

# The Next Generation of Fire Safety Solutions

## Product Catalog







# MTech Fire Detection Systems

*The first line of defense is protecting lives and property. MTech is committed to delivering intelligent cutting-edge fire safety solutions, that are accurate and design flexible.*

MTech Fire Detection Systems was established in 2012 to address a growing need for innovative fire safety and smoke detection solutions, suitable for the needs of the UL international markets in quality that meets the most rigorous fire safety standards.

Since then, MTech has focused on the design, development, and manufacturing of best-in-Class products. We've expanded our outreach to the international market, and have established a local presence in Trinidad & Tobago, Guyana in the Caribbean, and Uzbekistan in Central Asia.

Today, MTech's fire alarm systems are installed in numerous sites across the globe, including hospitals and medical facilities, airports, hotels, banks, shopping centers, sports arenas, public buildings, manufacturing, and high-tech.

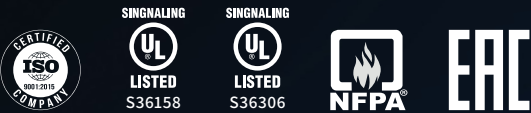
## Mission and Values

At MTech, our mission is to provide flexible, cutting-edge solutions and support to our clients, at the highest quality and shortest possible turnaround. Our team is made up of veteran engineers with over 20 years of combined experience in every aspect of the industry.

We bring forward thinking and innovation into everything we perform and tailor solutions to the specific needs of each client.

We believe that today, more than ever, companies require smart and flexible solutions and a partner that can provide an extra layer of assurance.

**We are that kind of partner.**



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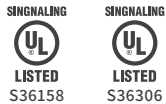
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# Analog Addressable SYSTEMS

The MTEch’s family of Analog Addressable products come together as a system, with numerous options that are customized to the needs of each site and project. It includes panels, detectors, interfaces, and other ancillaries that are fully compatible with each other and can be extended with products from our conventional product line.

The MA series of products feature networking capabilities and proprietary MTEch software that makes it easy to use and configure, from small-to-large-scale projects and sites.



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M-1, is MTech’s one-loop analog addressable fire alarm control panel that can support up to 126 XP95, Discovery, or 252 for Soteria analog addressable devices as well as a range of call points, detectors, interfaces, beacons, and loop sounders.

From small to medium projects. It is designed to support complex cause-and-effect programming and an extensive range of user-controllable functions.

Its components all operate as part of a fully integrated system, with the panel, detectors, interfaces, and other ancillaries working in full compatibility.



System Functionality:

- Multiple-stage and complex cause-and-effect programming: a wide range of user-controllable functions and three stages of cause-and-effect programming per output device which meets the needs of diverse projects and sites.
- Delivers full system integrity also in the event of an external short-circuit fault, so when a short-circuit is detected, isolators on the devices closest to the problem automatically isolate the fault and drive communication from both ends of the loop to sustain full communication with all system devices.
- System can be extended using local network communications to include conventional panels while maintaining full control of inputs and outputs from M-1.
- Complies with NFPA Standard 72 and Underwriters Laboratories UL864 10th Edition requirements. Certified and listed under The Standards Institution of Israel (SII).

Features & Benefits:

- Simple and comprehensive four-row graphic display.
- Easy to install and maintain.
- Internal self-testing device that is operated manually.
- Quick scan of connected detectors analog values, and report exported to Excel spreadsheet.
- Improved protection against false alarms (in case of ground fault or strong noise).
- Flexible programming abilities using virtual zones.
- 1-second response to an alarm or network failure.
- Isolated from noise.
- Protected from network communication data loss.
- Can be programmed on-site or by using the MTech site installer software on a PC.
- Automatically converts voltage from 110V to 220V and vice versa.

Technical Specifications:

Code	M-1
Description	Analog Addressable Fire Alarm Control Panel
Standards for Panels	SII1220 and TR TC EAC 043-2017
	Ready to work with UL267 7th Edition analog addressable smoke detector

Specification	
Panel Display	4-line x 16-character LCD, multilingual support
Panel Keyboard	Full numeric keyboard, Reset, Silence, Info, ACK, Enter, ESC, Navigation Rows
Panel Indication	LED indication: AC, Alarm, Trouble, Silence, Supervisory, Disable, Dialer Fault, Ground Fault and an addition 8 indications that can be configured by client
Sound	Internal alarm sounder
Number of Loops	1 SLC loop Class A
Loop Powered Outputs	700 mA power for loop
Addresses Per Loop	Up to 126 XP95 and Discovery addressable devices and up to 252 CoreProtocol addressable devices
Programming Port	USB port for PC communication
Output Ports	RS485 and RS232
Network	MA-NET network card for RS-485 network for communication up to 64 panels in network with global correlation matrix
	MA-NET TCP/IP - network card for TCP/IP network
Event History	LNET/RS-485 for communication of up to 32 Conventional MB-202, 204 and 208 panels or/and up to 4 remote annunciators MA-1050A per FACP
	Buffer for 2,000 events with date and time stamp and 10,000 events in MA-NET card buffer
Service	Built-in walk test

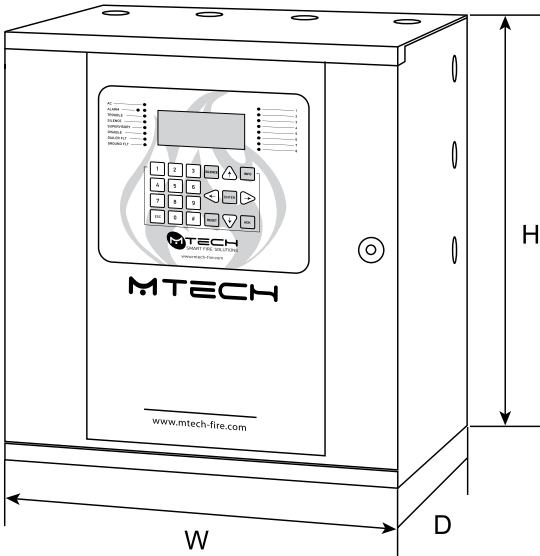
Power	
Input Voltage	Input 120VAC 3.2A/230VAC 1.6A; 50/60Hz
Operated Voltage	24VDC 6.5A
Battery	Two 12V 7Ah or two 12V 12Ah (dependent)

Input	
Programmable	Two addressable inputs on board
DRC	Dry contact control (for door tamper switches)

Output	
Panel Sounder Circuit	1 O/P NACs (600mA)
Panel Auxiliary Outputs	AUX 24VDC 2A, AUX resettable 24VDC 300mA
Panel Relays	alarm (1), trouble (1), programmable (3)

Physical	
Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 - 93% RH
Physical Construction	Metal box
Color	RAL 3000
Weight	7 kg
Ingress Protection	IP31
Cable Entries	top (4), right (3), left (1)

Compatibility	
Suitable for Use With	MTech MA Analog Addressable Fire Alarm Systems
	MTech MB Conventional Fire System
	MA-1050A Remote Annunciator
	MA-Monitoring Graphical Management Software



Dimensions:

W. 370 mm | H. 393 mm | D. 112 mm



Order Code:	
M-1	English version
M-1RUS	Russian version



**M1-AMP** - MTech's all-in-one solution integrates a one-loop analog addressable fire alarm control panel with an internal amplifier and push-to-talk palm speaker microphone.

M1-AMP can support up to 126 XP95, Discovery, or 252 for Soteria analog addressable devices as well as a range of call points, detectors, interfaces, beacons, and loop sounders. From small to medium projects. Designed to support complex cause-and-effect programming and an extensive range of user-controllable functions.

Its components all operate as part of a fully integrated system, with the panel, detectors, interfaces, manual audio notifications, and other ancillaries working in full compatibility.



System Functionality:

- Multiple-stage and complex cause-and-effect programming: a wide range of user-controllable functions and three stages of cause-and-effect programming per output device which meets the needs of diverse small-to-medium-scale projects and sites.
  - Delivers full system integrity also in the event of an external short-circuit fault, so when a short-circuit is detected, isolators on the devices closest to the problem automatically isolate the fault and drive communication from both ends of the loop to sustain full communication with all system devices.
- System can be extended using local network communications to include conventional panels while maintaining full control of inputs and outputs from MA-1.
  - Internal amplifier with a push-to-talk palm microphone for audio notifications and alerts.
  - Speaker consumption of up to 100W.
  - Complies with NFPA Standard 72 and Underwriters Laboratories UL864 10th Edition requirements. Certified and listed under The Standards Institution of Israel (SII).

Features & Benefits:

- Simple and comprehensive four-row graphic display.
  - Easy to install and maintain.
  - Internal self-testing device that is operated manually.
  - Quick scan of connected detectors analog values, and report exported to Excel spreadsheet.
  - Improved protection against false alarms (in case of ground fault or strong noise).
  - Flexible programming abilities using virtual zones.
  - 1-second response to an alarm or network failure.
  - Isolated from noise.
  - Protected from network communication data loss.
  - M1-AMP can be programmed on-site or by using the MTech site installer software on a PC.
  - All-in-one solution saving space and easy access.
  - Built-in amplifier for exceptional audio quality and clear audio.
  - Simple, safe, and reliable audio notifications and alerts.
  - Background music input which is overridden during emergency events and paging.
  - Priority for push-to-talk microphone.
- Multiple supervised emergency microphones for each entrance to the building.
  - Cost-efficient with simplicity.
  - User-friendly and convenient for reliable one-way communication.
  - Output selectable 100V or 70V.
  - Integrated field recordable digital evacuation message player.
  - 2 Line/Mic supervised priority inputs.
  - Auxiliary input for music PL 3.5mm.
  - Network supervised input-output.
  - Common trouble relay.
  - Message active relay for beacons.
  - LED indicators for all trouble and activation.
  - Volume regulators for all inputs.
  - Overheat and short-protected.
  - Build-in power supply 156W ,2x 12V 20AH maximum Battery.
  - RS485 LNet connection trouble and activation MTech network.
  - Capable of connecting gooseneck microphones.
  - Automatically converts voltage from 110V to 220V and vice versa.

Technical Specifications:

Code	M1-AMP
Description	Analog Addressable Fire Alarm Control Panel Integrated Amplifier MA-PAVA with Push-to-Talk Palm Speaker Microphone
Standards	SII 1220 and TR TC EAC 043-2017

Specification

Operating Voltage	24V
Quiescent Current	140mA
Sound Output	100V 100W
Frequency Response	ULC: 400 Hz to 4 kHz at -3 dB ULI: 800 Hz to 2.8 kHz
Harmonic Distortion	< 4%

Input

Microphone	Mic up to 30mV or Line up to 300mV
Programmable	Two addressable inputs on board
DRC	Dry contact control (for door tamper switches)
End-of-Line Device	MA-EOL
Configuration	Class B
Thermal Trip Point	150 °C
Panel Display	4-line x 16-character LCD, multilingual support
Panel Keyboard	Full numeric keyboard, Reset, Silence, Info, ACK, Enter, ESC, Navigation Rows.
Panel Indication	LED indication: AC, Alarm, Trouble, Silence, Supervisory, Disable, Dialer Dault, Ground Fault, and an additional 8 indications that can be configured by the end-user
Sound	Internal alarm sounder
Number of Loops	1 SLC loop Class A
Loop Powered Outputs	700 mA power per loop
Addresses Per Loop	Up to 126 XP95 and Discovery addressable devices and up to 252 CoreProtocol addressable devices
Programming Port	USB port for PC communication

Output

Output Ports	RS485 and RS232
Panel Sounder Circuit	1 O/P NACs (600mA)
Panel Auxiliary Outputs	AUX 24VDC 2A, AUX resettable 24VDC 300mA
Panel Relays	Alarm (1), trouble (1), programmable (3)

Network	MA-NET network card for RS-485 network for communication up to 64 panels in network with global correlation matrix
	MA-NET TCP/IP - network card for TCP/IP network
	LNEXT/RS-485 for communication of up to 32 Conventional MB-202, 204, and 208 panels or/and up to 4 remote annunciators MA-1050A per FACP
Event History	Buffer for 2,000 events with date and time stamp and 10,000 events in MA-NET card buffer
Service	Built-in walk test

Power

Input Voltage	Input 120VAC 3.2A/230VAC 1.6A; 50/60Hz
Operated Voltage	24VDC 6.5A
Battery	Two 12V 7Ah or two 12V 12Ah (dependent)

Physical

Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 - 93% RH
Physical Construction	Metal box
Weight	7kg
Color	RAL 3000
Ingress Protection	IP31
Cable Entries	top (4), right (3), left (1)

Compatibility

Suitable for Use With:	MTech MA Analog Addressable Fire Alarm Systems
	MTech MB Conventional Fire Systems
	MA-1050A Remote Annunciator
	MA-Monitoring Graphical Management Software

Dimensions:

W. 370 mm | H. 393 mm | D. 112 mm

Order Code:

M1-AMP





**MA-1** is MTech’s multi-loop analog addressable fire alarm control panel that can include up to 10 loops, with each loop supporting 126 XP95 and Discovery or 252 Soteria analog addressable devices, as well as a range of call points, detectors, interfaces, beacons, and loop sounders.

With a large capacity, it is designed to support complex cause-and-effect programming and an extensive range of user-controllable functions. Its components all operate as part of a fully integrated system, with the panel, detectors, interfaces, and other ancillaries working in full compatibility.

The MA series of products features networking capabilities and proprietary MTech software, that makes it easy to use and configure, from medium projects to the largest sites.



System Functionality:

- Multiple-stage and complex cause-and-effect programming: a wide range of user-controllable functions and three stages of cause-and-effect programming per output device which meets the needs of diverse, medium-to-large-scale projects.
- Full system integrity also in the event of an external short-circuit fault: when a short-circuit is detected, isolators on the devices closet to the problem automatically isolate the fault and drive communication from both ends of the loop to sustain full communication with all the system’s devices.
- System can be extended using local network communications to include conventional panels while maintaining full control of inputs & outputs from the MA-1.
- Complies with NFPA Standard 72 requirements Listed by Underwriters Laboratories under the UL864 10th Edition, and certified and listed under The Standards Institution of Israel (SII).

Features & Benefits:

- Simple and comprehensive four-row graphic display.
  - Easy to install and maintain.
  - Internal self-testing device that is operated manually.
  - Quick scan of connected detectors analog values, and report exported to Excel spreadsheet.
  - Improved protection against false alarms (in case of ground fault or strong noise).
  - Flexible programming abilities using virtual zones.
  - 1-second response to an alarm or network failure.
  - Isolated from noise.
  - Protected from network communication data loss.
  - Can be programmed on-site or by using the Mtech site installer software on a PC.
  - Automatically converts voltage from 110V to 220V and vice versa.
- \* Available in red or grey.

Technical Specifications:

Code	MA-1
Description	Analog Addressable Fire Alarm Control Panel, UOJZ.S36158
Standards for Panels	UL864 10th Edition, SII1220 and TR TC EAC 043-2017 Ready to work with UL267 7th Edition analog addressable smoke detector

Specification	
Panel Display	4-line x 16-character LCD, multilingual support
Panel Keyboard	Full numeric keyboard, Reset, Silence, Info, ACK, Enter, ESC, Navigation Rows
Panel Indication	LED indication: AC, Alarm, Trouble, Silence, Supervisory, Disable, Dialer Fault, Ground Fault and an addition 8 indications that can be configured by client
Sound	Internal alarm sounder
Number of Loops	1 SLC loop Class A with option to add up to 10-loops Class A
Loop Powered Outputs	700 mA power for loop
Addresses Per Loop	Up to 126 XP95 and Discovery analog addressable devices and up to 252 CoreProtocol analog addressable devices
Programming Port	USB port for PC communication
Output Ports	RS485 and RS232
Network	MA-NET network card for RS-485 network for communication up to 64 panels in network with global correlation matrix
	MA-TCP/IP - network card for TCP/IP network
Event History	LNET/RS-485 for communication of up to 32 Conventional MB-202, 204 and 208 panels or/and up to 4 remote annunciators MA-1050A per FACP
	Buffer for 2,000 events with date and time stamp and 10,000 events in MA-NET card buffer
Service	Built-in walk test

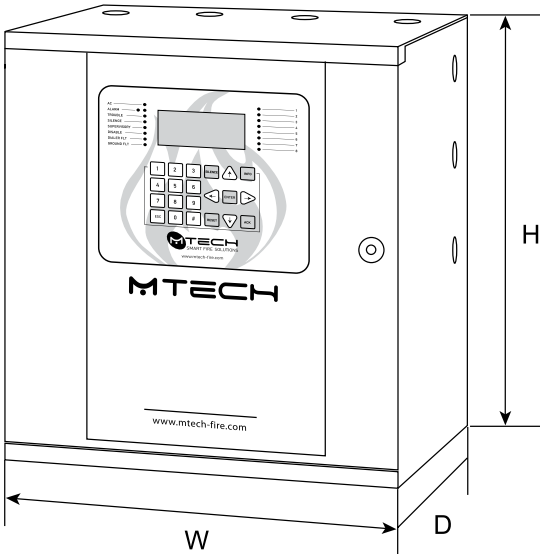
Power	
Input Voltage	Input 120VAC 3.2A/230VAC 1.6A; 50/60Hz
Operated Voltage	24VDC 6.5A
Battery	Two 12V 7Ah or two 12V 12Ah (dependent)

Input	
Programmable	Two addressable inputs onboard
DRC	Dry contact control (for door tamper switches)

Output	
Panel Sounder Circuit	1 O/P NACs (600mA)
Panel Auxiliary Outputs	AUX 24VDC 2A, AUX resettable 24VDC 300mA
Panel Relays	alarm (1), trouble (1), programmable (3)

Physical	
Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 to 93% RH
Physical Construction	Metal box
Color	RAL 3000 (Available in Red or Grey)
Weight	7 kg
Ingress Protection	IP31
Cable Entries	top (4), right (3), left (1)

Compatibility	
Suitable for Use With	MTech MA Analog Addressable Fire Alarm Systems
	MTech MB Conventional Fire Alarm Systems
	MA-1050A Remote Annunciator
	MA-Monitoring Graphical Management Software



Dimensions:

W. 370 mm | H. 393 mm | D. 112 mm

Order Code:	
MA-1	English version
MA-1RUS	Russian version





MA-1&AMP

Analog Addressable Fire Alarm Control Panel

with Integrated Amplifier & Push-to-Talk Palm Speaker Microphone

**MA-1&AMP** - MTech's all-in-one solution integrates a multi-loop analog addressable fire alarm control panel with an internal amplifier and push-to-talk palm speaker microphone.

MA-1&AMP can support up to 126 XP95, Discovery, or 252 for Soteria analog addressable devices as well as a range of call points, detectors, interfaces, beacons, and loop sounders.

Its components all operate as part of a fully integrated system, with the panel, detectors, interfaces, manual audio notifications, and other ancillaries working in full compatibility.



System Functionality:

- Multiple-stage and complex cause-and-effect programming: a wide range of user-controllable functions and three stages of cause-and-effect programming per output device, meeting the needs of diverse small-to-medium-scale projects and sites.
  - Delivers full system integrity also in the event of an external short-circuit fault, so when a short-circuit is detected, isolators on the devices closest to the problem automatically isolate the fault and drive communication from both ends of the loop to sustain full communication with all system devices.
- System can be extended using local network communications to include conventional panels while maintaining full control of inputs and outputs from MA-1.
  - Internal amplifier with a push-to-talk palm microphone for audio notifications and alerts.
  - Speaker consumption of up to 100W.

Features & Benefits:

- Simple and comprehensive four-row graphic display.
  - Easy to install and maintain.
  - Internal self-testing device that is operated manually.
  - Quick scan of connected detectors analog values, and report exported to Excel spreadsheet.
  - Improved protection against false alarms (in case of ground fault or strong noise).
  - Flexible programming abilities using virtual zones.
  - 1-second response to an alarm or network failure.
  - Isolated from noise.
  - Protected from network communication data loss.
  - MA-1&AMP can be programmed on-site or by using the MTech site installer software on a PC.
  - All-in-one solution saving space and easy access.
  - Built-in amplifier for exceptional audio quality and clear audio.
  - Simple, safe, and reliable audio notifications and alerts.
  - Background music input which is overridden during emergency events and paging.
  - Priority for push-to-talk microphone.
- Multiple supervised emergency microphones for each entrance to the building.
  - Cost-efficient with simplicity.
  - User-friendly and convenient for reliable one-way communication.
  - Output selectable 100V or 70V.
  - Integrated field recordable digital evacuation message player.
  - 2 Line/Mic supervised priority inputs.
  - Auxiliary input for music PL 3.5mm.
  - Network supervised input-output.
  - Common trouble relay.
  - Message active relay for beacons.
  - LED indicators for all trouble and activation.
  - Volume regulators for all inputs.
  - Overheat and short-protected.
  - Build-in power supply 156W ,2x 12V 20Ah maximum battery.
  - RS485 LNet connection trouble and activation MTech network.
  - Capable of connecting gooseneck microphones.
  - Automatically converts voltage from 110V to 220V and vice versa.

