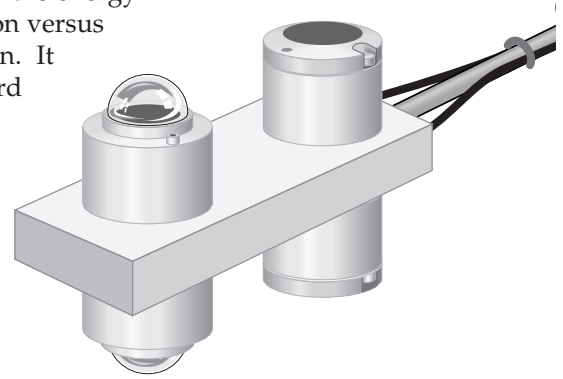


Net Radiometer

Model CNR1

The CNR1 net radiometer is manufactured by Kipp & Zonen for applications requiring research-grade performance. The radiometer measures the energy balance between incoming short-wave and long-wave IR radiation versus surface-reflected short-wave and outgoing long-wave IR radiation. It consists of a pyranometer and pyrgeometer pair that faces upward and a complementary pair that faces downward. The pyranometers and pyrgeometers measure short-wave and far infrared radiation, respectively. All four sensors are calibrated to an identical sensitivity coefficient. The CNR1 also includes an RTD to measure the radiometer's internal temperature, a 4WPB100 module to interface the RTD with the datalogger, and a heater that can be used to prevent condensation. Please note that the CNR1 is not compatible with our CR200-series dataloggers

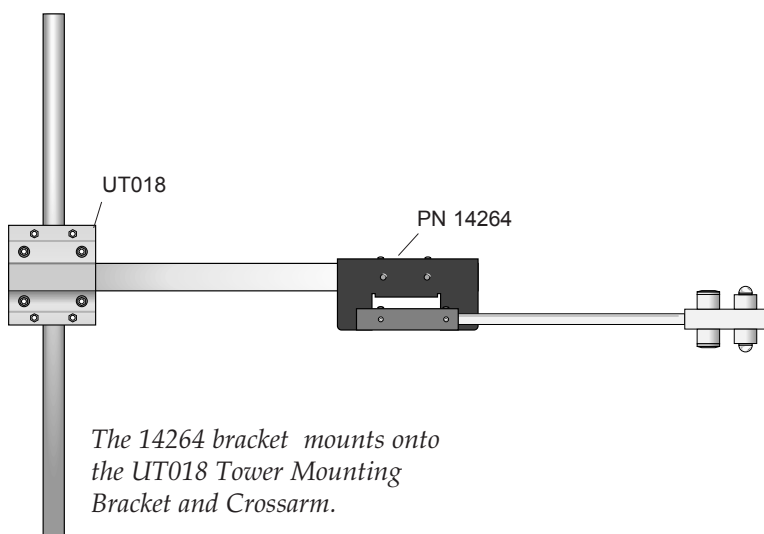


Mounting

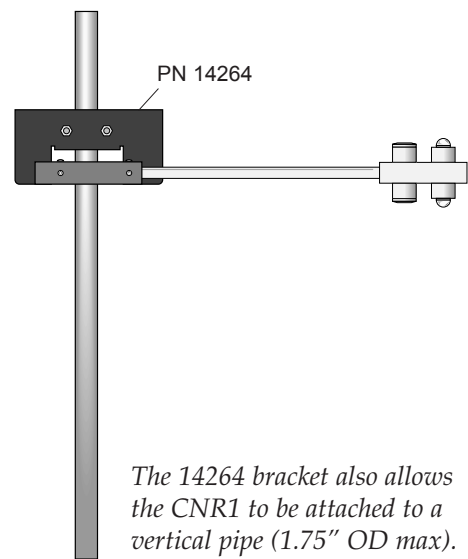
To avoid shading effects and to promote spatial averaging, the CNR1 should be mounted at least 1.5 m above the ground. Campbell Scientific recommends mounting the CNR1 to a separate vertical pipe at least 25' away from other mounting structures. PN 14264 mounting bracket is used to mount the CNR1 directly to a vertical pipe, or to a UT018 Tower Mounting Bracket and Crossarm.

Ordering Information

CNR1	Net radiometer with a 82' (25 m) lead length.
CNR1-L	Net radiometer with user-specified lead length. Enter lead length, in feet, after the -L
14264	Mounting Bracket for Kipp & Zonen CNR1



The 14264 bracket mounts onto the UT018 Tower Mounting Bracket and Crossarm.



The 14264 bracket also allows the CNR1 to be attached to a vertical pipe (1.75" OD max).



CAMPBELL SCIENTIFIC, INC.

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Specifications

Sensor:	Kipp & Zonen's CM3 ISO-class, thermopile pyranometer, CG3 pyrgeometer, PT100 RTD
Spectral response:	305 to 2800 nm (pyranometer), 5000 to 50,000 nm (pyrgeometer)
Response time:	18 seconds
Typical sensitivity range:	7 to 15 $\mu\text{V W}^{-1} \text{m}^2$
Output range:	0 to 25 mV (pyranometer), ± 5 mV (pyrgeometer)
Expected accuracy for daily totals:	$\pm 10\%$
Directional error:	$< 25 \text{ W m}^{-2}$ (pyranometer)
Heating resistor:	24 Ohms, 6 W at 12 Vdc
Operating temperature:	-40° to 70°C
Weight:	8.8 lbs (4 kg)
Dimensions:	9.1" x 3.1" x 6.1" (23.2 cm x 8.0 cm x 15.6 cm)
Datalogger Requirements	Six differential or four single-ended and two differential analog channels
CE Compliance:	CE compliant under the European Union's EMC Directive



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