

Otthon

SELF-CONTAINED DISINFECTABLE
ULTRASONIC SPIROMETER

THOR
laboratories

Otthon is a pulmonary function diagnostics and monitoring device for use by general practitioners.

Otthon is a compact, mobile, affordable solution for screening COPD and asthma.

FVC, MVV & VC
measurement

Integrated
Oximeter
(optional)



FEATURES

- **Friendly and easy to use user interface** with large Touchscreen display. Buttons, text entry screens and lists are easy to operate with fingertips, no pen is required.
- **Huge patient database** to store several hundreds of patients and all their measurements. You can easily browse through them by searching for their names or ID's.
- **Audible human voice** interpretation and measurement control: during measurements the devices plays audible human voice that explains how to improve maneuver quality.
- **Measurement tutorial** presentation system for increased patient compliance. The device plays a simplified video with human voice explanation on its own screen. The device explains to the patient its own usage with a tutorial comprising simplified video and audible text. In case of a poor maneuver such as prematurely stopped FVC, coughing, slow starting, poor effort, short expiration, or failed reproducibility, the device explains the reason of the poor maneuver to the patient with human voice and also provides a direct tutorial which focuses on the reason of the poor maneuver.
- **ATS/ERS and NLHEP interpretation** systems for automated pulmonary diagnostics. The device automatically processes FVC trials and provides suggestions on how to improve maneuver quality.

THOR
laboratories

IDEGEN
TECHNOLOGY

WWW.THORLABOR.COM

TEL: (+36 20) 583 7564 | FAX: (+36 1) 792 7522 | E-MAIL: THOR@THORLABOR.COM

ALL THE ABOVE LISTED INFORMATION IS SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. THIS MATERIAL IS FOR INFORMATIONAL PURPOSES ONLY AND SHOULD NOT BE CONSTRUED AS AN OFFER OR SOLICITATION OF AND OFFER TO BUY OR SELL ANY OF THE PRODUCTS AND/OR TECHNOLOGIES LISTED ABOVE. THE LISTED PARAMETERS / FEATURES MAY BE FOR UNIQUE SETUPS AND ARE NOT IN GENERAL CHARACTERISTICS FOR ALL THE PROVIDED PRODUCTS AND/OR TECHNOLOGIES. PLEASE CONTACT US FOR MORE SPECIFIC INFORMATION.

SELF-CONTAINED DISINFECTABLE ULTRASONIC SPIROMETER

SPECIFICATION

Parameters measured	FVC, PEF, ELA, FEV1, FEV3, FEV6, FEV1/FVC, FEF25, FEF50, FEF75, FEF2550, FEF2575, FEF5075, FET, PEFT, FIVC, FIV1, FIV1/FIVC, FIT, EV, ET, PIF, VC, IVC, IC, ERV, IRV, TV, TI, TE, VE, RR, TV/TI, TE/TI, MVV
Memory capacity	The instrument is able to store more than 4 000 patients and/or measurements. The number highly depends on the measurement type and the measurement length.
Display	Quarter VGA (320x240 pixels), 262k colors with touchscreen
Communication port/interface	Connection to PC via USB or Bluetooth (optional)
Printing	The instrument can print to any HP deskjet and officejet printers (via USB interface) that support the PCL3 language.
USB connector type	Standard 5-pin mini-B
Dimensions of the device	37x80x92 mm
Dimensions of the flow tube	Ø30x165 mm
Weight	184 grams
Flow/volume measurement system	IDEGEN™ Technology
Measurement principle	IDEGEN™ ultrasonic multiple-path
Maximum volume	± 20 L
Flow range	± 14 L/s
Insp./Expi Ratio	From 1:10 to 10:1
Volume accuracy	± 3% or 50 mL whichever is greater
Flow accuracy	± 3% or 50 mL/s whichever is greater
Sample rate	100 Hz
Expiratory impedance at 14 L/s flow	< 0,15 kPa/L/s
Battery	Internal 3,7 V Li-Ion battery (rechargeable via 5V, 500 mA mini USB charger)
Electrical protection	Internal battery power supply
Level of electrical protection	BF
Protection against water ingress	IP32
Operating and storage conditions	Temperature: 10 - 40°C Relative humidity: 5 - 95% without condensation

MISCELLANEOUS

- No moving parts
- Battery or USB charger operation
- Touch screen, bright color high resolution LCD display
- External printer connectivity
- Automatic internal calibration, (external validation with calibration pump available as an option)
- Tele-medical connection via Bluetooth available
- Firmware upgrade option via Internet
- Easy upgrade, standard interfaces, e.g. O2 or CO2 analog boards attachable
- The inner surface of the flow tube is continuous, it can be disinfected with cold disinfecting liquid InstruMed

THORSOFT PULMONARY DIAGNOSTICS PC SOFTWARE

Complete Pulmonary Diagnostics PC software with medical decision support system, innovative animated visualization, patient database, configurable medical report system.



HAEMOGLOBIN SATURATION
Integrated oximeter (optional)