Technical Specifications:

Code	MA-1&AMP
Description	Analog Addressable Fire Alarm Control Panel
	Integrated Amplifier MA-PAVA with Push-to-Talk Palm Speaker Microphone
Standards	The Standards Institute of Israel (SII) 1220

Specification	
Operating Voltage	24V
Quiescent Current	140mA
Sound Output	100V 100W
Frequency Response	ULC: 400 Hz to 4 kHz at -3 dB ULI: 800 Hz to 2.8 kHz
Harmonic Distortion	< 4%

Input	
Microphone	Mic up to 30mV or Line up to 300mV
Programmable	Two addressable inputs on board
DRC	Dry contact control (for door tamper switches)
End-of-Line Device	MA-EOL
Configuration	Class B
Thermal Trip Point	150 °C
Panel Display	4-line x 16-character LCD, multilingual support
Panel Keyboard	Full numeric keyboard, Reset, Silence, Info, ACK, Enter, ESC, Navigation Rows.
Panel Indication	LED indication: AC, Alarm, Trouble, Silence, Supervisory, Disable, Dialer Dault, Ground Fault, and an additional 8 indications that can be configured by the end-user
Sound	Internal alarm sounder
Number of Loops	1 SLC loop Class A with option to add up to 10-loops Class A
Loop Powered Outputs	700 mA power per loop
Addresses Per Loop	Up to 126 XP95 and Discovery addressable devices and up to 252 CoreProtocol addressable devices
Programming Port	USB port for PC communication

Output	
Output Ports	RS485 and RS232
Panel Sounder Circuit	1 O/P NACs (600mA)
Panel Auxiliary Outputs	AUX 24VDC 2A, AUX resettable 24VDC 300mA
Panel Relays	Alarm (1), trouble (1), programmable (3)

Network	MA-NET network card for RS-485 network for communication up to 64 panels in network with global correlation matrix MA-NET TCP/IP - network card for TCP/IP network LNET/RS-485 for communication of up to 32 Conventional MB-202, 204, and 208 panels or/and up to 4 remote annunciators MA-1050A per FACP.
Event History	Buffer for 2,000 events with date and time stamp and 10,000 events in MA-NET card buffer
Service	Built-in walk test

Power	
Input Voltage	Input 120VAC 3.2A/230VAC 1.6A; 50/60Hz
Operated Voltage	24VDC 6.5A
Battery	Two 12V 7Ah or two 12V 12Ah (dependent)

Physical	
Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 - 93% RH
Physical Construction	Metal box
Weight	7kg
Color	RAL 3000
Ingress Protection	IP31
Cable Entries	top (4), right (3), left (1)

Compatibility	
Suitable for Use With:	MTech MA Analog Addressable Fire Alarm Systems MTech MB Conventional Fire Alarm Systems MA-1050A Remote Annunciator MA-Monitoring Graphical Management Software

Dimensions:

W. 370 mm | H. 393 mm | D. 112 mm

Order Code:	
MA-1&AMP	



**MA-1000A** is MTech’s intelligent analog addressable fire alarm control panel with a two-loop configuration that supports up to 126 XP95 and Discovery devices or up to 252 Soteria addressable devices per loop, as well as a variety of call points, detectors, interfaces, beacons, and loop sounders. All the components of the MA fire detection system family operate as part of a fully integrated system, with panels, detectors, interfaces, and other ancillaries working in full compatibility. The MA product series is easy to configure thanks to networking capabilities and proprietary MTech software.



System Functionality:

- Multiple-stage & complex cause-and-effect programming: a wide range of user-controllable functions and three stages of cause-and-effect programming per output device which meets the needs of diverse, small-to-large-scale projects.
- Full system integrity also in the event of an external short-circuit fault: when a short-circuit is detected, isolators on the devices closest to the problem automatically isolate the fault and drive communication from both ends of the loop to sustain full communication with all the system’s devices.
- Local network which extends MA-1000A to include conventional panels from Mtech’s range of products to the panel while maintaining the panel’s full control over all inputs and outputs for extinguishing and small office control.
- Complies with NFPA Standard 72 requirements and listed by Underwriters Laboratories under the UL864 10th Edition.

Features & Benefits:

- Simple and comprehensive four-row graphic display.
- Easy to install and maintain.
- Internal self-testing device that is operated manually.
- Quick scan of connected detectors analog values, and report exported to Excel spreadsheet.
- Improved protection against false alarms (in case of ground fault or strong noise).
- Flexible programming abilities using virtual zones.
- 1-second response to an alarm or network failure.
- Isolated from noise.
- Protected from network communication data loss.
- Can be programmed on-site or by using the Mtech site installer software on a PC.
- Automatically converts voltage from 110V to 220V and vice versa.

Technical Specifications:

Code	MA-1000A
Description	Analog Addressable Fire Alarm Control Panel, UOJZ.S36158
Standards	UL864 10th Edition, SII1220 and TR TC EAC 043-2017, Also available in UL864 9th Edition

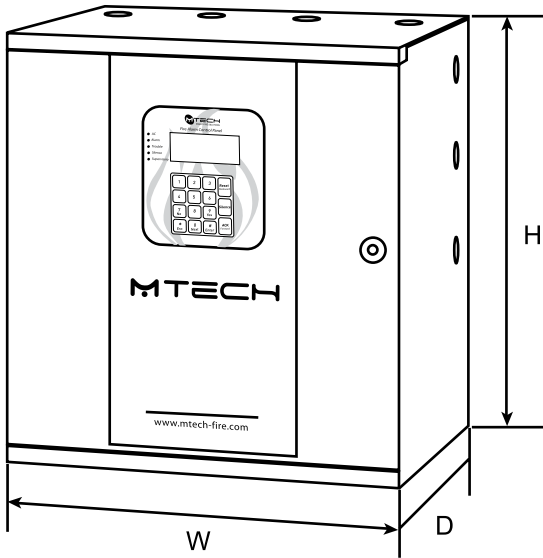
Specification	
Panel Display	4-line x 16-character LCD display, multilingual support
Panel Keyboard	Full numeric keyboard: Reset, Silence, Forward, ESC, Enter
Panel Indication	LED indication: AC, Alarm, Trouble, Silence, Supervisory
Sound	Internal alarm buzzer
Number of Loops	2 SLC loops Class A with option of 4-loop Class B operation
Loop Powered Outputs	700 mA power for loop
Addresses Per Loop	Up to 126 XP95 and Discovery analog addressable devices Up to 252 Soteria analog addressable devices
Programming Port	USB port for PC communication
Output Ports	RS485 and RS232
Network	MA-NET network card for RS-485 network for communication of up to 64 panels in a network with global correlation matrix
	MA-NET TCP/IP network card for TCP/IP network
	LNET/RS-485 for communication up to 32 conventional MB-202, 204 and 208 panels and/or up to 4 remote annunciators MA-1050A per FACP
Event History	Buffer for 2,000 events with date and time stamp as well as 10,000 events in MA-NET card buffer
Service	Built-in walk test

Power	
Input Voltage	Input 120VAC 3.2A/230VAC 1.6A; 50/60Hz
Operated Voltage	24VDC 6.5A
Battery	Two 12V up to 20Ah

Output	
Panel NACs	4 O/P NACs (600mA)
Panel Relays	alarm (1), trouble (1), programmable (3)

Physical	
Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 - 93% RH
Physical Construction	Metal box
Color	RAL 3000
Weight	7 kg
Ingress Protection	IP31
Cable Entries:	Top (4), right (11), left (2)

Suitable for Use With	MTech MA Analog Addressable Fire Alarm System
	MTech MB Conventional Fire Alarm Systems
	MA-1050A Remote Annunciator
	MA-1000FSCS Smoke Control System
	MA-Monitoring Graphical Management Software



Dimensions:

W. 370 mm | H. 393 mm | D. 112 mm

Order Code:	
MA-1000A	English version
MA-1000ARUS	Russian version





**MA-1000** is MTech's two-loop analog addressable fire alarm control panel that supports up to 200 MTech OEM/Cooper Eaton analog addressable devices per loop, as well as a combination of call points, detectors, interfaces, beacons, and loop sounders. The panel is suitable for a wide range of commercial and industrial applications. It assigns multiple addresses and uses spur-tolerant soft addressing to minimize installation time, removing the potential for errors associated with manual addressing. It saves the addresses of removed devices for future use, without affecting the remaining devices. All components of the MA fire detection system family operate as part of a fully integrated system, with panels, detectors, interfaces, and other ancillaries working in full compatibility. The MA product series is easy to configure thanks to networking capabilities and proprietary MTech software.



System Functionality:

- Multiple-stage & complex cause-and-effect programming: a wide range of user-controllable functions and three stages of cause-and-effect programming per output device which meets the needs of diverse, small-to-large-scale projects.
- Full system integrity also in the event of an external short-circuit fault: when a short-circuit is detected, isolators on the devices closest to the problem automatically isolate the fault and drive communication from both ends of the loop to sustain full communication with all the system's devices.
- Local network which extends MA-1000 to include conventional panels from MTech's range of products to the panel while maintaining the panel's full control over all inputs and outputs for extinguishing and small office control.
- Utilizes soft addressing during commissioning: addresses are locked until manually altered, enabling simple additions and deletions without affecting unrelated addresses.
- Designed to accommodate future expansion, also after initial programming of the system, by allocating the next available address without altering existing address-number allocations.
- Approved as a Releasing Panel according to UL864 10th Edition and NFPA 2001 requirements.
- Complies with NFPA Standard 72 and Standard 92 requirements and listed by Underwriters Laboratories under the UL864 10th Edition and in the UUKL for Smoke Control category.

Features & Benefits:

- Simple and comprehensive four-row graphic display.
- Easy to install and maintain.
- Internal self-testing device that is operated manually.
- Quick scan of connected detectors analog values, and report exported to Excel spreadsheet.
- Improved protection against false alarms (in case of ground fault or strong noise).
- 1-second response to an alarm or network failure.
- Isolated from noise.
- Protected from network communication data loss.
- Can be programmed on-site or by using the MTech site installer software on a PC.
- Each device includes an isolator (activates detector LED near break).
- Auto learning capabilities/automatic soft addressing of all installed devices on the loop.
- Includes loop-check function (checks the system for extra faulty or turned-off devices).
- Automatically converts voltage from 110V to 220V and vice versa.

Technical Specifications:

Code	MA-1000
Description	Analog Addressable Fire Alarm Control Panel, UOJZ.S36158
Extinguisher	Water releasing support, SYZV.S36158
Smoke Control	Dedicated/nondedicated system, UUKL.S36158
Standards	UL864 10th Edition, SII1220 and TR TC EAC 043-2017, Also available in UL864 9th Edition

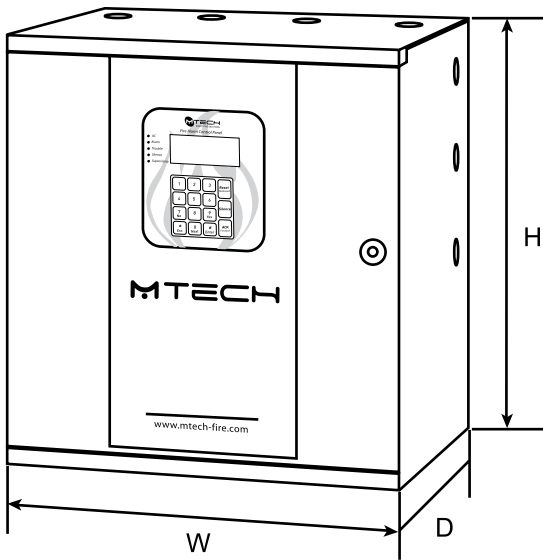
Specification	
Panel Display	4-line x 16-character LCD, multilingual support
Panel Keyboard	Full numeric keyboard: Reset, Silence, Forward, ESC, Enter
Panel Indication	LED indication: AC, Alarm, Trouble, Silence, Supervisory
Sound	Internal alarm buzzer
Number of Loops	2 SLC loops Class A with option of 4-loop Class B operation
Loop Powered Outputs	300 mA power for loop
Addresses Per Loop	Up to 200 analog addressable devices
Programming Port	USB port for PC communication
Output Ports	RS485 and RS232
Network	MA-NET network card for RS-485 network for communication of up to 64 panels in a network with global correlation matrix
	MA-NET TCP/IP network card for TCP/IP network
	LNET/RS-485 - for communication up to 32 conventional MB-202, 204 and 208 panels or/and up to 4 remote annunciators MA-1050A per FACP
Event History	Buffer for 2,000 events with date and time stamp and 10,000 events in MA-NET card buffer
Service	Built-in walk test

Power	
Input Voltage	Input 120VAC 3.2A/230VAC 1.6A 50/60Hz
Operated Voltage	24VDC 6.5A
Battery	Two 12V up to 20Ah

Output	
Panel Nacs	4 O/P NACs (600mA)
Panel Relays	5 relays: alarm (1), trouble (1), programmable (3)

Physical	
Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 - 93% RH
Physical Construction	Metal box
Color	RAL 3000
Weight	7 kg
Ingress Protection	IP31
Cable Entries:	Top (4), right (11), left (2)

Compatibility	
Suitable for Use With	MTech MA Analog Addressable Fire Alarm Systems
	MTech MB Conventional Fire Alarm Systems
	MA-1050A Remote Annunciator
	MA-1000FSCS Smoke Control System
	MA-Monitoring Graphical Management Software



Dimensions:

W. 370 mm | H. 393 mm | D. 112 mm

Order Code:	
MA-1000	English version
MA-1000RUS	Russian version



**MA-1050M** is MTech’s certified addressable power supply and battery charger that offers a robust and versatile power solution to installers, allowing them to safely power fire detection and signaling systems in small to large installations with up to three 24 VDC outputs. It operates with MTech’s Fire Alarm Control Panels (MA-1, MA-1000A, and MA-1000) and Apollo’s and Eaton’s addressable non-loop powered devices. It also can be used as a primary power supply for the MA-1050A network annunciator.



System Functionality:

- High usable current output.
- Battery/battery charging supervision.
- Complies with NFPA Standard 72 requirements, listed (pending) by Underwriters Laboratories under the UL864 10th Edition.

Features & Benefits:

- Comprehensive yet simple LED status indicators.
- Easy to install and maintain.
- 8 programmable LEDs.
- Reduced number of power supplies installed in a system.
- Product reliability and suitability for a variety of environments.
- Automatically converts voltage from 110V to 220V and vice versa.

Technical Specifications:

Code	MA-1050M
Description	Addressable Power Supply and Battery Charger, UOJZ.S36158
Standards for Panels	UL864 10th Edition, TR TC EAC 043-2017

Specification	
Panel Display	4-line x 16-character LCD, multilingual support
Panel Keyboard	Full numeric keyboard, Reset, Silence, Info, ACK, Enter, ESC, Navigation Rows
Panel Indication	LED indication: AC, Trouble, Silence, Ground Fault and additional 8 indications that can be configured by client
Sound	Internal alarm sounder
Network	MA-NET network card for RS-485 network for communication up to 64 panels in network with global correlation matrix

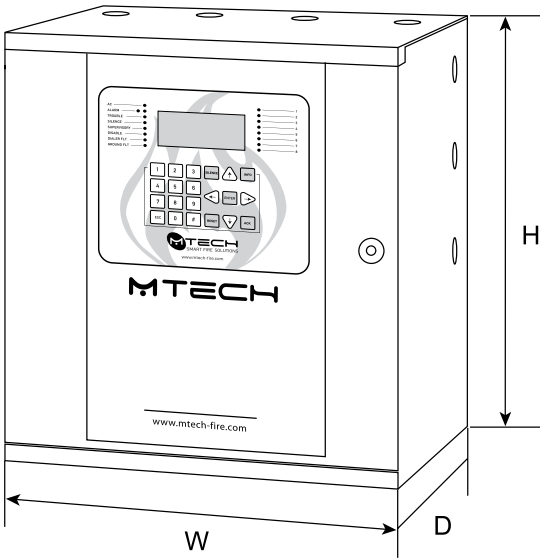
Power	
Input Voltage	Input 120VAC 3.2A/230VAC 1.6A; 50/60Hz
Operated Voltage	24VDC 6.5A
Battery	Two 12V 7Ah or two 12V 20Ah (dependent)

Output	
Power Supply Auxiliary Outputs	AUX 24VDC 2A,4A AUX resettable 24VDC 300mA

Physical	
Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 to 93% RH
Physical Construction	Metal box
Color	RAL 3000
Weight	7 kg
Ingress Protection	IP31
Cable Entries	top (4), right (3), left (1)

Compatibility

Suitable for Use With	MTech MA Analog Addressable Fire Alarm Systems
	MTech MB Conventional Fire Alarm Systems
	MA-1050A Remote Annunciator
	MA-Monitoring Graphical Management Software



Dimensions:

W. 370 mm | H. 393 mm | D. 112 mm

Order Code:	
MA-1050M	English version
MA-1050MRUS	Russian version





The **MA-1050A** is MTech’s remote annunciator, designed to work with all MTech’s intelligent MA and MB fire alarm control panels, indicating fire alarm events on its LCD display. Intended for installation in public areas e.g., hotels, lobbies, or restaurants where there may be a risk of damage to the main panel.

MA-1050A allows users to view the system’s events, manage alarms e.g., “ignore” mode, reset, and reboot the system. Any damage or failure of the MA-1050A annunciator will not affect the FACS or its operation.



System Functionality:

- Duplicates FACP display and control functions for complete remote management of fire control equipment.
- Includes 4-line-64-character backlit LCD display with a user-friendly system, messaging window, and keypad built into the main control panel.
- MA-1000 supports up to four additional remote annunciators with matching control and display layout.
- MA-1050A has full network capability via LNET on the FACP and requires only minimal panel programming.
- Authorized personnel can control the system and view history logs.
- Capability to disable/enable addressable devices on the FACP.

Features & Benefits:

- Simple, modern minimalistic design with a compact panel.
- Multilingual user interface (depending on actual LCD).
- Membrane keypad.
- Password protected.
- Large colored reset and silence keypad buttons.
- Surface-mount or flush-mount installation options.
- Repeats all display information from the host panel.
- Local sounder can be enabled or disabled in favor of FACP.
- Easy to install and operate.

Technical Specifications:

Code	MA-1050A
Description	Remote annunciator, fire alarm equipment UOXX.S36158
Standards	UL864 10th edition, SII1220 and TR TC EAC 043-2017

Specification

Panel Display	4-line x 16-character LCD, multilingual support
Panel Keyboard	Full numeric keyboard, Reset, Silence, Forward, ESC, Enter
Panel Indication	LED indication: AC, Alarm, Trouble, Silence, Supervisory
Sound	Internal alarm sounder
Programming Port	USB
Network	LNET/RS-485 up to 4 remote annunciators MA-1050A per MA or MB FACP
Event History	Buffer for 1000 events with date and time stamp

Power

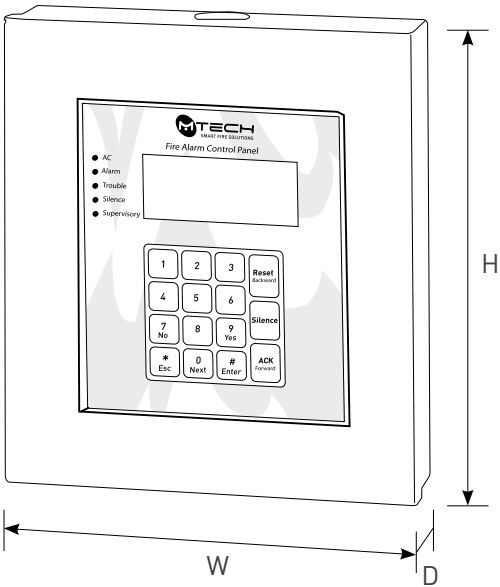
Operated Voltage	24VDC
Standby Current	36mA
Alarm Current	43.2mA

Physical

Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 - 93% RH
Physical Construction	Metal box
Color	RAL 3000
Weight	0.34 kg
Ingress Protection	IP31

Compatibility

Suitable for Use With	MTech MA Analog Addressable Fire Alarm Systems
	MTech MB Conventional Fire Alarm Systems



Dimensions:

W. 120 mm | H. 200 mm | D. 50 mm



Order Code:

MA-1050A	English version
MA-1050ARUS	Russian version



The **MA-1050NET** - A touch-screen annunciator, that provides a user-friendly functionality with an intuitive interface operation within a compact panel design, monitors all MTech's intelligent FACP, and displays all events as text or as an image on the graphic map.

**MA-1050NET** is intended to be installed in busy public areas, e.g., hotels, lobbies, or restaurants, where damage could occur to the main panel. The annunciator panel provides a clear picture of all events as a graphic representation of the protected area, on numerous levels: an entire building, a certain floor, or a specific room.

In addition, **MA-1050NET** is an industrial PC with pre-installed MA-Monitoring software, that allows users to customize the program with different settings, required images, and alert tone notifications that represent emergency functions requiring attention.

MA-1050NET is not a critical aspect of FACS's operation. Any damage to the annunciator or its failure does not influence the FACS condition or operation.

System Functionality:

- Wide range of touchscreen displays available, (10.4"-21") with MA-Monitoring Graphical Management Software.
- MA-1050NET permits multiple access levels.
- Indicates the location of all events on the building's graphic map.
- Allows control of all FACS parameters (device condition and analog values).
- Facilitates full information on current events and enables download of event history to PC in hypertext list form.
- Authorized personnel can also:
- Mute/silence/reboot & reset.
- View faults/disablements/alarms/history events/inputs/outputs & supervisory.
- View/enable/disable devices.
- Set network time and date.

Features & Benefits:

- Easy to install, operate, and service.
- Modern, minimal design.
- Remote control terminal.
- Monitoring software with interactive 3D maps & zone plans.
- Surface-mount or flush-mount installation options.



- Mimics all display data from the host panel.
- Local sounder can be enabled or disabled on the FACS.
- Intel Celeron Processor J1900, 2.0 GHz.
- Designed with aluminum die-casting front frame.

Technical Specifications:

Code	MA-1050NET
Description	Touch Screen Remote Annunciator, fire alarm equipment UOXX.S36158
Standards	UL 864 10th Edition/CE, FCC Class A

Specification

Panel Display	10.4"-21" touch screen displays
Sound	Internal alarm sounder
Network	RS-232 for connection to MA-NET
Operating System	Windows 10

Power

Operated Voltage	24VDC
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Physical

Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 - 93% RH
Physical Construction	Metal box
Weight	0.75 kg
Ingress Protection	IP31

Compatibility

Suitable for Use With	MTech MA Analog Addressable Fire Alarm Systems
	MTech MB Conventional Fire Alarm Systems
	MA-Monitoring Graphical Management Software

Dimensions:

W. 319 mm | H. 61.7 mm | D. 257 mm

Order Code:

MA-1050NET



# Analog Addressable SYSTEMS

NUMEROUS OPTIONS THAT  
CAN BE CUSTOMIZED TO ANY  
SITE OR PROJECT

SIGNALING



LISTED  
S36158

SIGNALING



LISTED  
S36306



**MA-320** - Addressable smoke detector with multiple options, designed for optimum functionality in mid-large-sized builds. This detector is soft-addressed and has an integral short-circuit isolator. We also offer a loop-connected remote indicator, designed for discreet remote indication and the ability to monitor multiple detectors. This helps to minimize wiring requirements.



System Functionality:

- Operates on low current with a built-in short circuit isolator.
  - Advanced LED design with an overview of 360°.
  - Illuminates continuously during a fire event.
  - Flashes verifying communication with the control panel.
  - Soft addressed.
  - Single address.
  - Monitors smoke level of the surrounding environment and transmits fire signal alarm if the smoke level exceeds the limit.
- Drift compensation.
  - Continuously transmits smoke level data and usability of the detector with the FACP.
  - Automatically receives address identification, either from FACP or can acquire a customized address from MA-100PRO (Programmer-Tester).
  - Guarantees device identification by automatically switching the LED indicator to a fixed LED mode, commanded from the FACP.

