Mircom™

CONVENTIONAL SMOKE & HEAT DETECTORS MIR-65 SERIES

MPD-65P Photoelectric Smoke Detector

MHD-65-135 Heat Detector

MID-65I Ionization Smoke Detector

Features

- Wide operating voltage range
- Advanced electronics technology
- Flashing standby/steady alarm LED
- Magnetic test switch
- Low profile (1 5/8”H x 4”Dia.)
- Can be used on security systems
- Locking feature reduces tampering
- Designed to meet approvals worldwide
- Large range of bases available
- Separate head/base design allows interchangeability and ease of installation
- High RF, noise and insect immunity
- Available in 2 and 4 Wire Kits

Description

The MIR-65 Series incorporate proven sensing technologies, together with advances in materials and electronics technology. Having a wide operating voltage of 9-33VDC, the MIR-65 Series detectors can be integrated into most Fire/Security systems. The MIR-65 Series wide voltage range family consists of photoelectric smoke, ionization smoke, and heat detectors.

Ionization Smoke Detector Head (MID-65I)
The sensing part of the ionization detector consists of two chambers - an open outer chamber with a second semi-sealed reference chamber within. Mounted in the reference chamber is a low activity radioactive foil of Americium 241 which enables current to flow between the inner and outer chambers when the detector is powered up. As smoke enters the detector, it causes a reduction of the current flow in the outer chamber and, hence, an increase in voltage measured at the junction between the two chambers. The voltage increase is monitored by the electronic circuitry which triggers the detector into alarm state at a preset threshold. A highly visible external red LED flashes when the detector is in operational standby and changes to steady in alarm state.

Photoelectric Smoke Detector Head (MPD-65P)
The photoelectric detector incorporates a pulsing infra-red LED located in a chamber within the housing of the detector. The chamber is designed to exclude light from any external source. At an angle to the LED is a photo-diode which normally does not register the column of light emitted by the LED. In the event of smoke from a fire entering the chamber, the light pulse from the LED will be refracted into and registered by the photo-diode. If the photo-diode “sees” smoke on the two following pulses (alarm confirmation), the detector changes into the alarm state. A highly visible external clear LED flashes red when the detector is in operational standby and changes to steady red in alarm state. The clear LED allows for easy floor level detector type identification.

Fixed and Rate-of-Rise Heat Detector Head (MHD-65-135/MHD-65-200)
The heat detector operates by using a matched pair of thermistors to sense heat. One thermistor is exposed to the ambient temperature, the other is sealed. In normal conditions the two thermistors register similar temperatures; but, on the development of a fire, the temperature recorded by the exposed thermistor will increase rapidly, resulting in an imbalance that causes the detector to change into the alarm state. Rate-of-rise detectors are designed to detect a fire as the temperature increases, but they also have a fixed upper limit at which the detector will go into alarm if the rate of temperature increase has been too slow to trigger the detector earlier. A highly visible external red LED flashes when the detector is in operational standby and changes to steady in alarm state.

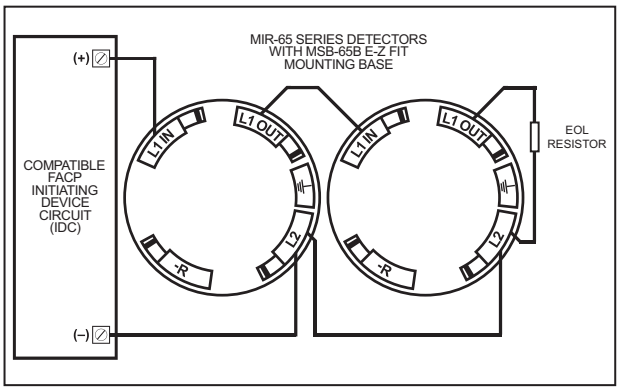
MIR-65 Series Bases
All MIR-65 Series bases have a “one-way-only” fit. The detectors are polarity sensitive and the bases are easy to wire. All bases have an earth ground connection and accept the provided standard head locking screw. MIR-65 Series relay bases are for use with control units having resetable 4-wire detector power supply and alarm initiating circuits. Where local codes allow, they may also be used in 4-wire circuits to provide volt-free control signals to auxiliary systems such as automatic door closers.

