GILL

Meteorological Instruments for Solar Energy

gillstruments.com
Gill Instruments has been designing and manufacturing professional use compact weather stations and ultrasonic wind speed and direction sensors for over 25 years. As leaders in the field of ultrasonic weather monitoring technology, Gill’s portfolio of products include meteorological instruments suitable for the solar industry.

Meteorological measurements provide some of the key statistics to help the operator improve asset availability, performance and profitability. Our comprehensive product range provides access to all the essential measurement parameters helping users to realise the full potential of the installation.
Installing Meteorological instrumentation to monitor environmental parameters such as solar radiation, wind loading, precipitation, temperature and humidity, provides solar park operators with essential data to identify performance related issues and maintenance factors affecting efficiency.

MaxiMet and MetPak weather stations measure these parameters to monitor park efficiency. These include ISO9060 standard solar radiation sensors for park efficiency against energy forecasts, wind speed for panel loading which helps avoid panel damage, precipitation to assist with maintenance scheduling and external temperature sensors to monitor individual panel efficiency.
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MaxiMet provides solar park operators with the essential meteorological parameters to help monitor efficiency and optimise maintenance routines. The compact weather stations each measure different meteorological parameters including solar radiation, precipitation, wind speed and direction, temperature, humidity and more.

Key Features and Benefits
- **MULTIPLE PARAMETERS**: Wind speed & direction, temperature, humidity, pressure, precipitation, dew point, solar radiation.
- **ISO9060 Solar radiation sensors fitted for best measurement.
- **MODBUS on all sensor options for easy and direct interfacing into SCADA systems.
- **SERVICES**: On-site alarming the operator/maintainer to receive the last calibration date from the station.
- **EXTERNAL INCLINOMETER** where the solar radiation sensor is to be mounted at the same angle of incidence as the PV panel.
- **IN-FIELD CALIBRATION CHECK** using reference sensor alongside the installed MaxiMet.

MaxiMet

MetPak is a professional weather station with increased flexibility. The range offers users higher accuracy industry standard sensors along with the ability to increase the number of parameters by adding additional sensors using standard analogue inputs. Solar users can combine a range of different sensors in a cost-effective package.

WindSonic is a low-cost, high-quality anemometer giving wind speed & direction data in a robust polycarbonate or heated aluminum for extreme cold conditions.

MUL TIPLE PARAMETERS: Wind speed & direction, temperature, humidity, pressure, precipitation, dew point.
- ISO9060 Solar radiation sensors fitted for best measurement.
- MODBUS for easy and direct interfacing into SCADA systems.
- JUNCTION BOX for additional device connection
- EXTERNAL INCLINOMETER for the solar radiation sensor to monitor park efficiency.
- TWO ANALOGUE INPUTS for ISO9060 solar radiation sensors to monitor efficiency.
- TIPPING BUCKET rain gauge input to allow the operator/maintainer to predict cleaning schedules and possible reduction in performance.

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SCADA CONTROL SYSTEM