

Digital Plethysmometer

FOR SCREENING OF INFLAMMATION OR EDEMA IN MOUSE OR RAT

The Digital Plethysmometer is a micro-controlled volume meter, specially designed for accurate measurement of rat/mouse paw swelling. The Digital Plethysmometer is a highly useful tool to evaluate the inflammatory response experimentally induced in rodents and to screen potential anti-inflammatory or anti-edema properties of pharmacological substances. The water displacement produced by the immersion of the animal paw in the measuring tube is reflected into the second tube, inducing the volume displacement. This displacement value is recorded. The control unit can be zeroed between successive readings by pressing the reset key, so as to avoid the error arising due to adherence of water to the paw of the animal. A foot switch allowing rapid hands-free experiments can be used to control the end point of the measurement.



**Designed To Study
Accurate Measurement
Of Rat/Mouse Paw
Swelling**



FEATURES:

- Button touch auto-calibration mode making hassle-free calibration
- High accuracy : ± 0.01 ml
- Resolution: 0.01 ml
- Easy-to-use pedal switch
- Separate paw immersion tube for rat and mouse
- Stable and comfortable reading on the graphical LCD display
- The same assembly can be used for rats and mice just by changing the adaptor
- Data entry for Experiment Nos./ Sequence Nos./Sex of Animal / Paw: Left - Right etc.
- Data storage for 100,000 experiments
- Six Point Calibration 0.50ml, 1.00ml, 2.00ml, 3.00ml, 4.00ml & 5.00ml.
- Software for PC Connectivity using RS232 serial interface for data transfer and report generation with graphical presentation.
- No need of separate tube assembly for rat & mice
- Provision to add experiment name, comment & animal weight(grams) in the software report
- Data can be transferred to Excel or pdf
- Software with password-protected experiment delete function.

PARAMETERS MEASURED:

Mice Paw Volume (0-5ml), Rat Paw Volume (0-10ml)

SYSTEM SPECIFICATION AND MODELS:

Specification	Model
	PLM 02
Accuracy	± 0.01 ml
Resolution	0.01ml
Calibration	Auto and Manual
Display	GLCD
Animals to be tested	Mouse & Rat
PC Connectivity	By Using RS232 Cable
Material of composition	Methacrylate, S.S. 304

ORDERING INFORMATION:

Model	Certifications	Power requirement	Accessories
PLM 02	CE Compliant	220/230V AC 50Hz 110/120V AC 50-60Hz*	<ul style="list-style-type: none"> Control unit with communication port to PC & Software utility Pedal Switch Immersion tube assembly with reservoir, rat and mouse paw immersion tube and adequate silicon tubing Retort stand with boss head Instructional Manual RS232 Cable and RS232 to USB convertor Surfactant solution bottle Calibration probes suitable for: 0.5ml, 1ml, 2ml, 3ml, 4ml, 5ml Digital pocket conductivity meter Software for data connectivity

*Needs to be specified in the order information

Optional: Computer and printer to be arranged by user

SOFTWARE REPORT FORMATS :

The screenshot displays the ORCHID Scientific software interface. The top section shows 'Experiment Details' with fields for 'Serial COM Port' and 'Experiment No. from'. Below this is the 'Report' section, which includes a form for entering experiment details (Experiment No: 142, Experiment Date: 30-Aug-2018) and a table of experimental data. The table is as follows:

Sr. No	Exp. No.	Seq. No	Animal Paw	Sex	Volume (ml)	Animal Weight (gms)
1	142	1	Left	Male	1.19	126.20
2	142	2	Right	Male	0.76	126.20

Below the table is a line graph showing 'Volume (ml)' on the y-axis (ranging from 0 to 1.2) and 'Animal Sr. No' on the x-axis (ranging from 1 to 2). The graph shows two data points: (1, 1.19) and (2, 0.76), connected by a line.

COMPARISON WITH OTHER PRODUCTS:

Features	Orchid's	Other's
Resolution	0.01ml	0.01ml
Accuracy	±0.01ml	±0.01ml
Sensor	Sturdy	Delicate
Auto-Calibration	In-built auto-calibration mode provides user ease of button touch calibration at any time of experiment	Manual Calibration, takes more time
Control on Conductivity of Solution and Reading Stability	Digital pocket conductivity meter is supplied with machine to check conductivity of solution to avoid fluctuations in readings due to conductivity changes in solution	No conductivity meter supplied with machine making variations in the solution prepared leading fluctuations in readings
Immersion Tube Assembly	Easy to clean Teflon stopcocks system Maintenance free as no electronic or electrical components involved	Involves complex solenoid valve assembly with limitations of maintenance
Immersion Tube adaptor	Separate Immersion Tube adaptor For Rat & Mice	Common Immersion Tube adaptor For Rat & Mice

Note: Orchid's continuing product development makes specifications subject to change without prior notification.



Orchid Scientific & Innovative India Pvt. Ltd.

📍 B-59, M.I.D.C., Ambad, Nashik - 422010, India.

☎ +91253-2387600, 2972525

✉ office@orchidscientific.com, exports@orchidscientific.com

🌐 www.orchidscientific.com