S6295
(MID-65I, MPD-65P, MSB-65B)
S6299
(MHD-65-135, MHD-65-200)

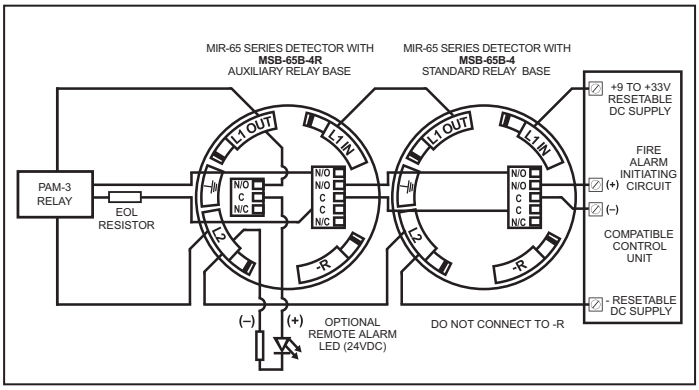
7271-1477:137
(MID-65I)
7272-1477:144
(MPD-65P)
7300-1477:143
(MSB-65B)
7270-1477:136
(MHD-65-135, MHD-65-200)

CATALOG NUMBER 5136

2-Wire Zone Circuit (Class “B” (Style “B”)



4-Wire Zone Circuit (Class “B” (Style “B”)



Specifications

MID-65I Ionization Smoke Detector

Features	Flashing Red LED in Standby / Magnetic Test Switch	
Supply Voltage	9 to 33VDC	
Average Current		
Standby	24VDC	55µA
(Without accessories)	9VDC	50µA
Alarm	24VDC	52mA
(Without accessories)	9VDC	17mA
Alarm Indication	Steady On Red LED	
Ambient Temperature	-4°F to 140°F (-20°C to 60°C) (No Condensation or Icing)	
Nominal Sensitivity	1.2%/ft.	
Max. Wind Continuous	32ft./sec.	
Radioactive Element	Americium 241; 0.9 Micro-Curie. Do Not Expose to Corrosive Atmospheres	

2-Wire E-Z Fit Base (MSB-65B)

Supply Voltage
Compatible FACP IDC

MPD-65P Photoelectric Smoke Detector

Features	Red Flashing Clear LED in Standby / Magnetic Test Switch	
Supply Voltage	9 to 33VDC	
Average Current		
Standby	24VDC	45µA
(Without accessories)	9VDC	40µA
Alarm	24VDC	52mA
(Without accessories)	9VDC	17mA
Alarm Indication	Steady on Red LED	
Ambient Temperature	-4°F to 140°F (-20°C to 60°C) (No Condensation or Icing)	
Nominal Sensitivity	2.5%/ft.	
Max Wind Continuous	Not Affected	

MHD-65-135/MHD-65-200 Fixed and Rate-of-Rise Heat Detectors

Features	Flashing Red LED in Standby / Magnetic Test Switch	
Supply Voltage	9 to 33VDC	
Average Current		
Standby	24VDC	55µA
(Without accessories)	9VDC	50µA
Alarm	24VDC	52mA
(Without accessories)	9VDC	17mA
Alarm Indication	Steady on Red LED	
Ambient Temperature	-4°F to 195°F (-20°C to 90°C) (No Condensation or Icing)	
Max Wind Continuous	Not Affected	

4-Wire Standard/Auxiliary Relay Bases (MSB-65B-4/MSB-65B-4R)

Supply Voltage	*9 to 33VDC
Ambient Temperature (No Condensation or Icing)	4°F to 158°F (-20°C to 70°C)
Max. Switching Power	30W, 50VA

Max. Switching Current	1A (Resistive Load)
Max. Switching Voltage	50VAC, 75VDC
Min. Capability	10µA, 10mVDC
Dropout Voltage	<6V

**For 4-Wire power compatibility, please refer to control panel’s power supply data.*

Ordering Information

Model	Description
MID-65I	MIR-65 Series Ionization Smoke Detector Head
MPD-65P	MIR-65 Series Photoelectric Smoke Detector Head
MHD-65-135	MIR-65 Series Fixed Temperature and Rate-of-Rise Heat Detector Head 135°F (57°C)
MHD-65-200	MIR-65 Series Fixed Temperature and Rate-of-Rise Heat Detector Head 200°F (190°C)
MSB-65B	MIR-65 Series 2-Wire E-Z Fit Base
MSB-65B-4	MIR-65 Series 4-Wire Standard Relay Base c/w Low Profile Skirt and Spanner Bar
MSB-65B-4R	MIR-65 Series 4-Wire Auxiliary Relay Base c/w Low Profile Skirt and Spanner Bar
MIR-65 Series Smoke Detector Kits	
MPD-65PK	MIR-65 Series Photoelectric Detector Kit c/w Photoelectric Detector Head and 2-Wire E-Z Fit Base
MID-65IK	MIR-65 Series Ionization Detector Kit c/w Ionization Detector Head and 2-Wire E-Z Fit Base
MPD-65PK-4	MIR-65 Series Photoelectric Detector Kit c/w Photo Detector Head and 4-Wire Standard Relay Base
MPD-65PK-4R	MIR-65 Series Photoelectric Detector Kit c/w Photo Detector Head and 4-Wire Auxiliary Relay Base

NOT TO BE USED FOR INSTALLATION PURPOSES.

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