

SPIROVIT SP-1

Simply Breathtaking

Spirometry made simple and affordable!

The SPIROVIT SP-1 is a unique solution to simplify complex lung function testing. The high resolution patient incentive screen displays real-time flow/volume loops and detailed measurement matrices. The data can be either printed within seconds or transmitted to PC.

Disposable Sensor SP-150

With SCHILLER's unique SP-150 disposable sensors, the risk of cross-contamination is reduced to its minimum. The small, lightweight sensors are low cost and completely disposable. Simply remove, discard and replace the sensor after each patient performance.

No need for sterilization, easy handling and saving time are maximum benefits for both patient and physician!

Reusable Sensor SP-20

SCHILLER's SP-20 reusable sensors are small, lightweight and very easy to clean. The low cost filters provide the most economical method of performing pulmonary function testing.

Features

- FVC, SVC, MVV, MV and pre/post medication tests with choice of predicted normals
- Simple operation
- Internal memory for up to 100 tests (optional)
- Built-in mains and battery operation
- Ready-to-file reports within seconds on 3.5" (90 mm) paper
- Comparison of predicted and actual values
- Automatic interpretation
- Data transmission via built-in RS-232 interface to PC-based data management program SEMA for longterm storage, retrieval and trending
- Everything in one box ... memory, battery, printer, patient incentive screen
- Affordable, fast, reliable, CE labelled



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The Art of Diagnostics

Answer fax

Yes, I am interested in the innovative products from SCHILLER.

Please send me more information about:

- | | |
|---|--|
| <input type="checkbox"/> 3/6/12-channel-ECG | <input type="checkbox"/> Long-term blood measurement |
| <input type="checkbox"/> Multitasking Systems | <input type="checkbox"/> Monitoring |
| <input type="checkbox"/> PC ECG | <input type="checkbox"/> Defibrillation |
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Name: _____

Hospital: _____

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Address: _____

Phone (daytime): _____

Fax: _____

e-mail: _____

ASIA

SCHILLER Asia-Pacific
10 C Jalan SS 3/33
Taman Universiti
47300 Petaling Jaya
Selangor, Malaysia
Phone +603 7877 5336
Fax +603 7877 5744
e-mail: schiller@top.net.my

AUSTRIA

SCHILLER Handelsges. m.b.H.
Kampffüllerweg 24
A-4040 Linz
Phone +43 732 70 99
Fax +43 732 757 000
e-mail: sales@schiller.at

C.I.S.

ZAO SCHILLER RU
Pokrovsky Blvd. House 3
Block 1, Office 2202
P.O. Box 27
109028 Moscow, Russia
Phone +7095 956 29 10
Fax +7095 956 18 63
e-mail: service@schiller.ru

FRANCE

SCHILLER MEDICAL S.A.S.
4, rue Louis Pasteur
F-67162 Wissembourg
Phone +33 3 88 63 36 00
Fax +33 3 88 94 12 82
e-mail: info@schiller.fr

GERMANY

SCHILLER Medizintechnik GmbH
Rudolf-Diesel-Strasse 14
D-85521 Ottobrunn
Phone +49 89 629 9810
Fax +49 89 609 5090
e-mail: info@schillermed.de

INDIA

SCHILLER Healthcare
India Pvt. Ltd.
D.C. Silk Mills Compound
"A" Wing, 1st Floor
5, Chunawala Estate, Kondivitta Lane
Andheri-Kurla Road, Andheri (E)
Mumbai - 400 059, India
Phone +91 22 826 35 20
Fax +91 22 826 35 25
e-mail: schiller@vsnl.com

SPAIN

SCHILLER ESPAÑA, S.A.
Avenida Baviera, 12-14 Posterior
E-28028 Madrid
Phone +34 91 713 01 76
Fax +34 91 355 79 33
e-mail: schiller@schiller-es.com

SWITZERLAND

SCHILLER-Reomed AG
Riedstrasse 14
CH-8953 Dietikon
Phone +41 1 744 30 00
Fax +41 1 740 37 10
e-mail: sales@schiller-reomed.ch

TURKEY

SCHILLER TÜRKİYE
Halil Rifat Pasa Mah., Darülaceze
Cadd.
Perpa Ticaret Merkezi, B/Blok No:69 K:2
Okmeydanı-Sisli-İstanbul, Türkiye
Phone +90 212 210 86 81 (pbx)
Fax +90 212 210 86 84
e-mail: sales@schiller-turkiye.com

