

NR-LITE

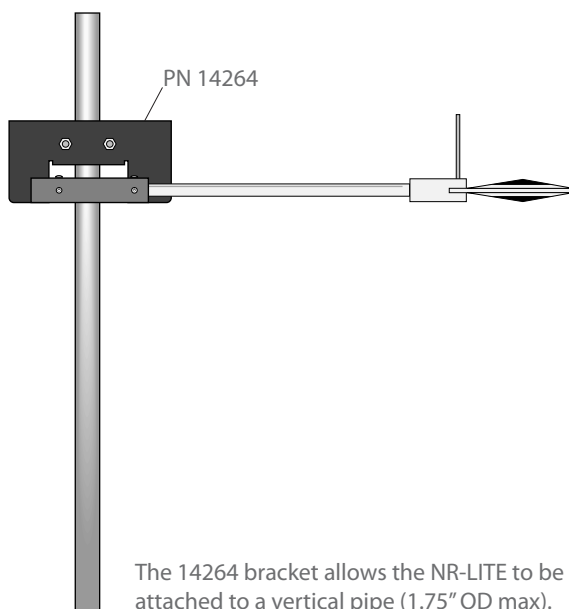
Net Radiometer

The NR-LITE 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 Teflon® making them resistant to weather without requiring a fragile plastic dome. Both absorbers are calibrated to an identical sensitivity coefficient.

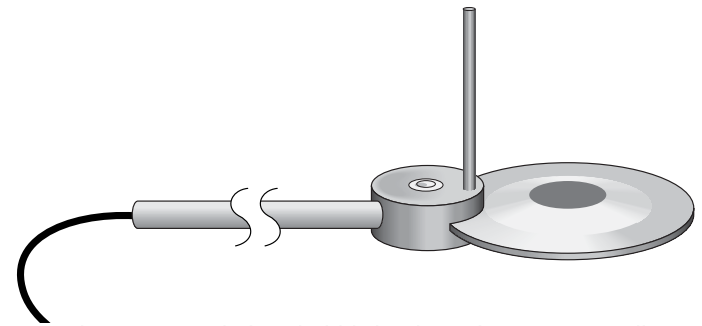
The net radiometer outputs a millivolt signal that is measured directly by a Campbell Scientific datalogger. Please note that the NR-LITE is not compatible with our CR200-series dataloggers.

Mounting

To avoid shading effects and to promote spatial averaging, the NR-LITE should be mounted at least 1.5 m above the ground. Campbell Scientific recommends mounting the NR-LITE to a separate vertical pipe at least 25 feet away from other mounting structures. The 14264 mounting bracket is used to mount the NR-LITE directly to a vertical pipe, or to a UT108 Tower Mounting Bracket and Crossarm.



The 14264 bracket allows the NR-LITE to be attached to a vertical pipe (1.75" OD max).



The NR-LITE includes a bubble level to aid in correct installation and a rod that deters birds from roosting on the sensor.

Ordering Information

Net Radiometer

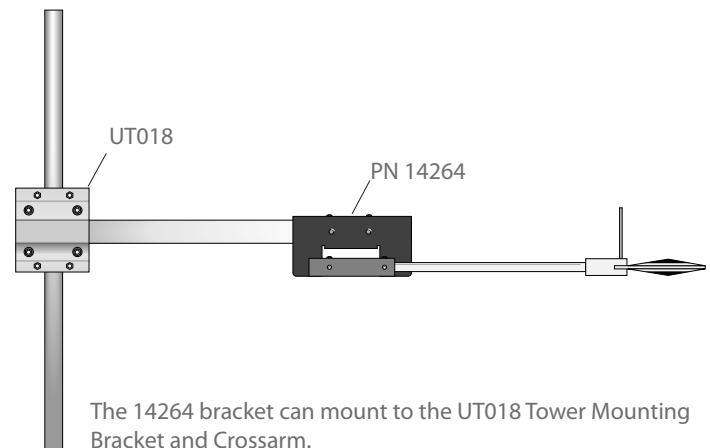
NR-LITE-L Kipp & Zonen Net Radiometer with user-specified lead length. Enter the lead length in feet after the -L. A 48' lead length is recommended.

Pigtail Options (choose one)

- PT** Cable terminates in pigtail for direct connection to a datalogger's terminals.
- PW** Cable terminates in connector for attachment to a prewired enclosure.

Mounts

- 14264** NR-LITE Mounting Kit that allows attachment to a UT018 or vertical pipe.
- UT018** 2-ft Sensor Crossarm with Tower Mounting Hardware



The 14264 bracket can mount to the UT018 Tower Mounting Bracket and Crossarm.

Specifications

| | |
|---|--|
| Sensor: | Blackened thermopile |
| Spectral response: | 0 to 100 μm |
| Response time (e^{-1}): | 20 seconds (nominal) |
| Sensitivity: | 10 $\mu\text{V W}^{-1} \text{m}^2$ (nominal) |
| Output range: | ± 25 mV |
| Range: | ± 2000 W m^{-2} |
| Temperature range: | -30° to 70°C |

| | |
|---------------------------------|--|
| Dimensions | |
| Sensor: | 3.1" (8.0 cm) diameter |
| Support arm: | 0.6" (1.6 cm) diameter; 31.5" (80 cm) length |
| Weight: | 23 oz. (635 g) |
| Datalogger requirements: | One differential or single-ended analog channel |
| CE Compliance: | CE compliant under the European Union's EMC directive |

