

**MRI-4020 / MRI-4020-ISO
MULTI-SENSOR DETECTOR**

MRI-4020 / MRI-4020-ISO

Description

The MRI-4020/MRI-4020-ISO multi-criteria detector is a hardwired sensor that continuously monitors the environment to provide early warning of a fire condition and communicates with the panel using a fully digital protocol.

The MRI-4020/MRI-4020-ISO provides a higher level of nuisance alarm rejection as compared with single-criteria sensors leveraging both smoke and heat sensing elements.

The MRI-4020/MRI-4020-ISO works with a compatible fire alarm control unit supporting high rates of information exchange with reliable and secure bi-directional communication.

The detector is addressed and programmed using the MIX-4090 hand-held device. Addresses can be selected from a range of 1-240.

This detector ships with a dust cover to protect the device during installation and prior to commissioning.

Two tri-color LEDs on the device provide 360 degrees of status visibility.

A remote LED indicator can be wired directly to the sensor.

Features

- Any combination of MRI-4000 series devices up to 240 can be connected on a single SLC.
- Different LED colors for Alarms and Troubles.
- Detection of smoke using advanced software algorithms using complementary thermal sensor.
- Advanced protection against nuisance alarms caused by dust, insects or other debris
- Multiple sensitivity settings.
- Compatible with the full series of MRI-4000 input and control modules.
- The device can be secured by a unique Anti-Tamper feature.
- The address is set with the hand-held device programmer (MIX-4090)
- MODEL OPTION - Built-in short-circuit isolator (MRI-4020-ISO)

Benefits

- Open style mounting bases offer easy wiring and low pressure locking.
- 4" or 6" base options available.
- Remote output can be controlled by the panel.
- MRI-4020-ISO is equipped with a bi-directional short-circuit isolator to protect against wiring faults and loop failure.
- Low standby current.
- Base has detachable tab for labeling device address.
- Leverages interrupts to quickly report alarm conditions to fire alarm control panels.
- Magnet test option helps with commissioning and maintenance.



Technical Specifications

Normal Operating Voltage	15 to 30VDC
Maximum Alarm Current	3.2mA (LED on)
Standby Current	160µA
UL/ULC Listed Temperature Range	32°F to 100°F (0°C to 37.8°C)
Operating Temperature	15°F to 120°F (-9°C to 49°C)
Humidity	10% to 93% Non-condensing
Wiring range on terminals	22 to 12 AWG
Diameter	4.25"
Height	1.75"

Detector LED colors	Description	
RED (Steady on)	ALARM condition	
GREEN (Flash)	NORMAL condition	
AMBER (Steady on)	FAULT condition	
Heat Detection Settings		
135°F (57°C)		
135°F with rate of rise as per UL268		
Sensitivity Level	Typical	Note
LEVEL 1	2.0%/FEET	Most Sensitive level
LEVEL 2	2.5%/FEET	Sensitivity level
LEVEL 3	3.0%/FEET	Sensitivity level
LEVEL 4	3.5%/FEET	Least Sensitive Level

Ordering Information

Model	Description
MRI-4010	Photoelectric Smoke Detector (Non-Isolated)
MRI-4010-ISO	Photoelectric Smoke Detector (with short-circuit isolator)
MRI-4020	Multi-Criteria/Multi-Sensor (Non-Isolated)
MRI-4020-ISO	Multi-Criteria/Multi-Sensor (with built-in short circuit isolator)
MRI-4030	Heat Detector (Non-Isolated)
MRI-4030-ISO	Heat Detector (with built-in short circuit isolator)
MIX-4090	MIX-4000 Series Addressable Device Programmer
MRI-4001	6" Detector Base
MRI-4002	4" Detector Base