Precision Syringe Pump Accessories

Sensaphone® Remote Monitoring Systems





















- Monitor your experiments while away from the lab
- Ideal for use with our Syringe Pumps and Fluid Delivery Systems
- Alarms communicated via phone, page, fax and/or email
- Choose from two easily programmable and versatile systems

Harvard Apparatus is pleased to announce a new line of remote monitoring systems. Now you can remotely monitor critical components, such as syringe pumps and fluid delivery systems. The remote monitoring system will report to you critical data wherever you are and whenever you need it. This system gives you the ability to identify critical variations in conditions when no one is on hand to

observe them directly. Once a fault has been detected the monitoring system can phone, page, fax and/or email alarms to your attention. The systems also offer customizable voice messages, data radio and cellular communication, data and event logging.

The Sensaphone® 1104 system can monitor temperature, humidity levels, intrusion, water seepage, power or HVAC system failure. The 1104 provides four alarm inputs and four phone numbers. This dependable monitoring system integrates a keypad for easy programmability and has a built-in microphone. When monitoring our syringe pumps, an adapter component is needed. This unit includes a nonvolatile memory and 24- hour battery backup with user installed batteries.

We also offer the Sensaphone® 2000 system that features the most advanced communication features you could ask for. This system combines a sophisticated monitor with user-recorded alarm messages and flexible dial out capabilities to fax machines, pagers, email and computers. This system even generates web pages. This unit comes with eight universally configurable inputs, plus built-in power monitoring, battery level monitoring and nonvolatile memory with an optional battery backup designed for Ni-Cad batteries. The Sensaphone® 2000 can be programmed to communicate with up to 32 destinations to deliver alarm messages or status reports. With its massive internal data logging features it can store up to 32,000 time stamped records of selected inputs, power and/or battery voltage. The Sensaphone® 2000 comes with all the software you will need to communicate, report, and poll data and create web pages.

Also choose from several optional accessories. The Water Detection Sensor can be used with both Sensaphone® models to detect the presence of water on a horizontal surface. This unit is powered by internal lithium batteries, and multiple sensors can be wired in series to a single



input. The Weatherproof Temperature Detection Sensor Probe can also be used with both Sensaphone® models to monitor actual temperature from 4.4 to 79.4° C (40 to 175° F) and is accurate to $\pm 0.56^{\circ}$ C ($\pm 1^{\circ}$ F). The probe measures (L x Dia.) $5.08 \times 0.64 \text{ cm}$ (2 x 0.25 in), and is enclosed in a stainless steel housing with a moisture-resistant seal. It includes a mounting clip and 3.66 m (12 ft) of wire.

To use the Sensaphone[®] 1104 System with a Harvard Apparatus Pump, please order the Connection Cable BS4 72-7577. The Sensaphone® 2000 System does not require a connection cable.

Specifications

	Sensaphone® 1104	Sensaphone® 2000
Alarm Inputs	4 Dry Contact or Temperature	8 Universal
Sound Monitoring	Yes	No
Power Monitoring	Yes	Yes
Temperature Sensing Range	–20 to 150° F	–58° to 176° F
Voice Alarm messages	Yes	Yes
Programmable Voice	No	Yes
Built-In Modem	No	Yes
Fax Reporting	No	Yes
E-mail Reporting	No	Yes
Alphanumeric Pager	No	Yes
Numeric Pager	Yes	Yes
Dialout Phone Numbers	4	32
Programming:		
Local Keypad	Yes	No
LCD	No	N/A
PC Direct Connect	No	Yes
Remote Touch-Tone	No	No
Remote Data	No	Yes
Data Logging	No	Yes
Battery Backup Time	24 hrs	10 to 15 hrs
Enclosure	Plastic	Aluminum
Dimensions, H x W x D	5.1 x 19.1 x 21.6 cm (2.0 x 7.5 x 8.5 in)	18.3 x 30.7 x 4.1 cm (7.2 x 12.1 x 1.6 in)
Power	120 VAC 60 Hz, 15 W	External transformer 120 VAC 60 Hz, 10 W
Batteries (not included)	(6) 1.5 V "D" cell alkaline	(6) C-cell Rechargeable Ni-Cad
Operating Range	0 to 48.9° C (32 to 120º F)	0 to 50° C (32 to 122° F)

Product Catalog No.

BS4 72-7573	Senesaphone® 1104
BS4 72-7574	Sensaphone® 2000
BS4 72-7575	Water Detection Sensor
BS4 72-7576	Temperature Detection Sensor Probe

BS4 72-7577 Connection Cable for Sensaphone® 1104 to Pump