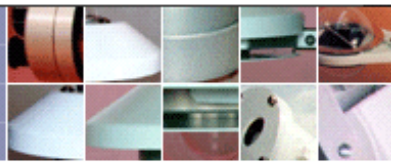
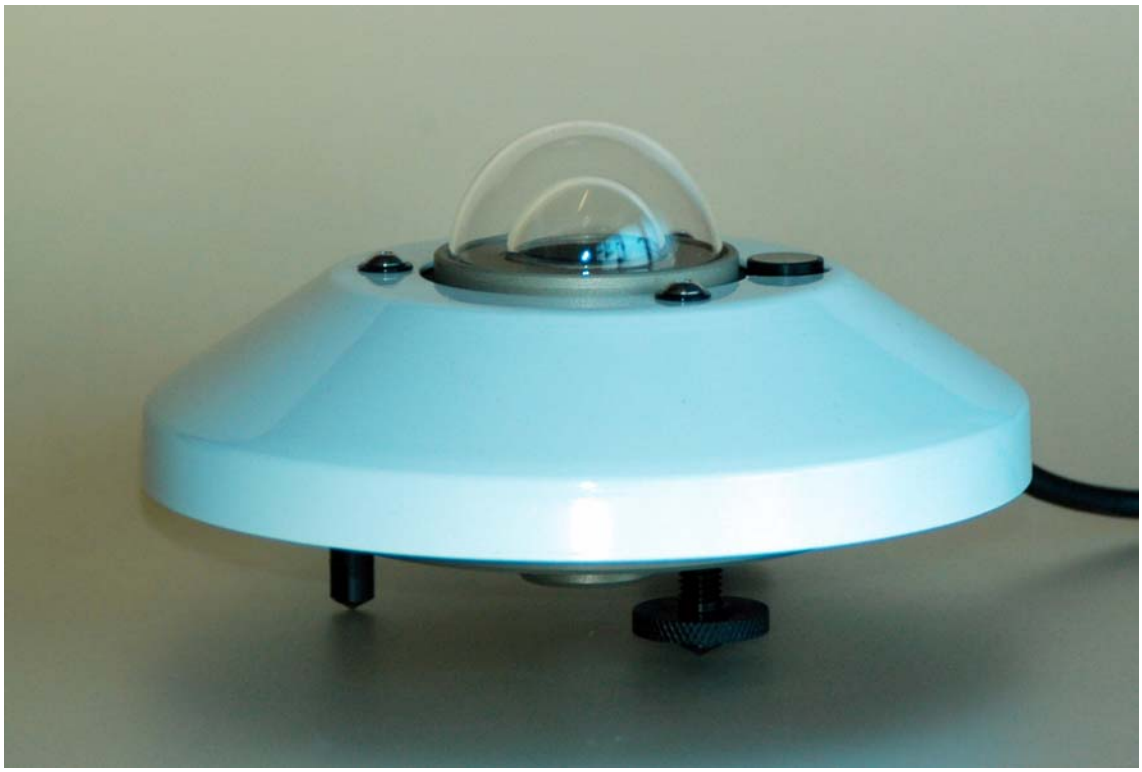
MIDDLETON SOLAR
16 WILSON AVENUE BRUNSWICK VICTORIA 3056 AUSTRALIA



EQ08 & EQ08-E PYRANOMETER

First Class Pyranometer for Solar Global Radiation



The Middleton EQ08 is a precision pyranometer for the measurement of global solar irradiance on a plane surface. It exceeds the international accepted specifications for a good quality pyranometer. The EQ08 incorporates a state-of-the-art precision thermoelectric sensor. The EQ08-E version has an inbuilt signal amplifier.

