



MDH-SL2000I Ionization Duct Detector with Low-Flow Technology



MDH-SL2000P Photoelectric Duct Detector with Low-Flow Technology

## Description

Mircom's MDH-SL2000 Series Duct Smoke Detectors are available in 4-wire ionization and photoelectric models. The MDH-SL2000 Series Duct Smoke Detectors are the latest innovation for early detection of smoke and products of combustion present in air moving through HVAC ducts in Commercial, Industrial and Residential applications.

The MDH-SL2000 Series Duct Smoke Detectors are designed to prevent the re-circulation of smoke by the air handling systems, fans, and blowers. Complete systems may be shut down in the event of smoke detection.

Mircom's MDH-SL2000 Series feature Low-Flow technology which enables duct smoke detection through a broad range of airflow environments.

The MDH-SL2000 Series are designed and built to meet all local requirements, as well as the NFPA and ICC standards regarding HVAC supply and return duct smoke detectors. Output terminals are provided for a wide range of remote accessories such as horns, strobes, remote status indicators and test/reset key switches or push buttons.

## Features

- 4-wire Ionization and Photoelectric models with Low-Flow technology
- Both Ionization and Photoelectric models are listed for velocities between 100-4000 ft./min
- Operating voltages of 230VAC, 115VAC, 24VAC, 24VDC
- Both models listed for high temperature applications
- Interconnect up to 30 units for common functions
- Patented "No-Tools Required" front or rear loading and removing sampling/exhaust tubes
- Patented "Test Port" Valve allows for aerosol smoke testing without cover removal
- Clear cover fitted with four captive "No-Tools Required" thumbscrews
- Instantaneous cover removal trouble indication
- Staggered terminal blocks for easier wiring
- Flashing LED on detector head indicates normal operation
- Magnet test capability (magnet included)
- More wiring space than competitive models
- Footprint allows retro-fit in many applications without additional drilling
- Duct wall gaskets on back of enclosure are pre-installed
- Reset switch is also an alarm test switch - competitive models require a magnet or cover removal to test at unit
- Unit includes green pilot and red alarm visual indicators
- External mounting tabs do not require cover removal to install
- Colored cover gasket indicates proper seal
- Compact, lightweight size means easy handling and lower shipping costs
- Two sets of 10A form "C" alarm contacts
- One set of 2A form "A" alarm contacts
- One set of 10A form "C" trouble contacts
- Large terminal connection screws
- Standard interchangeable "plug-in" UL268 photoelectric or ionization heads
- Advanced detector head design yields internal dust filtering
- No additional screens or filters to clean
- Compatible with building automation and fire alarm systems

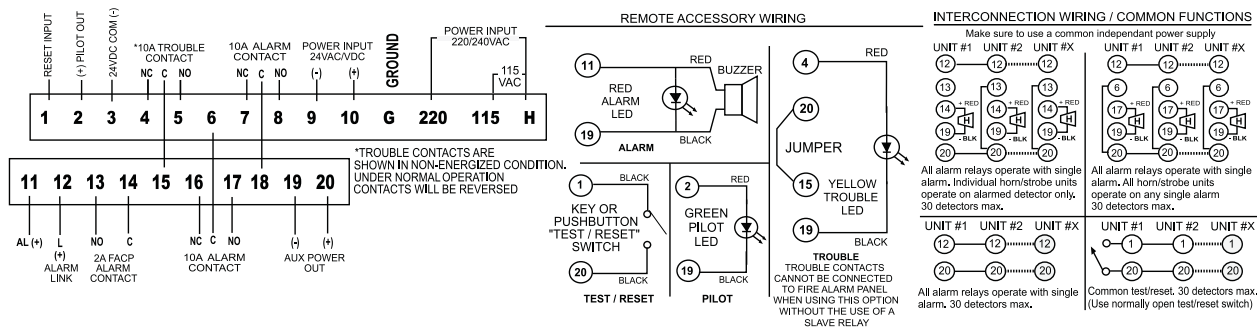


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## Engineer Specifications

- Air duct smoke detectors shall be Mircom MDH-SL2000 Series. For ionization detectors the model number is SL-2000I. For photoelectric detectors the model number is MDH-SL2000P. The detectors shall be listed by Underwriters Laboratories per UL 268A.
- The detectors shall operate at air velocities from 100 feet per minute to 4,000 feet per minute and at temperatures of no greater than 140°F (60°C).
- Visual indication of alarm and power must be provided on the detector front.
- A manual reset switch shall be located on front of the device.
- Detector head shall not require additional filters or screens which must be maintained, and shall include both a standby and alarm visual indication.
- The housing shall contain a detector base which will accept photoelectric or ionization detector heads.
- Terminal connections shall be of the screw type, a minimum of #6 screw (#12 to #22 AWG compatible). Terminals shall be provided for remote pilot, remote alarm indications, strobe/horn, and remote test/reset switch. All wiring must comply with local codes and regulations.
- A method of testing the alarm function with a magnet must be provided.
- A method of smoke testing the detector without removing the cover must be provided.
- All unit, remote accessory, and common function connection designations must be permanently affixed to the unit.
- Cover and sampling/exhaust tube installation or removal must not require the use of tools.
- Capability for interconnection of up to 30 units shall be provided for common functions.
- Sample and exhaust tubes shall be capable of removal/installation from the front and/or rear of the detector for inspection/maintenance.

## Wiring Diagram



## Specifications

### Power Requirements: (Without accessories)

<b>Standby:</b>	230VAC	12 mA
	115VAC	22 mA
<b>Alarm Current:</b>	24VAC	55 mA
	24VDC	14 mA
	230VAC	18 mA
	115VAC	32 mA
	24VAC	190 mA
	24VDC	68 mA

### Relay Contact Rating:

#### Alarm Contacts:

Resistive load: 2 sets form "C" rated at 10 Amps @ 115VAC

Resistive load: 1 set form "A" rated at 2 Amps

#### Trouble Contacts:

Resistive load: 1 set form "C" rated at 10 Amps @ 115VAC

### Air Velocity:

100 to 4,000 ft./min.

### Ambient Temperature:

Model MDH-SL2000I  
Model MDH-SL2000P

32°F to 158°F (0°C to 70°C)  
32°F to 140°F (0°C to 60°C)

### Humidity:

### Wiring:

### Material:

### Dimensions:

### Max. Net Wt.:

### Radioactive Element:

For MDH-SL2000I (Ionization) Americium 241; 0.9 Micro-Curie  
Do Not Expose to Corrosive Atmospheres

**Hardware:** 7" exhaust tube, sampling tube end cap, mounting template and mounting hardware included

## Ordering Information

Model	Description
MDH-SL2000I	4-wire Ionization Low-Flow Duct Smoke Detector
MDH-SL2000P	4-wire Photoelectric Low-Flow Duct Smoke Detector
MSTN-1.0	Sampling tube for 12" or less duct width
MSTN-2.5	Sampling tube for 6" to 2.5' duct width
MSTN-5.0	Sampling tube for 2.5' to 5.0' duct width
MSTN-10.0	Sampling tube for 5.0' to 10.0' duct width
MRTS-KAPR	Remote Station c/w Alarm LED, Pilot LED and Key Operated Test/Reset Switch

NOT TO BE USED FOR INSTALLATION PURPOSES.



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CAT. 5135  
Rev. 6