

# VPLED SERIES

Adjustable Pulse Width UV & VIS LEDs



The VPLED series of LEDs provide variable width pulses from ns to ms, as well as CW operation with powers in the mW range.

They are optimised for long photoluminescence lifetime measurements using the Multi-Channel Scaling (MCS) detection method. The width of the excitation pulses is easily controlled from the VPLED allowing quick optimisation of the measurement conditions.

The VPLED diodes are compact, maintenance free, and user-friendly. Although they are designed to match Edinburgh Instruments spectrometers, they can be incorporated into any experiment thanks to their external trigger capability.

## KEY FEATURES

- + Optimised for MCS
- + 14 Pre-set pulse widths from 50 ns to 1 ms
- + External trigger capability
- + Adjust pulse width and repetition rate with input trigger pulse
- + Operation in CW mode
- + Spectrally purified output
- + Compact plug-and-play design
- + Extremely low RF radiation



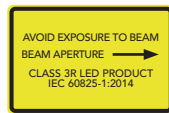
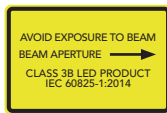
# SPECIFICATIONS

Available Wavelengths ( $\pm 10$ nm)	VPLED -255, -275, -295, -310, -325, -340, -365, -380, -400, -470, -525, -590, -605, -630, -740, -770, -850, -940, -1050, -1200, -1300
Typical Spectral Width (FWHM) (nm)*	10 $\pm$ 4 to 50 $\pm$ 5
Typical Average Power in CW Mode (mW)*	0.1 – 2.0
Typical Peak Power at Min. Pulse Width (mW)*	0.4 – 5.0
Laser Class	Class 3R (410 nm – 770 nm) or Class 3B (others)
Pulse Widths	ns: <70, 100, 200, 500 $\mu$ s: 1, 2, 5, 10, 20, 50, 100, 200, 500, 1000
External Trigger Width Mode	Pulse width and repetition rate defined by external trigger input Max. duty cycle 50%
CW Mode	Yes
Bias Supply	15 Vdc +/- 5%, 15W (2.1mm DC jack)
Trigger Output	SMA, NIM Standard
Interlock Input	Hirose HR10A-7P-4P(73), (Link pin 1 and pin 2 to ground – interlock healthy)
Trigger Input	Hirose HR10A-7P-4P(73), (Signal pin 4 and ground pin 3)
Trigger Input Signal	TTL > 50 ns pulse. Trigger on rising edge. 0.0 V < Low level < 0.5 V, 2.5 V < High level < 5 V
Key Switch	Yes
Spectral Conditioning	Built-in filter to minimise out-of-band emission (no spectral filtering needed)
Physical Dimensions	Overall: 168 mm length x 64 mm x 64 mm Collimator tube: $\varnothing$ 30 mm x 38 mm
Tapped Holes for Stud Mount	2 x M6
Weight	750 g

\* Wavelength dependent. Please contact Edinburgh Instruments for wavelength-specific data.

## CLASS 3B/3R LED PRODUCT

Avoid exposure to beam. Light emitted by the source may be harmful to the human eye and to skin. Please obey laser safety regulations. This product complies with the US federal laser product performance standards.



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All specifications are correct at the time of production. We reserve the right to change our specifications without notice.

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