



E90 Quantum Sensor

The Quantum sensor is to measure photosynthetically Active Radiation (PAR) Ranging from 400 to 700nm waveband. The sensor comes in a very small housing and suitable for different applications:

- ** Plant science
- ** Meteorology
- ** Hydrology
- ** Horticulture
- ** Ecology
- ** Environmental science
- ** Others

The E90 Quantum sensor consists of a diffusion type of photodiode with filter in a housing. The housing for Quantum sensor is well designed to provide a good cosine corrected response to light coming from different angles. Besides, an interference filter is used to provide a sharp cutoff at 700nm to reduce measuring error.

E90 Specifications:

Sensitivity	: Typical 27uA (or 2.7mV with 100Ohm precise resistor) per 1000 $\mu\text{mols}^{-1}\text{m}^{-2}$
Linearity	: Maximum deviation of 1% up to 10,000 $\mu\text{mols}^{-1}\text{m}^{-2}$
Accuracy	: $\pm 4\%$
Stability	: $< \pm 2\%$ change over a 1 year period
Response time	: Typical 1us
Temperature	: 0.15% per $^{\circ}\text{C}$ maximum
Dependence	
Cable length	: 50ft (15M)
Storage temp.	: -20 $^{\circ}\text{C}$ to +70 $^{\circ}\text{C}$