



## TECHNICAL SPECIFICATION

Monitoring Pen MP 100-E

Monitoring Pen MP 100-A

Protocols	
<ul style="list-style-type: none"> <li>- Ft – instantaneous chlorophyll fluorescence</li> <li>- Quantum Yield</li> <li>- OJIP</li> <li>- Non-photochemical quenching</li> <li>- Light curve</li> </ul>	
LED lighting	
LED emitter	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	Serial cable
PC software	FluorPen 1.1 (Windows 7 and higher)
Battery	
External battery	Standard battery pack - operating temperature from 10 to 40 °C - rechargeable
	Extended temperature range battery pack - operating temperature from -40 to 60 °C - non-rechargeable (spare battery)
Capacity	12Ah
Battery life	Up to 2 years of operation (1 QY measurement per hour)
Other	
Sample holder	Probe
Display	2 x 8 characters LC display
Keypad	Sealed, 2-key tactile response Turns off after 5 minutes of no use
Size	134 x 65 x 33 mm
Weight	188 g
Warranty	1-year parts and labor