Features & Benefits:

- Quick, simple installation, operation, and service.
  - Modern, clean design.
  - Intelligent software that prevents false alarms.
  - Removable detector chamber.
  - Drift compensation.
- A click lock indicator ensuring the detector is correctly mounted on the base.
  - Two-second start-up and reset time.
  - Lockable option.

Technical Specifications:

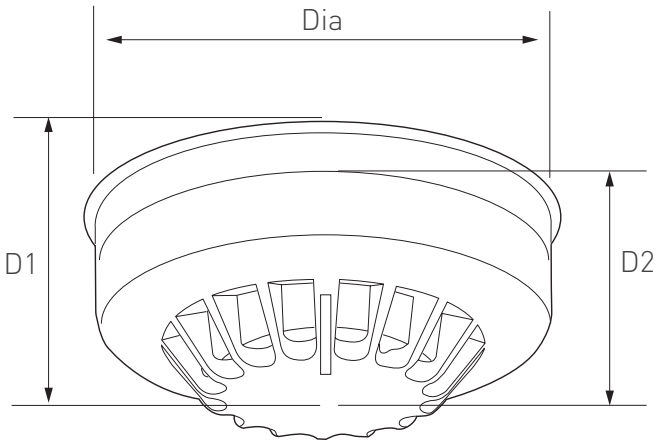
Code	MA-320
Description	Analog Addressable Optical Smoke Detector, UROX.S36306
Standards	UL268 6th edition, EN54-3, SII1220, TR TC EAC 043-2017

Specification	
Operating Voltage	18VDC to 30VDC
Standby Current	220µA (max)
Alarm Current	5mA (max)
Addressing Mode	Auto address
Mounting Position	Ceiling mount
Mounting Options	Addressable MA-300 detector base
	Addressable MA-BS sounder base
	Addressable MA-BSH sounder beacon base
Area Coverage	100m² (subject to local standard)
System Wiring	Min. 1.5mm, 2 core loop or spur
Indication	360° visibility light pipe

Environmental	
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical	
Construction	PC/ABS
Colour	White
Weight	0.120 kg

Compatibility	
Suitable for Use With	MTech MA Analog Addressable Fire Alarm Systems



Dimensions:

Dia. 104 mm | D1. 45 mm | D2 (Excl Base). 33 mm

Order Code:
MA-320



**MA-330** MA-330 - Multi-mode analog addressable heat detector. A reliable fire detection solution where ambient conditions might cause false alarms with smoke detectors, due to high levels of dust, fumes, steam, or smoke.

**MA-330** can operate in 3 modes: Rate of Rise, Fixed Heat 77°C, and Fixed Heat 90°C, and therefore can spike the rate and rise in temperature.



System Functionality:

- Operates on a low current.
  - Equipped with built-in short circuit isolator.
  - Advanced LED design with 360° viewpoint indicating detector status.
  - Illuminates continuously during fire events.
  - Flashes to indicate communication with the control panel.
- Soft addressed.
  - Single address.
  - Monitors the environment temperature and sends a fire alert to FACP if the temperature exceeds the limit.
  - Sends a signal to FACP if the detector requires maintenance.

Features & Benefits:

- Quick, simple installation, operation, and service.
  - Drift compensation.
  - A click lock indicator ensuring the detector is correctly mounted on the base.
  - Lockable option.
- Two-second start-up and reset time.
  - Continuous transmission of data to FACP provides instant detection of fire, which reduces the number of false alarms.
  - Variable alarm level from the control panel.

Technical Specifications:

Code	MA-330
Description	Analog Addressable Multi-Mode Heat Detector, UQGS.S36306
Standards	UL268 6th edition, EN54-3, SII1220, TR TC EAC 043-2017

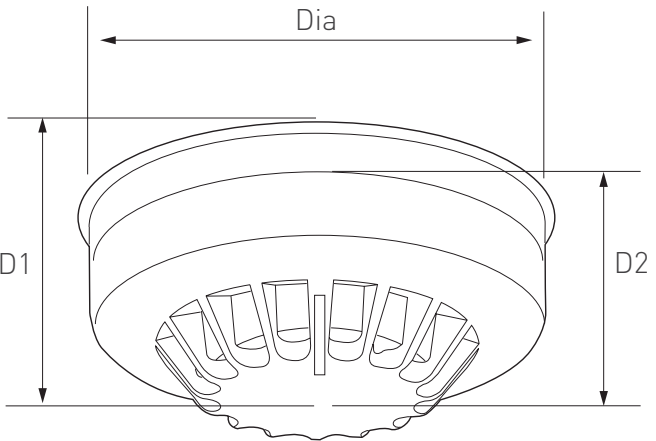
Specification	
Operating Voltage	18VDC to 30VDC
Standby Current	220µA (max)
Alarm Current	5mA (max)
Addressing Mode	Auto address
Mounting Position	Ceiling mount
Mounting Options	Addressable MA-300 detector base
	Addressable MA-BS sounder base
	Addressable MA-BSH sounder beacon base
Area Coverage	50m² (subject to local standard)
System Wiring	Min. 1.5mm, 2 core loop or spur
Indication	360° visibility light pipe

Heat Class	
Rate of Rise	A1R
Fixed Heat 77°C	BS
Fixed Heat 90°C	CS

Alarm Temperature (Static)	
AIR	60°C
BS	77°C
CS	90°C
Indication	360° visibility light pipe

Environmental	
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical	
Construction	PC/ABS
Colour	White
Weight	0.120 kg
Compatibility	
Suitable for Use With	MTech MA Analog Addressable Fire Alarm Systems





**Dimensions:**

Dia. 104 mm | D1. 55 mm | D2 (Excl Base). 43 mm

**Order Code:**

MA-330

SIGNALING  
  
S36306





**MA-340** - Advanced, multi-featured analog addressable photo-thermal detector, designed for use with MTech’s analog addressable fire alarm systems. Like the MA-320 smoke detector, it quickly detects fast burning and smoldering fires, whilst its heat sensors provide an additional alarm when temperatures reach 60°C and over. This is an additional layer of false alarm protection, as it uses an alarm threshold, which improves the rejection of many factors that cause common false alarms.



System Functionality:

- Operates on low current, with built-in short circuit isolators.
- Advanced LED design with a 360° view indicating detector status.
- Illuminates continuously during fire events.
- Flashes confirming communication with the control panel.
- Soft addressed.
- Single address.
- Monitors the temperature of the environment and emits a fire alarm to FACP if the temperature exceeds the limit.
- Monitors smoke volume in the air and transmits fire alarm when smoke volume exceeds a certain limit.
- Automatically adjusts the measured data of the smoke detector’s dust level, hence dust in the air or minimal smoke doesn’t cause false alarms.
- Warning signal is transmitted to FACP if the detector requires maintenance.

Features & Benefits:

- Quick, simple installation, operation, and service.
- Simple, modern clean design.
- Removable detector chamber.
- Drift compensation.
- A click lock indicator ensuring the detector is correctly mounted on the base.
- Two-second start-up and reset time.
- Day/night configuration from the control panel (heat for day and optical for night).
- Optional programming for cross-alarm from both heat and optical sensors.

Technical Specifications:

Code	MA-340
Description	Analog Addressable Multisensor Smoke and Heat Detector, UQGS.S36306
Standards	UL268 6th edition, EN54-3, SII1220, TR TC EAC 043-2017

Specification

Operating Voltage	18VDC to 30VDC
Standby Current	220µA (max)
Alarm Current	5mA (max)
Addressing Mode	Auto address
Mounting Position	Ceiling mount
Mounting Options	Addressable MA-300 detector base
	Addressable MA-BS sounder base
	Addressable MA-BSH sounder beacon base
Area Coverage	50m² or 100m² (subject to local standard)
System Wiring	Min. 1.5mm, 2 core loop or spur

Heat Class

Rate of Rise	A1R
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Alarm Temperature (Static)

AIR	60°C
Indication	360° visibility light pipe

Environmental

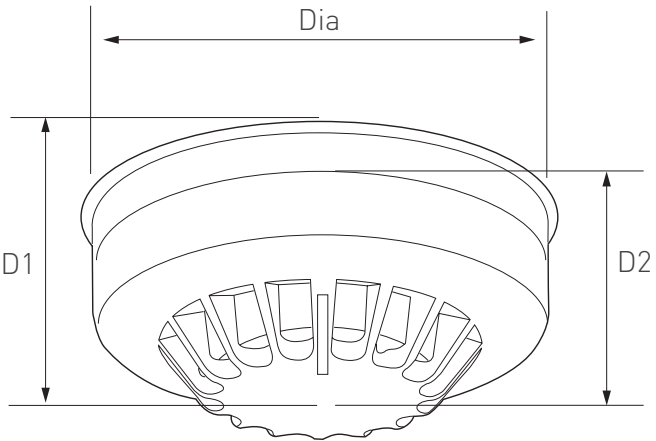
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical

Construction	PC/ABS
Colour	White
Weight	0.120 kg

Compatibility

Suitable for Use With	MTech MA Analog Addressable Fire Alarm Systems
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Dimensions:

Dia. 104 mm | D1. 55 mm | D2 (Excl Base). 43 mm

Order Code:

MA-340



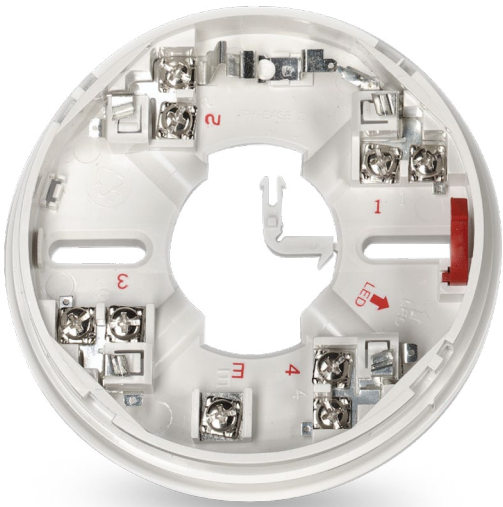
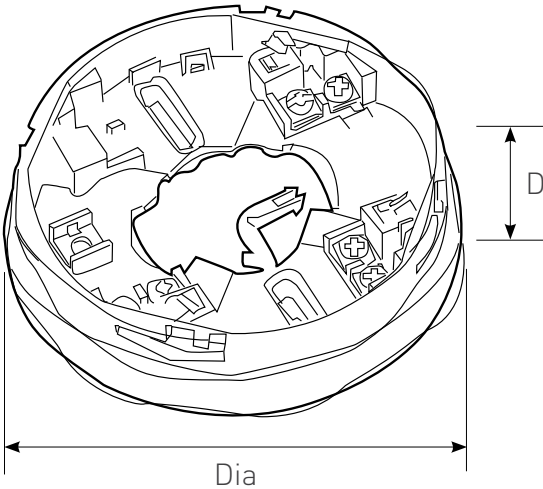
**MA-300** - Standard addressable detector base, designed for use as a foundation for MTech’s analog addressable detectors.

System Functionality:

- Integral sensor shortening link.
- Separate loop-in and loop-out terminals.
- Standoff fixing feature.
- Allows side entry cables.
- Selectable sensor locking feature.

Features & Benefits:

- Quick and simple installation.
- Simple, modern clean design.
- Straightforward electric wiring.
- Positive “lock” indication.
- Multiple cable entry points.



Technical Specifications:

Code	MA-300
Description	Standard Addressable Detector Base, UQGS.S36306, UROX.36306
Standards	UL268 6th edition, EN54, SII 1220, TR TC EAC 043-2017
Suitable for	Ducts, D(I) and D(ST), UROX

Environmental

Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical

Construction	PC/ABS
Color	White
Weight	0.2 kg

Compatibility

Suitable for Use With	MTech Analog Addressable Detector range
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Dimensions:

Dia. 104 mm | D. 22 mm

Order Code:

MA-300



**MA-IN** - Micro, single-channel input interface designed to monitor the state of one or more single vault-free poles. The device is compatible with the MA family of analog addressable fire control panels.

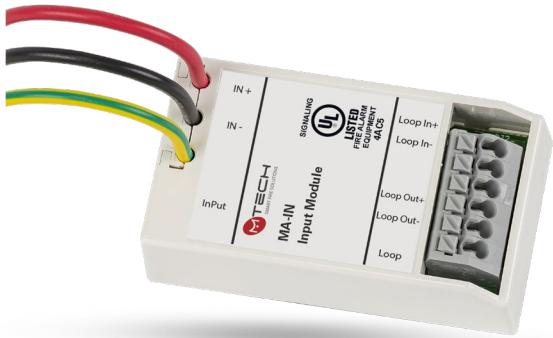
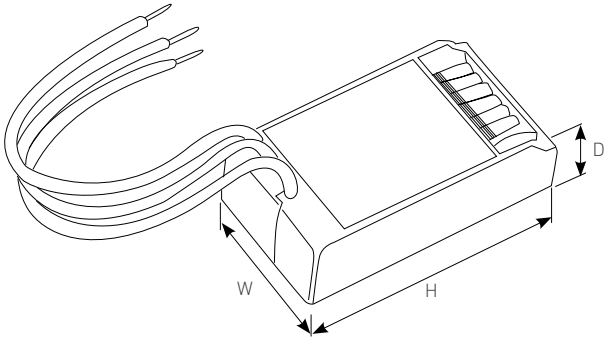
**MA-IN** is equipped with a short-circuit isolator which cuts off the section of the ring loop in which a short circuit has occurred. Thus, undamaged parts of the ring loop continue functioning normally.

System Functionality:

- Soft-addressed compact interface.
- Provides a single address for up to 200 devices per loop.
- Built-in short-circuit isolator.
- Inputs monitored for open and short circuit, and ground fault conditions.

Features & Benefits:

- Quick and simple to install.
- Compact, therefore ideal for incorporation into other equipment.
- No hard addressing required.
- Resistant to electromagnetic interferences, mechanically and electrically durable, resistant to unfavorable environments.
- Low current consumption.



Technical Specifications:

Code	MA-IN
Description	Addressable Micro Single Channel Input Unit, UOXX.36306
Standards	UL864 10th Edition, SII1220, TR TC EAC 043-2017

Specification

Operating Voltage	18-30VDC
Quiescent Current	< 310µA

Inputs

Trigger Resistance	5K6Ω
End of Line Resistance	22KΩ
Short Circuit Fault Threshold Resistance	1KΩ
Open Circuit Fault Threshold Resistance	33KΩ

Environmental

Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical

Construction	PC/ABS
Weight	0.078 kg
Ingress Protection	IP40

Compatibility

Suitable for Use With	MTech MA Analog Addressable Fire Alarm Systems
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Dimensions:

W. 35 mm | H. 63 mm | D. 18.5 mm

Order Code:

MA-IN





**MA-OR** - Single output, soft addressed, micro interface, incorporating integral short circuit isolators. It is extremely compact and therefore ideal for incorporation into other equipment.

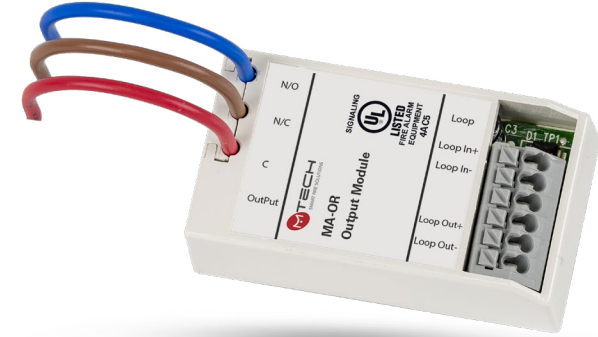
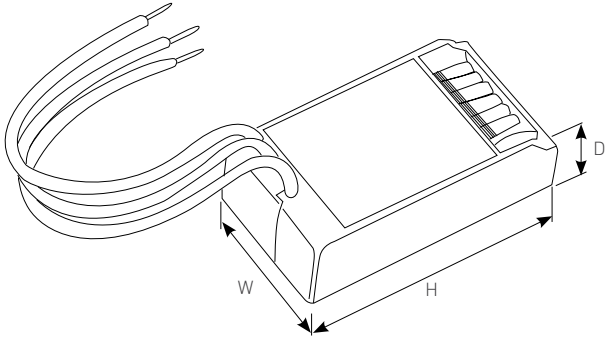
The **MA-OR** is fully compatible with the current range of MTech intelligent addressable control panels. It is suitable for switching low voltage (24VDC at 1A maximum), via a set of latching relay contacts and for switching HVAC control circuits, plant shutdown control circuits, fire door closures, etc.

System Functionality:

- Built-in short circuit isolator (no external isolator required).
- Soft addressing.
- Dry contact relay, programmable.
- Auto-learn support.

Features & Benefits:

- Low current consumption.
- Quick and simple to install.
- Small and compact.
- Plug-and-play with no hard addressing required.
- Can be programmed on-site or by using the MTech site installer software on a PC.
- Resistant to electromagnetic interferences, mechanically and electrically durable, resistant to unfavorable environments.



Technical Specifications:

Code	MA-OR
Description	Addressable single channel output unit, UOXX.S36306
Standards	UL864 10th Edition, SII1220, TR TC EAC 043-2017

Specification	
Operating Voltage	18 - 30VDC
Quiescent Current	< 310µA

Output Relay	
Switching voltage	24-30VDC
Contact rating	1A
Switching power	30 Watts
Max line impedance	16Ω

Environmental	
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical	
Construction	PC/ABS
Weight	0.078 kg
Ingress Protection	IP40

Compatibility	
Suitable for Use With	MTech MA Analog Addressable Fire Alarm Systems

Dimensions:

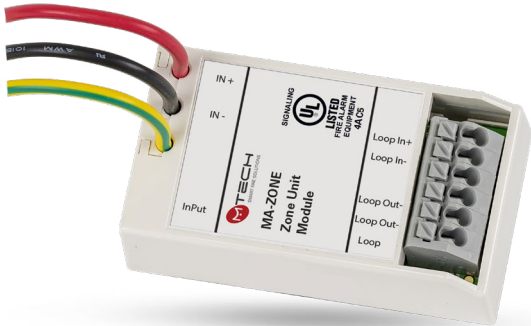
W. 35 mm | H. 69 mm | D. 18.5 mm

Order Code:

MA-OR



**MA-ZONE** - Intelligently-designed and cost-effective input monitor, that acts as an addressable adaptor to make conventional devices compatible with addressable systems, and as such connects conventional networks with an analog addressable panel, using a single address. It is light and compact. Fast and easy to install and operates with an MA analog addressable range.



Technical Specifications:

Code	MA-ZONE
Description	Addressable Micro ZONE Monitor Unit, UOXX.S36306
Standards	UL864 10th Edition, SII1220, TR TC EAC 043-2017

Specification	
Current (Nom)	2.6mA
Operating Voltage (Nom)	24VDC
Voltage	21VDC to 26 VDC
Current Alarm	8.0mA (nom)
Line Impedance (Max)	25Ω
End of Line Resistor	5.6kΩ
Fire Input Trigger	680kΩ

Environmental	
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical	
Construction	PC/ABS
Weight	0.078 kg
Ingress Protection	IP40

Compatibility	
Suitable For Use With	MTech MA Analog Addressable Fire Alarm Systems

Dimensions:

W. 35 mm | H. 63 mm | D. 18.5 mm

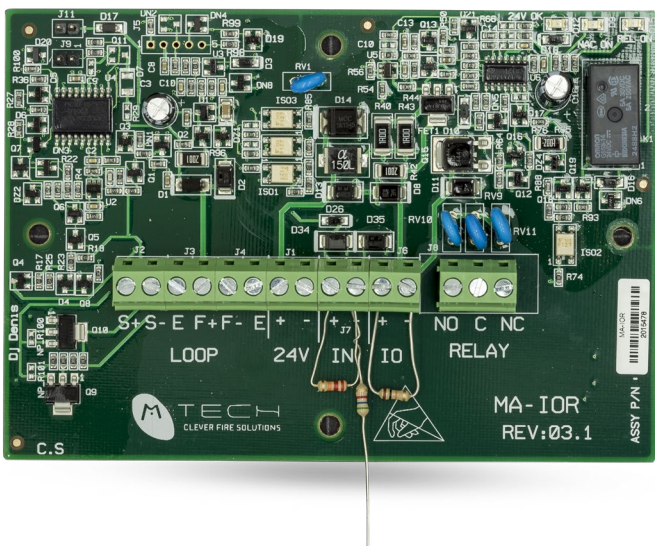
Order Code:

MA-ZONE



**MA-IOR** - Intelligent, addressable single input, NAC, and relay unit. Designed for multi-functional applications.

**MA-IOR** is equipped with a short-circuit isolator that cuts off the section of the ring loop in which a short circuit has occurred. Thus, undamaged parts of the ring loop continue functioning normally.



System Functionality:

- Provides one input and two outputs: one for programmable NAC and one for programmable relay. Input and NAC outputs are monitored for open short circuits and earth contact faults.
- Panel identifies equipment connected to the loop by name and address owing to an auto-learning process.
- Non-latching changeover relay contacts.
- External power supply connection with fault monitoring.
- Soft addressed.
- Single address with up to 100 units per loop.
- Built-in short circuit isolators.
- Trigger types: Alarm, Fault, Supervisory, Fan. The trigger source can be set to global, panel, loop, zone, or by address. Logic is available in both AND & OR functions.
- Monitoring for 24V AUX and LED indicators for 24V AUX, NAC ON state, Relay ON state.
- Complies with the requirements of NFPA Standard 72, and Standard 92, and listed by Underwriters Laboratories under their UL864 10th Edition and in the UUKL for Smoke Control category.

Features & Benefits:

- Quick and simple to install.
- Compact, therefore ideal for incorporation into other equipment.
- Plug-and-play with no hard addressing required.
- Expands using existing wiring.
- Cost-effective installation with NAC, Relay, and Input using only a single address.
- Programmable using MTech’s Site Installer software.
- Mechanically and electrically durable, resistant to electromagnetic interferences and unfavorable environments.

