 260 mm)
- **Weight (with bracket)**: 6.6 (3 kg)
- **Aspiration Rate**
  - Intake flow rate, full sun: 190 feet/min (0.96 m/s)
  - Intake flow rate, battery only: 80 feet/min (0.4 m/s)
  - Sensor chamber flow rate, full sun: 500 feet/min (2.5 m/s)
  - Sensor chamber flow rate, battery only: 180 feet/min (0.9 m/s)
- **Radiation Induced Temperature Error**: 0.5°F (0.3°C)
  - At solar noon, insolation = 1040 W/m²

**Battery Charge/Operating Temperature**: 32° to 113° F (0° to +45°C)

**Fan Primary Power**: Solar panel

**Fan Secondary Power**: 1 or 2 1.2 Volt NiMH C-cells

**Package Dimensions**

<table>
<thead>
<tr>
<th>Product #</th>
<th>Package Dimensions (Length x Width x Height)</th>
<th>Package Weight</th>
<th>UPC Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>7714</td>
<td>5.25&quot; x 8.75&quot; x 7.75&quot; (133 mm x 222 mm x 197 mm)</td>
<td>3.5 (1.6 kg)</td>
<td>011698771400</td>
</tr>
<tr>
<td>6838</td>
<td>16&quot; x 11&quot; x 10.25&quot; (406 mm x 280 mm x 260 mm)</td>
<td>6.9 lbs. (3.1 kg)</td>
<td>011698013654</td>
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