SD201EV Cos , SD201QV Cos
SEALED ENERGY & PAR DETECTORS

Contents:

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Handbook Update Log

Issue	Date	Pages changed
Draft	23/6/99	New Issue
Issue A	18/2/00	1 - 4

INTRODUCTION:

Two models of data logger compatible sealed detectors are available. A photosynthetic active response detector model SD201QV Cos and a simulated solar energy response detector model SD201EV Cos.

Both detectors now feature key design improvements:
* Self cleaning input diffuser
* Stray dry diffuser with wide water drainage slots
* Good cosine response
* Infinity error correction ring
* All aluminium body with weather resistant anodising
* High stability silicon photodiodes
* Internal calibration resistor, adjustable for annual recalibration
* Lower cost

SPECIFICATION:

Spectral response	Ref figures 1 and 2
Cosine Corrected Input:	Within ±5% up to 70°. Ref. figure 3
Sensitivity*:	
SD201EV Cos	0.01mV per W/m² of total solar radiation
SD201QV Cos	0.01mV per µmol/m²/s of PAR
* Other ranges available on request.	
Terminating Resistor	SD201EV Cos, 100Ω (typical) SD201QV Cos, 700Ω (typical)
Temperature Range:	Operating range -10 to +60 °C Storage range: -20 to + 100 °C
Temperature Dependence:	
SD201QV Cos	Sensitivity <0.2% / °C, 400 - 700nm
SD201EV Cos	Sensitivity <0.2% / °C, 400 - 1000nm
Cable:	5 meter screened pair Red wire, + (photodiode anode) Blue wire, - (photodiode cathode) Screen, not connected at the detector, connect screen to data logger only.
Mounting:	Two M4 tapped holes on a 24mm PCD.
Housing:	Black anodised aluminium.

SPECTRAL RESPONSES:

SD201EV Cos
Relative Spectral Response

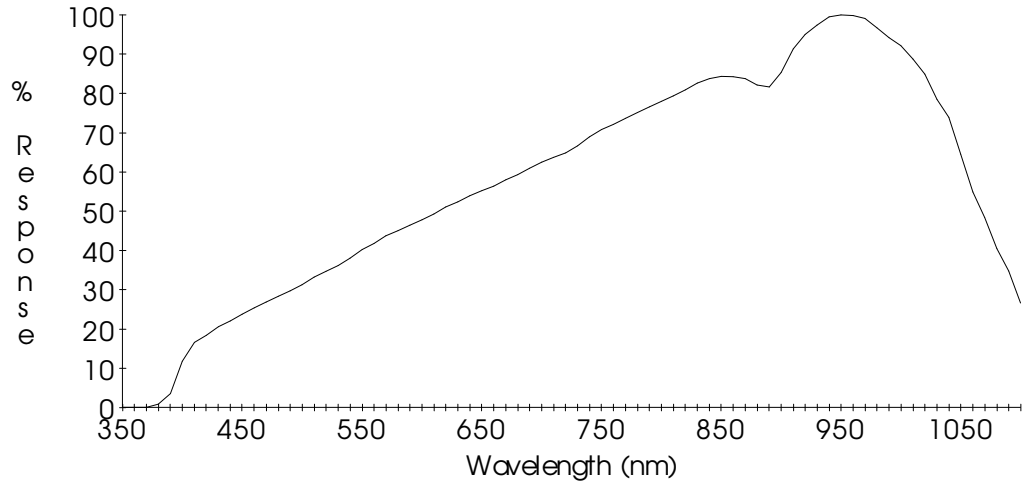


Figure 1

SD201QV Cos
Relative Spectral Response

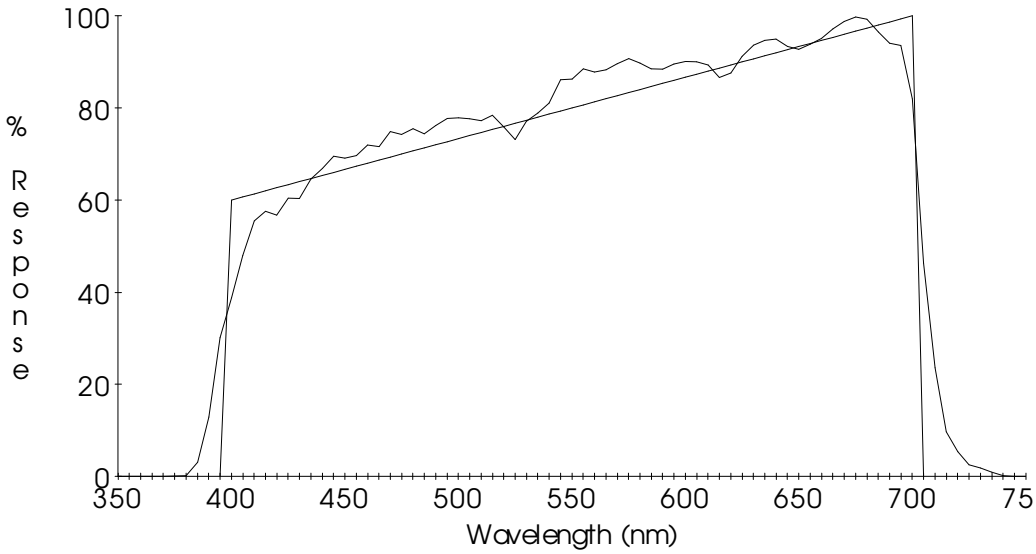


Figure 2

COSINE ANGULAR RESPONSE:

