

# Sunshine Duration Sensor

## Description

The SEN-SR-SS is a Sunshine sensor with a TTL (High / Low) output and exhibits excellent cosine response. It incorporates a silicon-cell photodiode that measures solar radiation. With a sensor housing design that features a fully potted, domed-shaped head making the sensor fully weatherproof and self-cleaning.

## Specifications

Power Supply: 10-14 VDC

Spectral Range: 360 nm to 1120 nm (wavelengths where response is 10 % of maximum)

Sunshine Threshold: 120 W/m<sup>2</sup>

Sensitivity: 0.20 mV per W/m<sup>2</sup>

Calibration Factor: 5.0 W/m<sup>2</sup> per mV (reciprocal of sensitivity)

Calibration Uncertainty: ± 5 %

Measurement Repeatability: < 1 %

Non-stability (Long-term Drift): < 2 % per year

Non-linearity: < 1 % (up to 1750 W/m<sup>2</sup>)

Response Time: < 1 ms

Field of View: 180°

Output: TTL High for 'Sunshine'



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Output: TTL High for 'Sunshine'  
TTL Low for 'No Sunshine'  
Directional (Cosine) Response:  $\pm 5\%$  at  $75^\circ$  zenith angle  
Temperature Response:  $-0.04 \pm 0.04\%$  per C  
Operating Environment:  $-40$  to  $70$  C,  $0$  to  $100\%$  relative humidity

**Cable length:** 5m

(extendable at extra cost)

**Input:** Self Powered for mV O/P

For others O/P 10-28 VDC, 30-60 VDC

**Output:** mV O/P : 0 to 400mV

DUQE Square Business Centre, Quarter  
Deck, Queen Elizabeth 2, Mina Rashid,  
Dubai (United Arab Emirates)

Tel. +971-525829733

E-mail: sales@instrumex.ae

## Applications

Determining Sunshine duration for different application

## Ordering Guide

### Output

For mV O/P:

### Model No.

SEN-SR-SS-mV

**Represented by**

\*\*Drawing/specifications are subjected to change at any time without prior notice as per manufacturing suitability.

