

Makes **Conventional**
Alarms **Obsolete™**

Models with
**IoPhic® Universal Sensing Technology®
& Patent Pending Microprocessor**

9 Volt Battery Operated 120 Volt AC/DC Hardwired
MDS300 MDS107 MDSCN111

Models with
Patent Pending Microprocessor

9 Volt Battery Operated 120 Volt AC/DC Hardwired
MP308 MI3050 MPI305
MP117 MI106 MPI116 MICN109 MPCN110

UNIVERSAL®
SECURITY INSTRUMENTS, INC.

Universal Security Instruments, Inc.
11407 Cronhill Drive, Suite A
Owings Mills, MD 21117 USA
1.800.390.4321

www.UniversalSecurity.com

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Makes **Conventional**
Alarms **Obsolete™**

The First Single Sensor Alarm to
Respond **87% Faster** to
Slow Smoldering Fires & Respond
Quickly to Fast Flaming Fires



PATENT PENDING
MicroProcessor

**&
Virtually Eliminates
Nuisance Alarms**



Model MDS107
Model MDS300

Alarms

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IoPhic® Smoke Alarms vs. Competitor Conventional Smoke Alarms






Types of Fires	Smoke Alarm Detection Capabilities	Competitor Products			
		IoPhic®	Ion	Photo	Ion/CO Ion/Photo
Paper, Grease	Quickly detects fast flaming fires	YES	Yes	No	Yes
Cigarette Burning	Quickly detects slow smoldering fires	YES*	No	Yes	No
Low Air Flow Smoke	Detects smoke during stratification	YES	No	No	No

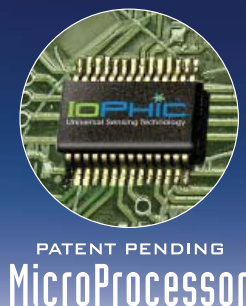
Patent Pending Microprocessor Features Virtually Eliminates Nuisance Alarms	Common Causes of Nuisance Alarms	Competitor Products			
		M Series & IoPhic®	Ion	Photo	Ion/CO Ion/Photo
Auto Calibration	Consistent sensitivity calibration during production	YES	No	No	No
Patent Pending Microprocessor	Ability to differentiate between a nuisance or real fire	YES	No	No	No
Self Diagnostic Test	Automatically performs a status check upon power up	YES	No	No	No
Ambient Condition Compensation	Adjusts alarm levels for changes in temperature & humidity	YES	No	No	No
Surface Mount Technology (SMT)	Robust electronic components	YES	No	No	No
Product End of Service Life Alarm	Product end of life to avoid increases in sensitivity due to aging	YES	No	No	No
Regulated Power Supply	Regulated power supply prevents fluctuations effecting sensitivity	YES	No	No	No
Louvered Ion Chamber	Compensation for air movements due to open window or fan	YES	Yes	No	Yes
Surface Mount Technology (SMT)	Resistance to radiated RF noise	YES	No	No	No

*Responds 87% Faster to Slow Smoldering Fires



Color Coded Product Selection Guide

TECHNOLOGY	ICON COLOR	TECHNOLOGY PERFORMANCE
IoPhic®		- Responds 87% Faster* to Slow Smoldering Fires & - Responds Quickly to Fast Flaming Fires
Ionization		- Responds Quickly to Fast Flaming Fires
Photoelectric		- Responds Quickly to Slow Smoldering Fires
CO		- Responds to Carbon Monoxide
Methane		- Responds to Natural Gas



Microprocessor Intelligence Virtually Eliminates Nuisance Alarms

Universal Security Instruments created its microprocessor software to virtually eliminate nuisance alarms caused by non-hazardous sources such as every day cooking smoke or steamy showers. Nuisance alarms are the leading reason given for disabled smoke alarms. Almost 50% of deaths attributed to fires were in homes without a functioning smoke alarm.

