

# AM II-16/32

Aerosol Manifold



Manifold Pump

Control Box

Manifold Module

The AM II manifold offers advanced features for sequentially monitoring aerosol contamination at multiple locations with a fixed particle counter. The AM II is ideal for trend analysis and cleanroom verification when continuous monitoring is not needed.

## COMPATIBILITY

- Lasair® II or Lasair III particle counters, or IsoAir® PLUS particle sensor

## BENEFITS

### Cost Effective

- Most economical monitoring of fixed points at timed intervals
- Low cost per sample location
- Monitors a much larger area than a fixed particle counter
- Ethernet communications to facility monitoring system

### Flexible

- Easily programs a sampling routine, for either simple or complex sequences
- Automatically changes sampling recipe upon receiving alarm or external signal
- Large coverage area: each sample point can be up to 125 ft away

### Rapid and Accurate Measurements

- Patented flow control ensures the manifold properly compensates for manifold pressure drop, eliminating systematic particle undercounting of up to 15%
- Maintains constant flow (nominal 3 CFM) at each sample location to minimize gravitational particle settling
- With isokinetic sampling probes, captures particles at same velocity as sample air, preventing distortion in particle size relationships

## FEATURES

- Multiplexed monitoring of up to 32 locations with a single particle counter
- Controlled by Facility Net or Pharmaceutical Net software
- Programmable recipes and sample point sequences
- Assembly designed to eliminate contamination from valves
- Alarm for low vacuum; automatic shut-off for pump overheating

## APPLICATIONS

- Facility monitoring
- Monitoring large minienvironments
- Cleanroom verification and trend analysis

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Specifications

Manifold System	AM II-16	AM II-32
Sample ports	Max. 16, Min. 10	Max. 32, Min. 22
Operating range	Use in locations ISO 8 (Class 100,000) or cleaner 0.1 to 0.3 $\mu\text{m}$ particle counters: Use to simultaneously monitor ISO 3, 4, 5, and 6 (Classes 1, 10, 100, 1000) 0.5 to 5.0 $\mu\text{m}$ particle counters: Use to simultaneously monitor ISO 5, 6, 7, and 8 (Classes 100, 1000, 10,000, 100,000)	
<b>Manifold Pump</b>		
Pumps required	1 (single-phase)	1 (3-phase)
Flow rate	> 100 $\text{ft}^3/\text{min}$	> 150 $\text{ft}^3/\text{min}$
Safety provision	Automatic pump shutoff	Automatic pump shutoff
Power	105 – 125 VAC, 60 Hz or 220-240 VAC, 50 Hz 10.9 Amp, single-phase	415 – 480 VAC, 60 Hz 5.0 Amp, 3-phase
Dimensions (l, w, h); weight	10.6 x 11.2 x 16.2 in (27 x 28 x 41 cm); 42 lb (19 kg)	16.7 x 15.0 x 20.0 in (47 x 38 x 51 cm); 75 lb (34 kg)
<b>Manifold Module</b>		
Flow rate	1.5 – 3 CFM per port (nominal)	
Purge time (between ports)	15 sec recommended	
Cross talk (from other ports)	< 0.1%	
Sample tubing	Bev-A-Line XX <sup>®</sup> 1/2" OD, 3/8" ID (part # MI-153)	
Sample tubing length and bend	25' – 125' per port. Minimum 9" radius for Bev-A-Line XX <sup>®</sup>	
Fittings provided	16 (or 32) self-locking, 1/2" OD, Legris <sup>®</sup> (L-Legris) fittings	
Vacuum required	30" – 55" water	
Mounting orientation	Vertical; wall mounting bracket included	
Power	Provided by control box via controller cable	
Dimensions (l, w, h); weight	13.5 x 13.5 x 15.3 in (34 x 34 x 39 cm); 13.5 lb (6.1 kg)	
<b>Control Box</b>		
Controlling software	Facility Net/Pharmaceutical Net (purchased separately)	
Communications protocol	Ethernet	
Firmware setup modes	RS-232, Telnet	
Ethernet outlets (2)	Network/Primary sensor	
Automatic alarm	Inadequate manifold vacuum	
Mounting	Vertical or horizontal; built-in mounting holes	
Power	105 – 125 VAC, 60 Hz; 220 – 240 VAC, 50 Hz	
Dimensions (l, w, h); weight	7 x 8.5 x 12.5 in (18 x 22 x 32 cm); 11.5 lb (5.2 kg); painted steel box	
System operating conditions	Temperature: 59 – 95° (15 – 35 °C); Humidity: non-condensing	

#### System Components Included:

Manifold module, control box, pump, operations manual, power cord, control cable, wall-mounting bracket, monitor exhaust tubing, pressure sensor tubing, pump tubing, and clamps.

#### Not included:

Particle counter/sensor, ISPs, sample tubing, communications cables (manifold to counter/sensor), PC, Facility Net or Pharmaceutical Net software.

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