USA

SCHILLER America Inc.
11300 NW 41st Street
Miami, Florida 33178, USA
Phone +1 786 845 06 20
Fax +1 786 845 06 02
e-mail: sales@schilleramerica.com

Technical Data SP-1:

Dimensions: 290x210x69mm, app. 2.9kg; 11.4x8.3x2.7 in, app. 6.3lbs

Power Supply Requirements: 220-240V, nominal 230V, 50/60 Hz, or 100-115V, nominal 115V, 50/60 Hz; mains independent operation with built-in rechargeable battery and charger unit, LED indication for line or battery operation

Battery Charging Time: 15 hours from a completely discharged battery (< 3 hours to 60% capacity)

Battery Capacity: 6 hours of normal use

Power Consumption: max. 28VA

Storage: Memory for up to 100 tests

Liquid Crystal Display:

- Liquid crystal display for graphic and alphanumeric representation
- Resolution: 192x64 dots
- Contrast is manually variable via keyboard

Chart Paper:

Thermoreactive, Z-folded, width 90 mm/3.6 in, perforation each page

Printing Process: High-resolution thermal printhead, 8 dots/mm

Paper Speed: 25 mm/s

Safety Standards: MDD 93/42/EEC, Annex II; EN 60601-1: 1990; pr EN 1441: 1994; IEC 60601-1-2

Safety Class: BF according to IEC 60601-1

Protection Class:

- I according to IEC 60601-1, CSA 22.2 and UL 2601 (units with internal battery)
- IIa according to MDD 93/42/EEC (medical guideline)

Conformity: CE-0123 according 93/42/EEC

Control Panel and Keyboard: User-friendly Rubber Keys, LED indicators

Environmental Conditions:

- Temperature, operating: 10° to 40° C/50° to 104° F
- Temperature, storage: -10° to 50° C/14° to 122° F
- Relative Humidity: 25 to 95% (not condensed)
- Pressure, operating: 700-1060 hPa

Standard Interfaces: 1 x RS-232 serial interface

SPIROVIT SP-1 Basic Unit: Performs four inspiratory and expiratory pulmonary function tests with choice of predicted normals

Accessories:

- 1 pneumotach sensor (choice of SP-150 disposable or SP-20 reusable sensor)
- 1 noseclip
- 1 pack of disposable mouthpieces (for SP-150) or filters (for SP-20)
- 1 power cable
- 1 pack of paper
- 1 operating manual

Hardware Options: Transport case, calibration syringe (necessary)

Software Options:

- SEMA PC-Software for validation and archiving of test data on PC
- Memory for up to 100 tests

Measured Values:

FVC: FVC, FEV_{0.5}, FEV_{1.0}, FEV_{3.0}, FEV_{0.5}/FVC, FEV_{1.0}/FVC, FEV_{3.0}/FVC, FEF_{0.2-1.2}, FEF₂₅₋₇₅%, FEF₇₅₋₈₅%, PEF, MEF₇₅%, MEF₅₀%, MEF₂₅%, FIVC, FIV_{1.0}, FIV_{1.0}/FVC, FIV_{1.0}/FVC, PIF, MIF₅₀%

SVC: SVC, ERV, IRV, TV

MV: MV, RR, TV

MVV: MVV, RR, TV

Prediction Equation:

- **Adults:** ECCS, Crapo, Morris, Knudson, Knudson 76, Austria, Berglund, Finnish, Indian, Composite, Polgar
- **Children:** Quanier & Tammeling, Austria, India, Knudson, Knudson 76, Polgar
- **Comparison pre/post medication possible**
- **Extrapolated predicted values**

Presentation:

- Flow volume loop
- Flow time plot
- Measurement values table

Standards Compliance: ATS, ATS 94, OSHA, NIOSH

SPIROVIT SP-150 Pneumotach Flowsensor for Pulmonary Function

Testing with Disposable Sensors:

Dimensions: 118x36x28mm, app. 120g; 4.6x1.4x1.1 in., app. 0.26 lbs

Measuring Method: Pneumotachometer

Measuring Ranges:

- Flow: 0 to ±14 l/s
- Volume: 0 to ±15 l

Measuring Accuracy: According ATS 1994

Flow Impedance: <0.2 mbar *s/l at 12 l/s

SPIROVIT SP-20 Pneumotach Flowsensor for Pulmonary Function Testing with Reusable Sensor:

Dimensions: 125x36x28mm, app. 160g; 4.9x1.4x1.1 in., app. 0.34lbs

Measuring Method, Measuring Ranges, Measuring Accuracy, Flow Impedance same as SP-150

Technical Data are subject to change without notice.



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