

TWINCAM

DATASHEET

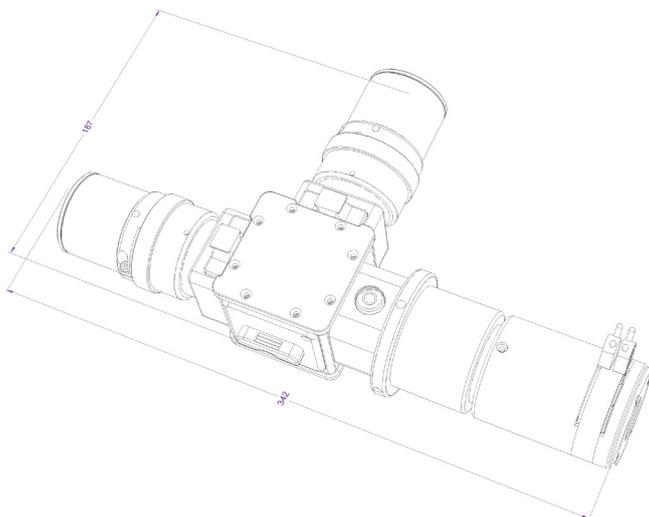
Dual camera image splitter Engineered for super resolution quality



With custom designed optics, the Cairn TwinCam offers superior image quality on camera sensors up to 31.9mm diagonal. The TwinCam allows light to be distributed into two unrestricted images on the basis of wavelength, polarisation state or focal depth.

A single, rapidly interchangeable Cairn cube has fine mechanical x-y adjustment for pixel overlay or deliberate image offset. The TwinCam input also has a variable rectangular aperture enabling the use of cropped sensor mode on both detectors.

We have recently improved the camera fixing with enhanced rigidity for larger cameras and a simplified focus and orientation control. We have also added pupil plane focus adjustment to allow simple optimisation with spinning disk ports and to allow precise positioning of optical components in the pupil plane.



APPLICATIONS

- Förster Resonance Energy Transfer (FRET)
- Ratiometric calcium, voltage & pH imaging
- Simultaneous multi fluorescent probe imaging
- Polarisation studies (anisotropy)
- Simultaneous phase contrast / DIC and fluorescence
- Simultaneous multi Z depth imaging
- Simultaneous high speed and high resolution
- TIRF / Spinning disk confocal
- Single Plane Illumination Microscopy (SPIM)

KEY BENEFITS

- Compact design with C-mount input and output ports as standard (F and T mount on request)
- Support for sensors up to 31.9mm diagonal
- Utilises the full camera resolution
- 425nm to 875nm AR coatings on all optical surfaces
- 40mm diameter proprietary optics
- Simple & precise controls for image registration
- Magnetic cube mount for enhanced registration
- Interchangeable filter / dichroic holders
- Emission filter dimensions – 25mm diameter
- Recommended dichroic dimensions – 26x38x2mm ($\lambda/2$ flatness)