Technical Specifications:

Code	MA-IOR
Description	Addressable Single Input/Dual Output Unit, UUKL.S36158
Smoke Control	Dedicated or nondedicated system, UUKL.S36158
Standards	UL864 10th edition, SII 1220 and TR TC EAC 043-2017

Specification

Operating Voltage	15VDC to 30VDC
Quiescent Current	1mA
Alarm Current	2mA
Number of Input Circuits	1
Input EOL	22kΩ 10%
Input Alarm Resistor	5,6kΩ 10%
Relay Power Rating	5A 30VDC 250VAC
Aux Power Supply	24v 2A DC
Load Per Output	500mA
Nac Eol	10kΩ 10%
Quiescent Load Current from Aux	25mA
Alarm Current from Aux	75mA

Environmental

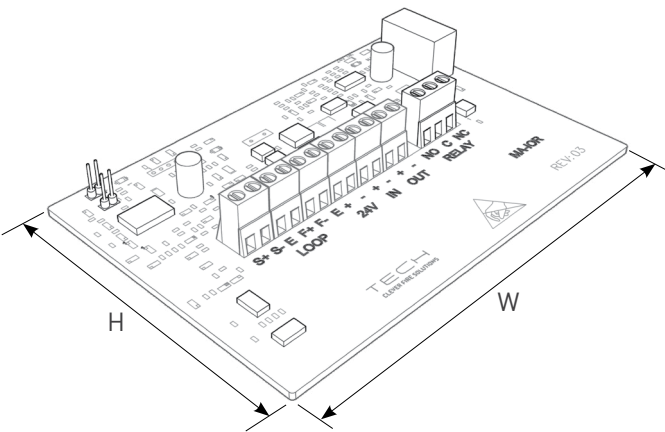
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 to 93% RH

Physical

Weight	0.1 kg
Ingress Protection	IP00

Compatibility

Suitable for Use With	MTech MA Analog Addressable Fire Alarm Systems
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Dimensions:

W. 130 mm | H. 90 mm | D. 20 mm

Order Code:

MA-IOR





**MA-DRIVER LED** - Intelligent device which is part of MA-1000 local NET and programmed from PC Site Installer. Used to operate up to 30 open collector outputs. Primary usage is to activate LEDs on the mimic map.

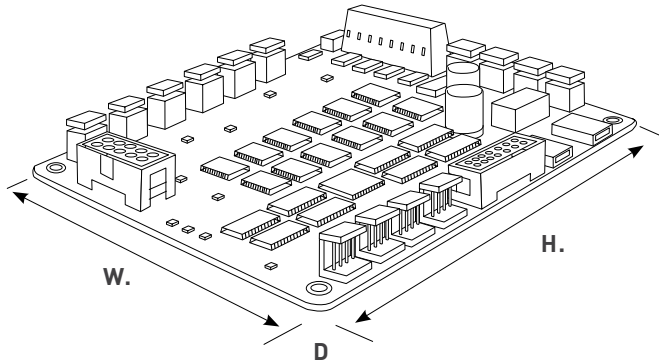
System Functionality:

- Indicates the system’s status with up to 30 LEDs.
- Up to 32 such devices can be connected to one system.
- Network compatible.



Features & Benefits:

- Easy to expand any system using existing wiring.
- The panel is easy to interact with owing to the numerous LED indicators and displaying system status.
- Fast connector plugs.



Dimensions:

W. 160 mm | H. 130 mm | D. 20 mm



Order Code:  
MA-IOR

Technical Specifications:

Code	MA-DRIVER LED
Description	Activates LEDs on the mimic map
Controls	Up to 30 open collector outputs
Standards	UL pending, TR TC EAC 043-2017

Specification

Operating Voltage	20 - 35VDC. Nominal 24V
Quiescent Current	16mA
Alarm Current	Max. 67mA led only
RS485 Baud Rate	56700
Outputs	30
Open Collector Current	200mA
Power Supply	Minimum 0.1A Maximum 6A

Environmental

Environmental Operating Temperature	-10 to +60°C
Humidity (non-condensing)	0 - 93% RH

Physical

Construction	PC/ABS
Weight	0.176kg
Ingress Protection	IPOO

Compatibility

Suitable for Use With	MTech MA-1000 MTech MA-LED, MA-REL card MA-Damper-LED
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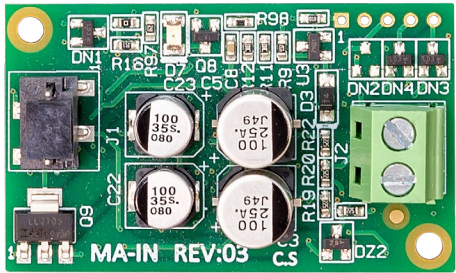
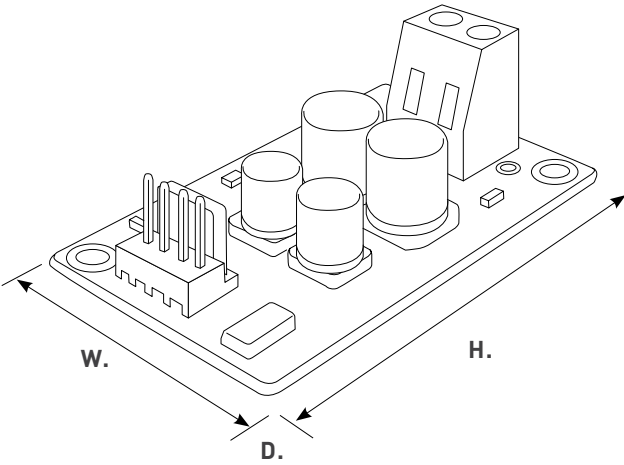
**MA-INC** - Micro, single-channel input interface designed to monitor the state of one or more single poles and volt-free. The device is compatible with the MA family of analog addressable fire control panels. **MA-INC** is equipped with a short-circuit isolator which cuts off the section of the ring loop in which a short circuit has occurred. Thus, undamaged parts of the ring loop continue functioning normally.

System Functionality:

- Soft-addressed compact interface.
- Provides a single address for up to 200 devices per loop.
- Built-in short-circuit isolator.
- Inputs monitored for open and short circuit, and ground fault conditions.
- Includes LED status indicator.

Features & Benefits:

- Quick and simple to install.
- Compact, therefore ideal for incorporation into other equipment.
- No hard addressing required.
- Resistant to electromagnetic interferences, mechanically & electrically durable, resistant to unfavorable environments.
- Low current consumption.



Technical Specifications:

Code	MA-INC
Description	Addressable Micro Single Channel Input Unit
Standards	UL pending, TR TC EAC 043-2017

Specification

Operating Voltage	18-30VDC
Quiescent Current	3.2mA

Input

Trigger Resistance	5K6
End-of-Line Resistance	22K
Short Circuit Fault Threshold Resistance	1K
Led State Indicator	1
Open Circuit Fault Threshold Resistance	33K

Environmental

Environmental Operating Temperature	-10°C to +60°C
Humidity (Non Condensing)	0 - 95% RH

Physical

Construction	PC/ABS
Maximum Cable Distance	400m
Weight	0.054kg
Ingress Protection	IPOO

Compatibility

Suitable for Use With:	MTech MA-1000
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Dimensions:

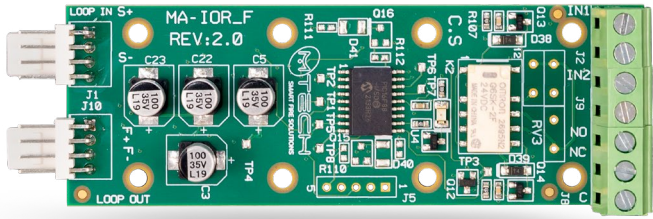
W. 30 mm | H. 50 mm | D. 18.5 mm



Order Code:  
MA-INC

**MA-IORF** - Addressable module with two inputs of dry contact types, and one relay. The device is a universal solution for control over smoke-releasing fans, air pressurization systems, and fire dampers.

**MA-IORF** is equipped with a short-circuit isolator, which cuts off the section of the ring loop where a short circuit has occurred. This allows the undamaged parts to continue functioning. The device is designed for the MA family of analog addressable products.



System Functionality:

- Monitors the status of the dry contact type inputs.
  - Inputs are monitored for open, short, and ground fault conditions.
- Built-in short circuit isolator (no external isolator required).
  - Soft addressing.
  - Dry contact relay, programmable.

Features & Benefits:

- Monitors the status of connected devices and wiring on two levels to ensure the system’s integrity. (Monitors the status of two different lines or channels).
  - Mechanically and electrically durable, resistant to electromagnetic interferences and unfavorable environments.
- Easy to install and maintain.
  - Simple, modern design.
  - Replaces several single-function addressable modules.
  - Uses a single address.

Technical Specifications:

Code	MA-IORF
Description	Addressable Control Module with two inputs of dry contact types, and one relay.
Smoke Control	Dedicated or nondedicated system, UUKL.S36158
Standards	EAEU RU C-IL.PB74.B.00529/22 EAEU TR 043/2017

Specification

Operating Voltage	18-30V
Quiescent Current	0.5mA
Alarm Current	1.5mA
Number of Input Circuits	2
Input EOL	10k 20%
Input Alarm Resistor	Short
Relay Power Rating	30v 2A
Aux Power Supply	N/A
Din Rail Compatibility	Optional
Led Indicator	Yes

Environmental

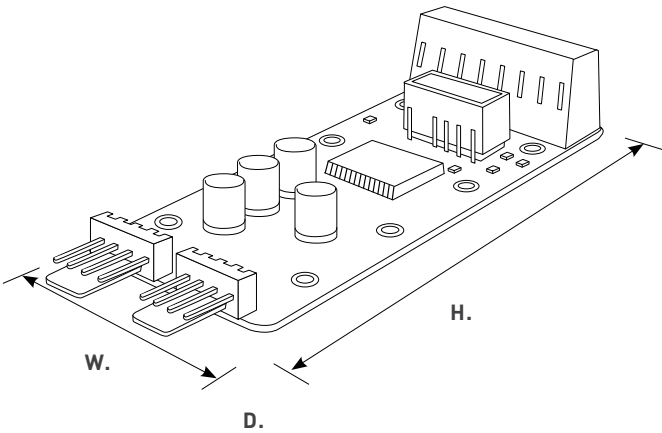
Environmental Operating Temperature	-10°C to +60°C
Humidity (non-condensing)	0 - 93% RH

Physical

Construction	PC/ABS
Weight	0.09kg
Ingress Protection	IPOO

Compatibility

Suitable for Use With	MTech MA-1000
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Dimensions:

W. 100 mm | H. 20 mm | D. 35 mm

Order Code:
MA-IORF





**MA-CP** - Manual Addressable Call Point with a highly visible LED alarm indicator which can be seen from afar. The manual call point has priority for a fast alarm response.

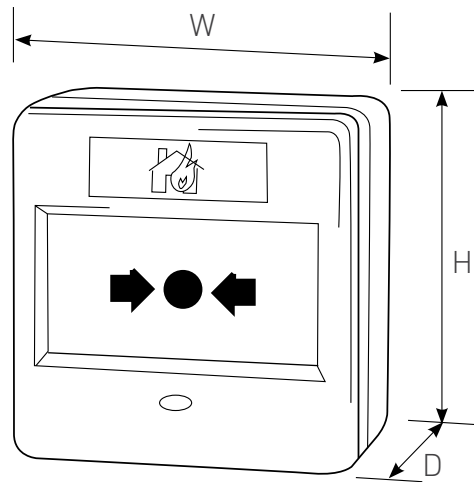
**MA-CP** is equipped with a short-circuit isolator.

System Functionality:

- Soft addressing automates the assigning of addresses with an automatic learning process controlled from the panel.
- High visibility status LED.
- Heavy duty terminals.
- Single address.
- Optional removable cover which prevents unintended activation of the fire alarm.
- Deactivation key.

Features & Benefits:

- Quick and simple to install.
- Easy maintenance.
- Test key.
- Plug-and-play terminal connections for fast, resettable wiring.
- Two models available.
- Indoor.
- Weatherproof.



Technical Specifications:

Code	MA-CP
Description	Addressable surface/flush mounting call point
Standards	EN54-11, SII 1220 and TR TC EAC 043-2017

Specification

Operating Voltage	17 - 32VDC
Quiescent Current	<250µA

Environmental

Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical

Construction	PC/ABS
Color	Red
Weight	0.2 kg
Ingress Protection	IP42

Compatibility

Suitable For Use With	MTech MA Analog Addressable Fire Alarm Systems
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Dimensions:

W. 87 mm | H. 87 mm | D. 57 mm (36mm flush)



Order Code:

MA-CP (standard)

MA-CPWP (waterproof)

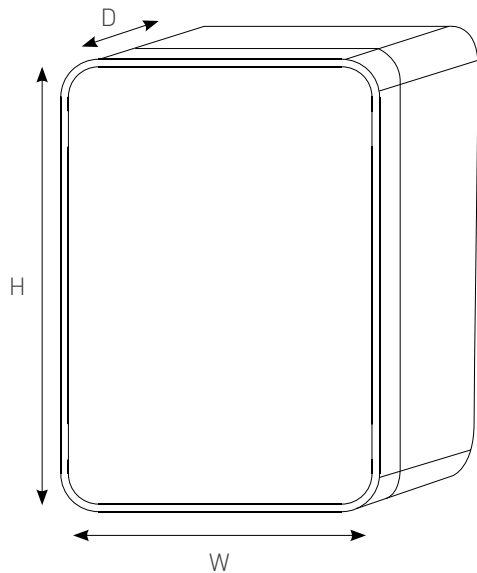
**MA-PS** - Intelligent outdoor manual addressable call point with a compact interface, and heavy-duty metal casing for long-lasting performance, even in harsh outdoor conditions. The station is designed to work with MTech's MA analog addressable fire alarm systems.

System Functionality:

- Soft addressing automates the assigning of addresses with an automatic learning process controlled from the panel.
- Fits with short-circuit isolators to assure the integrity of the loop, and reliability of fire detection and alarm systems, even when there are faults.
- Designed to be fitted on a single gang back box for flush mounting. A sheet metal back box can be utilized for surface mounting.
- Single/dual action options.
- Class A, Style 7 SLC.
- Electro-mechanical key reset.

Features & Benefits:

- Quick and simple to install.
- Easy maintenance and service.
- High-quality die-cast metal case for lasting performance with high-gloss red enamel finish and raised white lettering.
- Corrosion-resistant, gold-plated SPST contacts.
- Plug-and-play terminal connections for fast, resettable wiring.



Technical Specifications:

Code	MA-PS
Description	Addressable Pull Station
Standards	UL864 and TR TC EAC 043-2017

Specification

Operating Voltage	17VDC to 32VDC
Quiescent Current	<250µA

Environmental

Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical

Construction	Die cast metal
Color	Red

Compatibility

Suitable For Use With	MTech MA Analog Addressable Fire Alarm Systems
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Dimensions:

H. 118 mm | W. 80 mm | D. 80 mm



Order Code:

MA-PS

**MA-BA** - A high-efficiency, addressable loop-connected LED fire alarm beacon designed to complement audible alarms for use in areas where people may have impaired hearing or areas with high ambient noise levels - ensuring an all-inclusive fire notification system.

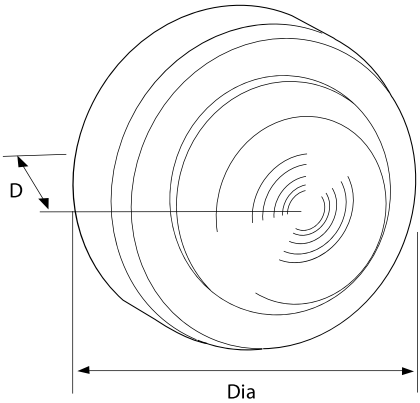
The flashing LED beacon is designed for both wall and ceiling mounting, has a built-in short circuit isolator, and is soft-addressed for easy installation. The device is compatible with MTech's MA-1000 analog addressable fire alarm system.

System Functionality:

- Low power consumption.
- High output LED beacon.
- Soft addressed.
- Single address.
- Built-in short circuit isolators.
- Loop powered.

Features & Benefits:

- Quick and easy to install.
- Easy to maintain and service.
- High-efficiency design.
- Mounting box.



Dimensions:

Dia. 95 mm | D. 53 mm



Order Code:

MA-BA



Technical Specifications:

Code	MA-BA
Description	Addressable LED Beacon
Standards	EN54-3, TR TC EAC 043-2017

Specification

Operating Voltage	17VDC to 32VDC
Standby Current	<250µA
Alarm Current	<4.1mA
Flash Frequency	½ Hz

Environmental

Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical

Construction	PC/ABS
Color	Red
Lens Color	Red
Weight	0.15 kg
Ingress Protection	IP54

Compatibility

Suitable For Use With	MTech MA Analog Addressable Fire Alarm Systems
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**MA-BS** - An intelligent addressable sounder base providing flexibility, as it is compatible to work as a stand-alone unit, or together with MTech's MA analog addressable detectors.

When implemented for notification only, it can be used with a cover plate instead of a detector, providing a discreet standalone fire alarm sounder. The sounder base offers excellent sound output with built-in horn tone selection and volume adjustment.

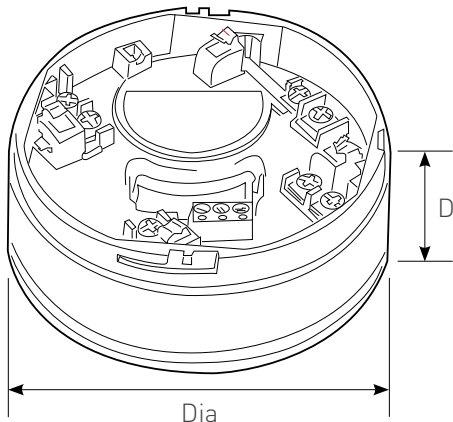
The device is compatible with MTech's MA-1000 analog addressable fire alarm system.

System Functionality:

- Provides a single-point connection for sounder and detectors.
- Built-in short circuit isolators.
- Soft addressed.
- Tones and volume settings that can be controlled by the panel.
- Looped powered with low power consumption.

Features & Benefits:

- Easy to install and maintain.
- Surface mounted, simple clip-fixing assembly.
- Lockable cover plate (optional).
- Efficient, detection and alerts from one device.



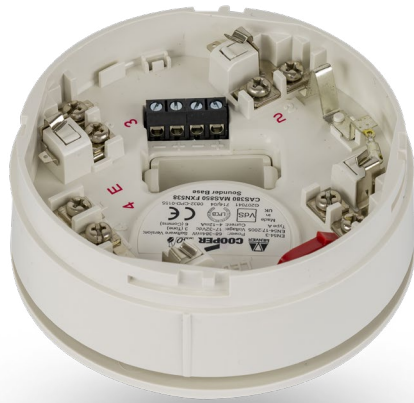
Dimensions:

Dia. 102 mm | D. 40 mm



Order Code:

MA-BS



Technical Specifications:

Code	MA-BS
Description	Addressable Sounder Base
Standards	EN54-3, SII1220, TR TC EAC 043-2017

Specification

Operating Voltage	17VDC to 32VDC
Standby Current	<320µA
Tones (Set by Panel)	Continuous: 910Hz
	Pulsed: 910Hz/0Hz pulse 1Hz
	Two tone: 610/910Hz at 1Hz Cycle
	Slow whoop: 500-1200Hz in 3.5 Seconds
Sound Output at +/-3dB (Set by Panel)	Low volume: 77dB at <6.6mA
	Medium volume: 89dB at <8mA
	High volume: 90dB at <9mA

Environmental

Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical

Construction	PC/ABS
Color	White
Weight	0.2 kg
Ingress Protection	IP40

Compatibility

Suitable For Use With	MTech Analog Addressable Detector range
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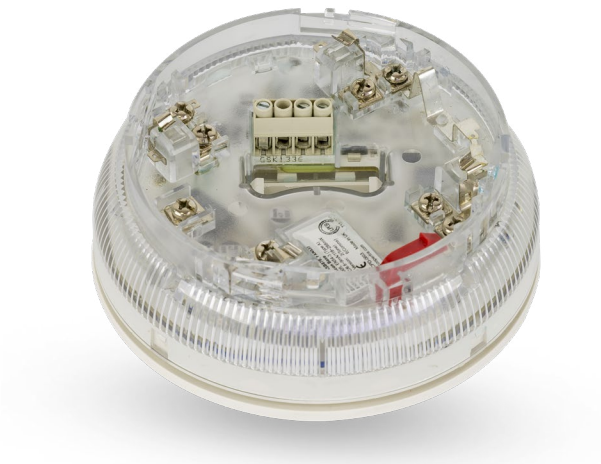


**MA-BSH** - An addressable sounder beacon base that provides both sound and flashing light alerts to detect a threat and alert building occupants in a single device. For detection and notification, it is compatible to work as a stand-alone unit, or together with MTech's MA analog addressable detectors which limits the number of installation points within a building, making installation faster and more efficient.

For notification only, it can act as a discreet, standalone fire alarm sounder beacon by using a cover plate instead of a detector.

Comes with built-in tone and volume adjustment, with a high-powered LED beacon that provides audible and visual alarm signals for the hearing impaired. Ideal for use in public and commercial areas that require efficient solutions for the general public.

The device is compatible with MTech's MA-1000 analog addressable fire alarm system.



System Functionality:

- Dual functionality: a sensor mounting base (MA-320, MA-330, and MA-340 sensors can be fitted directly on the base), which can also serve as a dedicated discreet standalone device (a special cover plate can be placed on the base).
- Provides a single-point connection for sounders and detectors.
- Suitable for use in public and commercial areas and meets EN54-23 for alarms and the hearing impaired.
- Excellent sound output with built-in horn tone selection and volume adjustment.
- Loop powered with low power consumption.
- Built-in short circuit isolators.
- Soft addressed.

