

Comparison Table: MPM-100 and Dualex
All specifications correct at the time of publishing.



Dualex® (Force-A, Orsay, France).		MPM-100 (Opti-Sciences Inc.)
Description	Leafclip sensor which measures chlorophyll and polyphenols content of plant leaves. Chlorophyll measured using Transmittance and Flavonols. Anthocyanins measured Screening effect on chlorophyll fluorescence.	Leaf clip using several sources and detectors to measure the relative content of: chlorophyll, anthocyanin, flavonol content and relative Nitrogen-Flavonol Indicator. Chlorophyll measured using Transmittance, Flavonols and Anthocyanins measured using Ratio Fluorescence.
Measuring Material	Leaves and berry caps	Leaves and berry caps
Index measured (denoted by)	Chlorophyll (CHL), Flavonols (FLAV), Anthocyanins (ANTH), NBI Nitrogen Balance Index	Chlorophyll (ChIM), Flavonols (FlvM), Anthocyanins (AnthM), Nitrogen Flavonol Indicator (NFIE)
Detection	Non-modulated fluorescence detection	Modulated light digitally controlled to minimise background detection error. Temperature compensation included for light source and detector.
Accuracy	5%	<+/- 2%
Repeatability	1,3% for CHL, 2% for FLAV and ANTH	+/- 1%
Data Averaging	-	Single point measurement, averaging from 2 to 8 measurements, median and mean values.
Area measured	19,6 mm ²	9.5mm diameter circle
Leaf thickness	1.5 mm maximum	Ratio fluorescence methods for measuring Flavonol and Anthocyanin are unlimited by leaf thickness.
Measurement time	< 1 s	5 seconds
User interface	LCD screen. Sound warning	240 x 320 pixel colour touch screen. Beep notifications optional
Positioning	Internal GPS	Internal GPS
Storage capacity	10 000 multiparametric data	Up to 1GB non-volatile flash memory
Data output	.csv file	.csv file
Data transfer	USB	USB
Operating temp.	5 to 45°C	0 to 50°C
Battery	Li-ion rechargeable	2 x AA NiMH rechargeable batteries. Charger supplied
Power saving mode	-	Auto-off interval (no key press or download) adjustable from 0 to 20 minutes.
Autonomy	6 hours	6 to 8 hours (depending on usage and temperature)

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Total weight	220 g	272 g
Size	205 x 65 x55 mm	78mm x 50mm x 180mm
Components Included:	Dualex leafclip sensor, USB cable and charger, Hand wrist strap, Cleaning swab.	MPM-100 GPS meter, sample clip, battery charger, 4 AA NiMH rechargeable batteries, USB cable, carrying case and manual. Calibration slide.

CONTACT your local ADC BioScientific support centre for pricing

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