



# Open FluorCam FC 800-O/1010 and FC 800-O/2020

**Open FluorCam FC 800-O/1010** and FC 800-O/2020 are a highly modular instruments with flexible geometry enabling work with samples of various sizes (from microtiter plates to small trees). Open FluorCam FC 800-O represents a highly innovative, robust and user-friendly world-wide used system for combined multispectral and kinetic fluorescence imaging. It consists of a CCD camera, four to five fixed LED panels (4 + 1 additional, which is not included in the standard setup) and, optionally, of a filter wheel equipped with up to 7 different emission filters. The four LED panels can be arranged at various angles and distances from the sample. The position of the camera may also be adjusted with respect to the sample height.

The dimensions of the LED panels can be 130 × 130 mm or 200 × 200 mm, which is suitable for imaging of small plants (such as *Arabidopsis thaliana*) up to middle size plants or small trees, detached leaves, fruits, vegetables, etc. The system allows easy dark adaptation of an investigated sample if dark box (it is not part of the standard set-up).

The Open FluorCam FC 800-O/1010 generates images of fluorescence signal at any moment of the experiment and presents them using a false color scale. Full kinetic analysis is available. In all applications, the camera allows imaging of fluorescence transients that are induced by actinic light or by saturating flashes. The timing and amplitude of actinic irradiance are determined by user-defined protocols. The Open FluorCam FC 800-O also includes a high-performance PC and comprehensive software package comprising full system control, data acquisition and image processing. For an experienced professional, the software offers a sophisticated programming language that can be used for designing novel timing and measuring sequences.

### ▼ APPLICATIONS

- Screening for photosynthetic performance and metabolic perturbations
- Detection of biotic and abiotic stress
- Plant's resistance or susceptibility to various stress factors
- Yield improvement
- Growth and development
- Agriculture and horticulture

### ▼ KEY FEATURES

- Four super bright LED panels available in specific wavelengths
- Adjustable system for different plant sizes
- Imaged area for camera  
TOMI-1: 180 × 140 mm  
TOMI-2: 220 × 160 mm
- Supplied with a laptop computer and software
- High-resolution or high-sensitivity CCD camera
- Dark room for adaptation (optional)
- Additional top stand mounted LED panel (optional)
- Additional exchangeable LED panels (optional)