

# OPTOSPLIT II BYPASS

DATASHEET

## Two-way image splitter with enhanced performance and simple bypass mode

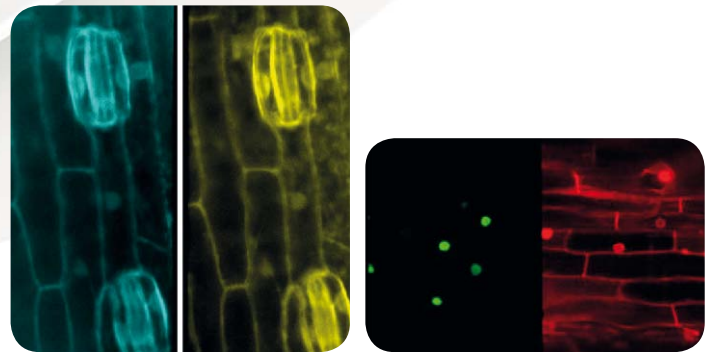
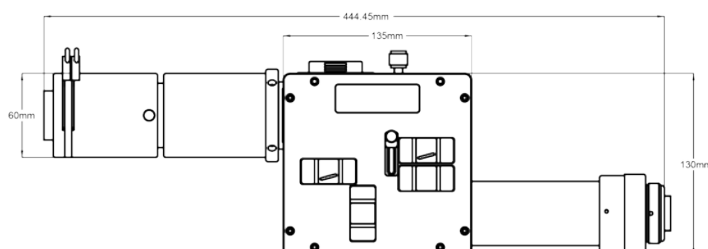
The Optosplit II Bypass image splitter from Cairn Research is a simple and elegant device for dividing an image into two separate, spatially equivalent, components that can be displayed side by side on a single camera sensor.

Splitting is usually performed on the basis of wavelength, allowing applications such as ratiometric calcium imaging or FRET, however, polarising and neutral beamsplitters are also supported. Although optimised for microscopy the OptoSplit II BP can be used in any application requiring simultaneous two channel imaging on a digital CCD, EMCCD or CMOS camera.

### WHAT'S NEW?

Based on our industry-leading OptoSplit II the OptoSplit II BP offers the following improvements:

- Simple bypass lever for full-field imaging (typically without requiring pixel realignment)
- New in-house lens design with class leading chromatic performance
- Enhanced stability with improved alignment mechanics for Stochastic Super Resolution Microscopy
- Planar magnetic cube design for improved reproducibility
- Flexible access to pupil planes for multi z plane imaging and other high-end techniques
- Large auxiliary holder for better lens registration and more options for customisation



### APPLICATIONS

- Ratiometric ion or voltage imaging
- Förster Resonance Energy Transfer (FRET)
- Dual probe widefield microscopy
- TIRF/Spinning Disk Confocal
- Combined fluorescence/transmitted light microscopy
- Super Resolution Microscopy

### KEY BENEFITS

- Works with large sensors (22mm diagonal, e.g. 5.5MPixel sCMOS)
- User configurable "planar" filter cubes with industry standard filters/dichroics
- Optional magnification 1X, 1.3X and 1.7X  
Unsplit mode through either channel or neither (18mm diagonal, e.g. 4.2MPixel sCMOS)
- Intuitive and independent x, y and focal controls
- Accommodates ND filters or chromatic correction / z-shift lenses
- Standard spectral range from 450 to 900nm
- Supports cropped sensor modes in split or unsplit configuration