Following the success of the Resmon™ PRO FULL, we introduce the Resmon™ Pro V3 - a higher level of FOT. This new advanced device uses the same superior measurement calculation algorithms and reporting with redesigned user interface and faster electronics. It has never been easier to accurately and non-invasively evaluate patients with COPD, adult and pediatric Asthma as well as airways clearance technique in physiotherapy. All it takes is a few normal tidal breaths.

The Resmon Pro V3 uses the forced oscillation technique (FOT) to measure the mechanical properties of the lung and airways. FOT easily assesses the respiratory system's response to acoustic waveforms sent to the opening of the airway into the lungs at different frequencies. The Resmon Pro V3 is an essential tool for all patients including individuals who cannot perform spirometry, elderly, pediatric and those with neuromuscular diseases.

The Resmon Pro V3 can provide a simple, effort-independent way to detect airways obstruction and localizing it as peripheral, central or heterogeneous. During the test, the Resmon Pro V3 will measure small and central airways function and also assess tidal expiratory flow limitation (EFL) in adults while aiding in bronchial reversibility testing or trending it over time for therapeutic monitoring.

With such versatility, the Resmon Pro V3 is ideal for virtually any testing environment—including pulmonary laboratories, at the bedside, private offices, on-site school or workplace settings and sites for clinical trials or research studies.

SPECIFICATIONS

FLOW MEASUREMENT

Mesh type: ±1.5 L/s
LINEARITY: ±2%
MOUTH PRESSURE LINEARITY: ±0.05% full scale
RESOLUTION: 0.015 cm H₂O

HEIGHT: 12.2 in (31 cm)
WIDTH: 11.4 in (29 cm)
DEPTH: 10.2 in (26 cm)
WEIGHT: 14.7 lbs (6.4 kg) with support arm

DEAD SPACE: 35 mL

PRESSURE

± 100 PA

MOUTH PRESSURE

Range: ±25 cm H₂O
LINEARITY: ±0.05% full scale
RESOLUTION: 0.015 cm H₂O

MEASUREMENT ACCURACY

For Impedance Parameters: ±0.1 cmH₂O/L/s or ±9% of the measured value
For Breathing Pattern Parameters: ±10% of the measured value
For Volume Parameters: ±100 mL or ±3.5% of the measured value

PERIODIC RANDOM NOISE (PSRN)
5-37 Hz

TESTING “WITHIN BREATH” SIGNALS MODE

Single Frequency 5, 6, 8, 10 Hz
Multiple Frequency 5 + 11 + 19 Hz

SIGNALS MODE

SINGLE FREQUENCY 5, 6, 8, 10 Hz
MULTIPLE FREQUENCY 5 + 11 + 19 Hz
PSNR RANDOM NOISE (PSRN) 5-37 Hz

PATIENT LOAD

0.55-0.69 cm H₂O/L/s in the frequencies of normal breathing (0.1-1 Hz)

DEAD SPACE

35 mL

CONNECTIVITY

2 full-speed (2.0) USB ports | 1 USB-OTG
Ethernet 10/100/1000
HDMI

PROCESSOR AND MEMORY

Dual core architecture, including a Cortex™-A9 1GHz processor, 1GB RAM, 8 GB flash memory

STAND-BY CURRENT

500 mA

AVERAGE CURRENT

1500 mA

MATERIALS EXTERNAL CASE

ABS

SUPPORT ARM

Aluminum

LOUDSPEAKER MEMBRANE

Silicone rubber

CERTIFICATION

European MDD 93/42 - CE | US FDA (K152585) | Australia TGA | Health Canada

RESMON PRO V3, THE NEW FOT SYSTEM, NOW MADE EVEN EASIER
The Resmon Pro V3 is the result of more than 15 years of research conducted in cooperation with key scientific, clinical and research centers in Europe, US and Australia.

**GREAT FEATURES FOR CLINICAL AND RESEARCH USE**

- **“WITHIN-BREATH” ANALYSIS OF BREATHING PATTERNS AT FAST SAMPLING FREQUENCY (200 HZ)**
  - Real-time display of resistance (Rrs), reactance (Xrs) and flow.
  - Accurate measurement of inspiratory, expiratory and total parameters.
  - Full respiratory pattern measurement and reporting of VE, VT, RR, Ti/Ttot, Vt/Ti, Vt/Te.

- **THREE MEASUREMENT MODES:**
  - Innovative “enhanced optimized” multi-frequency mode of 5-11-19 Hz.
  - Single-frequency mode options of 5, 6, 8, 10 Hz (for children, severely obstructed patients and special research purposes).
  - “Enhanced optimized” Pseudo Random Noise (PSN) of 5-37 Hz.

- **EXCLUSIVE “10 ACCEPTED BREATHS” MODE WITH AUTOMATIC END-OF-TEST**
  - Comfortable testing for the patient with an automatic discard of non-physiological and non-coherent breaths, choice of number of accepted breaths, 10, 15, 20 etc. to end the test automatically, minimizing operator intervention.
  - Operator accessible screen, post-test to view and edit accepted as well as discarded breaths and recalculate CV% and average results.
  - CV% (coefficient of variation) within-measurement and within-session with color coded warning, for optimal quality control with multiple trials capability (up to five measurements in one session with automatic selection of the best three).
  - Z-score for predicted normal value % calculation.

