MODULE & AMBIENT TEMPERATURE SENSORS

INTELLO

Measures temperature of the modules installed in an array for performance analysis.

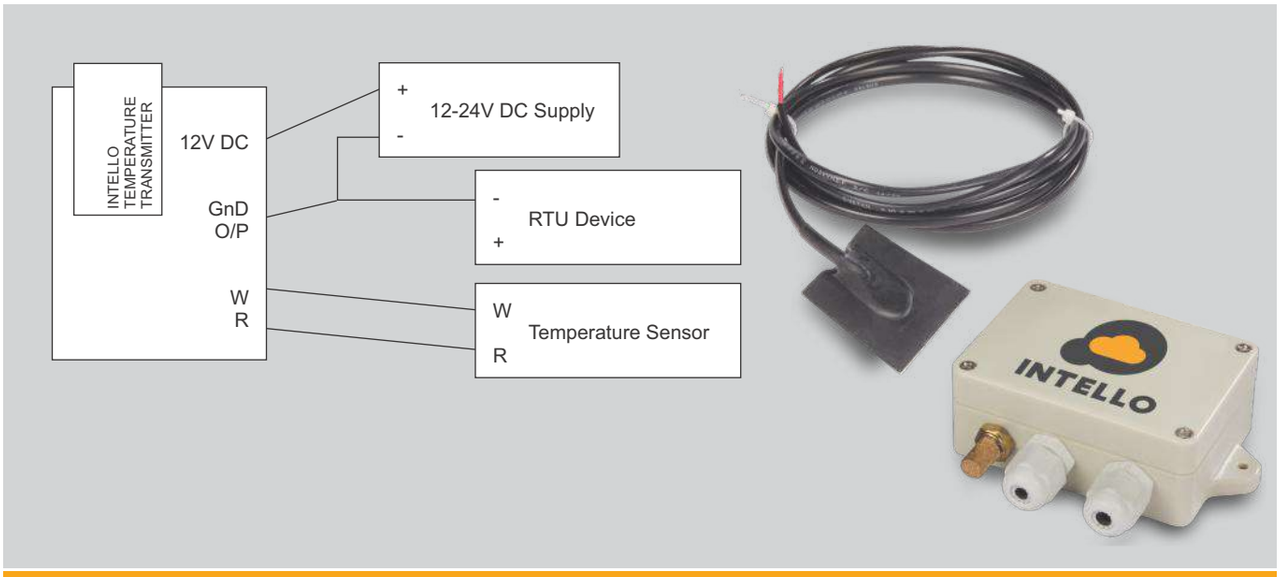
- Wide measurement band ranging from 0°C to 100°C
- High measurement accuracy upto 0.5°C
- Flat heat sync

www.intello.co.in

MODULE & AMBIENT TEMPERATURE SENSORS

Module temperature has a direct bearing on the module performance and therefore the yield of the plant. It thus one of the critical parameters in the Solar Plant performance analytics.

The module temperature sensor as the name indicates, reads the temperature of the modules installed in an array. The sensor then converts this reading into a voltage signal which is then sent back to the monitoring device.



Technical Specifications

Measuring Range	0 Deg C to 100 Deg C
Accuracy Sensors	+/- 0.5 Deg C
Sensor Model	NTC 10K
Output	4-20mA
Weight	150gms Approx.

Installation Practice:

A. Select a Solar module that remains under the sun throughout the day.
B. For best operation, this heat sink should be mounted against the surface to be measured.
C. The module temperature sensor is attached to the back of the PV module.
D. Tie the sensor cable off in a way that does not pull on the sensor
E. It is recommended to fix the sensor and the cable with an additional adhesive tape

Sensor Maintenance : Avoid water spill at all costs. It is recommended that the accuracy of the sensor is verified every 12 months.

Product Replacement Warranty : One (1) Year

INTELLOTECH SOLUTIONS

1800-3131-71717

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INDIA

INTELLO

WIND SPEED SENSOR (ANEMOMETER)

INTELLO

A sensitive instrument for measuring wind speeds. Rugged design and build to withstand strong winds.

