



## Gas Sampling System

Designed with the latest in high-pressure gas component and patented laser particle counting technologies, the Lighthouse *Gas Sampling System* allows sampling of high pressure (30-150 psi) inert gas systems, such as Helium, Nitrogen, Argon and CO<sup>2</sup>, with a sensitivity of 0.10µm at 1 CFM (28.3 LPM).

As the industry's only true portable 0.10µm system and having an exceptionally low operating noise level and small footprint, the Lighthouse *Gas Sampling System* allows portable or fixed installations in areas where diffusers were thought impractical.

The *Gas Sampling System* zero counts quickly and will not induce spurious or random 0.1µm counts due to oscillations as other designs can.

The *Gas Sampling System*'s Stainless Steel design is rugged and reliable. The 5.7" color touch screen makes set up and operation easy. During normal operation, no inert gas is wasted - 100% of the gas supplied is used

# Designed and built by Lighthouse - a name you can trust.

Lighthouse is an ISO 9001:2000 Registered Company

www.golighthouse.com

#### Features:

- ★ True 0.10µm Particle Detection at 1 CFM
- ★ 8 Particle Size Channels from 0.10 to 5.0µm
- ★ May be Used with Any Inert Gas Including Helium
- ★ Meets JIS B 9921 Standard
- ★ Intuitive User Control
- ★ Customizable Gas Recipes
- ★ Color Touch Screen Display
- ★ Built-in Thermal Printer
- ★ 3,000-Record Storage Memory
- ★ Removable, Rechargeable Li-Ion Battery
- ★ Auto Flow Rate Control
- ★ Fast Purge and Cleanup
- ★ Simple Installation and Operation
- ★ Stainless Steel Construction
- ★ VCR Fittings Internally and Externally
- **★** Quiet Operation

#### Benefits:

- ★ Portable or Fixed Applications
- ★ Output at Near Atmospheric Pressure
- ★ Low Operating Noise & Reduced Sample Times
- ★ Zero Gas Wasted During Normal Operation
- ★ Low Cost of Ownership
- ★ 2 Year Warranty
- ★ International Sales and Service Support



User-Customizable
Gas Sample Recipes



Optional Li-Ion Battery



Zoom Screen Functionality



User Friendly Configuration



Alphanumeric Location Labels



Easy Loading Thermal Printer



### System Specifications:

Size Range:  $0.10\mu m - 5.0\mu m$ 

**Channel Sizes:** Standard: 0.10, 0.15, 0.2, 0.25, 0.3, 0.5, 1.0, 5.0µm

**Flow Rate:** 1.0 CFM (28.3 LPM)

Counting Efficiency: 50% @ 0.1µm; 100% for particles > 0.15µm (per JIS B 9921)

**Light Source:** Enhanced Active Cavity 633nm HeNe Laser

**Zero Count Level:** <1 count / 5 minutes, per JIS B 9921

Concentration Limits: 40,000 Particles / ft<sup>3</sup> @ 5% Coincidence Loss

Calibration: NIST Traceable

Count Modes: Automatic, Manual, Beep, Concentration, Cumulative/Differential, Real Time (with LMSNet or

LMS Express RT/RT+ software)

**Data Storage:** 3,000 Sample Records, Rotating Buffer (particle and environmental data with location and time)

Communication Modes: RS-232 via RJ-45 to PC, RS-485/MODBUS

Supporting Software: LMS XChange, LMS Express, LMS Express RT and RT+, LMSNet

**4-20mA Analog Sensors:** Up to 4 Optional Sensors (Temperature/Relative Humidity, Air Velocity and Differential Pressure)

Touch Screen Display: 5.7-inch (14.47 cm) Color, 320x240

**Printer:** Built-in Thermal Printer

Enclosure, Both: Stainless Steel

Alarms: Integrated Adjustable Alarm and External Alarm Connector. Alarms on Counts, Low Battery, Sensor

Failure

Sample Output: Internally Filtered to HEPA Standards (>99.997% @ 0.3μm)

Vacuum Source: Internal Pump, Automatic Flow Control

**Power:** 100-240 VAC, 50-60 Hz

SOLAIR Battery: Optional Internal Li-lon Removeable/Rechargeable Battery

**Dimensions:** SOLAIR: 20.5" (I) x 8.0" (w) x 8.75" (h) [52.07 x 20.32 x 22.23cm]

HPC1100: 5.61" (w) x 7.57" (h) x 10.32" (d) [14.22 x 19.30 x 26.21 cm]

Weight: SOLAIR: Without Battery: 24.5 lb (11.14 kg) With Battery: 28 lbs (12.70 kg)

HPC1100: 6 lbs (2.7 kg)

Compatible Gasses: Nitrogen, Argon, Helium, CDA, CO<sup>2</sup>

Output Pressure: Near Atmospheric

Input Pressure: 30-150 psi
Operating Noise Level: <60 db

#### Accessories:

Included: Sample Tubing; VCR seals; Nylon Nut and Ferrule Set; Operating Manual on CD; LMS XChange

Optional: Additional Sample Tubing; 1/4-inch Female Coupling Body Fitting; Welded Stainless Steel In-Line

1/4-inch Filter (0.5µm, 2µm, 7µm, 15µm); LMS Express, LMS Express RT and RT+, LMSNet Software;

Additional Cabling; Network Adapter; Wireless Adapter; Printed Operating Manual

Manufactured by:



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Distri	bute	ed by	y:
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Lighthouse Worldwide Solutions reserves the right to change specifications without notice.

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