



SKUW SERIES - UNDERWATER LIGHT SENSOR

Skye Instruments have been specialising in light and radiation sensors since 1983. All are designed, manufactured and calibrated to the highest standards. Each is supplied with a Calibration Certificate traceable to the UK's National Physical Laboratory (NPL).

We are proud to launch our range our new Underwater Sensors, specially designed for temporary immersion to 20m. For greater depths or for permanent immersion beyond 4m, please contact Skye.

We have available a sensor with a microamp (μA) output, suitable for use with our SpectroSense2 or DataHog2 light meters/datalogger, or an amplified version with a Voltage output, ideal for use with third party light meters/dataloggers. We also offer the sensor with 4-20mA output for connection to other systems.

The new underwater range of sensors is based on our popular SKR 1840 - 2 Channel Sensor, which means we are able to offer 1 or 2 channel versions, with a choice of wavelengths between 400 and 1050nm. Popular choices include PAR, LUX and Red:Far-Red.

Please contact Skye with further details about your application.



SKUW SPECIFICATIONS

Housing:	Delrin	Cosine error (4):	Typically <5% to 60°
Cable:	4 x 2 x 26AWG, 100 Ω , Polyurethane nominal overall diameter 6.25mm	Azimuth error:	<1%
Detector:	Silicon photodiode	Longterm stability (5):	$\pm 2\%$
Output (1):	MicroAmp (μA), voltage and 4-20mA outputs.	Temperature Co-efficient:	$\pm 0.1\%/^{\circ}\text{C}$
Working range (2):	Dependant on wavebands and order requirements	Operating Range:	-20 $^{\circ}\text{C}$ to +70 $^{\circ}\text{C}$ 0-100% RH
Sensitivity:	Dependant on wavebands and order requirements	Response Time (6):	<10ms
Linearity error:	<0.2% over working range	Weight:	295g (with 3m cable and plug)
Absolute calibration error (3):	Typically 3% but <5%	Mounting:	M6 x 7mm tapped hole in base. Sensor supplied with M6 x 16mm screw + 4x 1.5mm washers to suit panel thicknesses of 3-10mm
Power Supply Requirements:	Voltage output sensors - max output +2V DC 4-20mA loop current sensors require 12-36V DC	IP Rating:	IP68 allowing 4m permanent immersion or 20m temporary immersion.
		Dimensions:	49mm (diameter) x 86mm (height)

NOTES ON SPECIFICATIONS

- (1) Current output varies from sensor to sensor. Each individual unit will have a slightly different output. A calibration certificate is supplied with each sensor.
- (2) All Skye sensors will work at levels of irradiance well above that found in terrestrial sunlight conditions, room or growth chamber lighting.
- (3) Main source of this error is uncertainty of calibration of Reference Lamp. Skye calibration standards are directly traceable to N.P.L. standard references.
- (4) Cosine error to 60° is typically 5% max. Figures shown are for normal use sources, e.g., sun plus sky, diffuse sun, growth chambers, etc..
- (5) Maximum change in one year. Calibration check recommended at least every two years.
- (6) Times are generally less than the figure quoted, which is in nanoseconds. They may be slightly increased if long leads are fitted, or those of a higher capacitance cable.

ORDERING INFORMATION

Sensor

- SKUW 110 - Red:Far Red Sensor
 - SKUW 215 - PAR Quantum Sensor
 - SKUW 218 - Custom Single Channel Sensor
 - SKUW 310 - LUX Sensor
 - SKUW 510 - PAR Energy Sensor
- all with 3m cable. Amplified versions available.

Accessories

- CAB/L - Extra cable per metre
- CAB/UW - Extra Underwater Cable per metre

Meters and Dataloggers

- SKL 904/SC7 - SpectroSense2, 4 channel meter
- SKL 906/SC7 - SpectroSense2+, 4 channel meter/logger
- SKL 908/SC7 - SpectroSense2+, 8 channel meter/logger
- SKL 920/SC7 - SpectroSense2+, 4 channel meter with GPS Module
- SKL 925/SC7 - SpectroSense2+, 8 channel meter/logger GPS Module
- SDL 5000 series DataHog2 dataloggers