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LP PYRA 03 : Pyranometer (ISO 9060 Second Class)



Recommended use:-

- Atmospheric research
- Weather stations
- Climatology
- Energy saving research
- Productive efficiency test of Photovoltaic plants etc.

LP PYRA 03 Pyranometer measures the irradiance on a plane surface (Watt/m2). Measured irradiance (Global Irradiance) is the result of the sum of direct solar irradiance and of diffuse irradiance.

Delta Ohm manufactures Second Class LP PYRA 03 Pyranometers with calibration certificate, which fully comply with ISO 9060 standards, and meet the requirements defined by the World Meteorological Organization (WMO). A 10 meter long cable, These are strong and reliable ground-based instruments, especially designed to be used under all weather conditions. They are suitable for installation on the field. No power supply is needed; Pyranometers generate a voltage, Every pyranometer is calibrated separately and is supplied standard with a WRR (World Radiometric Reference) Report of Calibration.

LP PYRA 03 Pyranometer is based on a thermopile sensor. The thermopile sensitive surface is coated with a black matt paint, which allows the pyranometer not to be selective at different wave lengths. The pyranometer spectral range is determined by the transmission of the glass dome type K5.

Supplied Including Kit:-

- Pyranometer
- Shad disk
- Calibration Certificate
- Bubble Level
- 10 Meter cable with connector

Technical Specification of Pyranometer

Classification : Second class (ISO 9060) **Detector Type :** Based on a thermopile sensor Measuring Irradiance Range: 0 - 2000 W/m2 Spectral Range : 305 nm to 2800 nm **Typical sensitivity :** 10 µV/ (W/m2) Response time 95% : < 30 sec. **Field of View** : 180⁰ Impedance : 33 to 45 Ohm Response to thermal radiation (200Wm⁻²): 25 W/m2 **Response to temperature change 5K/h :** <± 6 W/m2 Non stability over 1 year : $<\pm 2.5\%$ Non linearity : <± 2% Cosine response : <±22 W/m2 **Spectral selectivity :** <±7% **Response with regard to temperature :** < 8 %Tilt response : <± 4% Operating temperature : - 40 °C to 80 °C **Operating Humidity :** 0 to 100% Storage temperature : - 40 °C to 80 °C Cable : 10 meter cable (Cable can be extend up to 60 meter). Weight: 0.45 Kg



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HD2102.2 : Digital Datalogger (Hand Held)



HD2102.2 Digital Datalogger

The HD2102.2 Digital Datalogger (Hand Held) is portable instruments with a large LCD display. They measure illuminance, luminance, PAR and irradiance (across VIS-NIR, UVA, UVB and UVC spectral regions or measurement of irradiance effective according to the UV action curve). The probes are fitted with the SICRAM automatic detection module: in addition to detection, the unit of measurement selection is also automatic. The factory calibration data are already stored inside the instruments. Some thresholds can be associated with the integrated measurement and with the integration time, which can be set in the menu. The datalogger stores up to **38,000 data** which can be transferred from the instrument connected to a PC via USB cable, The datalogger fitted with USB port and can transfer the acquired measurements in real time to a PC or to a portable printer. **The Max, Min and Avg.** function calculate the maximum, minimum or average values. Other functions include: the relative measurement REL, the HOLD function, and the automatic turning off that can also be excluded.

DeltaLog9 Software is windows based software which allow to configuration, Store data, Real time data, Download data, Graphical Data.

Technical Specification of Datalogger

Measured values storage data:-**Measuring unit :** W/m2 -lux - fcd - lux/s - cd/s - µW/cm2 - J/m2 - µJ/cm2 - µmol(m2.s) - µmol/m2 - cd/m2 Data Storage Capacity : 38000 Data set **Type :** 2000 pages containing 19 samples each Storage interval : 1s, 5s, 10s, 15s, 30s, 1min, 2min, 5min, 10min, 15min, 20min, 30min and 1hour PC interface : USB Port Type : USB cable Cable length: 2 meter Immediate print interval: 1 sec. to 3600 sec. (1hour) **Digital Display :** 2x4¹/₂ digits plus symbols - 52x42mm Visible area : 52x42mm Batteries : 4AA 1.5V type batteries Autonomy: 200 hours with 1800mAh alkaline batteries Power absorbed with instrument off: 20µA Mains Output adapter : 12Vdc / 1000mA Security of memorized data : Unlimited, independent of battery charge conditions Date and time : Schedule in real time Accuracy: 1min/month max drift **Operating conditions:-Operating temperature :** -5 to 60 ^oC Storage temperature : -25 to 65 °C Working relative humidity : 0 to 90% RH without condensation Instrument Dimensions : (Length x Width x Height) : 185x90x40mm Weight: 470g (complete with batteries) Protection degree : IP67 Materials : ABS, rubber

Includes: Main Unit, USB Data Cable, 4AA batteries, 12V mains Power adapter, Software, Manual, Carrying case