

# CNR 4



**CNR 4** is a four-component net radiometer for accurate and reliable measurements and can be used as the reference instrument for a network of lower performance net radiometers. There are four separate signal outputs and the integrated temperature sensors can be used to calculate the FIR radiation. The screw-in mounting rod, bubble level, and cables with waterproof connectors, make installation easy.

CNR 4 combines two pyranometers for solar radiation with two pyrgeometers for infrared measurements, all integrated into the instrument body. The upper pyrgeometer has a silicon meniscus dome so that water rolls off and the field of view is 180°. A heated ventilation unit, the CNF 4, is available to minimise offsets, maximize stability and remove precipitation.

Specifications	
Number of signal outputs	4 - incoming and reflected short-wave radiation downward and upward long-wave radiation
Pyrgeometer temperature sensors	10 K thermistor and Pt-100
Response time (95 %)	< 18 s
Non-linearity (over full range)	< 1 %
Temperature dependence of sensitivity	< 5 % from -10 °C to +40 °C
Sensitivity	7 to 20 µV/W/m² short-wave 5 to 10 µV/W/m² long-wave
Operating temperature	-40 °C to +80 °C
Spectral range (50 % points)	310 to 2800 nm short-wave 4.5 to 42 µm long-wave
Field of view	180 ° short-wave 150 ° long-wave lower 180 ° long-wave upper
Mounting rod (screw-in)	350 mm long x 16 mm Ø

Article	Part number
<b>CNR 4 Net Radiometer</b> • four-component • 10 m cable	<b>0369900-032</b>
Options for CNR 4	
CNR 4 Net Radiometer • 25 m cable	0369900-034
CNR 4 Net Radiometer • 50 m cable	0369900-035
CNR 4 Net Radiometer • plug only, no cable	0369900-038
100 m cable	On request

Accessories for CNR 4	Part number
<b>Drying Cartridge</b> (minimum order 5 cartridges)	<b>4250024</b>
<b>CNF 4 Ventilation Unit</b>	<b>0369700</b>
<b>CMB 1 Mounting Bracket</b>	<b>0369701</b>
To enable easy attachment of the mounting rod to a pole or a wall	