Features & Benefits:

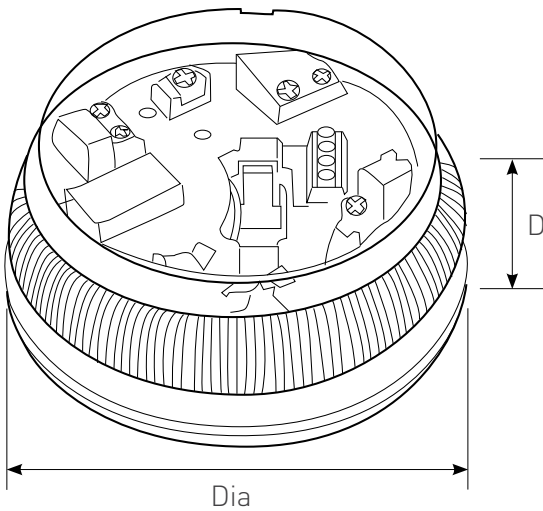
- Easy to install and maintain.
- Surface mounted, simple clip-fixing assembly.
- Lockable cover plate (optional).
- Discreet, clean appearance.
- Numerous optional installation points.

Technical Specifications:

Code	MA-BSH
Description	Addressable Sounder Beacon Base
Standards	EN54-3, SII 1220 and TR TC EAC 043-2017

Specification	
Operating Voltage	18VDC to 32VDC
Standby Current	<450µA
Tones (Set by Panel)	Continuous: 910Hz
	Pulsed: 910Hz/0Hz pulse 1Hz
	Two tone: 610/910Hz at 1Hz Cycle
	Slow whoop: 500-1200Hz in 3.5 Seconds
Sound Output at +/-3dB (Set by Panel)	Low volume: 88dB at <6.6mA
	Medium volume: 90dB at <8mA
	High volume: 93dB at <9mA
Beacon	0.5 Hz flash
Total loop resistance for correct operation of short circuit isolator:	50Ω (max)
Parallel fault resistance to be seen at the control panel for isolators to open:	200Ω (typ)
Continuous current allowable through isolator:	700mA (max)
Isolator resistance in closed state:	0.26Ω (max)
Leakage current into direct short circuit with isolator open:	14mA (max)
Voltage at which isolator changes from open to closed or closed to open state:	3.8V to 11V
Maximum switching current of isolator:	1.5A

Environmental	
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH
Physical	
Construction	PC/ABS
Weight	0.2 kg
Ingress Protection	IP21
Compatibility	
Suitable For Use With	MTech Analog Addressable Detector range



Dimensions:

Dia. 115 mm | D. 44 mm

Order Code:
MA-BSH



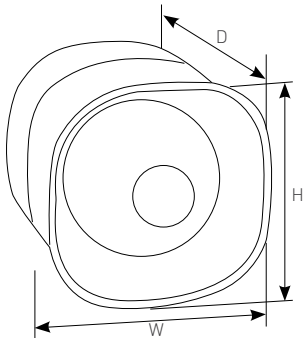
**MA-S** - Soft-addressed wall sounder, designed to provide audio signal fire notifications and alarms. Its low current consumption and excellent sound output levels, make it an ideal low-cost solution for instructing the evacuation of occupants in environments such as offices, manufacturing sites, and hotels. Equipped with a short-circuit isolator, which cuts off the section of the ring loop where a short circuit has occurred and allows the undamaged parts to continue functioning normally.

System Functionality:

- Soft addressed.
- Single address.
- Built-in short circuit isolators.
- Loop powered.
- Selectable tones and adjustable volume from the panel.
- Surface mounted and is available for interior and exterior application.
- Cable connection from the side or rear.
- Connects to connector block on main sounder body.

Features & Benefits:

- Simple to install, maintain, and service.
- Simple clip-fixing assembly with fitted base.
- Mechanically and electrically durable, resistant to electromagnetic interferences and unfavourable environments.
- Separate input and output on the ring loop.



Dimensions:

**Indoor Unit:** W. 105 mm | H. 105 mm | D. 95 mm  
**Outdoor Unit:** W. 108 mm | H. 108 mm | D. 103 mm



Order Code:
MA-S (for indoor use)
MA-SWP (for outdoor use)



Technical Specifications:

Code	MA-S
Description	Addressable Wall Sounder
Standards	EN54-3, TR TC EAC 043-2017

Specification	
Operating Voltage	18VDC to 30VDC
Standby Current	<320µA (max)
Alarm Current	5mA (max)
Addressing Mode	Auto address
Tones (Set by Panel)	Continuous: 984Hz Pulsed: 984Hz/0Hz at 1Hz Cycle Two tone: 644/984Hz at 1Hz Cycle Slow whoop: 500-1200Hz in 3.5 seconds/0.5 seconds
Sound Output at +/-3dB (Set by Panel)	Low volume: 87dB at <2mA Medium volume: 93dB at <3mA High volume: 100dB at <6mA

Environmental	
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 to 93% RH

Physical	
Construction	PC/ABS
Color	Red
Weight	0.25 kg

Compatibility	
Suitable For Use With	MTech MA Analog Addressable Fire Alarm Systems

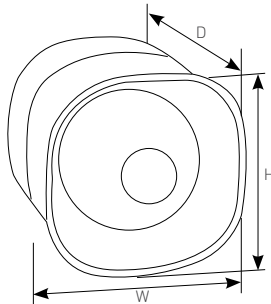
**MA-SH** - Loop-powered, soft-addressed wall sounder beacon with an enhanced visual alarm device (VAD). Offers an excellent sound output, combined with visual signaling, for use in situations where both options are essential, e.g., public areas, noisy factories, or workplaces where headphones are used. Its excellent quality combined with low current consumption makes it a cost-effective product commonly used in large projects. Equipped with a short-circuit isolator, which cuts off the section of the ring loop where a short circuit has occurred and allows the undamaged parts to continue functioning.

System Functionality:

- Soft addressed.
- Single address.
- Built-in short circuit isolator.
- Loop powered.
- Selectable tones and adjustable volume from the panel.
- Surface mounted and is available for interior and exterior applications.
- Cable connection from the side or rear.
- Connects to connector block on main sounder body.
- High-powered LED beacon.
- Low operating voltage using low current consumption.

Features & Benefits:

- Simple to install, maintain, and service.
- Simple clip-fixing assembly with fitted base.
- Mechanically and electrically durable, resistant to electromagnetic interferences and unfavorable environments.
- Separate input and output on the ring loop.
- Classic design.



Dimensions:

**Indoor Unit:** W. 105 mm | H. 105 mm | D. 95 mm  
**Outdoor Unit:** W. 108 mm | H. 108 mm | D. 103 mm



Order Code:
MA-SH (for indoor use)
MA-SHWP (for outdoor use)



Technical Specifications:

Code	MA-SH
Description	Addressable Wall Sounder Beacon
Standards	EN54-23, TR TC EAC 043-2017

Specification	
Operating Voltage	18VDC to 30VDC
Standby Current	<320µA (max)
Alarm Current	5mA (max)
Addressing Mode	Auto address
Tones (Set by Panel)	Continuous: 984Hz Pulsed: 984Hz/0Hz at 1Hz Cycle Two tone: 644/984Hz at 1Hz Cycle Slow whoop: 500-1200Hz in 3.5 seconds/0.5 seconds intervals
Sound Output at +/-3dB (Set by Panel)	Low volume: 92dB at <6.5mA Medium volume: 97dB at <7.5mA High volume: 100dB at <8.5mA
Flash Energy	1Hz

Environmental	
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 to 93% RH

Physical	
Construction	PC/ABS
Color	Red
Lenz Color	Red
Weight	0.25 kg
Cable Entry	Rear/Side

Compatibility	
Suitable For Use With	MTech MA Analog Addressable Fire Alarm Systems



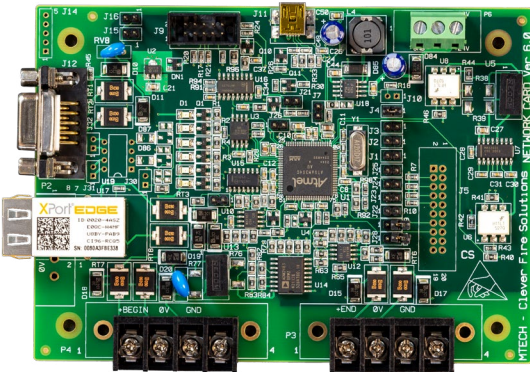
**MA-NET** MTech’s latest network management card, creates a network for MTech’s analog addressable fire alarm control panels, with global programming and advanced global monitoring capabilities. The MA-NET can also be utilized as a network repeater, expanding the distance between fire alarm control panels up to 8 km.

System Functionality:

- TCP/IP interface.
- Connection interface with M-1, MA-1, MA-1000 and MA-1000A Fire Alarm Control Panels.
- Connects to a PC via an RS232 interface or optional TCP/IP.
- Class X and Class B configuration.
- Repeater (line boosters) of up to seven units per network.
- Optional Modbus.
- Includes status indicator for each channel.
- Stores history data of up to 10,000 system events.
- LED indicator status of system’s fault signals.
- Galvanic isolation of the communication line.
- Communication line amplifier or replicator.

Features & Benefits:

- Quick, simple, and cost-effective installation.
- Easy to expand system using existing wiring.
- Plug-and-play with no hard addressing required.
- Mechanically and electrically durable, resistant to electromagnetic interferences and unfavorable environments.



Technical Specifications:

Code	MA-NET
Description	Network Card, Fire Alarm Equipment UOXX.S36158
Standards	UL864 10th Edition, SII1220 and TR TC EAC 043-2017

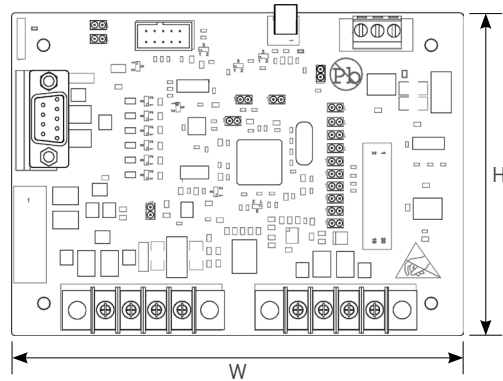
Specification	
Operating Voltage	24VDC
Current Consumption	Up to 101.7mA
Optional Interface	ModBUS
Programming Port	Mini USB
Output Ports	RS-485/232 and RS-485/TCP/IP

Net	
Interface Type	RS485
Interface Signals	Data+, Data -, 0 V, GND. Galvanic insulation
Data Transfer Rate	9,600 - 56,700bps distances up to 1000 m; optional repeater (line boosters), 1 km True peer-to-peer network

Environmental	
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical	
Weight	0.2 kg
Ingress Protection	IP00

Compatibility	
Recommended Loop	MA-1000 Cooper loop card MA-1000A Apollo loop card
Suitable for Use With	MTech MA Analog Addressable Fire Alarm Systems MA-Monitoring Graphical Management Software



**Dimensions:**  
W. 140 mm | H. 100 mm | D. 20 mm

Order Code:  
MA-NET (for RS-485)  
MA- NET TCP/IP (for TCP/IP)

**MA-100PRO** - Programmer for addressable devices, a hand-held versatile tool to aid technicians during installation, commissioning, maintenance, and servicing MTech’s range of MA advanced, analog addressable devices

System Functionality:

- Features a built-in addressable base and two external terminals, which enable connection of addressable devices.
- Sets addresses for devices.
- Tests the analog value of all the devices.
- Capable of erasing addresses of connected devices.
- Up to three programmable heat settings.
- Sets the working mode of heat detectors (A1R, BS, CS).
- Works on built-in accumulators.

Features & Benefits:

- Compact, robust, lightweight design.
- User-friendly and easily maintained.
- Equipped with a manageable-friendly LCD menu display.



Technical Specifications:

Code	MA-100PRO
Description	Hand-held programmer for Addressable detectors
Standards	TR TC EAC 043-2017

Specification	
Operating Voltage	9VDC
Batteries	3 units, Type AA
Display	4x16 characters LCD display

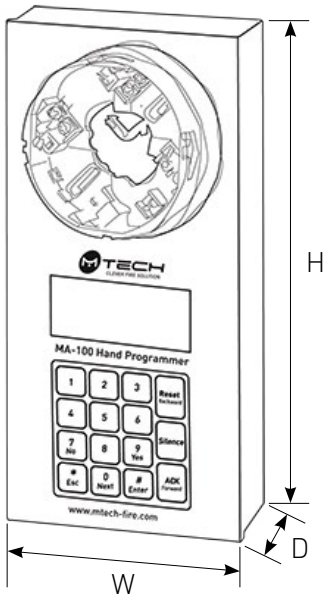
Environmental	
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical	
Construction	Metal box
Color	Red
Weight	0.35 kg

Compatibility	
Suitable for Use With	MTech MA Analog Addressable Detectors

**Dimensions:**  
W. 115 mm | H. 230 mm | D. 28 mm

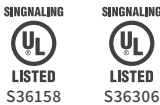
Order Code:  
MA-100PRO



# Conventional SYSTEMS

MTech’s family of conventional products comes together as a system with a wide range of options, and projects customized, according to specific site installation requirements.

The MTech conventional series includes three UL864 10th Edition certified conventional panels compatible with conventional input devices i.e., smoke detectors, manual pull stations, water-flow devices, tamper switches, and other devices. Quick, simple installation, operation, and service, and provides a flexible and cost-effective solution.



## Conventional Products:

### Fire Alarm Control Panels:

MB-202/204/208	P. 52
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### Detectors:

MB-220	P. 54
MB-230	P. 55
MB-240	P. 56
MB-300	P. 57
MB-DUCT	P. 58
MB-LI	P. 59

### Call Points:

MB-CPR/MB-CPY	P. 60
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### Sounders and VADs:

MB-FL	P. 61
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MTech’s MB 200 series of Conventional Fire Alarm Control Panels includes three products: MB 202, MB 204, and MB 208, with 2, 4, and 8 respectively Class B zones. MB control panels are compatible with a wide range of conventional devices, e.g., smoke detectors, manual pull stations, water-

flow devices, tamper switches, and other normally open contact devices. They are simple to install and operate and provide a flexible, cost-effective solution for projects that require conventional systems.

System Functionality:

- Two-wired conventional devices to work per zone.
  - RS-485 for repeaters and/or main panel connection.
  - Comes with four programmable Class B NACs and three programmable relays, one dedicated alarm relay, and one trouble relay.
  - Ability to silence audible devices directly from the panel, whilst strobes continue flashing.
  - Call-point can perform cross-zone overwrite.
- Integrates with Eaton devices to create sophisticated cross-zone functionality.
  - Panels comply with NFPA Standard 72 and are listed by Underwriters Laboratories under the UL864 10th Edition.
  - Approved as Releasing Panels according to UL 864 10th Edition and NFPA 2001 requirements.

Features & Benefits:

- Simple installation and integration.
  - Includes maintenance notifications.
  - Compatible with a wide range of detection devices including Eaton products.
  - Cross-detection alarm in the entire zone.
- Can be part of a local network (LNet) for MTech’s addressable panels. Programmed with MTech’s site installer software on PC.
  - Automatically converts voltage from 110V to 220V and vice versa.
  - 1000 history events.

Technical Specifications:

Code	MB-202	MB-204	MB-208
Description	Conventional Fire Alarm Control Panel, UOJZ.S36158		
Extinguisher	Water and Agent Releasing Support SYZV.S36158		
Standards	<b>MB-208:</b> UL864 10th Edition, SII1220 and TR TC EAC 043-2017, Also available in UL864 9th Edition. <b>MB-202 &amp; MB-204:</b> UL864 9th Edition, SII1220 and TR TC EAC 043-2017.		

Specification

Panel Display	2-line x 16-character LCD, multilingual support		
Panel Keyboard	Full numeric keyboard, Reset, Silence, Forward, ESC, Enter		
Panel Indication	LED indication: AC, Alarm, Trouble, Silence, Supervisory		
Sound	Internal alarm sounder		
Number of Zones	2	4	8
Devices Per Zones	20		
Output Ports	RS485		
Network	LNET/RS-485 - for communication with remote annunciator MA-1050A		
	LNET/RS-485 - for communication with analog addressable system up to 32 conventional MB-202, 204 and 208 panels		
	LNET/RS-485 - for communication with analog addressable MA fire alarm panels		
Event History	Buffer for 250 events with date and time stamp		
Service	Built-in walk test		

Power

Input Voltage	Input 120VAC/230VAC; 50/60Hz
Operated Voltage	24VDC 6.5A
Battery	Two 12V up to 20Ah

Output

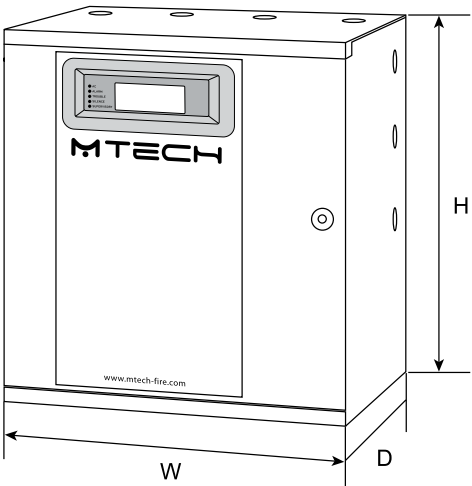
Panel NACs	4 O/P NACs (600mA)
Panel Relays	Alarm (1), Trouble (1), Programmable (3)
Initiating End-of-Line Resistor	Zone, 4.7K Ohms 1/2W 5%, NAC, 10K Ohms 1/2W 5%

Physical

Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 - 93% RH
Physical Construction	Metal box
Color	RAL 3000
Weight	7 kg
Ingress Protection	IP31
Cable Entries	top (4), right (11), left (2)

Compatibility

Suitable for Use With	MA-1050A Remote Annunciator
	MTech MA Analog Addressable Fire Alarm Systems
	MA-Monitoring Graphical Management Software



Dimensions:

W. 370 mm | H. 393 mm | D. 112 mm



Order Code:

MB-202	2-Zone (GAS B), English version
MB-204	4-Zone (Gas A & B), English version
MB-208	8-Zone (Gas A & B), English version
MB-202RUS	(2-Zone, Russian version TR TC EAC)
MB-204RUS	(4-Zone, Russian version TR TC EAC)
MB-208RUS	(8-Zone, Russian version TR TC EAC)

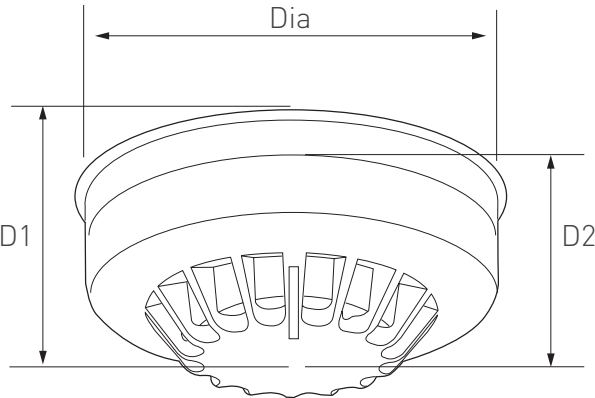
**MB-220** - Conventional two-wired optical photoelectric smoke detector designed for MTech’s MB series fire alarm systems. Provides the fastest response to slow-burning or smoldering fires that cause significant volumes of visible smoke.

System Functionality:


- Operates on low current.
- 360° view, red LED indicates alarm activation.
- Monitors the amount of smoke in the air.
- Transmits signal to FACP if the detector malfunctions or is removed.
- Automatically adjusts according to the environment and reduces the likelihood of false alarms due to dust or natural smoke.

Features & Benefits:

- Quick and simple to install, operate, and service.
- Removable detector chamber for cleaning.
- Simple clean design.
- Maintenance trouble notification.
- Wiring via common mounting base.
- Drift compensation.
- Optional lock, preventing unauthorized sensor removal.
- Mechanically and electrically durable, resistant to electromagnetic interferences and unfavorable environments.
- Positive “lock” indication.



SIGNALING



LISTED

S36306



**Dimensions:**  
Dia. 101 mm | D1. 45 mm | D2 (Excl Base). 43 mm

Order Code:
MB-220



Technical Specifications:

Code	MB-220
Description	Conventional Optical Smoke Detector, UROX.S36306
Standards	UL268 6th Edition, TR TC EAC 043-2017

Specification	
Operating Voltage	15VDC to 30VDC
Voltage Waveform	Filtered DC, ± 1V max ripple at 120Hz
Standby Current (Average)	95µA
Surge Current (Max)	340µA
Alarm Current (Max)	Must be limited externally to 40mA
Start-Up Time	20 seconds
Sensitivity	2.55 ± 0.33%/ft
Sensitivity Checker	Use no climb model TruTest (UL Listed)
Reset Time (Max)	2 seconds
Mounting Position	Ceiling mount
Mounting Options	Conventional MB-300 detector base
Area Coverage	100m² (subject to local standard)
Indication	360° visibility light pipe

Environmental	
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical	
Construction	PC/ABS
Color	White
Weight	0.120 kg

Compatibility	
Suitable for Use With	MTech MB Conventional Fire Alarm Systems

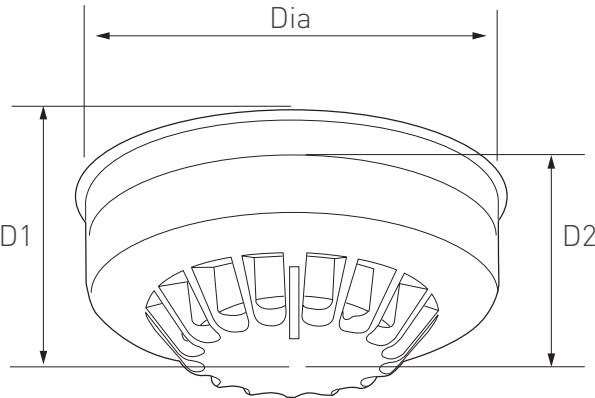
**MB-230** - Fixed-heat conventional detector, detects both rapid increases in temperature and temperatures above +60°C or +92°C (depending on switch selection). It offers accurate and reliable fire detection in challenging environments, where there are high levels of dust, fumes, steam, smoke, and other conditions that may typically set off a false alarm.

System Functionality:


- Operates on low current.
- 360° view, red LED indicates alarm activation.
- Monitors the temperature of the environment.
- Transmits signal to FACP if the detector malfunctions or is removed.
- Alarm is triggered at the temperature of +77°C.

Features & Benefits:

- Quick and simple to install, operate, and service.
- Removable detector chamber for cleaning.
- Simple clean design.
- Maintenance trouble notification.
- Wiring via common mounting base.
- Optional lock, preventing unauthorized sensor removal.
- Mechanically and electrically durable, resistant to electromagnetic interferences and unfavorable environments.
- Positive “lock” indication.




