DermaLab® USB
Single parameter skin analysis

CORTEX TECHNOLOGY
DermaLab® USB

Our new DermaLab® USB meets the demand for single parameter skin analysis instruments. It presents a break-down of the most popular parameters in our DermaLab® Combo series into individual modules - based on the same technology and using identical probes. In all configurations, the device comes complete with interface, probe, external power supply and software ready to be installed on your Windows laptop or tablet. Operation is easier than ever with no need for training.

In addition to the well known parameters for measuring skin hydration, elasticity and TEWL this has now also given birth to the DermaLab® USB Skin Ultrasound device - an affordable and easy-to-use miniature high resolution ultrasound scanner dedicated to skin applications. Configured with ultrasound the DermaLab® USB features a rotating 20 MHz 2D-scanning probe and software, which is ideal for high resolution visualization of skin as well as intensity and dimensional analysis.

Technical specifications

**INTERFACE UNIT**
- Connectivity: USB connected single probe interface. **Power requirement:** External 12 V power supply (included).
- **Dimensions:** 188 (L) x 124 (W) x 89 (H) mm.
- **Misc.:** Integrated probe holder.

**HIGH FREQ. ULTRASOUND**
- Frequency: 20 MHz, focused ultrasound. **Resolution:** 60 x 200 micrometer (ax x lat). **Penetration:** 3.4 mm.
- **Probe:** Rotating transducer, scan length 17 mm, footprint 11 mm. **Read-out:** Display of actual and stored measurements.

**SkinLab config.:**
- Measurements: Intensity score, skin thickness, age band, arbitrary distance.
- **Gain setting:** Fully adjustable +/- 10dB.

**TEWL**
- **Principle:** Diffusion gradient. **Range:** 0 - 250 g/m²/h. **Resolution:** 0.1 g/m²/h. **Accuracy:** 5%. **Probe:** Two combined humidity/temperature sensors in 10 mm cylindrical diffusion chamber. **Environment check:** RH and temperature. **Autostop:** Stops when SD criteria is met. **Calibration:** Probes with calibration certificate. Calibration service available. **Read-out:** Continuous TEWL (5 sec. mean). Real-time curve and sensor display.

**TEWL**
- **Principle:** Conductance, single frequency. **Range:** 0 - 9999 microSiemens. **Resolution:** 1 microSiemens. **Accuracy:** 5%. **Probe:** Pin probe, eight pins minimizing moisture accumulation. Spring loaded action triggers/stops measurement. Optional flat faced probe with 13 mm diam. sensor and three annular electrodes available. **Calibration:** Optional calibration checker. **Read-out:** 0 - 9999 microSiemens, 8 measurements with average.

**ELASTICITY**
- **Principle:** Stress/strain by applied vacuum. **Range:** 1.5 mm elevation, 0 - 75 kPa vacuum. **Probe:** Measuring aperture: 10 mm diameter. Ultra low weight (approx. 7 grams) for minimum skin bias. Adheres to the skin by double adhesive sticker. **Read-out:** Continuous real-time curve of elevation vs. neg. pressure. Three elasticity parameters: Retraction time, Young’s modulus and ViscoElasticity.

**APPLICATION SOFTWARE**
- **Application software:** LabView® based SkinLab software dedicated to applications in laboratory environments. For the High Frequency Ultrasound configuration a simplified Visualizer software is also available primarily intended for marketing applications. **Data export:** Data may be exported to Excel spreadsheets. **Min. Requirements:** The application software runs on PC’s with Windows XP or higher.

Specifications may change without further notice.