(Information from Center for Disease Control)

Microprocessor (M Series) Performance Features

Microprocessor Intelligence – loPhic® alarms measure the amount of smoke reaching the chamber and the rate in which the smoke is increasing or decreasing (rate of rise)

Ambient Condition Compensation – M Series alarms automatically adjust sensitivity for variations in room temperature and humidity conditions

Louvered Ionization Chamber – M Series alarms eliminate the effects of air turbulence from fans, open doors & windows

Regulated Power Supply – M Series alarms maintain power consistently and are not affected by fluctuations in AC power, caused by a power surge or brown out

Auto Sensitivity Calibration – M Series alarms are precisely calibrated during production, providing superior immunity to nuisance alarms

Self Diagnostic Test – M Series alarms perform a status check upon power up to ensure alarm is functioning properly

Surface Mount Technology (SMT) – M Series alarm components are SMT which is more reliable than through-hole components. SMT components minimize the antenna effect of radio frequency (RF) noise

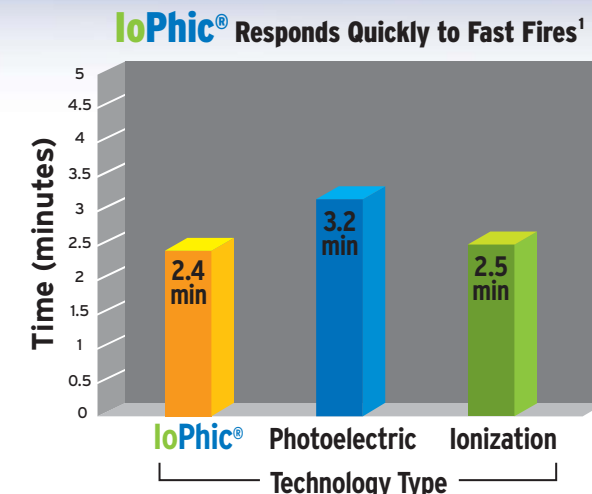
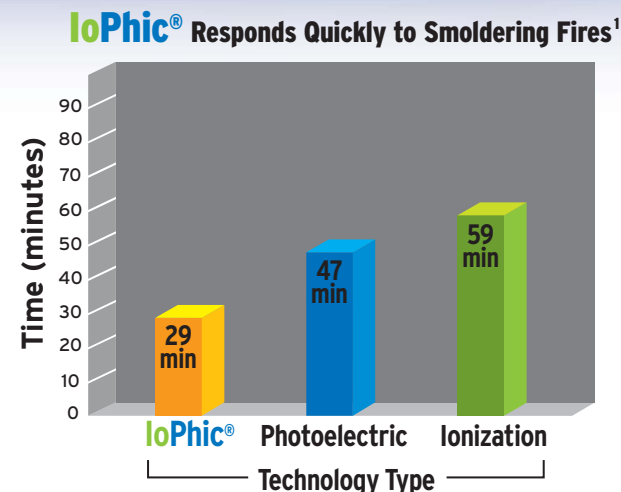
Product End-of-Service Life Warning – M Series alarms sound a warning when it is time for alarm replacement—approximately 10 years from the date of activation. This follows the NFPA recommendation for home alarm replacement. Old alarms become more sensitive, which can lead to nuisance alarms and removal of valuable life saving protection.

Additional Product Advancements

- Quick Find® Alarm Origination
- Front Load Battery Drawer
- Universal Mounting Bracket
- Quick Activation Battery-Pull Tab
- Single Silence/Test Button
- Interconnectable with all USI and Universal models



Installing **loPhic®** smoke alarms ensures maximum detection of both types of fires from a single sensor.



The National Fire Protection Association has long recommended both ionization and photoelectric smoke alarm technologies to be used in the home for optimum response to both fast flaming and slow smoldering fires.

loPhic® Universal Sensing Technology® responds to both types of fires—with **one** sensor, in **one** alarm.

loPhic® is an ionization alarm containing a patent-pending Universal Smoke Sensing Technology®.

loPhic® alarms are very effective at detecting fast flaming fires and also respond very quickly to slow smoldering fires—up to **87% faster*** than the maximum allowable alarm limit.

Ionization smoke alarms are typically more effective at detecting **fast flaming** fires—fires which consume combustible materials rapidly and spread quickly. Sources of these fires may include paper burning in a wastebasket, or kitchen grease fires. **Photoelectric** smoke alarms, on the other hand, are typically more effective at detecting **slow smoldering** fires—fires which burn for hours before bursting into flame. Sources of these fires may include cigarettes burning in couches or bedding.

loPhic® alarms are more affordable than dual sensor alarms, and even more affordable than most competitor's stand-alone photoelectric alarms.



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