

# UVA Sensor SKU 421

Skye Instruments Ltd have been designing and manufacturing quality, fully calibrated light sensors since 1983.

Skye offer sensors to measure light levels in the Ultraviolet A and Ultraviolet B wavebands. The wavelengths used in this UVA sensor are according to CIE standards.

The dimensions and overall look of these sensors are similar to that of our other sensors. The housing is black aluminum and sealed to IP67 standards.

The light sensor head is cosine corrected and has been designed with an integral amplifier to give a voltage output for use with most dataloggers, computers, PLCs, etc.

Sensors calibration is traceable to NPL and each sensor is issued with a calibration certificate.



Climatology, meteorology  
UV effects on ecosystems  
Marine biology, ecology, zoology  
Studies of plant/animal responses to  
rising UV levels

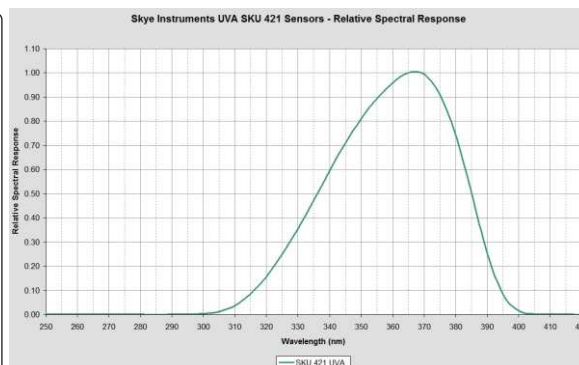
## SKU 421 SPECIFICATIONS

<b>Construction</b> -	Anodised black aluminum, sealed to IP67	<b>Output Impedance</b> -	500Ω
<b>Cable</b> -	Screened. 7-1-4-C military specification. Cable gland on sensor housing	<b>Power Supply</b> -	5-15VDC
<b>Sensor</b> -	Cosine corrected head. Specially formulated diffuser.	<b>Absolute calibration error (2)</b> -	typ. <3%, 5% max
<b>Detector</b> -	GaAsP photodiode	<b>Cosine error (3)</b> -	3%
<b>Filters</b> -	Optical Glass	<b>Azimuth error (4)</b> -	< 1%
<b>Spectral Response</b> -	315nm - 400nm	<b>Longterm stability (5)</b> -	±2%
<b>Working Range (1)</b> -	0-100 W m <sup>-2</sup>	<b>Response time (6)</b> -	better than 10ms
<b>Output Signal</b> -	0-2V	<b>Mounting</b> -	M6 x 7mm tapped hole in base. Sensor supplied with M6 x 16mm screw + 4x 1.5mm washers to suit panel thickness of 3-10mm
<b>Sensitivity</b> -	20 mV / W m <sup>-2</sup>	<b>Temperature range</b> -	-10 to +60°C
<b>Thermal Drift of Output</b> -	0.025mV/°C max (-20 to +50°C)	<b>Humidity range</b> -	0-100% RH
<b>Thermal Drift of Zero Offset</b> -	Typically 0.01 mV/°C (-20 to +50°C)	<b>Weight &amp; Dimensions</b> -	200g with 3m cable



## NOTES ON SPECIFICATIONS

- (1) All standard Skye sensors will work at levels of irradiance well above that found in terrestrial sunlight conditions, room or growth chamber lighting
- (2) Main source of this error is uncertainty of calibration of Reference Lamp. Skye calibration standards are directly traceable to N.P.L. Standard references.
- (3) Cosine error to 80° is typically 5% max. Figures shown are for normal use sources, e.g., sun plus sky, diffuse sun, growth chambers, etc.
- (4) Measured at 45° elevation over 360°
- (5) Maximum change in one year. Calibration check recommended at least every two years. Experience has shown that changes are typically much less than figures
- (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 capacity cable



## ORDERING INFORMATION

### Sensors:

- SKU 421 - UVA sensor with 3m cable
- SKU 421/I - UVA sensor with 3m cable and DataHog connector
- SKU 421/SS2 - UVA sensor with 2m cable and SpectroSense2 connector

### Accessories, Meters & Dataloggers:

- SKM 222 - Levelling unit
- SKM 226 - Long arm pole/wall mount
- SKL 904 - SpectroSense2, 4-channel display meter
- SKL 908 - SpectroSense2+ 8-channel logging meter
- SDL 5000 Series - Range of dataloggers