



# LIGHT

## PAR Line Quantum Sensor

- **Measures average PAR light along a 1m length**
- **Monitor light levels within or beneath the canopy**
- **Use with ratio meter and incident PAR sensor for plant canopy transmissions**
- **Compatible with dataloggers for long term monitoring**



Photosynthetically Active Radiation or PAR light lies in the range 400-700nm and is the part of the sun's spectrum used by plants for photosynthesis.

The PAR line quantum sensor consists of 33 individual sensors evenly spaced along a 1m length. The design and diffusing cover ensures the average of PAR light falling along the whole length is measured.

Measuring light profiles with a single sensor under canopies or

in growth rooms can introduce errors, as the light is usually not constant or not uniform over the whole area. The PAR line quantum sensor instantaneously measures an average of the light falling on its 1m length, hence minimising these errors.

The line sensor is often used together with a standard PAR quantum sensor which measures the incident PAR light falling on the plant surface, whilst the line quantum sensor is usually placed within or beneath the plant canopy.

The percentage of light transmission through the canopy can be instantly read using the SKP 2200 2-channel Ratio Display Meter as pictured above. For long term monitoring both sensors are compatible with Skye DataHog loggers and SpectroSense2 logging meters. Please ask for further details.



## SPECIFICATIONS

Dimensions	Materials	Cable	Sensor	Sensitivity	
1000mm length (active area 850mm)	'U' section anodised aluminium  Diffuser - acrylic  IP65 sealed	5 metres	33 photodiodes.  PAR response 400 - 700nm	1mV per 10 $\mu\text{mol m}^{-2} \text{s}^{-1}$  or current output option for Skye loggers & meters	
Temperature Sensitivity	Linearity	Uniformity along sensing surface	Response Time	Operating Range	Level bubble
$\pm 0.15\%/^{\circ}\text{C}$ at peak response, from 0-50°C	1% over 0 - 2000 $\mu\text{mol m}^{-2} \text{s}^{-1}$	better than 2% over 0.85m sensing length	2 $\mu\text{seconds}$ ,  10-90%	-20 to +50°C	Fitted to sensor

## ORDERING INFORMATION

### Hand-held Display Meter System - line quantum only

SKP 200 1-channel Display Meter  
SKP 215LQ Line quantum sensor with connector for Display Meter

### Hand-held Display Meter System - line quantum plus incident sensors

SKP 2200 2-channel Ratio Display Meter  
SKP 215LQ Line quantum sensor with connector for Display Meter

### Wire ended sensor for own datalogger

SKP 215LQ Line quantum sensor with 5m cable  
SKP 215 PAR Quantum sensor with 3m cable

### With waterproof connector for Skye DataHog loggers or SpectroSense2 meter

SKP 215LQ/I Line quantum sensor with 5m cable and DataHog connector  
SKP 215/I PAR Quantum sensor with 3m cable and DataHog connector

### Accessories

SKM 221/T Levelling unit for PAR Quantum Sensor with tripod mount

### Meters & loggers

SDL 5000 DataHog logger series  
SKL 900 SpectroSense2 series

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