

TECHNICAL SPECIFICATION

AquaPen AP 110-C

AquaPen AP 110-P

Protocols	
AquaPen AP 110-C	<ul style="list-style-type: none"> - Ft – instantaneous chlorophyll fluorescence - Quantum Yield - OJIP - Non-photochemical quenching - Light curve - Optical density at 680 and 720 nm
AquaPen AP 110-P	<ul style="list-style-type: none"> - Ft – instantaneous chlorophyll fluorescence - Quantum Yield - OJIP - Non-photochemical quenching - Light curve
LED lighting	
LED emitter	AP 110-C: Red-orange (630 nm) and blue (455 nm) AP 110-P: Blue (470 nm), other wavelengths on request
Saturating pulse Illumination	Up to 3,000 $\mu\text{mol}(\text{photon}).\text{m}^{-2}.\text{s}^{-1}$ (adjustable from 10 to 100%)
Actinic Illumination	Adjustable from 10 to 1,000 $\mu\text{mol}(\text{photon}).\text{m}^{-2}.\text{s}^{-1}$
Measuring Illumination	Up to 0,09 $\mu\text{mol}(\text{photon}).\text{m}^{-2}.\text{s}^{-1}$ per pulse (adjustable from 10 to 100%)
Detector	
Type	PIN photodiode with bandpass filters
Wavelength range	From 667 to 750 nm
Data storage and transfer	
Internal memory capacity	Up to 16 Mb
Internal data logging	Up to 149,000 measurements (depending on protocol)
Data transfer	USB cable Bluetooth (transfer up to 3Mbps for distance up to 20m)
PC software	FluorPen 1.1 (Windows 7 and higher)
Battery	
Type	Li-Ion rechargeable battery
Capacity	2000 mAh
Max. charging current	0.5 A
Charging	Via USB port - PC, power bank, USB charger, etc.
Battery life	48 hours typical with full operation (low battery indicator)
Other	
Sample holder	AP 110-C: 4 ml cuvette AP 110-P: Submersible optical probe
Display	Graphical display
Keypad	Sealed, 2-key tactile response Turns off after 5 minutes of no use
Built in GPS module	Ultra-high sensitivity down to -165dBm High accuracy of <1.5 m in 50% of trials

Size	165 x 65 x 55 mm
Weight	290 g
Operating conditions	Temperature: 0 to +55 °C Relative humidity: 0 to 95 % (non-condensing)
Storage conditions	Temperature: -10 to +60 °C Relative humidity: 0 to 95 % (non-condensing)
Warranty	1-year parts and labor