SIGNALING



LISTED

S36306



**Dimensions:**  
Dia. 101 mm | D1. 55 mm | D2 (Excl Base). 43 mm

Order Code:
MB-230



Technical Specifications:

Code	MB-230
Description	Conventional Heat Detector, UQGS.S36306
Standards	UL268 6th Edition, EN54-7, SII1220, TR TC EAC 043-2017

Specification	
Operating Voltage	15VDC to 30VDC
Voltage Waveform	Filtered DC, ± 1V max ripple at 120Hz
Standby Current (Average)	70µA
Surge Current (Max)	340µA
Alarm Current (Max)	Must be limited externally to 40mA
Start-Up Time	20 seconds
Heat Element Rating	60°C - 77°C - 92°C
Reset Time (Max)	2 seconds
Mounting Position	Ceiling mount
Mounting Options	Conventional MB-300 detector base
Area Coverage	50m² (subject to local standard)
Indication	360° visibility light pipe

Environmental	
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical	
Construction	PC/ABS
Color	White
Weight	0.120 kg

Compatibility	
Suitable for Use With	MTech MB Conventional Fire Alarm Systems



# MB-240 | Conventional Detectors

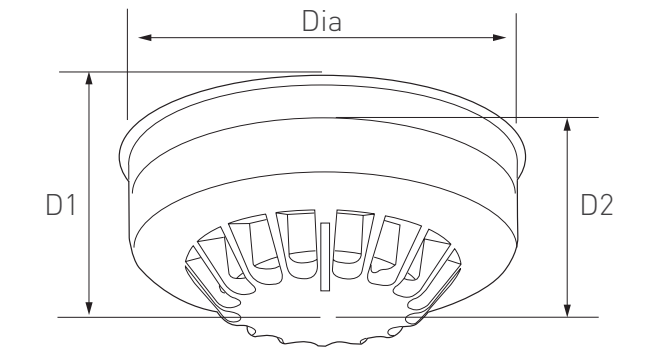
**MB-240** - Advanced photo-thermal two-wire conventional smoke and heat detector designed for MTech's MB series of fire alarm systems. Like the MB-220 smoke detector, it quickly detects fast, clean burning and smoldering fires while its heat sensors provide an additional layer of protection.

### System Functionality:

- Operates on a low current.
- 360° view, a red LED indicates alarm activation.
- Monitors the amount of smoke in the air.
- Detects and indicates a rapid increase in temperature or when the temperature reaches above 60°C or 92°C (depending on switch setting).
- Automatically adjusts according to the environment and reduces the likelihood of false alarms due to dust or natural smoke.

### Features & Benefits:

- Quick and simple to install, operate, and service.
- Removable detector chamber for cleaning.
- Simple clean design.
- Maintenance trouble notification.
- Wiring via common mounting base.
- Drift compensation.
- Optional lock, preventing unauthorized sensor removal.
- Mechanically and electrically durable, resistant to electromagnetic interferences and unfavorable environments.
- Positive “lock” indication.



**Dimensions:**  
Dia. 101 mm | D1. 55 mm | D2 (Excl Base). 43 mm

**Order Code:**  
MB-240



### Technical Specifications:

Code	MB-240
Description	Conventional Multisensor Smoke and Heat Detector, UQGS.S36306
Standards	UL268 6th edition, EN54-7, SII1220, TR TC EAC 043-2017

<b>Specification</b>	
Operating Voltage	15VDC to 30VDC
Voltage Waveform	Filtered DC, ± 1V max ripple at 120Hz
Standby Current (Average)	95µA
Surge Current (Max)	340µA
Alarm Current (Max)	Must be limited externally to 40mA
Start-Up Time	20 seconds
Heat Element Rating	60°C - 77°C - 92°C
Sensitivity	2.55 ± 0.33%/ft
Sensitivity Checker	Use no climb model TruTest (UL Listed)
Reset Time (Max)	2 seconds
Mounting Position	Ceiling mount
Mounting Options	Conventional MB-300 detector base
Area Coverage	100m² (subject to local standard)
Indication	360° visibility light pipe

<b>Environmental</b>	
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

<b>Physical</b>	
Construction	PC/ABS
Color	White
Weight	0.120 kg

<b>Compatibility</b>	
Suitable for Use With	MTech MB Conventional Fire Alarm Systems

# MB-300 | Conventional Detectors

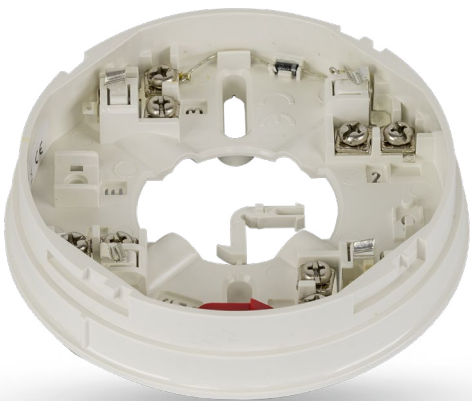
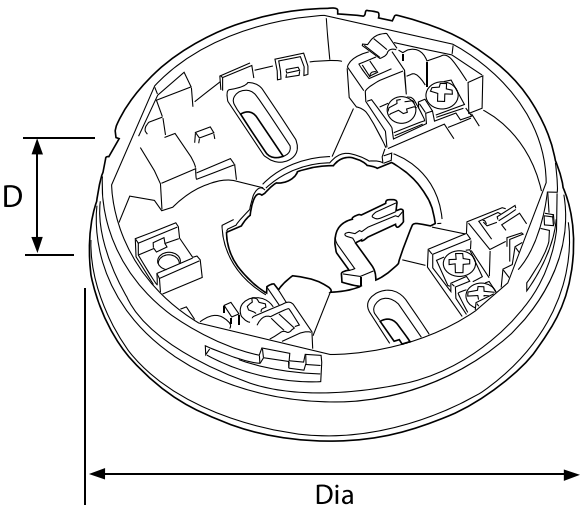
**MB-300** is a standard detector base designed for conventional detectors in MTech's conventional fire alarm systems. It can work under the control of MB-202, MB-204, and MB-208 or with analog-addressable devices of the MA-1000 series if used with the MA-ZONE.

### System Functionality:

- Provides fault warnings when a detector is removed.
- Maintains full zone wiring integrity and fault monitoring to ensure the circuit remains unbroken even in the absence of a detector.

### Features & Benefits:

- Quick and simple to install, including a retaining clip for precise fitting.
- Separate zone-in and zone-out terminals, each terminal can accept up to 2mm x 2.5mm cables.
- Stand-off feature in base to allow proper mounting on uneven surfaces.
- Suitable for side entry surface cables.
- Optional lock, which can be opened only with a special tool, to prevent any unauthorized sensor removal.



### Technical Specifications:

Code	MB-300
Description	Conventional Detector Base, UQGS.S36306, UROX.S36306
Standards	UL268 6th edition, EN54-7, SII1220, TR TC EAC 043-2017

<b>Environmental</b>	
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

<b>Physical</b>	
Construction	PC/ABS
Color	White
Weight	0.076 kg

<b>Compatibility</b>	
Suitable for Use With	MTech Conventional Detectors

**Dimensions:**  
Dia. 101 mm | D. 22 mm

**Order Code:**  
MB-300

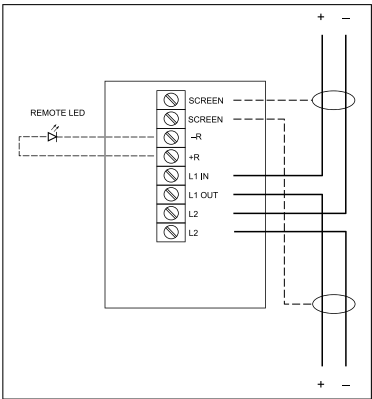
# MB-DUCT | Mounting Probe Unit

**MB-DUCT** - A detector housing providing early detection of smoke in the air moving through heating and ventilation (HVAC) ducts in commercial and industrial premises. Its purpose is to prevent the re-circulation of smoke from an area on fire to areas unaffected by the fire. The unit is designed for use with MTech's analog addressable and conventional smoke detectors.

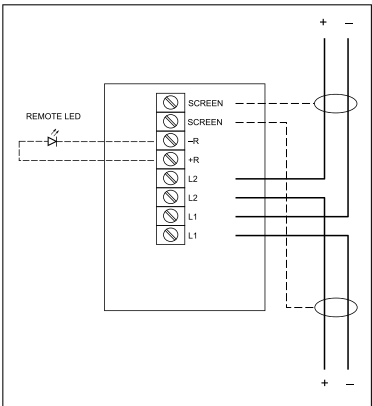
The unit is placed on the external outer layer of the duct, with exhaust probes passing through the duct in areas of low turbulence.

### System Functionality:

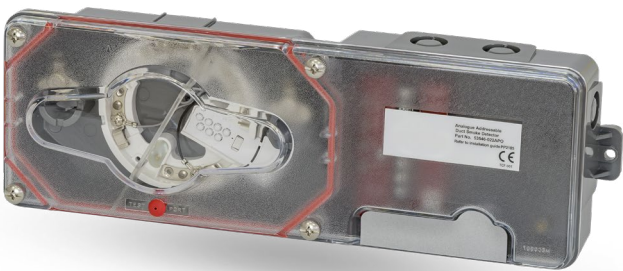
- The presence of smoke in a ventilation duct is detected by sampling the airflow through the duct via two sampling tubes.
- The unit requires an analog optical sensor or conventional optical detector and a corresponding base which is supplied with full fixing instructions.
- Controls the amount of air that enters the detector.



Wiring diagram for conventional detectors



Wiring diagram for analog addressable detectors



### Features & Benefits:

- One unit for both addressable and conventional smoke detectors.
- Easy testing without removing the lid.
- Requires regular service to avoid the accumulation of dirt.

### Technical Specifications:

Code	MB-DUCT
Description	Duct Mounting Probe Unit
Standards	TR TC EAC 043-2017

#### Specification

Duct Width Range	300mm to 1500mm
Duct Air Speed Range	1m/s to 20m/s Detector $\pm 0.8^\circ$ Prism $\pm 5.0^\circ$
Optical Wavelength	880nm

#### Environmental

Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

#### Physical

Construction	PC/ABS
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#### Compatibility

Suitable for Use With	MTech Analog Addressable Detectors
	MTech Conventional Detectors
	Apollo Conventional Detectors
	Apollo Analog Addressable Detectors



Order Code:

MB-DUCT

# MB-LI | MiniDisc Remote Indicator

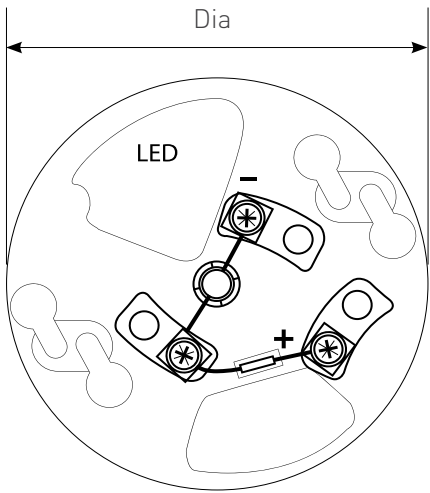
**MB-LI** - A two-wired lightweight, compact, red LED remote indicator, designed to provide a discreet remote indication in cases where a smoke, heat, or photo-thermal fire detector is inaccessible like in an acoustic ceiling, for use in fire protection systems.

### System Functionality:

- Loop powered.
- Anti-tamper screw to protect against unauthorized removal.
- Red LED indicator.

### Features & Benefits:

- Quick and simple to install.
- Discreet device that can easily be incorporated into building décor.
- Can be used across the entire Mtech range and works with both conventional and addressable fire detectors.



### Dimensions:

Dia. 80 mm | D. 20 mm

Order Code:

MB-LI



### Technical Specifications:

Code	MB-LI
Description	Conventional MiniDisc Remote Indicator
Standards	EN54-7, TR TC EAC 043-2017

#### Specification

Voltage	5-36VDC
Max Current	25mA

#### Environmental

Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

#### Physical

Construction	PC/ABS
Color	White
Weight	0.076 kg

#### Compatibility

Suitable for Use With	MTech Conventional Detectors
	MTech Analog Addressable Detectors
	Eaton Conventional Detectors
	Eaton Analog Addressable Detectors
	Apollo Conventional Detectors
	Apollo Analog Addressable Detectors



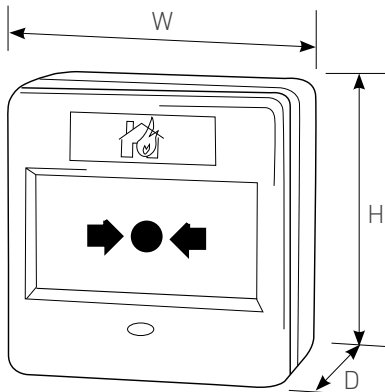
**MB-CPR** (red) and **MB-CPY** (yellow) are conventional call points, designed to operate with the MB range of conventional fire alarms and notification panels. Used in the event of fire or emergency, by breaking the fragile glass or plastic element that triggers the alarm. Comes with a dual-function key for testing call point operation and obtaining maintenance access. The call points include plug-and-play terminal connections for fast wiring.

System Functionality:

- High-visibility LED status.
- Heavy duty terminals.
- Separate zone-in and zone-out terminals.
- Lockable base.
- Resettable.
- Single tool for access and testing.
- Alarm activates manually.
- Operates on a low current.

Features & Benefits:

- Quick and simple to install.
- Easy maintenance.
- Test key.
- Plug-and-play terminal connections for fast, resettable wiring.
- Mechanically and electrically durable, resistant to electromagnetic interferences and unfavorable environments.
- Waterproof option.
- Surface or flush installation.
- Optional plastic protection hinged cover.



Technical Specifications:

Code	MB-CPR/Y
Description	Conventional Call Point
Standards	EN54-11, SII1220, TR TC EAC 043-2017

Specification

Operating Voltage	18-30VDC
Connection	4-way terminal block
Operating Method	Glass element with safety film
Test Facility	Unique key

Environmental

Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical

Construction	PC/ABS
Color	Red/Yellow
Weight	0.2 kg

Compatibility

Suitable for Use With	MTech MB Conventional Fire Alarm Systems
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Dimensions:

W. 87 mm | H. 87 mm | D. 57 mm



Order Code:

MB-CPR (Red)

MB-CPY (Yellow)    Manual Release

MB-CPG (Green)    Abort Switch

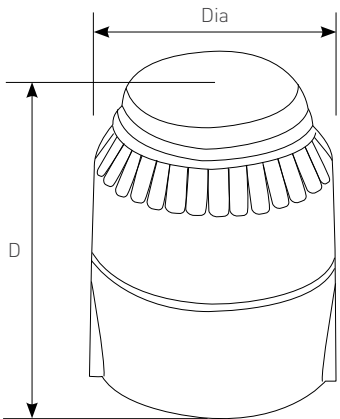
**MB-FL** - A conventional audible and visual sounder beacon for use in public areas that require a visual solution for the hearing impaired, or areas that are extremely noisy; its high light output maximizes its ability to attract attention. The unit is designed to be installed from a single point, is less obtrusive than a combination of two separate devices and offers a time and cost-effective installation. The MB-FL is compatible for use with MTech's MB family of conventional fire alarm systems.

System Functionality:

- Combining an audible alarm and a visual alarm, the MB-FL is less obtrusive than two separate devices.
- The beacon features a high light output, maximizing its potential to attract attention.
- Selectable tones and adjustable volume.
- Operates on a low current.

Features & Benefits:

- High output sounder beacon.
- Automatic sounder synchronization.
- Up to 110dB(A) with a built-in Xenon flash.
- Improved tone clarity.
- Suitable for a variety of applications.
- Simple to install and service.
- Classic design.



Dimensions:

Dia. 93 mm | D. 92 mm | D (WP). 121 mm



Order Code:

MB-FL

MB-FLWP (Waterproof version)



Technical Specifications:

Code	MB-FL
Description	Conventional Sounder Beacon
Standards	EN54-23, SII1220, TR TC EAC 043-2017

Specification

Operating Voltage	18VDC to 28VDC
Current	68mA (typical tone 3)
Sound Output	110dB(A) at 1 meter (typical tone 3) Volume Control 90-110dB
Tones	Preset to tone 3, 32 tones available
Flash Power	0.7j
Flash Rate	1Hz
Volume Control	10dB
Monitoring Reverse	Polarity

Environmental

Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical

Construction	ABS/PC lens
Color	Red
Lens color	Red
Weight	0.33 kg

Compatibility

Suitable for Use With	MTech MB Conventional Fire Alarm Systems
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# Fire Extinguishing CONTROL PANELS

Fire detection and extinguishing control panels process results detected by sensors, control alarm devices and set off alarms to manned stations and the fire department.

They continuously monitor extinguishing systems for functionality and trigger them electrically if necessary. In addition, they communicate with risk management systems.

Different model versions, from a compact small panel to sophisticated large control panels, make it possible to select the appropriate fire detection and extinguishing control panel.



## Fire Extinguishing Products:

### Suppression Agent Releasing System:

MB-208	P. 64
MB-400	P. 66



**MB-208** Conventional Fire Extinguishing Control Panel with 8 Class B zones correspondingly.

An extinguishing panel that is compatible with conventional input devices such as detectors, manual pull stations, water-flow devices, tamper switches, and other normally-open contact devices.

Simple to install and operate, and provides a flexible, cost-effective solution for extinguishing projects.



System Functionality:

- Detection of two devices alarming in the detection zone.
  - Delay can be assigned for detection zones.
  - Adjustable delay and extinguishing times.
  - Extinguishing release countdown timer.
  - Open/short circuit control of all input (supervised detecting zone inputs, extinguishing holding input, extinguishing canceling input, extinguishing start input, low-pressure input, extinguishing status switch input) lines.
  - Open/short circuit control of all output (supervised extinguishing output, second-level sounder output, fire sounder output, gas active output) lines.
- Extinguishing mode can be changed remotely via extinguishing status key.
  - The panel can be set to automatic/manual extinguishing modes.
  - Gas A and Gas B operation mode.
  - Abort function.
  - Improved protection against false alarms (in case of ground fault or loud noise).
  - Can integrate with Eaton devices to create sophisticated cross-zone functionality.

Features & Benefits:

- Simple installation and integration.
  - Includes maintenance notifications.
  - Compatible with wide range of detection devices including Eaton products.
  - Cross-detection alarm in the zone.
- Approved as Fire Releasing Control Panel according to UL864 10th Edition and NFPA 2001 requirements.
  - Can be programmed on site or by using the MTech Site Installer software on PC.

Technical Specifications:

Code	MB-208
Description	Conventional Fire Extinguishing Control Panel
Extinguisher	Water and Agent Releasing Support SYZV.S36158
Standards	UL864 10th Edition, SII1220 and TR TC EAC 043-2017. Also available in UL864 9th Edition.

Specification

Panel Display	2-line x 16-character LCD, multilingual support
Panel Keyboard	Full numeric keyboard, Reset, Silence, Forward, ESC, Enter
Panel Indication	LED indication: AC, Alarm, Trouble, Silence, Supervisory
Sound	Internal alarm sounder
Number of Zones	8, Supervised
Extinguishing Output	Supervised/24VDC 0.6A Max. Current = during 2 sec. 2A
Gas Released Output	Supervised/24VDC 250mA
Output Ports	RS485
Network	LNET/RS-485 - for communication with remote annunciator MA-1050A LNET/RS-485 - for network communication between MTech analog addressable fire alarm control panel and up to 32 conventional MB-208 fire extinguishing control panels
Event History	Buffer for 250 events with date and time stamp
Service	Built-in walk test

Power

Input Voltage	Input 120VAC/230VAC; 50/60Hz
Operated Voltage	24VDC 6.5A
Battery	Two 12V up to 20Ah

Output

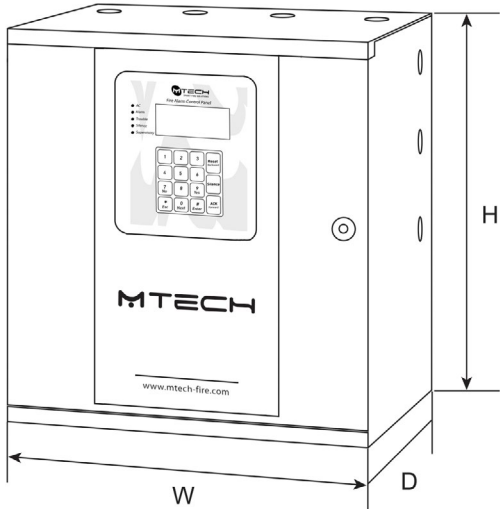
Panel Nacs	4 O/P NACs (600mA)
Panel Relays	Alarm (1), Trouble (1), Programmable (3) 30VAC/DC 5A
Initiating End-of-Line Resistor	Zone, 4.7K Ohms 1/2W 5%, NAC, 10K Ohms 1/2W 5%, Line Impedance 50 Ohms MAX

Physical

Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 - 93% RH
Physical Construction	Metal box
Color	RAL 3000
Weight	7 kg
Ingress Protection	IP31
Cable Entries:	Top (4), Right (11), Left (2)

Compatibility

Suitable for Use With	MA-1050A Remote Annunciator
	MTech MA Analog Addressable Fire Alarm Systems
	MA-Monitoring Graphical Management Software



Dimensions:

W. 370 mm | H. 393 mm | D. 112 mm

Order Code:

MB-208 English version



**MB-400** Conventional Fire Extinguishing Control Panel with 8 Class B zones correspondingly.

MB Extinguishing panels are compatible with conventional input devices such as detectors, manual pull stations, water-flow devices, tamper switches, and other normally open contact devices. They are simple to install and operate, and provide a flexible, cost-effective solution for extinguishing projects.



System Functionality:

- Detection of two devices alarming in the detection zone.
  - Delay can be assigned for detection zones.
  - Adjustable delay and extinguishing times.
  - Extinguishing release countdown timer.
  - Open/short circuit control of all input (supervised detecting zone inputs, extinguishing holding input, extinguishing canceling input, extinguishing start input, low-pressure input, extinguishing status switch input) lines.
  - Open/short circuit control of all output (supervised extinguishing output, second-level sounder output, fire sounder output, gas active output) lines.
- Extinguishing mode can be changed remotely via extinguishing status key.
  - The panel can be set to automatic/manual extinguishing modes.
  - Gas A operation mode.
  - Abort function.
  - Improved protection against false alarms (in case of ground fault or loud noise).
  - Can integrate with Eaton devices to create sophisticated cross-zone functionality.

