

## PRODUCT SPECIFICATIONS

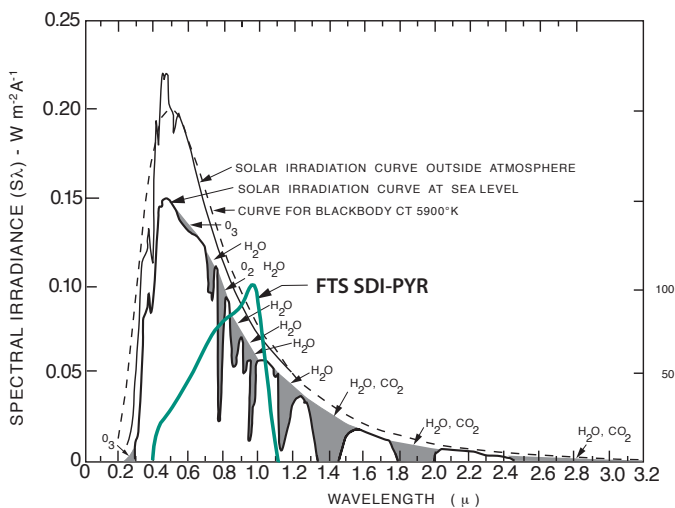
The SDI-SR-PYR is a pyranometer that measures total light available (global sun plus sky radiation). The sensor converts light through a photo-diode to an electrical signal which is interpreted by the internal microprocessor.

The FTS solar radiation sensor is a digital sensor with SDI-12 digital interface output, and stores all calibration coefficients within the sensor. It's a precision instrument, delivering scientific-grade data, housed in an anodized aluminum, water-resistant housing that provides excellent shielding from direct or reflected sunlight or rain.

The sensor mounts to a corrosion-resistant anodized aluminum mounting arm, clamped directly to a weather station mast, providing a lightweight yet rugged sensor support. The connecting cable from the sensor is fitted with a waterproof military-style bayonet connector for ease of setup and reliable, long-term operation.

FTS also offers two other models to monitor different forms of solar radiation:

- **SDI-SR-PAR (Photosynthetically Active Radiation)**
  - This sensor measures solar radiation within plant canopies, greenhouses, controlled environment chambers, confined laboratory conditions or at remote environmental monitoring sites.
- **SDI-SR-PHO (Photometric Sensor)**
  - A photometric sensor measures radiation as the eye sees it.



The FTS SDI-PYR spectral response is illustrated along with the energy distribution in the solar spectrum.



<b>Interface:</b>	SDI-12 v.1.3
<b>Operating voltage:</b>	9.6 VDC to 18 VDC
<b>Power consumption:</b>	< 1mA when idle
<b>Range:</b>	0 to 1,800 W m <sup>2</sup>
<b>Linearity:</b>	Maximum deviation of 1% up to 3000 W m <sup>2</sup>
<b>Accuracy</b>	±5%
<b>Stability:</b>	< ±2% change over a 1 year period
<b>Temperature dependence:</b>	0.15% per °C maximum
<b>Cosine correction:</b>	Cosine corrected up to 80° angle of incidence
<b>Azimuth:</b>	< ± 1% error over 360° at 45° elevation
<b>Tilt:</b>	No error induced from orientation
<b>Detector:</b>	High stability silicon photovoltaic detector (blue enhanced)
<b>Temperature range:</b>	-40°C to +60°C (-40°F to 140°F)
<b>Relative humidity range:</b>	0 to 100%