The irradiation sensors are based on our mono crystalline silicon solar cell. The standard measuring range is 0 – 1500 W/m². The standard output signal is either current loop (4-20mA) or analog voltage (0 – 15mV). The onboard temperature sensor can be used for temperature compensation of output signal, e.g. in mcontroller or other computer post-processing system. The sensor is protected by cylindric anodized aluminum case or ABS plastic and solar cell is encapsulated in standard long-live PV industry materials.

<table>
<thead>
<tr>
<th>Irradiation sensor F-sun</th>
<th>Value</th>
<th>Unit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Measuring range</td>
<td>0 – 1500</td>
<td>Wm²</td>
</tr>
<tr>
<td>Spectral sensitivity (silicon cell)</td>
<td>380 – 1100</td>
<td>nm</td>
</tr>
<tr>
<td>Sensor average accuracy *</td>
<td>±4</td>
<td>%</td>
</tr>
<tr>
<td>Field of view</td>
<td>179</td>
<td>°</td>
</tr>
<tr>
<td>Operating temperature range</td>
<td>-30 – 70</td>
<td>°C</td>
</tr>
</tbody>
</table>

**Output signal**
- **Current loop**: 4 – 20 mA
- **Power supply**: 8 – 30 V DC
- **Programable digital filter delay**: 0 – 30 s
- **Response time**: <100 ms
- **Analog voltage signal**: 0 - 15 mV
- **Sensitivity**: 7 - 9 µV/W/m²
- **Response time**: <10 ms

**Physical dimension**
- **Dimension (diameter x height)**: 50 x 60 mm
- **Mouting (inner hole screw)**: M8
- **Electrical connection**: soldered bare wires
- **IP protection rating**: IP 56
- **Cylindric Anodised Aluminium case**

**Thermometers**
- **Digital thermometer**
  - **Type of communication**: 1 wire
  - **Temperature range**: -55 – 120 °C
- **Analog thermometer**
  - **PT-100, PT-1000**
  - **Type of communication**: 3 wire

*calibrated on sun sumulator; outdoor comparison with Kipp&Zonen CMP11 (ISO secondary standard)