

DermaLab® Combo

technical specifications



MAIN UNIT
Computer: WINDOWS based tablet or laptop. **Connectivity:** USB and Ethernet, computer to interface unit via Bluetooth®. Multichannel probe interface.
Application software: Dedicated LabView® based software. **Data export:** Data may be exported to Excel spreadsheets.
Dimensions: 24 x 23 x 9 cm.
Options: USB connected storage medias, USB or wireless printer/keyboard/mouse.



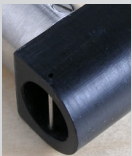
HIGH FREQ. ULTRASOUND
Frequency: 20 MHz, focused ultrasound. **Resolution:** 60 x 200 micrometer (ax x lat). **Penetration:** 3.4 mm.
Probe: Rotating transducer, scan length 17 mm, footprint 11 mm. **Read-out:** Display of actual and stored measurements for intensity score, skin thickness, low echogenic band, arbitrary distance.
Gain adjustment: +/- 10dB.



ELASTICITY
Principle: Stress/strain by suction. **Range:** 0 - 4.5 mm elevation, adjustable neg. pressure setting 150, 400, 650 mbar. Pread-justment for skin thickness (default 1 mm).
Probe: 10 mm suction aperture. Ultra low weight for minimum skin bias. Adheres to the skin by double adhesive sticker.
Read-out: Continuous real-time curve of elevation (1/3/5 cycles). Three elasticity parameters: Retraction time, Young´s modulus and ViscoElasticity. Read-out for individual cycles as well as average.



HYDRATION
Principle: Conductance, single frequency. **Range:** 0 - 9999 microSiemens. **Resolution:** 1 microSiemens.
Accuracy: 5%. **Pin probe** w. eight pins. **Flat Faced Probe** w. traditional, circular electrode design. Spring loaded trigger ac-tion. **Calibration:** Optional calibration checker.
Read-out: Conductivity 0 - 9999 µSiemens, up to 8 readings with average.



TEWL
Principle: Diffusion gradient. **Range:** 0 - 250 g/m²/h. **Resolution:** 0.1 g/m²/h. **Accuracy:** 5%. **Probe:** Two combined humidi-ty/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.
Read-out: Continuous real-time TEWL curve and display of individual sensor values as well as initial environmental conditions.



VIDEO SCOPE
Resolution: 1.3 megapixel. **Magnification:** 10 - 50x (depends on screen size). **Light:** Polarized/non-polarized setting.
Software: Dedicated software for saving/retrieving/comparing captured images.
Connection: USB connected videocamera.



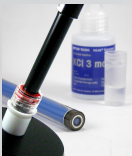
SKIN COLOR
Probe: Color sensor w. 64 active elements, clear front for accurate positioning. Illumination by two angled white LED´s. Optical focusing on 7 mm diam. target area. Insensitive to ambient light.
Read-out: Erythema and Melanin (open ended index). CIELab color values. Four readings with average.



SEBUM
Sebum collection material: Microporous polymer film. **Measurement principle:** Translucency characteristics of sebum col-lecting material. **Range:** 0.0 - 100.0 %. **Resolution:** 0.1 %. **Accuracy:** 5 %. **Measurement:** Sequential measurement (zero-calibration/sebum collection/measurements).
Read-out: Step-by-step sequence status and two measurements with average.



SKIN TEMPERATURE
Measurement principle: Non-contact infrared detection. **Range:** 10 - 50 deg. C. **Resolution:** 0.1 unit. **Accuracy:** +/- 0.7 deg. C. Display of deg. Celsius or deg. Fahrenheit.
Read-out: Up to 8 measurements with average calculation.



SKIN pH
Probe type: Standard gel-filled surface type probe, fast response time. Range: 1.00 - 11.00 pH.
Accuracy: 0.01 pH @ 25 deg. C.
Read-out: Up to 8 measurements with average calculation.

Calibration service with certificate available.

