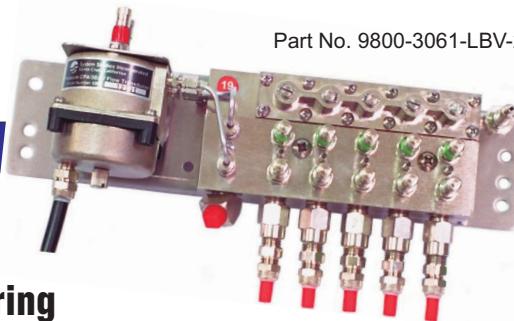


# Manifold Monitoring Assembly

Part No. 9800-3061-LBV-2

**The ultimate in convenience, performance and reliability for field site air distribution and monitoring**



The Manifold Monitoring Assembly designed by System Studies Incorporated is a serious leak locating and maintenance tool. Incorporating the latest flow measurement technology, it represents a major breakthrough in air flow distribution and monitoring.

There are four models of the Manifold Monitoring Assembly. Each consists of a stainless steel mounting bracket with either a High Resolution Flow Transducer™ or High Resolution Dual Transducer™ and either one or two Flow Finder Manifolds™.

What sets this manifold assembly aside from conventional flow-monitored air pipe manifolds is the accuracy and versatility of the Flow Finder System of Measurement, and the unique monitoring characteristics of the High Resolution Transducers. Utilizing built-in Flow Finders for both manual and remote air flow measurements, the Manifold Monitoring Assembly offers extended reading ranges and unsurpassed measurement accuracy. And, when ordered with a Dual Transducer, the assembly provides you with a means of monitoring air pipe delivery pressure at the manifold location.

## Monitoring Versatility

The Manifold Monitoring Assembly's Flow Finder Manifold(s) is available in a variety of Flow Finder™ ranges to meet the needs of your system. For example, in metropolitan areas where high flow rates are common, the manifold's input port can be equipped with a 0-95 Standard Cubic Feet per Hour (SCFH) Flow Finder (to measure input from the air pipe). Each output port can be equipped with a 0-19 SCFH Flow Finder to measure the flow to the cable.

Flow Finder Manifolds can be ordered in four Flow Finder ranges: 0-9.5, 0-19, 0-47.5 and 0-95 SCFH. You select the input and output flow ranges that best meet your system needs (see accompanying ordering chart). Each of the Flow Finders provides twice the indicated flow value when read by the transducer or manually with a Flow Gauge™.

The High Resolution Flow or Dual Transducer is pre-connected to the input Sampler Valves on the Flow Finder Manifold to provide accurate flow readings from 0-95 SCFH, plus extended two times reading capability. The Dual Transducer also provides pressure readings from 0-30 PSI with a reading resolution down to 0.1 Pounds per Square Inch (PSI). The ability to read up to 190 SCFH and 30 PSI respectively is especially important during emergency analysis situations.

What this versatility equates to is more control over pressure and flow alarming and significant advances in both reactive and proactive dispatching.

## Simplified Installation

The Manifold Monitoring Assembly is supplied with the High Resolution Transducer and Flow Finder Manifold(s) mounted to a stainless steel bracket. The bracket contains several mounting holes at each end to facilitate the installation process. Because components are pre-assembled and secured to the bracket, the installation process is relatively simple. It consists of the following procedures:

- Mounting the bracket to an access hole wall
- Hooking up the air pipe or tubing from the air pipe to the input port on the Flow Finder Manifold
- Installing pressure tubing from each cable to the Flow Finder Manifold's output ports
- Wiring conductors from the High Resolution Transducer to the assigned field device pairs (the High Resolution Transducer is equipped with an internal splicing cavity with pre-wired primary and spare pairs) Turning on the air flow ports on the Flow Finder Manifold to supply air feed to the cables

## Manual Flow Measurements—Fast and Easy

As a serious leak locating tool, the Flow Finder Manifold was designed to make manual flow measurement simple and easy. Flow readings are taken with a Flow Gauge at any of the manifold's built-in Flow Finder Sampler Valves. Unlike conventional air pipe manifolds that must be read by re-routing air through a portable flow rater, the Flow Gauge is able to sense the

## System Studies Incorporated



2-1340 East Cliff Drive  
Santa Cruz, CA 95062  
(831) 475-5777  
(800) 247-8255  
(831) 475-9207 FAX  
[www.airtalk.com](http://www.airtalk.com)

subtle pressure differential created by the Flow Finder's internal, calibrated orifice and convert it into an accurate air flow reading. There's no shutting off flow to the cable, no re-routing of air flow, and no need to worry about turning individual flow chambers back on after taking a reading. With the Flow Finder Manifold you simply attach the Flow Gauge sampler, select the appropriate color coded scale on the gauge face, and read the flow rate. If a gauge needle is pegged (off scale), just depress the "times two" button on the Flow Gauge, read the adjusted value, and multiply by 2. Extended and accurate flow measurements are possible with the push of a button.

## Monitoring Advantages

The Manifold Monitoring Assembly is an ideal field component for metropolitan areas. If flow increases are monitored only at the central office pipe alarm panels, subtle fluctuations in air dryer output can result in an excessive number of nuisance alarms.

With flow transducers installed in the field on the Manifold Monitoring Assemblies, the readings generated at these locations will be less affected by air dryer fluctuations and more representative of true field conditions. As a result, the flow transducers will accurately alarm for major cable leaks.

The High Resolution Dual Transducer's pressure sensor not only provides an extended monitoring range, but it enables you to set alarm levels to 0.1 PSI where the high air consumption characteristics of large metropolitan areas make accurate delivery pressure monitoring crucial. By installing the Manifold Monitoring Assembly with a High Resolution Dual Transducer, you'll be able to fine-tune alarm levels and respond more quickly and decisively to system threatening conditions.

## Ordering Specifications

The Manifold Monitoring Assembly is available in a number of configurations. Models 3061 and 3064 have one Flow Finder Manifold which feeds a total of five cables. Models 3062 and 3065 are equipped with two manifolds for a maximum of ten cables. These manifolds can be ordered in a variety of ranges to suit your specific needs. The Manifold Monitoring Assemblies are further distinguished by the type of electrical connection fitting installed on the transducer. Models 3061 and 3062 are supplied with nickel-plated brass conductor tubing connectors; models 3064 and 3065 are equipped with 37° stainless steel conductor tubing connectors. Either model can be ordered with either a High Resolution Flow or Dual (pressure and flow) Transducer.

In addition, several models of the Manifold Monitoring Assembly are available with a Pair Saver. This internally installed device makes it possible to connect a dual transducer to a single conductor pair.

The attached ordering chart describes the variety of product numbering, range, fitting and transducer type possibilities.

## Material

The assembly bracket material is .062 stainless steel. The Flow Finder Manifold is nickel-plated brass with a silicone rubber gasket. Fittings are nickel plated brass or stainless steel (depending upon model). High Resolution Flow or Dual Transducer is also constructed of nickel-plated brass with a mineral filled, nylon center barrier plate. Pneumatic tube between transducer and manifold is stainless steel, 1/8 inch (0.3 cm) O.D and 1/16 inch (0.16 cm) I.D. Wall thickness is approximately .035 inch (0.096 cm).

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The words Manifold Monitoring Assembly, Flow Finder Manifold, Flow Finder, Flow Gauge, and High Resolution Flow and Dual Transducers are trademarks of System Studies Incorporated.

Specifications subject to change without notification.

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