Features & Benefits:

- Simple installation and integration.
  - Includes maintenance notifications.
  - Compatible with wide range of detection devices including Eaton products.
- Cross-detection alarm in the zone.
  - Can be programmed on site or by using the MTech Site Installer software on PC.

Technical Specifications:

Code	MB-400
Description	Conventional Fire Extinguishing Control Panel
Extinguishing	Agent Releasing Support
Standards	TR TC EAC 043-2017

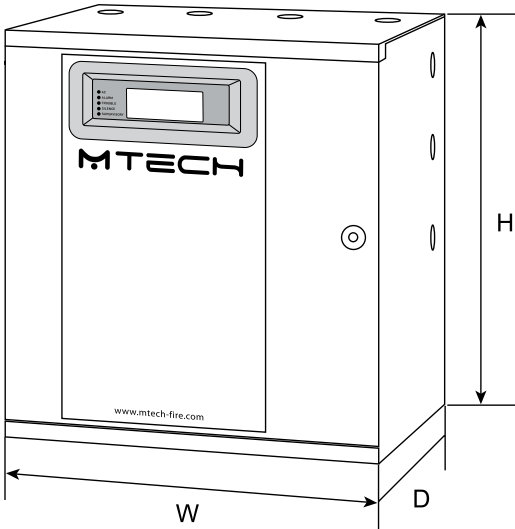
Specification	
Panel Display	4-line x 16-character LCD, multilingual support
Panel Keyboard	Full numeric keyboard, Reset, Silence, Forward, ESC, Enter
Panel Indication	LED indication: AC, Alarm, Trouble, Silence, Supervisory
Sound	Internal alarm sounder
Number of Zones	8, Supervised
Extinguishing Output	Supervised/24VDC 0.6A Max. Current = during 2 sec. 2A
Gas Released Output	Supervised/24VDC 250mA
Output Ports	RS485
Network	LNET/RS-485 - for communication with remote annunciator MA-1050A
	LNET/RS-485 - for network communication between MTech analog addressable fire alarm control panel and up to 32 conventional MB-400 fire extinguishing control panels
Event History	Buffer for 250 events with date and time stamp
Service	Built-in walk test

Power	
Input Voltage	Input 120VAC/230VAC; 50/60Hz
Operated Voltage	24VDC 6.5A
Battery	Two 12V up to 20Ah

Output	
Panel Nacs	4 O/P NACs (600mA)
Panel Relays	Alarm (1), Trouble (1), Programmable (3) 30VAC/DC 5A
Initiating End-of-Line Resistor	Zone, 4.7K Ohms 1/2W 5%, NAC, 10K Ohms 1/2W 5%, Line Impedance 50 Ohms MAX

Physical	
Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 - 93% RH
Physical Construction	Metal box
Color	RAL 3000
Weight	7 kg
Ingress Protection	IP31
Cable Entries:	Top (4), Right (11), Left (2)

Compatibility	
Suitable for Use With	MA-1050A Remote Annunciator
	MTech MA Analog Addressable Fire Alarm Systems
	MA-Monitoring Graphical Management Software



Dimensions:

W. 370 mm | H. 393 mm | D. 112 mm

Order Code:
MB-400





# Smoke Management System

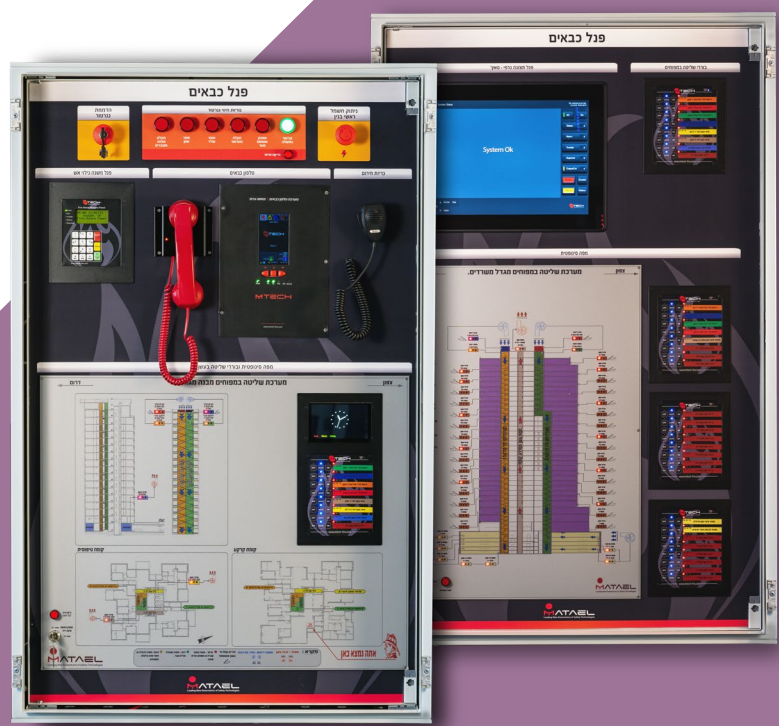
## FSCS

Smoke is one of the major problems created by a fire, it threatens life and property, both in the immediate location of the fire and in locations remote from the fire.

Smoke Management System engineers use five methods to manage smoke which consist of compartmentation, dilution, pressurization, airflow, and buoyancy. The methods can be used individually or in combination to determine the standards of design analysis, performance criteria, acceptance tests, and routine tests. The Smoke Management System is custom made for every customer to provide the most optimal results for every building. Custom design of the system is also available.

The objectives of smoke control include:

- Maintain reduced-risk escape route environments.
- Diminish smoke migration to other building spaces.
- Reduce property loss.
- Provide conditions that assist the fire service.
- Aid in post-fire smoke removal.

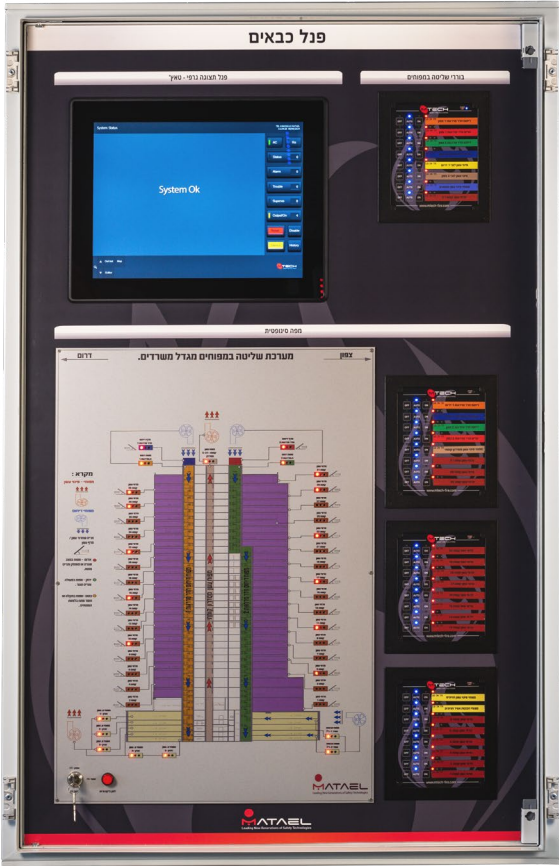


### Systems Products:

Smoke Management System:	
MA-FSCS	P. 70
Smoke Control Annunciator	P. 72
MA-8FAN	P. 74
MA-LED CARD	P. 76
MA-RL CARD	P. 77

MTech’s Addressable Fire Smoke Control System **MA-FSCS** monitors and controls fire events in a building. The system is commonly used in high-rises and is designed for firefighters and building maintenance engineers and presents crucial information about the building during an event. It is also used as part of standard maintenance procedures for integrated systems: HVAC, Smoke and Fire Detection, Low Voltage Systems, Lift and Escalators, Voice, and Emergency Evacuation. Because the panel is used by firefighters with minimal prior knowledge of building-specific layout, its design is simple and intuitive.

It contains all the required components that are needed to control a fire event, as well as graphical representations to help decision makers. It is a life safety solution that shares system resources and is therefore more efficient and cost effective than installing multiple interconnected systems. According to the International Building Code requirements, when a FSCS is activated, it gains priority over any other equipment, and controls the event without taking precedence over fire suppression, electrical protection, and personnel protection devices.



System Functionality:

- Provides individual command switches and indication LEDs on a custom-building graphic panel.
- Provides firefighter control and monitoring of the building’s smoke control system in compliance with the National Fire Protection Association’s Smoke Control Systems documents NFPA 92A and 92B. The Smoke Management System is UL Listed as a Smoke Management System under UL864 - UUKL for smoke control.
- The front panel provides an area for custom graphics that may consist of a vertical building cutaway diagram, floor plans, mechanical systems diagrams, or other layouts that can be accommodated within the standard panel space.
- Ideal as a firefighters’ smoke control station, and it is also utilized for any purpose where it is desirable to provide a means to command and/or monitor specific building equipment.
- Has the highest operational priority of all smoke control equipment within a multi-story building. Using its switches to control building equipment will override all other sources of program control over the affected equipment.
- Factory assembled, with the switches and LEDs wired directly to their respective interface assemblies. This eliminates the need for terminal strips or I/O Modules and maximizes the number of points that can be included within the enclosure.

Features & Benefits:

- One PCB which utilizes the control buttons, indication, and driver LEDs.
- In addition, one PCB activating the MA-IORF, 2 inputs (providing and trouble), and 1 output (On/Off).
- “At-a-glance” system or equipment status indication by on/off display indication LEDs.
- Use of keyboard, mouse, or another computer interface not required.
- “Simple-to-use” individual equipment or system command switches facilitate operation.
- Access and control over the building’s fire alarm systems and equipment.
- Security, lockable transparent door, and key-operated enable/disable switch preventing unauthorized use.
- Factory wired assembly, quick uncomplicated installation.
- Choice of sizes, colors, design, and mounting arrangement for architectural harmony.
- Accommodates up to 6,400 points.

Technical Specifications:

Code	MA-FSCS
Description	Addressable Fire Smoke Control System (Smoke Management System)
Standards for Panels	UL864 10th Edition, SII1001-2.2, NFPA92:2018
Smoke Control	Dedicated/nondedicated system, UUKL.S36158

Specification	
Dimensions	Enclosure dimensions customized according to the client’s specific requirements and configurations
Point/Device Capacity	6,400 maximum point/device capacity.
Floor Display	Unlimited floors on graphic display
AC Current	Maximum power AC current 3A/115VAC or 1.7A/230VAC
Panel Map	Customized per building and UUKL mechanical and smoke management standard
Panel 3 Position Switches	Manual, Automatic and OFF
Panel Indication	LED indication of status of work: Manual, Automatic and OFF
Number of Loops	2 SLC loops Class A
Loop Powered outputs	300 mA power for loop
I/O Modules	300 mA power for loop
Addresses Per Loop	Up to 200 addressable devices (MA-IOR) per system
Programming Port	USB port for PC communication
Output Ports	RS485 and RS232
Network	LNET/RS-485 - for communication with remote annunciator MA-1050A, MA-8FAN and MA-LED CARD
	MA-TCP/IP - network card for TCP/IP network
Event History	MA-NET network card for RS-485 network for communication with up to 64 Fire Alarm Control Panels in network with global correlation matrix
	Buffer for 2,000 events with date and time stamp and 10,000 events in MA-NET card buffer
Service	Built-in walk test

Power	
Input Voltage	Input 120VAC 3.2A/230VAC 1.6A; 50/60Hz
Operated Voltage	24VDC 6.5A
Battery	Two 12V 7Ah or two 12V 12Ah (dependent)

Physical	
Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 - 93% RH
Physical Construction	Metal box
Ingress Protection	IP32

Compatibility	
Suitable for Use With	MTech MA Analog Addressable Fire Alarm Systems

- MA-FSCS complies with these requirements.
- MA-FSCS - MTech’s Smoke Management System** typically consists of the following assemblies and components:
- **MA-1000** Control Panel.
  - **MA-1050A** Remote Annunciator.
  - **MA-1050NET** Optional PC-based touch screen remote annunciator graphic display.
  - **MA-8FAN RS485** LNet device switch and LED driver used for control and status indication (Stand-by, ON, and Troubleshooting) installed in the firefighter panel.
  - **MA-IORF** Loop device used for providing trouble indication and activation, installed in the fan-damper controller cabinets.
  - **Steel Enclosure** with hinged locking front panel.
  - **Mimic Graphic Map** with LEDs indicating building and equipment status.



Order Code:
MA-FSCS



MTech’s new smart **Smoke Control Annunciator** is a sleek, compact and modern alternative to old-fashioned annunciators. It combines a reliable keyboard, LED indication, and modern touchscreen capabilities available in 5” or 7” with a graphical interface and an audible alerting system. With built-in, around-the-clock remote monitoring capabilities, this smart Smoke Control Annunciator has it all.

Can be integrated for use together with MTech’s 8FAN as a stand-alone annunciator and/or installed to be used together with 8FAN on the FSCS Smoke Management System.



System Functionality:

- Two touchscreen displays available, (5” & 7”).
- Smart Touchscreen Annunciator permits multiple access levels.
- Indicates the location of all events on the building’s graphic map.
- Allows control of all FACS parameters (device condition and analog values).
- Facilitates full information on current events and enables download of event history to PC in hypertext list form.
- Authorized personnel can also:
- Mute/silence/reboot & reset.
- View faults/disablements/alarms/history events/inputs/ outputs/supervisory.
- View/enable/disable devices.
- Set network time and date.

Features & Benefits:

- Compact LCD color touchscreen display.
- Visual display of alarms and parameters.
- Built-in remote monitoring.
- Audible alerting system.
- Analog clock display.
- Compliant with NFPA guidelines.
- Wall or flush mounting options.
- Remote diagnostics.
- Detailed alarms & fault history.
- Unlimited alerts and notifications.
- 7-line view on display.
- Scrolling unlimited notifications.

Technical Specifications:

Code	Smoke Control Annunciator
Description	Smart Touchscreen Smoke Control Annunciator, fire alarm equipment
Standards/ Certification	Ready for UL 864 10th Edition certification/CE, FCC Class A

Specification

Panel Display	Available in 5” & 7” touchscreen display
Sound	Speakers Optional
Network	RS-485
Resolution	1024x600px or 800x480px

Power

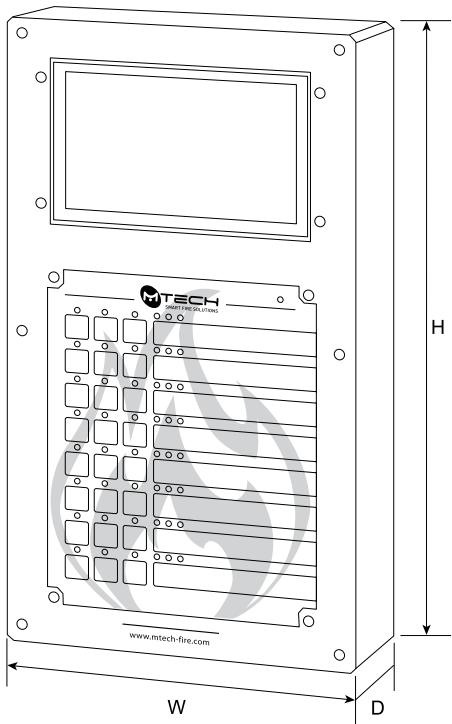
Operated Voltage	16-30VDC 50mA
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Physical

Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH
Physical Construction	Metal casing
Weight	1.450kg or 1.550kg
Ingress Protection	IP31-compliant front panel
Cable Entries	Optional 5 directions for power, communication line RS485 & USB

Compatibility

Suitable for Use With:	MTech MA Analog Addressable Fire Alarm Systems
	FSCS Smoke Management System



Dimensions:

W. 250 mm | H. 300 mm | D. 30 mm



Order Code:

Smoke Control Annunciator

**MA-8FAN** - Universal sophisticated card for smoke control systems, with high specifications which have been designed and manufactured by MTech, combined with simple operation for the end user. MA-8FAN has a multi-use for smoke control of smoke release fans, air pressurization systems, fire dampers, LED drivers, and relay activators. This intelligent device is a part of MA-1000 local NET.



System Functionality:

- Manages 8 smoke-releasing zones control and indications.
- Driver LED for 30 programable external LED indicators.
- Automatically activates smoke release when a fire alarm is activated.
- 4 inputs for external switches (lock, LED test).
- 24 LED indicated buttons.
- 10 connectors for external LED cards (one negative and 3 positive pins on each one, a total of 30 LEDs).
- 3 buttons per smoke-releasing zone (On, Off and Automatic).
- Up to 32 MA-8FAN panels can be used with one MA-1000 and the network is extendable.

Features & Benefits:

- Combines three functionalities in one product (Switch, Indicator, and LED driver).
- System easily expandable using existing wiring.
- Panel accessible by key only, thus preventing any unauthorized use.
- Interacting is user-friendly, owing to the numerous LED indicators.
- Can be used for various applications and not only smoke-releasing systems. Each set of buttons can be programmed to activate any system output.

Technical Specifications:

Code	MA-8FAN
Description	Universal sophisticated card for smoke control systems
Standards	UL pending, TR TC EAC 043-2017

Specification

Operating Voltage	20-35VDC. Nominal 24V
Quiescent Current	16mA Max. 67mA
Wire Gauge	12-30 AWG
RS485 Baud Rate	56700

Input

Trigger Resistance	Short
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Output

Open Collector Current	200mA
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Environmental

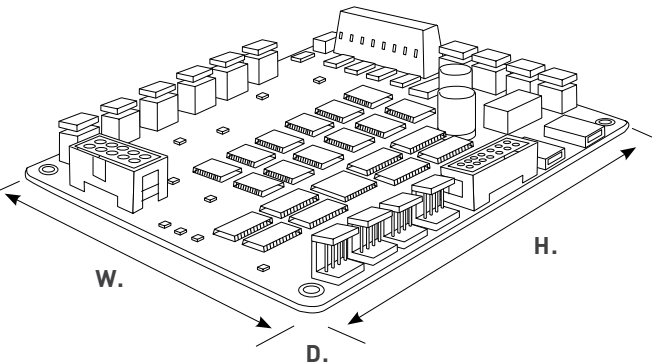
Environmental Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 93% RH

Physical

Construction	PC/ABS
Maximum Cable Distance	400m
Weight	0.176kg
Ingress Protection	IPOO

Compatibility

Suitable for Use With:	MTech MA-1000 MTech MA-RL CARD MTech MA-LED CARD
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Dimensions:

W. 160 mm | H. 130 mm | D. 20 mm



Order Code:
MA-8FAN



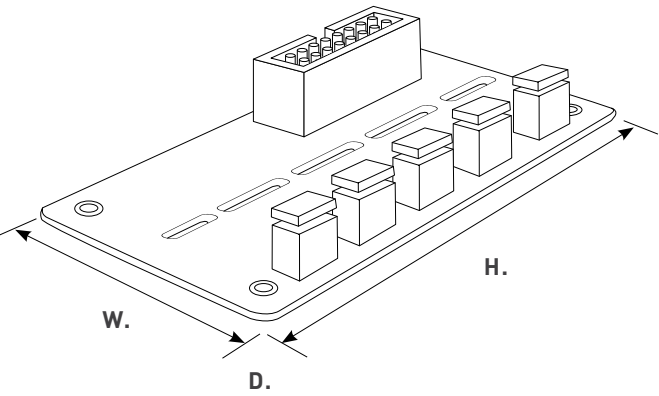
**MA-LED CARD** - Remote LED card manufactured to indicate the state of monitored devices (fans or dampers).  
MA-LED CARD activates LED indicators on the Mimic Map.

System Functionality:

- Indicates the status of smoke-releasing fans and fire dampers on a Zone Mimic Map.
- Can also indicate any activation, trouble, or supervisory.
- 3 colored LEDs: red, green, and yellow.

Features & Benefits:

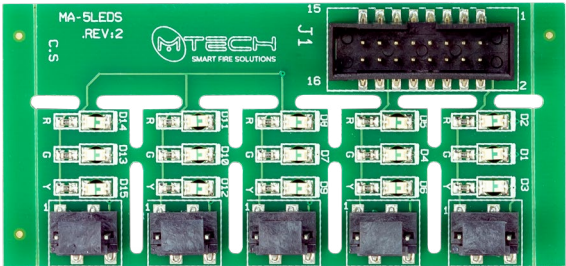
- The panel is easy to interact with owing to the numerous LED indicators and displaying system status.
- Compact design.
- Also, functional as 5 separate cards 3 LEDs per card.
- Quick Plug-and-play activation.



Dimensions:

W. 40 mm | H. 75 mm | D. 10 mm

Order Code:
MA-LED CARD



Technical Specifications:

Code	MA-LED CARD
Description	Remote LED card for status indication.
Incorporates	5 separate cards with 3 LEDs per card.
Standards	EAC 043-2017

Specification	
Operating Voltage	24V
Quiescent Current	15mA
Maximum Current	45mA

Environmental	
Operating Temperature	-10°C to +60°C
Humidity (Non-Condensing)	0 - 95% RH

Physical	
Construction	PC/ABS
Weight	0.20 kg
Ingress Protection	IPOO

Compatibility	
Suitable for Use With:	MTech MA-8FAN MTech MA-DRIVER LED



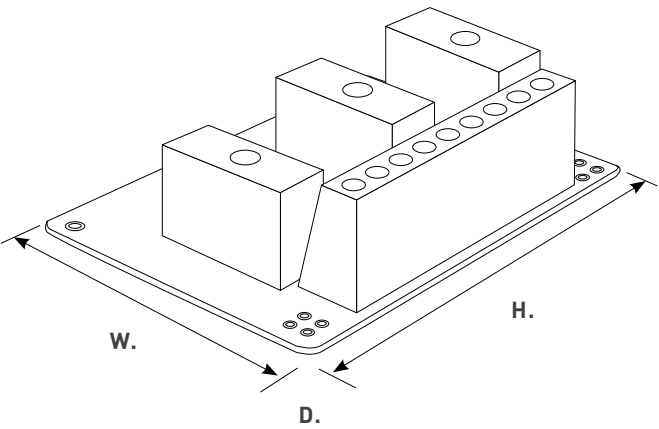
**MA-RL CARD** - Module with three relay dry contact outputs. A universal solution for control over smoke-extracting fans, air pressurization systems, and fire dampers.