- **AUTOMATIC STIMULUS ADJUSTMENT**
  - Automatic adjustment of stimulus amplitude based on patient impedance to maximize measurement quality (and for optimal patient comfort)

- **MINIMAL DEAD SPACE OF ONLY 35CC**

- **PATENTED, AUTOMATIC DETECTION AND QUANTIFICATION OF EXPIRATORY FLOW LIMITATION (EFL) WITH ∆XRS INDEX GRAPH AND % OF FLOW LIMITED BREATHS (FL%), ALSO USED FOR PRE-POST BRONCHODILATOR OR PRE-POST TREATMENT EVALUATION (PATENT NR. WO2003103493).**

- **NEW Slow Vital Capacity testing (NOT available in the US, not FDA approved)**
  - SVC for monitoring of restrictive patterns
  - IC for hyperinflation detection, pre-post testing for evaluating effect treatment

**CONVENIENT SIZE AND FUNCTIONS**

- Self-contained and compact unit with password access, built-in PC, with data transfer on USB memory stick and directly to PCs via USB-OTG.
- Easily transportable allowing for testing at the bedside, in the lab and at off-site locations (school, office, etc.)
- Quiet operation with automatic “active-wash” silent fan for expired CO2 removal from the system.
- Suitable for children, 35 ml dead space.
- Unique impedance verification tube included, to daily check the accuracy of both resistance (Rrs) and reactance (Xrs) before the first daily trial using an automatic, software driven procedure.
- Wide 10.1 in (25.7 cm) high-resolution color touchscreen for fast, easy and intuitive test management.
- Built-in database to store, retrieve, edit or delete patient data.
- Multi-user access with password protected data security.
- Detailed report of results for further trending, analysis and statistics. Data available in RAW waveform data, XSL/CSV and PDF output as well as export to external PC.
- PDF report can be shared through USB connection to any PC, for direct, safe transfer connection and data protection.
- Connectivity options, USB and HDMI ports, becomes a full PC with external keyboard, mouse, screen or projector.

**PUBLICATIONS**

The Resmon Pro has been used in a wide selection of publications for clinical and research uses in asthma, COPD and evaluation of airways clearance therapies. Updated list available upon request.
RESMON PRO V3 SYSTEM
DESIGNED, DEVELOPED, PRODUCED AND SUPPORTED BY EXPERTS

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### Specifications

**Flow Measurement**
- **Range**: ±1.5 L/s
- **Linearity**: ±2%
- **Mouth Pressure**: Range: ±25 cm H₂O
- **Mouth Pressure Linearity**: 0.05% full scale
- **Resolution**: 0.015 cm H₂O

**Physical Dimensions**
- **Height**: 12.2 in (31 cm)
- **Width**: 11.4 in (29 cm)
- **Depth**: 10.2 in (26 cm)
- **Weight**: 14.7 lbs (6.7 kg) with support arm

**Testing “Within Breath” Signals Mode**
- **Single Frequency**: 5, 6, 8, 10 Hz
- **Pseudo Random Noise (PSRN)**: 5-37 Hz

**Measurement Accuracy**
- **Impedance Parameters**: ±0.1 cm H₂O L/s or ±1% of the measured value
- **Breathing Pattern Parameters**: ±10% of the measured value
- **Volume Parameters**: ±100 mL or ±3.5% of the measured value

**Pressure**
- **Max**: ±100 Pa

**Environmental Sensors**
- Temperature: ±1°C
- Humidity: ±3% (relative humidity)

**Calibration**
- Factory calibration according to international recommendations + auto-zeroing of the sensors before each measurement
- Calibration check with a test object (supplied with the device) and with a 3L calibration syringe (not supplied with the device), required for the measurement of slow spirometry volumes (not available in the US, not FDA approved).

**Patient Load**
- 0.55-0.69 cm H₂O/L/s in the frequencies of normal breathing (0.1-1 Hz)

**Dead Space**
- 35 mL

**Connectivity**
- 2 full-speed (2.0) USB ports |
- 1 USB-OTG
- Ethernet 10/100/1000
- HDMI

**Processor and Memory**
- Dual core architecture, including a Cortex™-A9 1GHz processor, 1GB RAM, 8 GB flash memory

**Display**
- 10.1 in (25.7 cm) HD color display with multi-touch capacitive touchscreen and anti-glare film (can be used with medical gloves)

**Electrical Specifications**
- Medical grade 100/240 V, 50/60 Hz 60 W input AC/15 VDC output power supply (included)

**Stand-by Current**
- 500 mA

**Average Current**
- 1500 mA

**Materials External Case**
- ABS

**Support Arm**
- Aluminum

**Speaker Membrane**
- Silicone rubber

**Certification**
- European MDD 93/42 - CE |
- US FDA (K152585) |
- Australia TGA |
- Health Canada