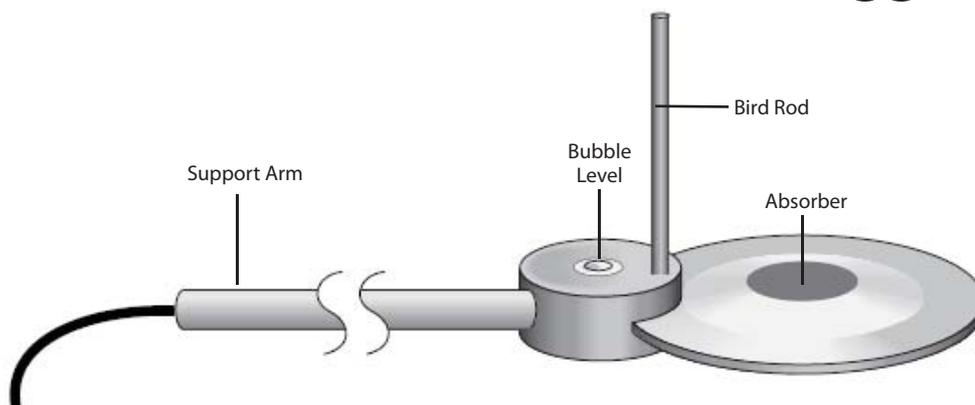


Rugged net radiometer

Measures incoming and outgoing radiation



Overview

The NR-LITE2 is a rugged net radiometer manufactured by Kipp & Zonen. Net radiometers measure the energy balance between incoming short-wave and long-wave IR radiation relative to surface reflected short-wave and outgoing long-wave IR radiation. This net radiometer includes two black conical absorbers; one facing upward, the other facing downward. They are coated in PTFE[®] making them resistant to weather without requiring a fragile plastic dome. Both absorbers are calibrated to an identical sensitivity coefficient.

The net radiometer outputs a millivolt signal that is measured directly by a Campbell Scientific datalogger. Please note that the NR-LITE2 is not compatible with our CR200(X)-series dataloggers.

Mounting

To avoid shading effects and to promote spatial averaging, the NR-LITE2 should be mounted at least 1.5 m (5 ft) above the ground. Campbell Scientific recommends mounting the NR-LITE2 to a separate vertical pipe at least 25 feet away from other mounting structures. The sensor is supplied with a bracket suitable for mounting on a vertical pole up to 52 mm in diameter.

Benefits and Features

- › Rugged sensor
- › Resistant to weather
- › Output signal can be measured directly by Campbell Scientific datalogger
- › Bubble level to aid in correct installation



Specifications

- › **Sensor:** Blackened thermopile
- › **Spectral response:** 0 to 100 μm
- › **Response time (e^{-1}):** 20 seconds (nominal)
- › **Sensitivity:** 10 $\mu\text{W}^{-1} \text{m}^2$ (nominal)
- › **Output range:** ± 25 mV
- › **Range:** $\pm 2000 \text{Wm}^{-2}$
- › **Temperature range:** -30° to 70°C
- › **Dimensions:**
 - Sensor:** 8.0 cm (3.1 in) diameter
 - Support Arm:** 1.6 cm (0.6 in) diameter, 80 cm (31.5 in) length
- › **Weight:** 635 g (23 oz)
- › **Standard cable length:** 10 m
- › **Datalogger requirements:** One differential or single-ended analogue channel
- › **CE compliance:** CE compliant under the European Union's EMC directive

Ordering Information

Net Radiometer

009542 **NR-LITE2** - Kipp & Zonen Net Radiometer
with Mounting bracket + 15 m cable