System Functionality:

- Controlled dry contact relay.
- One plug-and-play.
- Light indication for relay state.

Features & Benefits:

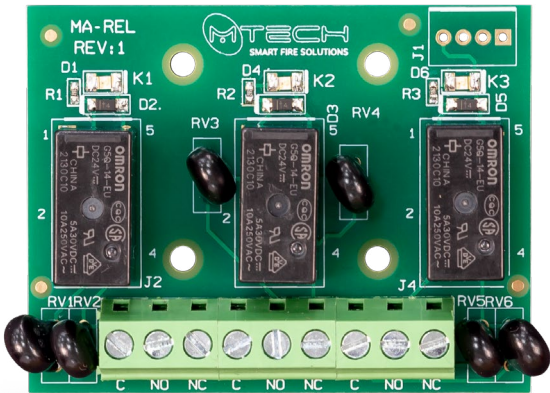
- DIN rail compatible.
- Easy to install and maintain.
- Minimalistic modern design.



Dimensions:

W. 50 mm | H. 35 mm | D. 15 mm

Order Code:
MA-RL CARD



Technical Specifications:

Code	MA-RL CARD
Description	Addressable Micro Single Channel Input Unit
Standards	EAC 043-2017

Specification	
Operating Voltage	18 - 30VDC
Quiescent Current	3.2mA

Inputs	
Trigger Resistance	5K6
End-of-Line Resistance	22K
Short Circuit Fault Threshold Resistance	1K
Open Circuit Fault Threshold Resistance	33 K

Environmental	
Operating Temperature	-10°C to +60°C
Humidity (non-condensing)	0 - 95% RH

Physical	
Construction	PC/ABS
Dimensions (WxHxD)	50mm x 15mm x 35mm
Weight	0.20kg
Ingress Protection	IPOO

Compatibility	
Suitable for Use With	MTech MA-8FAN



# Voice Evacuation System

In crises, people are often stressed out, and act irrationally, therefore require guidance for safe evacuation.

The ideal solution in such situations is MTech's innovative voice evacuation system. Thanks to this solution, using clear, easily understandable messages, even untrained people will be quickly and safely evacuated.

- MTech's voice evacuation system operates along with any fire alarm control panel to provide life safety.
- Pre-recorded digital messages and live paging messages are available.
- Easy to install, operate, and configure.

## Voice Evacuation Products:

### Voice Evacuation System:

MA-AMP100	P. 80
MA-FMIC	P. 82
MA-GOOSENECK MICROPHONE	P. 83





The **MA-AMP100** is a high-performance intelligent audio notification system that takes full advantage of proven digital technology and delivers highly intelligible voice audio for evacuation and mass notification purposes. Pre-recorded digital messages and live paging messages are multiplexed into separate channels.

MA-AMP100 meets the emergency voice alarm requirements of NFPA 72 for UL-listed fire alarm applications. MA-AMP100 panel is available in 100/200-Watt models and is expandable. Includes a microphone, amplifier slot, digital message repeater (DMR), and supervisory interface.



System Functionality:

- Two input channels supporting dual-channel or single-channel audio applications.
- Selectable and adjustable volume.
- Audio output is configurable at 70Vrms or 100Vrms in Class B wiring configurations.
- Live paging messages.
- Pre-recorded messages.
- Background music.
- PTT MIC included.
- RJ-45 FAR numerous remote microphone connections (monitored).
- RJ-45 for additional AMP connections.

Features & Benefits:

- Easy to install, operate, and configure.
- Voltage limit function, short circuit, overload, and overheat protection.
- Innovative output power control technology.
- Systems can grow according to a user’s needs.
- Suitable for single, centralized, and decentralized systems.
- No Ethernet switches required.
- Fast and responsive - even on extensive systems.
- Designed for small to large-scale sound reinforcement.
- Paging microphone overrides message and tone.

Technical Specifications:

Code	MA-AMP100
Description	Voice Evacuation System
Standards	The Standards Institute of Israel (SII) 1220

Specification

Output Power	100 Watt (per slot)
Output Voltage	70/100V
Microphone Input	6mV
Line Output	700mV
Frequency Response	1000Hz
Panel Display	4 Lines X 16 Characters, Multilingual Support
Panel Keyboard	Full Numerical Keyboard, Reset, Silence, Forward, ESC, Enter
Panel Indication	LED Indication for AC, Alarm, Trouble, Silence, Supervisory
Sound	Internal Alarm Buzzer
Programming Port	USB Port for PC Communication
Output Ports	RS485
Network	LNET/RS-485 - For Communication with up to 32 MA-AMP panels.
Service	Built-in Self-Test

Power

Input Voltage	Input 120VAC/230VAC; 50/60Hz
Operated Voltage	24VDC 6.5A
Battery	2 Batteries 12V 9-25Ah each

Environmental

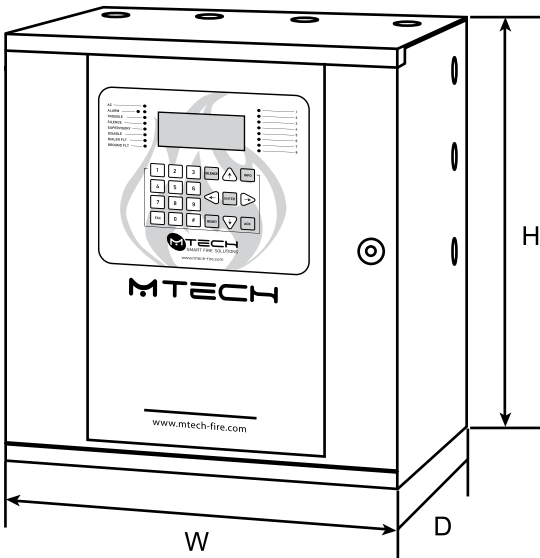
Environmental operating temperature	0°C to +49°C
Humidity (Non-Condensing)	0 - 93% RH

Physical

Physical Construction	Metal Box
Color	RAL 3000
Weight	7 kg
Ingress protection	IP31
Cable Entries	4 top, 11 right side, 2 left side

Compatibility

Suitable for Use With:	MTech MB Conventional Fire Alarm Systems
	MA-1050 Remote Annunciator
	MTech MA Analog Addressable Fire Alarm Systems
	MA-Monitoring Graphical Management Software



Dimensions:

W. 370 mm | H. 393 mm | D. 112 mm

Order Code:

MA-AMP100

# MA-FMIC | Emergency Remote Fire microphone

The **MA-FMIC** an Emergency Remote Fire Microphone housed in a robust, lockable steel enclosure and includes a rugged, fist-held microphone console.

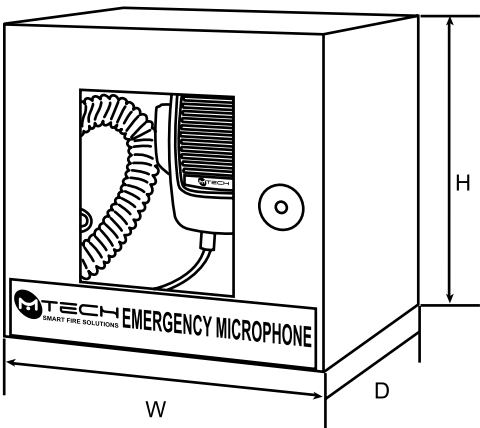


### System Functionality:

- Single zone MA-FMIC.
- Emergency broadcasting using fist microphone capsule.
- Fist microphone capsule is always monitored.
- Key lockable.
- Wall mounted.

### Features & Benefits:

- Simple to use and user friendly.
- Ensures reliable control for efficient evacuation.



### Dimensions:

W. 210 mm | H. 200 mm | D. 90.5 mm

Order Code:

MA-FMIC

### Technical Specifications:

Code	MA-FMIC
Description	Emergency Remote Fire Microphone with Enclosure
Standards	The Standards Institute of Israel (SII) 1220

#### Specification

MIC INPUT	1KhZ
Signal-to-Noise Ratio (S/N, 20kHz LPF, A-WTD)	NOR: 63dB LIM: 58dB
Total Harmonic Distortion (THD, 20kHz LPF)	NOR: 0.3% LIM: 0.7%
Frequency Response (+1/-3dB)	150Hz - 18kHz
Monitor Amp	0.5W 16Ω
Maximum Operable Distance CAT5E (50°C)	Cable Resistance ≤30Ω: 300M 30Ω < Cable Resistance ≤80Ω: 100m

#### Power

Power Source	24VDC (From ARM-911)
Power Consumption	2W

#### Environmental

Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 - 93% RH

#### Physical

Physical Construction	Metal Box
Color	RAL 3000
Weight	2.1 kg
Ingress Protection	IP000

#### Compatibility

Suitable for Use With:	MTech MA-AMP
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# MA-GOOSENECK MICROPHONE | Voice Evacuation System

The **MA-Gooseneck Microphone** facilitates controlled evacuations or assembly of people in emergencies by providing clear voice instructions and live announcements. However, it's not limited to emergencies; consider it as a Public Address (PA) system with valuable extras. In the event of an emergency, especially within public spaces or buildings, ensuring the safety of occupants and visitors is paramount. Rapid and well-coordinated evacuations can save lives.



### System Functionality:

- Simultaneously broadcast to 6 areas of a building connected to the PAVA system.
- Can broadcast to 1-6 selected zones manually, allowing broadcasts to different zones simultaneously.
- Instant announcements as needed.
- PAVA systems accommodate buildings of all sizes, from standalone systems to fully networked multi-input setups.
- Lock/unlock switch.
- Volume regulator.

### Features & Benefits:

- User-friendly.
- Ensures reliable control for efficient evacuation.
- Different areas receive specific messages simultaneously.
- Priority microphones allow live announcements to selected or all areas.

### Technical Specifications:

Code	MA-Gooseneck Microphone
Description	Gooseneck Microphone
Standards	The Standards Institute of Israel (SII) 1220

#### Specification

MIC INPUT	1KhZ
Signal-to-Noise Ratio (S/N, 20kHz LPF, A-WTD)	NOR: 63dB LIM: 58dB
Total Harmonic Distortion (THD, 20kHz LPF)	NOR: 0.3% LIM: 0.7%

Frequency Response (+1/-3dB)	150Hz - 18kHz
Monitor Amp	0.5W 16Ω
Maximum Operable Distance CAT5E (50°C)	Cable Resistance ≤30Ω: 300M 30Ω < Cable Resistance ≤80Ω: 100m

#### Power

Power Source	24VDC (From ARM-911)
Power Consumption	2W

#### Environmental

Environmental Operating Temperature	0°C to +49°C
Humidity (Non-Condensing)	0 - 93% RH

#### Physical

Physical Construction	Metal + ABS Box with Flexible Gooseneck
Color	Black
Weight	0.9 kg
Ingress Protection	IP000
Cable Entries	Backside RJ45
Volume Regulator	Philips Screw Adjuster

#### Compatibility

Suitable for Use With:	MTech MA-AMP
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### Dimensions:

W. 140 mm | H. 490 mm | D. 200 mm

Order Code:

MA-Gooseneck Microphone



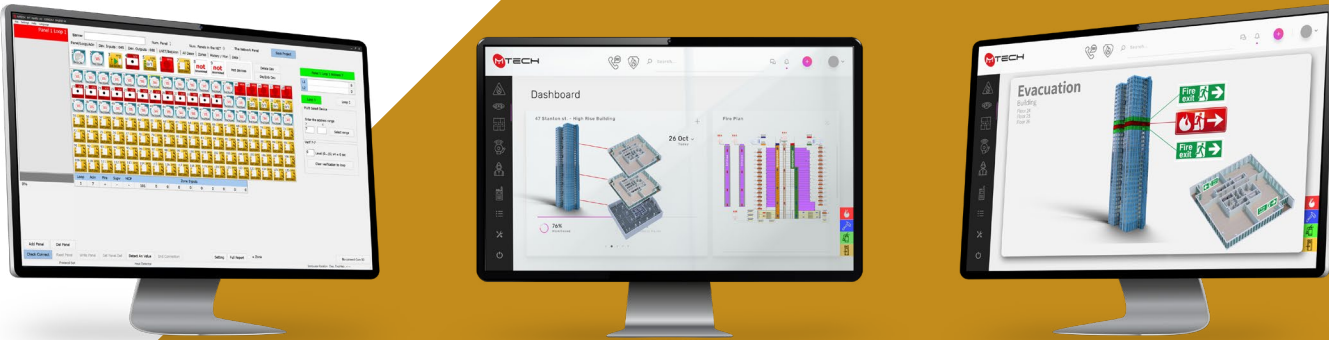
# SOFTWARE

Designing a fire alarm system to address diverse, specific customer requirements can be a meticulous assignment. Duplicate effort of manual steps is both time-consuming and laborious. MTech's fire alarm system design software streamlines entire fire alarm projects for consultants and system specifiers. Automation of processes conserves time and effort for optimized efficiency. Rapid customization of system planning, and design offers benefits for service providers and end users alike.

MTech's innovative software is capable of modifying and improving projects' architecture to always beAhead of the competition.

- All-in-one fire alarm system software planning and supporting the entire MTech fire detection product portfolio which configures complete projects with panels, loops, and interface modules for both conventional and addressable devices.
- Unique customized building and customer requirements.

- Maintains an overview of networked systems.
- Error-prone data transfer between tools.
- Tests the installation & communication quality.
- Allows to change device addresses and modes.
- Device status reports.
- Quantity and configuration reports.
- Online monitoring for installers.



## Software Products:

### Off-Site Installer Software

MA-Site Installer	P. 86
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### Addressable Accessories

MA-Monitoring	P. 88
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### Safety Building Management Software

MA-Graphical Monitoring	P. 90
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**MA-Site Installer software** is designed for fire safety professional engineers to configure and maintain MTech’s fire safety systems which include analog addressable, conventional, smoke management and extinguishing fire alarm control panels, remote annunciators, and a wide range of analog addressable and conventional detectors, VADs, input/output addressable controllers, and networkable interfaces.

MA-Site Installer is the ideal software for technicians who service projects following commissioning. It has a wide set of functions that allow you to efficiently service and diagnose all devices connected to the system and issue detailed reports concerning the status of devices and operational sequences.



Features:

- Quick and intuitive for programming and servicing MTech’s UL-listed systems according to NFPA 72:2019.
- Auto learning/recognition mode for loop devices.
- View the system’s configuration on network panels, loops, zones, or devices.
- View full event history, including status and device properties, and detailed maintenance reports for building service engineers.
- Schedule system functionality tests, including overall system devices and management operations according to NFPA 72:2019.
- Supports English, Hebrew, and Russian.

Benefits:

- Straightforwardly download programs for new projects and repair existing projects from a secure backup copy.
- Easily manage panels, loop-connected devices, and zone logic for an entire project.
- Easy configuration of MTech’s Smoke Management System, UUKL listed according to NFPA 92:2018.
- Detailed system report with the logic of system devices functioning after commissioning a project.

System Requirements:

Hardware Requirements	Intel® Core™ i3 minimum
	2GB memory, 100MB free disc space
	USB port
Platform	Windows XP, 7, 10
Display Resolution	1024×768 or higher
Web Browser	Internet Explorer 5.5+ and other web browsers

Technical Specifications:

Code	MA-Site Installer
Description	Fire equipment’s site installer software

Parameters	
Fire Alarm Control Panels per network	64
Address per network	64 000 000
Supported communication protocol	USB for programming and maintenance
Supported online communication	With Apollo loop protocol panels
Supported panels	M-1, MA-1, MA-1000A - Apollo supported protocols
Supported panel loop equipment protocol	XP95, Discovery, CoreProtocol (Detectors, Interfaces Controllers, Buttons and VADs)
Supported online communication	With Eaton loop protocol panels
Supported panel	MA-1000
Supported panel loop equipment protocol	Cooper/Eaton Protocol
Supported protocol equipment’s	Detectors (MA-320, MA-330, MA-340), Interface Controllers (MA-IN, MA-OR, MA-ZONE, MA-FAN), Buttons (MA-CP), VADs (MA-BA, MA-BS, MA-BSH, MA-S, MA-SH)
Supported additional equipment’s	Remote Annunciators (MA-1050A), Conventional (MB-202/204/208) and Extinguisher panels (MB-208/400)
Supported UUKL panel/systems	MA-FSCS, MA-IOR, MA-8FEN
Supported PAVA	MA-PAVA
Report format file	HTML
Supported reports:	Network event log
	Full history report
	Detectors analog value

Order Code:

MA-Site Installer/A Apollo loop protocol

MA-Site Installer/E Eaton loop protocol



**MA-Monitoring** - MTech's MA-Graphical Monitoring Software is an exceptionally powerful supervision management tool, designed to monitor and maintain MTech's fire safety systems. MA-Monitoring software allows control of all MTech's range of equipment which incorporates analog addressable, conventional, and smoke control panels. Supports TCP/IP network configuration.



System Functionality:

- 2D/3D graphic screen.
- Programmable buttons & displays.
- Password and PIN code protected.
- Simply visualize any networked panel, loop, zone, or device.
- View history events, status, and device properties.
- View the analog value of analog/addressable devices.
- Tests network connection and value of network signal.
- Visualization of system area within loop plan.
- System key information on defects/faults or absent inputs from panels and addressable devices on the overall network or loop.
- Schedules system functionality tests and device management operations.

Features & Benefits:

- Quick, simple programming and service of MTech's UL listed system according to NFPA 72:2019.
- Multi-language support according to the country.
- Easy manageable panels/devices on existing/modernized/ retrofit projects.
- Instantly locates triggered fire devices.
- Enables immediate response to fire events.
- Facilitates supervision of large sites/multi networks over TCP/IP.
- Complete programming & control functions.
- Detailed system reports.
- Detailed maintenance reports for building service engineers.

Technical Specifications:

Code	MA-MONITORING
Description	Graphical Monitoring Software
Smoke Control	Dedicated or nondedicated system, UUKL.S36158

Specification

Connection	TCP/IP RS232
Operating Voltage	Windows 7/10/11
Supported Image Format	BMP
Multilevel	Yes
Audio Format	MP3, WAV
Maximum Plan Resolution	4K
Report Format	HTML
History Log Size	100.000 events per file
Maximum Event Log	Depends on HD Size
Maximum Panels in Network	42
Maximum Networks	254

System Requirements

Minimum Hardware Required for Basic Image Size 1024x768	Intel i3 or equivalent, 8G RAM, basic graphics card 2G memory, hard disc 8G RS232 port, USB port, LAN port or wireless, keyboard & mouse.
Display	HD
Recommend Hardware	Intel i5 or equivalent,16G RAM, graphics card 8G memory, 32G disc space, RS232 port, USB port, LAN port or wireless, keyboard & mouse

Compatibility

Suitable for Use With	MTech Analog Addressable Fire Alarm Systems
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Order Code:

MA-MONITORING



**MA-Graphical Monitoring** is a software designed for building monitoring and maintenance of MTech’s fire safety system which includes: analog addressable, conventional, extinguishing and firefighters fire smoke control panels, including remote annunciators and wide range of analog addressable and conventional detectors, VADs, input/output addressable controllers and networkable interfaces. Provides visual fire and smoke management in both 2D and 3D, in the event of a fire, fault or alarm on any device in the network, the MA-Graphical Monitoring highlights the exact location on an interactive floorplan. Easy navigation and real-time visibility put all relevant information at your fingertips, facilitating an immediate response by either an automated system or human intervention. When covering a very large site, or even a city, multi-layered overlay of maps enables fire officers to drill down to the exact location of the event.



Ideal for both system upgrades and new installations, the sophisticated networking technology of the S-BMS enables seamless integration with MTech’s range of fire safety solutions, or operation with legacy third-party equipment.

Features:

- Multiple 2D/3D graphic screen.
  - Programmable buttons and displays.
  - Password and PIN code protection.
  - View any networked panel, loop, zone or device.
  - View event history, status and device properties.
  - View analog value of analog addressable devices.
- Checking network connection and value of signal in network.
  - Visualization of system floor with loop plan.
  - System key information regarding missing panels, alarms, or faults anywhere on the network or loop.
  - Scheduling system functionality test and devices management operation.

Benefits:

- Quick and intuitive to programming and service Mtech UL listed system according to NFPA 72:2019.
  - Multi-language support function: English, Hebrew, Russian and Uzbek.
  - Easy to manage panels and devices on existing/modernized/ retrofit projects.
  - Quickly locate fire devices that have been triggered.
  - Enables immediate response to fire events.
- Enables supervision of large sites/multi network over TCP/IP.
  - Enables multi zone programming for alarm/releasing/ extinguishing devises.
  - Enables full programming and control function on MTech’s Smoke Management System, UUKL listed according to NFPA 92:2018.
  - Detailed system report.
  - Detailed maintenance report for building service engineer.

System Requirements:

Hardware Requirements	Intel® Core™ i5 minimum
	1GB free disc space
	1 RS232 serial port or USB port with serial adapter, 100/1000 Mps LAN port or wireless LAN card
Platform	Windows XP, 7, 10
Display Resolution	1024×768 or higher
Memory	8 GB DDR4 2933MHz minimum
Storage	500 GB 7200RPM HDD minimum
Web Browser	Internet Explorer 5.5+ and other web browsers

Note: if the software is used for a very large and complex site, hardware requirements need to be higher. Please consult with Mtech support team for technical guidance.

Supported image format	BMP
Supported audio format	MP3
Supported reports:	Network event log
	Full history report
	System devices test report

Technical Specifications:

Code	MA-Graphical Monitoring
Description	Fire safety graphical monitoring and management software

Parameters

Networks	256
Fire Alarm Control Panels per network	64
Max events	Non limited
User access levels	2
Max history log sizes	Non limited
Supported communication protocol	USB for service and maintenance
Supported network protocols	MA-NET RS-485, MA-NET TCP/IP
Supported panels	M-1, MA-1, MA-1000A, MA-1000, MA-FSCS
Report format file	HTML
Remote protocol	TCP/IP
Max maps levels	Non limited
Max buildings	Non limited
Max floors	Non limited
Max devises	16 384 000
Max floor plan size	7680 × 4320 pixels

Order Code:

MA-Graphical Monitoring





MTech Fire Detection Systems

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