

SpirOxCard Specifications

Weight: Less than 3 ounces (85 grams)

Height: (W) 53 mm x (D) 140 mm x (H) 25 mm, extended housing.

Housing: PCMCIA Type II PC Card with extended housing.

Program: Reporting software is stored on the computer.

Environmental Conditions:

Storage Conditions: Ambient Temperature: -15 to 50° C (5 to 122° F) Relative Humidity: 10 to 90% (non-condensing).

Power Supply: Internal: 5Vdc, 84mA max. Supplied by the PCMCIA slot.

Spirometry:

Operating Conditions: Ambient Temperature: 15 to 40° C (59 to 104° F), Relative Humidity: 10 to 90% (non-condensing). Atmospheric pressure: 700 to 1060 hPa.

Measurement Method: FLOW: Mouthpiece (US Patent #4,905,709) VOLUME: flow integration

Range: FLOW: +/-14 liters/second VOLUME: 0-8 liters BTPS

Accuracy: Complies with the American Thoracic Society (ATS) Standards for Spirometry, 1994 Update. FLOW: +/-5% of indication or 0.200 L/sec, whichever is greater for FEF 25-75. +/-10% of indication or +/- 0.400 L/s whichever is greater for PEF. +/-3% of indication or +/- 0.050 L, whichever is greater for FVC and FEV1. +/- 10% of indication or +/-15 L/min, whichever is greater for MVV.

Precision: FLOW: +/-3% of indication or +/- 0.050 L, whichever is greater for FVC & FEV1. Less than 5% of indication or less than 10 L/min, whichever is greater for PEF. Volume: +/- 3% of indication or +/-0.050 L, whichever is greater for FVC and FEV1.

BTPS Conditions: VOLUME: +/- 4.5% of indication or +/- 200 ml, whichever is greater for FVC and FEV1

Calibration: ATS 3-speed or standard calibration check.

Predicted Normals: Crapo, Cherniack, Morris, Knudson 1983, Polgar, Hsu, Roberts, Warwick, ECCS.

Tests Performed: FVC, Pre/Post Testing, Flow Volume Loop, MVV, SVC

Measuring Time: SVC up to 30 seconds.

Printed Scale: Flow Volume: (vertical) .5cm/1L/S, (horizontal) 1cm/1L Volume Time: (vertical) 1cm/1L, (horizontal) 1cm/second

Sample Rate: 100 samples/sec.

Resolution: Flow Rate: 2ml/sec., Volume: 1ml

Limits of Detection: Flow Rate: 2ml/sec., Volume: 1ml

Parameters measured: FVC, FEV0.5, FEV1, FEV3, FEV1/FVC, FEV3/FVC, PEFR, FEF25%, FEF50%, FEF75%, FEF25-75%, FIVC, FIV0.5, FIV1, FIV3, FIV1/FIVC, FIV3/FIVC, PIFR, FIF50%, FIF 25-75%, FIF.2-1.2, FVC/FIVC, Extrapolated Volume (Ext. Vol.) MVV, RR, MTV, SVC.

Oximetry:

Operating Conditions: Ambient Temperature: 15 to 40° C (59 to 104° F), Relative

Humidity: 10 to 90% (non-condensing).

Accuracy: SpO2: +/- 1 S.D.* 70-100% +/- 2% of full scale, Pulse Rate: +/- 3%

Range: % Saturation: 0 to 100%, Pulse Rate: 18 to 300 pulses per minute

Measurement Wavelengths: Red: 660 nanometers
Infrared: 910 nanometers

Patient Isolation: > 12 MegaOhms

* Standard Deviation: (S.D.) is a statistical measure: Up to 32% of the readings may fall outside these readings.