



METER

SN-500 NET RADIATION SENSOR * RADIOMETER



Reliable net radiation measurements in real time

If you're planning a large sensor network and want long-lasting performance for less work and less budget, then SN-500 Net Radiation Sensor is perfect for you. Get research-grade accuracy for much less than other four-component net radiometers. And, it's plug and play with the ZL6 data logger and ZENTRA Cloud for easy, remote data access, so you can visualize your data in near-real time, wherever you are.

Engineered for excellence

Net radiation is a key variable in surface energy balance and influences turbulent fluxes, including evapotranspiration. The Apogee SN-500 four-component net radiometer consists of blackbody pyranometer and pyrgeometer pairs that face both upward and downward to provide incoming and outgoing shortwave and longwave radiation measurements. Each individual sensor measures the four separate components of net radiation for best accuracy.

Simple and precise

A small, lightweight design means easy mounting to a cross arm using a mounting bracket (included) which simplifies precision leveling of the sensors.

Easy remote data access

Combine SN-500 with the ZL6, where all data is connected and delivered in near-real time through the cloud. And with SN-500's four-component measurements, it's a snap to compute any number of important radiation parameters like net radiation, net longwave radiation, net shortwave radiation, albedo, total irradiance, etc.

Affordable accuracy, guaranteed

Backed by an industry-leading four year warranty and outstanding customer support, Apogee SN-500 is a long-life, accurate, easy-to-install net radiometer with an ultra-rugged form and remote data access.



BILMAR BİLİMSEL ARAŞTIRMA VE MÜHENDİSLİK ANONİM ŞİRKETİ

Web page : www.bilmar.com.tr

E-mail : bilkim@bilmar.com.tr



SN-500 NET RADIATION SENSOR * RADIOMETER

METER

Specifications

Output type	SDI-12
Response time	1 s (SDI-12 data transfer rate; detector response times are 0.5 s)
Operating environment	-50 to 80°C; 0 to 100% relative humidity
Dimensions	116 mm length, 45 mm width, 66 mm height
Mass	320 g (with mounting rod and 5 m lead wire)
Cable	M8 connector (IP68 rating) to interface to sensor housing; 5 m of four conductor, shielded, twisted-pair wire with a TPR jacket; ZL6 stereo plug termination
Data logger compatibility	METER EM60 series, ZL6 series, ZSC, ProCheck

PYRGEOMETER SPECIFICATIONS

Calibration uncertainty	±5%
Measurement range	-200 to 200 W m ⁻² (net longwave irradiance)
Measurement repeatability	Less than 1%
Long-term drift	Less than 2% per year
Non-linearity	Less than 1%
Detector response time	0.5 s
Field of view	150°
Spectral range	5 to 30 μm
Temperature response	Less than 5% from -15°C to 45°C
Window heating offset	Less than 10 W m ⁻²
Zero offset B	Less than 5 W m ⁻²
Tilt error	Less than 0.5%
Uncertainty in daily total	±5%

PYRANOMETER SPECIFICATIONS

Calibration uncertainty	±5%
Measurement range	0 to 2000 W m ⁻² (net shortwave irradiance)
Measurement repeatability	Less than 1%
Long-term drift	Less than 2% per year
Non-linearity	Less than 1%
Detector response time	0.5 s
Field of view	180° (upward-looking); 150° (downward-looking)
Spectral range	385 nm to 2105 nm (upward-looking); 295 nm to 2685 nm (downward-looking); (50% points)
Directional (Cosine) response	Less than 30 W m ⁻² at 80° solar zenith (upward-looking); Less than 20% for angles between 0 and 60° (downward-looking)
Temperature response	Less than 5% from -15°C to 45°C
Zero offset A	Less than 5 W m ⁻² ; Less than 10 W m ⁻² (heated)
Zero offset B	Less than 5 W m ⁻²
Uncertainty in daily total	Less than 5%