

## MODEL 4016 Solar Radiation Sensor

### General Description

The Model 4016 Solar Radiation Sensor provides a practical solution for routine measurement of solar radiation. The sensor construction is such that it measures the solar energy that is received from the whole hemisphere. This is the energy flux that is available for use in solar energy applications, for growth of plants, for air to use in thermal convection, and for water evaporation.

The Model 4016 Solar Radiation Sensor uses a photodiode detector, which creates a voltage output that is proportional to incoming radiation. Due to the unique design of the diffuser, its sensitivity is proportional to the cosine of the angle of incidence of the incoming radiation, allowing for accurate and consistent measurements under varying sky and placement positions.

### Specifications

Sensor:.....	Photodiode Detector
Sensitivity:.....	80 mV/1000 Wm <sup>2</sup>
Spectral response:.....	Equals silicon
Output:.....	0 to 5 Vdc (0 to 2000 W/m <sup>2</sup> )
Temperature range: .....	-30 to +70 °C
Response time:.....	Less than 1 sec
Temperature dependence:.....	± 0.15%/°C
Cosine error to 80 degrees: .....	< 10%
Spectral range: .....	0.4-1.1 micron
Standard cable:.....	25 ft. with MS connector
Size:.....	2 1/8 in. diameter x 1 1/3 in. high

### Ordering Information

4016 .....	Solar Radiation Sensor, 10 ft. cable with MS Connector with Model 4016MB Mounting Bracket
4016C.....	Additional Cable, per foot
4016SC .....	Replacement Signal Conditioning Card



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