

Complete system for bioanalytical applications

Measurement principle:

confocal optical system with focus in the femtoliter range, single molecule sensitivity

Laser specifications:

diode-pumped solid-state lasers, single frequency, single mode, high stability and excellent beam profile ($M^2 < 1.2$), output 50 mW

Excitation wavelengths:

532 nm (standard), 473 nm and 670 nm optional, max. three wavelengths

Optical system:

direct coupling with optical fibres for unmatched sensitivity, stable beam forming optical components (mirrors and filters) and beam attenuation

Objective:

oil immersion, 63x Zeiss 1.3 NA, additional objectives on request

Pinhole:

50 to 100 μm , motorized xyz-positioning system

Detector:

single photon avalanche diode (SPAD) typical measurement time: one minute/read

Sample handling and positioning:

3 μl sample volume, self-filling by capillary forces, computerized xyz-positioning table for detection chips



Operating temperature:

20 °C – 40 °C (68 °F – 100 °F)

Operating humidity:

20 – 80 % relative humidity, not condensing

Dimensions (Height/Width/Depth):

900 mm/600 mm/950 mm

Weight:

95 kg

No special installation requirements

Cart system:

accommodating instrument controls, computer and monitor

