

TECHNICAL SPECIFICATIONS

Flat Handy FluorCam FC 1300-H

Flat Handy GFPCam FC 1300-H/GFP



CCD Detector			
Camera	High resolution CCD camera TOMI-2		
Resolution	1 360 × 1 024 pixels		
A/D Converter Resolution	16 bit (65 536 grey levels)		
Pixel Size	6.45 μm × 6.45 μm		
Frame Rate	20 frames per second for full resolution		
CCD Detector Wavelength Range	400 – 1 000 nm		
Spectral Response	QE max at 540 nm (~72%), 50% roll-off at 350 nm and 800 nm		
Read-Out Noise	< 8 electrons RMS		
Full-Well Capacity	> 22 000 electrons		
Dynamic Range	65 dB		
Connectivity	Control and data: Gigabit Ethernet		
Operating Modes	Video (ChIF), optionally Snapshot (long integration times for FPs detection)		
Lights			
Light Sources	<table border="0"> <tr> <td>FC 1300-H Red-Orange 610 - 630 nm White 5 300 K Far-Red 710 - 740 nm</td> <td>FC 1300-H/GFP Red-Orange 610 - 630 nm Royal Blue 440 - 450 nm Far-Red 710 - 740 nm</td> </tr> </table>	FC 1300-H Red-Orange 610 - 630 nm White 5 300 K Far-Red 710 - 740 nm	FC 1300-H/GFP Red-Orange 610 - 630 nm Royal Blue 440 - 450 nm Far-Red 710 - 740 nm
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Super Pulse Intensity	> 4 000 μmol.m ⁻² .s ⁻¹		
Actinic Light Intensity	Up to 1 200 μmol.m ⁻² .s ⁻¹		
Detection channels			
Filters	<table border="0"> <tr> <td>FC 1300-H Chlorophyll filter: 695 - 770 nm</td> <td>FC 1300-H/GFP Chlorophyll filter: 695 - 770 nm GFP filter: 510 - 541 nm</td> </tr> </table>	FC 1300-H Chlorophyll filter: 695 - 770 nm	FC 1300-H/GFP Chlorophyll filter: 695 - 770 nm GFP filter: 510 - 541 nm
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Lens			
Lens Type	Ricoh FL-CC1614-2M 2/3"		
Focal Length	16 mm		
Brightness	F1.4		
Field of View	40 × 40 mm (homogenous illumination)		
Technical Data			
Dimensions (W × D × H)	194 × 182 × 280 mm		
Weight	2 kg		
Electrical	100 – 240 V AC		
Power Consumption	210 W		
Operating Temperature	5 – 40°C		
Operating Humidity	0 to 90% (non-condensing)		
Software			
FluorCam10	<ul style="list-style-type: none"> fully automated control of FC device image acquisition <i>via</i> automated experimental protocols numerous image manipulation tools automated data analysis and parameters computation (F0, FM, FV, F0', FM', FV', FT, FV/FM, FV'/FM', ΦPSII, NPQ, qN, qP, Rfd, ...) 		