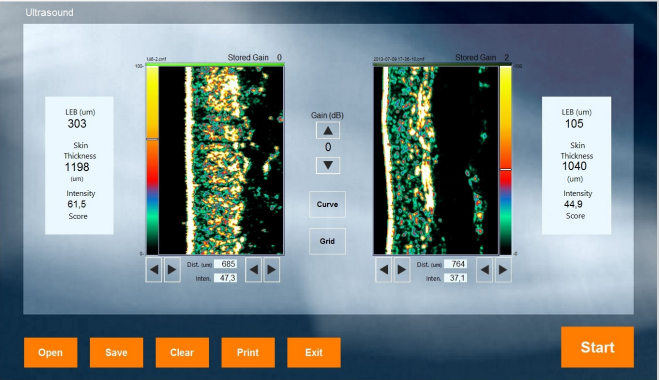
Specifications may change without further notice.

CORTEX TECHNOLOGY

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DermaLab® Combo

State-of-the-art skin analysis



CORTEX TECHNOLOGY

DermaLab® Combo

... innovative skin analysis



Main interface unit



TEWL screen

Skin Color

	Melanin	Erythema	OIE-L*	OIE-a*	OIE-b*
Measure 1	36.0	16.0	32.0	20.0	14.0
Measure 2	36.0	15.0	33.0	19.0	14.0
Measure 3	36.0	15.0	32.0	20.0	13.0
Measure 4	36.0	15.0	33.0	19.0	14.0
Average	36.0	15.0	32.0	19.0	13.0

Open Save Clear Clear all Print Exit Start

Skin color screen



Hydration & TEWL probes



Rear panel connectors

Multiparameter skin analysis

The DermaLab® Combo features up to ten skin parameters in one instrument as well as intuitive application software wirelessly controlled by the included tablet.

In the DermaLab® Combo we have concentrated all our knowledge in one flexible concept with the goal to be able to offer all parameters in one instrument.

The result is an instrument, which offers high frequency ultrasound for instant skin assessment in combination with more traditional skin parameters such as elasticity, hydration, sebum, TEWL etc. Simply customise your DermaLab® Combo for the desired application by adding probes as needed.

The DermaLab® Combo is easier and more intuitive to operate than ever with new application screens, larger touch-screen, and it comes loaded with our dedicated LabView - based application software.

SkinLab Combo

For scientific skin research applications and applications within the cosmetic and pharmaceutical industry the DermaLab® Combo offers a complete selection of skin parameters, which may be freely configured to fulfill specific testing needs.

The operating principles of the available probes and software application modules are based on measurement principles, for which generally acknowledged guidelines have been established, and measurements are presented in standardised SI-units where applicable.



The backside panel connectors facilitates the connection of probes, and at the same time several probes share the same common I/O interface - i.e. they may be freely connected to any compatible connector.

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LabView® is a registered trademark of National Instruments.
WINDOWS® is a registered trademark of Microsoft Corporation.
Bluetooth® is a registered trademark of SIG Inc.

The broad spectrum of professional applications includes claims substantiation, irritancy/allergy testing, rating of moisturizers as well as efficacy testing of topical agents for various skin conditions. A unique feature of the device is the ability to automatically quantify collagen levels by the implementation of high frequency skin ultrasound technology in its most sophisticated form.



Suction cup for elasticity



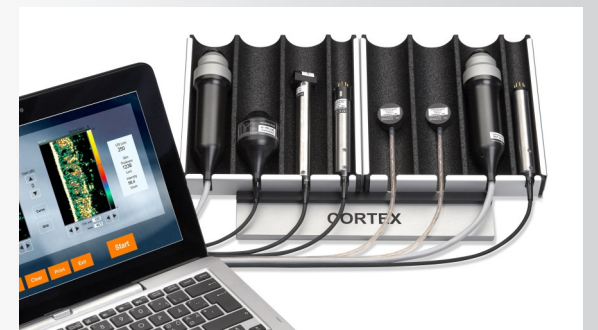
pH probe

PH

	PH		PH
Measure 1	7.63	Measure 5	4.11
Measure 2	7.02	Measure 6	6.28
Measure 3	6.98	Measure 7	6.37
Measure 4	6.77	Measure 8	5.55
Average		6.34	

Open Save Clear Clear all Print Exit Measure

Skin pH screen



Multi-probe configuration w. laptop



Skin color probe