



SKU 421 UVA Sensor

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 is according to CIE standards. This leaflet describes the UVA sensor.

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, making them suitable for short term underwater use.

Skye guarantees sensors to a depth of 4 meters for short term immersion. The light collecting head utilizes a UV stable polymer and is cosine corrected. The sensors have 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
To monitor exposure of test samples in natural & other UV sources

SKU 421 SPECIFICATIONS

Construction - Anodized black aluminum, sealed to IP67. Submersible to 4m
Short term submersions only. Please contact us for greater depths

Cable - Screened, 7+4C military specification. Cable gland on sensor housing.

Sensor - Cosine corrected head. Specially formulated diffuser.

Detector - GaAsP photodiode

Filters - Optical Glass

Spectral Response (1) - 315nm - 400nm

Working Range (2) - 0-100 W/m²

Output Signal - 0-2V

Sensitivity - 10 mV / W/m²

Thermal Drift of Output (-20 to +50°C) - 0.025mV/°C max

Thermal Drift of Zero Offset (-20 to +50°C) - Typically 0.01 mV/°C

Output Impedance - 500

Power Supply - 5-15VDC

Absolute calibration error (3) - typ. <3%, 5% max

Cosine error (4) - 3%

Azimuth error (5) - < 1%

Longterm stability (6) - +/-2%

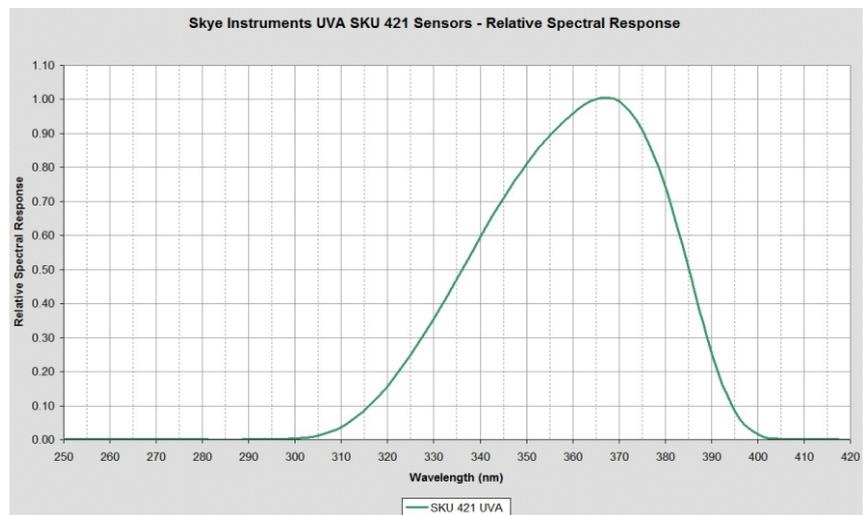
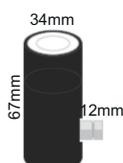
Response time (7) - better than 10ms

Weight - 200g (with 3m cable)

Temperature range - -30 to +60°C

Mounting - 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

Dimensions -



NOTES ON SPECIFICATIONS

- (1) FWHM or 50% transmission
- (2) All standard 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 80° is typically 5% max. Figures shown are for normal use sources, e.g., sun plus sky, diffuse sun, growth chambers, etc.
- (5) Measured at 45° elevation over 360°
- (6) Maximum change in one year. Calibration check recommended at least every two years. Experience has shown that changes are typically much less than figures
- (7) 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:

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|-------------|--|
| SKU 421 | UVA sensor with 3m cable |
| SKU 421/1 | UVA sensor with 3m cable and DataHog connector |
| SKU 421/SS2 | UVA sensor with 2m cable and SpectroSense2 connector |

Accessories: (see separate datasheet)

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|---------|--------------------------|
| SKM 222 | Levelling unit |
| SKM 226 | Long arm pole/wall mount |

Meters and dataloggers: (see separate datasheet)

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| SKL 904 | SpectroSense2 4-channel display meter |
| SKL 908 | SpectroSense2+ 8-channel logging meter |
| SDL 5000 | DataHog2 logger range |

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