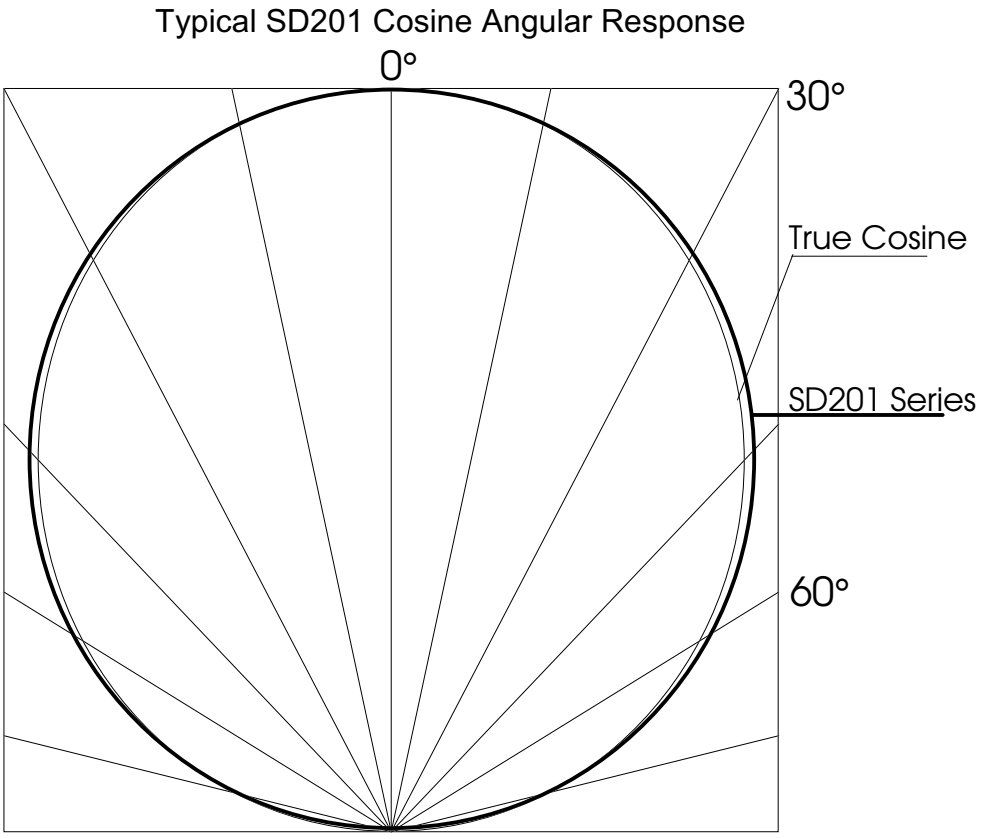
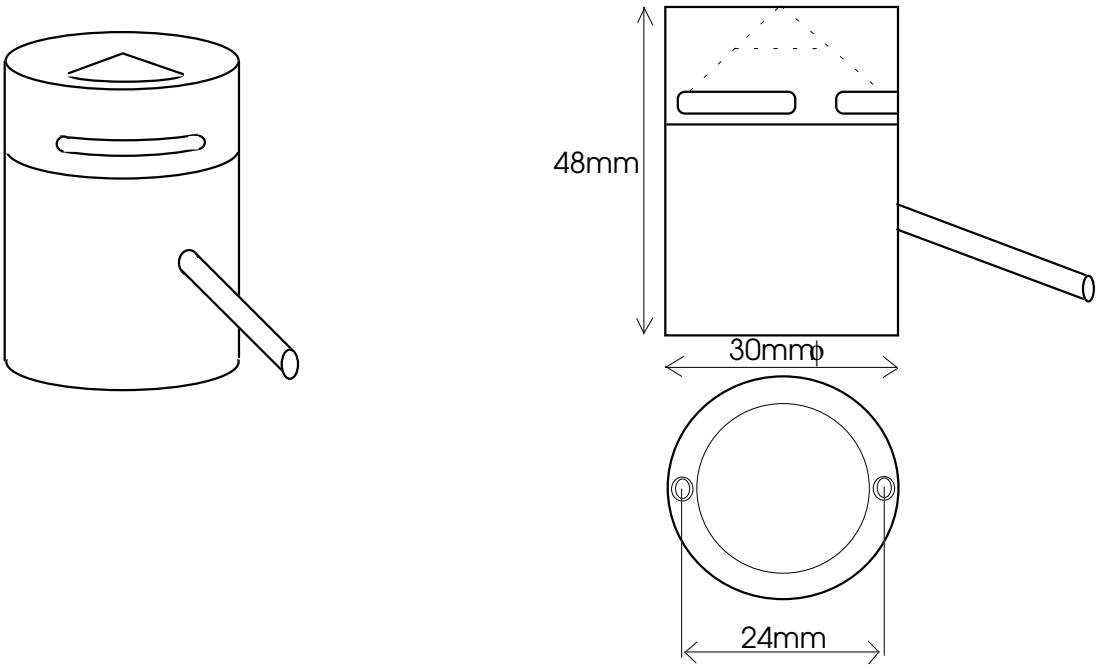


Figure 3

OUTLINE DRAWING:



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