

# 7241

## PYRANOMETER/SOLAR RADIATION SENSOR



MODEL C-E



The 7241 sensor technology combines the advantages of reference cell and broadband thermopile pyranometers. Compared to the reference sensors it has proper cosine response and it is relatively compact. It benefits from the same characteristics as a PV module i.e. response time, spectral and temperature response.

The ML-01 is an industrial grade solar sensor specially made for performance ratio measurements as well as irradiance measurement applications for the meteorological, agricultural and environmental studies. The compact dimensions of the sensor body make it easy to integrate within any application using it with or without mounting plate. For global horizontal measurement applications the sensor can be mounted in horizontal position with the standard removable mounting plate with spirit level and levelling feet.

The Mono-Silicon detector, with UV resistant diffuser, gives a cosine response also at low solar elevation angles. Besides the effects of soiling or water deposition on top of the diffuser will be minimised due to the cone shape geometry.

Unidata can provide mounting assembly that is ideal for mounting Radiation Sensors/ Pyranometers.

Radiation Sensors must be optically levelled to ensure repeat measurements are accurate and to ensure for repeat measurements are at the same level orientation to the sun.

Radiation sensor mounting assembly includes a levelling unit fitted with a bulls eye as well as a mounting arm and mounting hardware for poles to a maximum of 60mm diameter.

### SPECIFICATIONS

PHYSICAL SPECIFICATIONS PYRANOMETER	
SIZE:	Diameter 22mm x 28.5mm tall
WEIGHT:	90 grams with 5m of cable
OPERATING TEMPERATURE:	-30°C to 70°C. Not affected by humidity.
ELECTRICAL SPECIFICATIONS	
POWER SUPPLY:	None
OUTPUTS:	1 analog 0-100mV
SENSITIVITY:	50µV/Wm <sup>2</sup>
NON-STABILITY:	±2% per year
NON-LINEARITY:	<0.2% at 1000W/m <sup>2</sup>

RESPONSE TIME:	<1ms
SPECTRAL RANGE:	400nm to 1100nm
DIRECTIONAL RESPONSE ERROR:	<±5% for 0° to -80°
CABLE:	5m of 3 core cable
PHYSICAL SPECIFICATIONS MOUNTING ASSEMBLY	
MATERIAL:	Powder coated aluminium
SIZE:	190mm x 101mm x 120mm (LxWxH)
WEIGHT:	700grams
MOUNTING:	Set of two 60mm U-bolts and saddle clamps