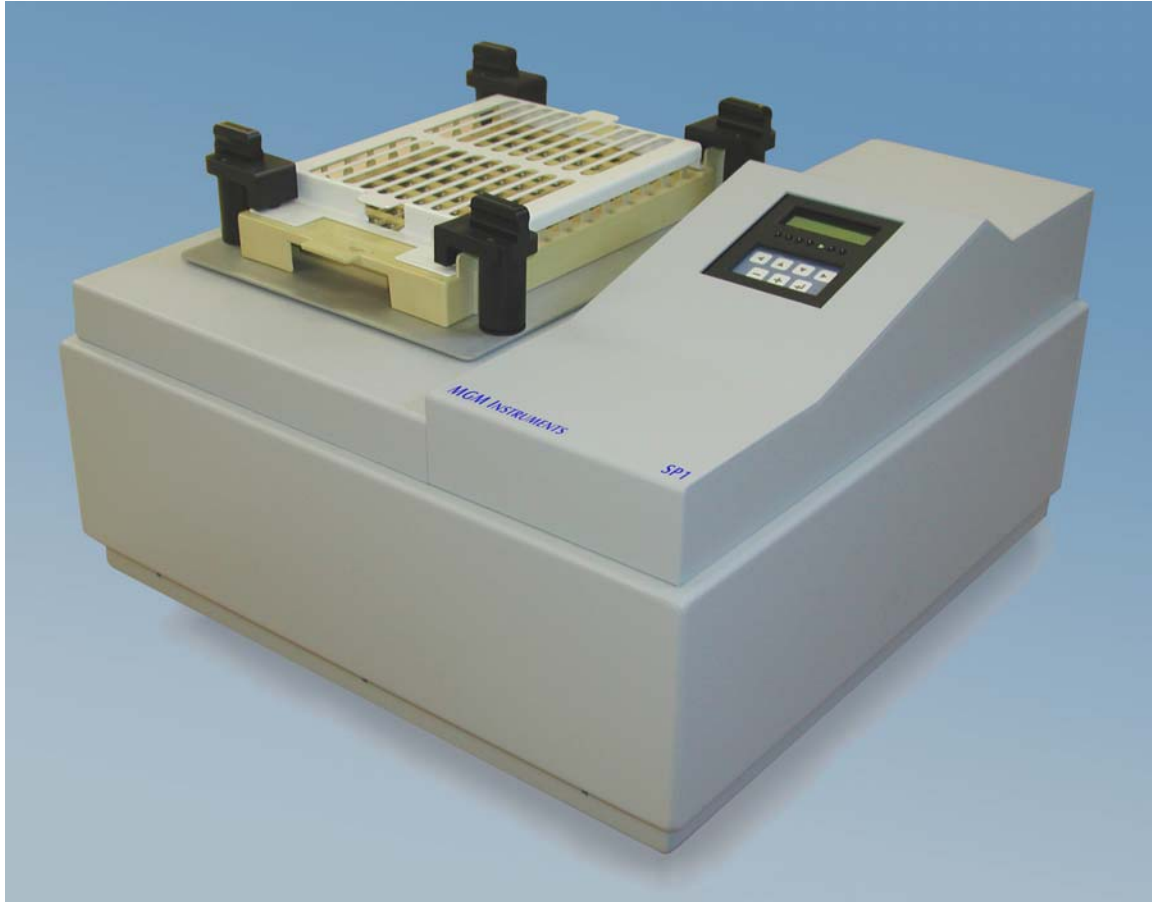


SP1

Intelligent Incubator/Vortexer



- **ACCURATE INCUBATION TEMPERATURE CONTROL**
- **PRECISE CONTROL OF VORTEX SPEED AND TIMING**
- **PROGRAMMABLE; PROVIDES ASSAY WALK AWAY TIME**
- **EASY TO USE, INCLUDES PC BASED SOFTWARE**
- **IDEAL FOR INCUBATION AND VORTEXING STEPS REQUIRED IN IMMUNOASSAYS**

M G M I N S T R U M E N T S

MGM Instruments, Inc. • 925 Sherman Ave. • Hamden, CT, USA 06514
800.551.1415 (in US) • 203.288.3523 • Fax 203.288.2621
<http://www.mgminstruments.com> • sales@mgminstruments.com

S P 1 Intelligent Incubator/Vortexer Technical Specifications

HARDWARE SPECIFICATIONS

Sample Capacity and Format:

100, 12mm by 75mm test tubes.

Heating/Cooling:

Six high-reliability Peltier elements are used to actively heat and cool samples to the desired incubation temperatures.

Temperature Control:

Programmable, from 15.0 to 99.0° C. PID control is used.

Temperature Accuracy:

+/-1.0°C up to 80.0°C (+/-3.0°C above 80°C).

Temperature Uniformity:

+/-1.0°C (once equilibrium is reached).

Calibration:

A calibration function is included, requiring only a digital thermometer.

Digital thermometer requirements:

1. Immersion depth of 1.0 cm, or less.
2. Time constant of 0.1 seconds, or less.

Temperature Control Response:

3.0°C/minute minimum, heating;

1.5°C/minute minimum, cooling;

Vortexing:

Programmable from 200 to 2,200 RPM.

Vortex Accuracy:

+/- 5.0%.

User Interface:

Four line, 20 character LCD display; Seven key keypad; Five LED indicators; Beeper.

Computer Interface:

Bi-directional RS-232 serial port included for interfacing to external personal computer.

Power:

Selectable via special rear panel plug:

V	I	F
100 VAC	12 A	50/60 Hz
115 VAC	10.4 A	50/60 Hz
230 VAC	5.2 A	50/60 Hz

Dimensions:

17¾" wide, 12" high, 20" deep; weight, 86 lbs.

MGM INSTRUMENTS, Inc.

925 Sherman Avenue
Hamden, CT 06514 USA

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Revision A

SOFTWARE SPECIFICATIONS

Host Software is included. The Host Software is a Windows application, and is compatible with Windows 95, Windows 98, Windows 2000, Windows ME, Windows XP and Windows NT, version 4.0.

Protocols are easily programmed and saved to non-volatile flash memory. Ten user programmable protocols of up to 40 segments each are provided.

Protocol Segments can be programmed for Incubation, Vortexing (including temperature control) or Suspend functions.

Segment types:

INCUBATION: Incubation segment temperature can be programmed from 15.0 to 99.0°C, incubation time is programmable from 1 second to 9 hours, 59 minutes, 59 seconds.

VORTEX: Vortex speed can be programmed from 200 to 2,200 RPM; vortex temperature can be programmed from 15.0 to 99.0°C, vortex time is programmable from 1 second to 10 minutes.

SUSPEND: Provides the ability to suspend assay preparation while the user performs some operation, such as adding reagents, performing wash, etc. After placing the samples back on the instrument, the protocol can be resumed by pressing the "Continue" key. Suspend segment temperature can be programmed from 15.0 to 99.0°C, suspend time is programmable from 1 second to 9 hours, 59 minutes, 59 seconds, or can be programmed to suspend until the operator selects the continue function.

Protocol results are transmitted over the rear panel RS-232 serial port, and can be captured using a personal computer.

To place an order, or for information:

Toll free in the U.S.: (800) 551-1415

Outside the U.S., or local: (203) 288-3523

Fax: (203) 288-2621

E-mail: sales@mgminstruments.com

Website: <http://www.mgminstruments.com>