

# VAPOMETER

PRACTICAL AND RELIABLE TEWL,  
EVAPORATION AND PERMEABILITY  
MEASUREMENTS

## PRODUCT FEATURES

- ✦ Portable and wireless
- ✦ Short measuring time, typically 10 sec
- ✦ Wide measurement range – accurate up to 200 g/m<sup>2</sup>h
- ✦ No daily calibration procedure required
- ✦ Non-sensitive to ambient airflows
- ✦ Use in all angles



## APPLICATION AREAS

- ✦ TEWL, Skin barrier function, Penetration studies
- ✦ Effect of skin care, treatment and nutrition
- ✦ Wound healing
- ✦ Sympathetic skin response, Hyperhidrosis
- ✦ Skin irritation
- ✦ Water loss through nails, scalp, lips
- ✦ Skin surface water loss
- ✦ Efficacy and safety testing, Claims validation
- ✦ Material permeability, *in-vitro* studies
- ✦ Animal health and Zoology

## VAPOMETER INSTRUMENTATION

The VapoMeter measures the evaporation rate of water and displays the measurement result ( $\text{g}/\text{m}^2\text{h}$ ), the ambient relative humidity (%) and the ambient temperature ( $^{\circ}\text{C}$ ). It may be used either as a stand alone device or measurement data may be collected wirelessly to the DelfWin software.

The DelfWin software allows users to set up individual projects and plot and print the results or export them to other programmes for editing.

The VapoMeter is battery-operated and portable. This offers great freedom of movement and the possibility of measuring difficult areas. Changeable and re-usable adapters are available for different *in-vivo* and *in-vitro* user applications.

## CLOSED CHAMBER PRINCIPLE – NO DAILY CALIBRATIONS

The core of the VapoMeter is a sensitive humidity sensor that is inside a cylindrical measurement chamber. This chamber is closed by the measurement surface during the measurement period and is unaffected by ambient airflows. The sensor monitors the increase of relative humidity (RH) inside the chamber during the measurement. The evaporation rate value ( $\text{g}/\text{m}^2\text{h}$ ) is automatically calculated from the RH increase. The chamber is passively ventilated between measurement and the ventilation time is automatically controlled.

## ADAPTERS FOR DIFFERENT APPLICATIONS



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Manufactured and Marketed by



### HEAD OFFICE

Delfin Technologies Ltd  
P.O. Box 1199  
70211 Kuopio, FINLAND  
tel. +358 50 911 1199, fax +358 17 222 2343  
info@delfintech.com

### LOCAL REPRESENTATIVE

Flowscience Instruments Ltda  
Adib Auada, 354 - Sala 21  
Empresarial Granja Tower  
06710-700 - Cotia - SP, BRAZIL  
tel. (11) 4702-0422  
info@flowscience.com.br