Performance Specification	ISO9060 First Class	EQ08/E (typical)
Response time (to 95%)	< 30s	11s
Zero off-set: a) 200 $W.m^{-2}$	+ 15 $W.m^{-2}$	< + 6 $W.m^{-2}$
b) 5$K.h^{-1}$	± 4 $W.m^{-2}$	< ± 2 $W.m^{-2}$
Non-stability (per year)	± 1.5%	< +1.5%, -0.5%
Non-linearity (100-1000$W.m^{-2}$)	± 1%	< ± 0.5%
Directional response (w.r.t. 1000 $W.m^{-2}$)	± 20 $W.m^{-2}$	< ±15 $W.m^{-2}$
Spectral selectivity (0.35 to 1.5µm)	± 5%	< ±3%
Temperature response (for 50K interval)	4%	< 2%
Tilt response (0-90°)	± 2%	< ± 0.25%

EXCELLENT DIRECTIONAL RESPONSE, STABLE, DURABLE

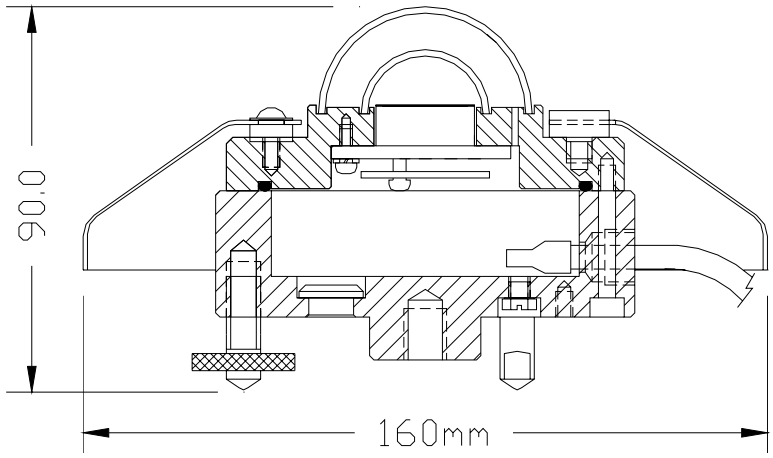
Marine grade aluminium, hard anodized for corrosion resistance.

Bubble level on top of instrument for easy viewing.

Fully sealed construction for low-maintenance.

Strong output signal.

Middleton Solar EQ08 & EQ08-E Pyranometer Detailed Specification



Exceeds the ISO9060 specifications for a First Class Pyranometer.
Temperature compensated thermopile sensor has flat spectral response.
The EQ08 has a passive microvolt output, and the EQ08-E version has an in-built signal amplifier to give a millivolt output for easy measurement.
Metal shade disc is thermally insulated from the body.
Plastic feet thermally insulate instrument from mounting structure.
Fully sealed to IP66, with no need to regularly inspect internal desiccant.
Dual glass domes protect the sensor from air temperature fluctuations.
Supplied with simple mounting kit.
User's Guide and Calibration Certificate included.

General Specification

viewing angle	2π steradians
irradiance	0 - 4000W/m^2
spectral range	300 - 3000nm (nominal); 305 - 2850nm (50% points)
sensitivity (typical)	EQ08: 15 μV/W.m^{-2} ; EQ08-E: 1.0mV/W.m^{-2}
signal resolution	< 0.5 W/m^2
impedance	EQ08: 40 Ω ; EQ08-E: 100 Ω
power requirement (EQ08-E only)	5.5-14.5 VDC; 6mA
operating temperature	-35 to +60°C
bubble level resolution	0.1°
level adjustment	one fixed foot, two adjustable feet
desiccant	orange silica gel (non-toxic, self-indicating)
mounting method	central M10 hole in base, plus pair M4 holes on 65mm P.C.D.
output lead	6m
shipping size & weight; net weight	230 x 230 x 180mm, 2Kg; 0.8Kg

EQ08-E Signal Amplifier

type	chopper stabilised (for zero amplifier drift)
voltage & current	+5.5V min., +14.5V max., -ve ground; 6mA max.
output characteristic (two outputs)	external load > 3KΩ; max. output current: +2mA source, -5mA sink
overvoltage & polarity reversal protection	> 15V; > 0.2A

Available from:

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