

AURA PRO

DATASHEET

PHASE CONTRAST ILLUMINATOR

Phase contrast LED illuminator with ultra long working distance for inverted microscopes

The Cairn Aura Pro phase contrast illuminator allows true Zernike phase contrast with a working distance up to 230mm – perfect for electrophysiology where the sample platform can be very congested. Now with a universal rack and pinion design, the Aura Pro works with a range of inverted microscopes and includes a backwards tilting mechanism to move the unit out of the light path when required.

Based on a concept developed by Webb et al. at the University of Nottingham, the Aura Pro uses concentric rings of super-bright LEDs in place of the conventional condenser and phase rings. It provides the highest-quality phase contrast images with very simple alignment and works for Ph1, Ph2 and Ph3 imaging, along with darkfield imaging, with a range of colour options – white, blue, green, red and NIR. The Aura Pro head itself is optimised for Phase Contrast illumination, but where brightfield may also be required, we have built in a central port where a brightfield LED and optics can easily be added, such as the Cairn MonoLED. We are also working on options connect a macro lens and camera for low mag imaging from the top – watch this space!



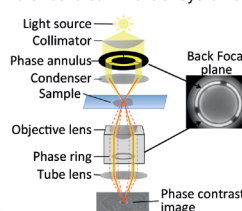
APPLICATIONS

- Phase contrast (Ph1, Ph2 and Ph3)
- Darkfield
- Electrophysiology
- Simultaneous fluorescence and transmitted light

KEY BENEFITS

- Ultra long working distance for enhanced access (up to 230mm)
- Adapters for Nikon, Olympus and Zeiss inverted frames
- Backwards-tilting pillar
- Rack and pinion height adjustment
- Choice of colour LED ring
- Central port for brightfield LED
- Digital and analogue control of the active LED ring

Standard commercial systems



Cairn Aura Illuminator

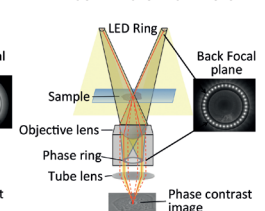


DIAGRAM DEMONSTRATING WORKING DISTANCE COMPARISON BETWEEN STANDARD CONDENSER AND AURA SYSTEM

ILLUMINATION SYSTEMS

DATASHEET

INTENSITY, STABILITY AND FLEXIBILITY



MultiLine LaserBank

Modular and versatile laser launch system allows for use of up to six solid-state lasers from multiple manufacturers. Ideal for TIRF, spinning disk confocal, FRAP and optogenetic applications or any combination of these with multiple outlets via single or multi-mode fibres. Provides the convenience of a custom, turnkey system.



TriLine Laser Bank

The TriLine shares much of the modularity and flexibility of the MultiLine, but in a simpler and more compact package (up to 3 lasers). The design offers the flexibility to configure output ports via single or multi-mode fibres (or free space on request) for TIRF, FRAP, photolysis, spinning disk confocal, optogenetics and other research applications.



Aura

Easy to use and affordable LED transmitted light source for phase imaging on a variety of inverted microscopes. Supports PhL, Ph1 and Ph2 phase objectives, or can be used as a standard brightfield transmitted light source. Triggerable, with an extended working distance ideal for use with micromanipulators.



OptoLED

The OptoLED is our flagship system for LED illumination. Dual channel LED controller with ultra-high stability and "instantaneous" (sub-microsecond) vibration-free TTL switching and analogue intensity modulation.



MonoLED

Compact and affordable single LED white light illuminator for brightfield, phase contrast or DIC imaging, available with a wide range of microscope adapters. Convenient for any application requiring a simple LED illuminator.



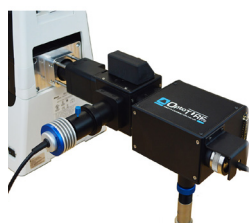
OptoScan

The only monochromator that provides submillisecond control of both centre wavelength and bandwidth. Provides unmatched versatility for fluorescence measurements, photometry and optical scanning. A lab workhorse!



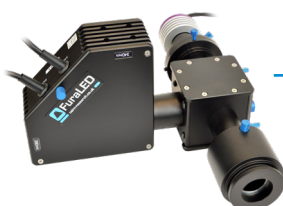
MultiPort Illumination Couplings

Easily and efficiently couples multiple light sources (light guide, laser or LED) into a single epi-illumination path. Well suited for optogenetics, photolysis and photoactivation. Can include independent field stops or pinholes.



OptoTIRF V2

The OptoTIRF V2 is a compact and powerful, yet inexpensive, motorised TIRF illuminator designed to fit onto any research-grade inverted microscope. It gives the researcher intuitive and dynamic access to the entire back aperture of the objective with joystick or software control and simple storage and recall of preset positions



FuraLED

Compact and optimised LED illuminator for 340nm / 380nm ratiometric Fura-2 fluorescence imaging with integrated filters. Fast switching with photodiode feedback stability when used in conjunction with our OptoLED dual channel LED controller. Couples to a variety of upright / inverted microscopes or macrosopes.