- Wind tunnel tested for accuracy
- Anti-corrosion shell with sealed bearings
- Designed prevent icing on moving parts in cold climates

www.intello.co.in

WIND SPEED SENSOR

A rugged design with matching components to withstand hurricane force winds, yet sensitive to a light breeze in operation. Includes sealed bearings for long life. The Wind Speed Sensor's range and accuracy specifications have been verified in wind tunnel tests. In cold climate areas where icing of the anemometers poses problem, drip rings are designed to deflect water from the joints between moving parts.

Key Features:

- **Anti-Corrosion Shell**
- **High Precision Measurement**
- **Wide Range of Measurement**
- **Mounting Clamp Included**

Technical Specifications	
Sensor Type	3 Cups
Material	UV resistant ABS & Polycarbonate
Range	0-250km/h
Start up Wind Speed	0.5 m/s
Accuracy	+/-3%
Output	Pulse, 62HZ = 250km/h
Dimension	15cm Dia
Temperature	-40Deg to +75 Deg C

Installation Practice:

A. Mounting pipe must be vertical.
B. Ensure location where the wind flows freely and is not influenced by nearby objects.
C. For the most accurate wind speed readings, mount sensor as the highest object for 50 feet in all directions.

Sensor Maintenance : Ensure Cleaning of rotate vane assembly; look for smooth rotation and a gradual stop. Check the ball bearings of the anemometer and the vane every year. Clean any accumulation of dirt, dust, or bird droppings that may affect proper rotation of the vane. Use only soapy water and a soft cloth.

Product Replacement Warranty : One (1) Year

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INTELLO

SOLAR RADIATION SENSOR (PYRANOMETER)

INTELLO

Measures the sum of diffused and direct solar irradiance on the module at any given time.

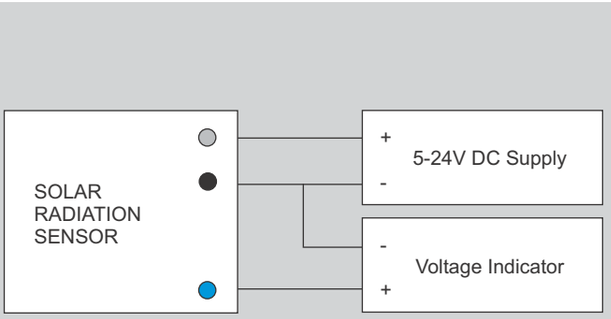
- Outer shell designed to shield the sensor from thermal radiation
- Level indicator built-in
- Fins to aid alignment with the path of sun

www.intello.co.in

SOLAR RADIATION SENSOR

Measures radiation, the sum at the point of measurement of both the direct and diffused components of solar irradiance. The sensor's transducer converts incident radiation to electrical current. From the sensor's output voltage, the console calculates and displays solar irradiance.

The outer shell is designed to shield the sensor from thermal radiation and provide an airflow path for convection cooling, thus minimizing heating of the sensor interior. It includes a cut-off ring for cosine response, a level indicator, and fins to aid in aligning the sensor with the sun's rays.



Technical Specifications

Operating Temperature	-40 Deg C to +65 Deg C
Transducer	Silicon Photodiode
Spectral Response	400 to 1100 Nanometers
Housing Material	UV-resistant PVC plastic
Weight	250g
Range	0 to 1800 W/m2
Accuracy	+/-5% of full scale

Installation Practice:

A. Pyranometer is to be mounted in an easy-to-reach location in order to clean the dome regularly and carry out maintenance. At the same time, make sure that no buildings, constructions, trees or obstructions exceed the horizontal plane where the pyranometer lies.

B. Pyranometer is to be located far from any kind of obstruction, which might reflect sunlight (or sun shadow) onto the pyranometer itself.

C. The sunlight sensor must be installed at the same azimuth and tilt angle of the PV array.

Sensor Maintenance : To ensure effectiveness please wipe the surfaces of the shield with a damp cloth to remove dirt and dust.

Product Replacement Warranty : One (1) Year

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