

# MORLEY-IAS MAX FIRE ALARM PANELS

Morley-IAS Max panels are multiprocessor fire detection systems that are suitable for configuration of a wide range of installations.

The system offers fire detection solutions integrated for many applications, like hotels, offices, hospitals, industrial environments, and production facilities.

Morley-IAS Max panels are not a simple FACP but an advanced very powerful fire detection system that uses the simple yet powerful Boolean logic and CAN bus technology. This protocol, originally designed for operation in industrial environments, makes the system highly resistant to external factors such as electrical disturbances and other sources of false alarms.

The system is certified in compliance with the standards EN54-2, EN 54-4 and EN54-13.



## FEATURES AND BENEFITS



### USER INTERFACE

The ergonomic user interface is designed so that every operation is easy and intuitive. The panel has a 7" TFT touch display (Back lit 800 x 480) with 256 colours for entering the control panel programming data and interacting with the operators.

4 event status colour changing backgrounds for increased user situational awareness.



### NETWORK BETWEEN PANELS

MA-2000 and MA-8000, can be networked thanks to its two high-speed, opto-isolated, CAN bus lines for connecting a fail-safe closed loop network. With components distributed throughout the building, up to 64 panels or 128 loops can be networked together to build a unified system that shares events and logic. All networked panels include built-in CAN bus network diagnostics with visual topology for fast and simple fault finding.



### MULTIPLE INSTALLATION OPTIONS

Morley-IAS Max panels offer multiple installation options, in addition to standard wall mounting. Special frames are available for flush mounting options, to deliver high quality design in commercial or luxury environments. Furthermore, MA-2000 and MA-8000 can be installed in a standard 19" rack without additional kits.

# Morley-IAS Max Fire Alarm Panels Technical Specifications

## MAIN FUNCTIONALITIES

- 4 access levels in accordance with EN-54 standards.
- Programmable text (32 characters) for points and zones.
- Up to 2000 soft zones in a network configuration or standalone for MA-2000 & MA-8000, up to 150 soft zones for MA-1000.
- 1600 logical groups in a network configuration, 400 in stand-alone. No limit on the total number of points per logical group.
- Network system capacity of 64 panels or 128 loops total.
- 40 Virtual zonal indicators on screen with 7 status colour coding. Expandable to 1120 virtual zones using a mimic (MA-LCD7)
- 750mA per loops. Providing greater power for EN54-23 VAD devices.
- Control-by-event (CBE) equations for activations with Boolean logical operators (AND, OR, DEL, etc).
- Historical log stores 10,000 events, plus 4,000 active events in non-volatile memory (standalone or network configuration).
- Clock in real time.
- Auto-programming loop with automatic recognition of device types.
- Decision algorithms for alarm, pre-alarm, and faults.
- Automatic day / night sensitivity change.
- Indication of the need to clean the smoke sensors.
- Programmable alarm threshold for all sensors.
- Walk-Test function by zone.
- 3 x user defined alarm relays (NO/NC), each programmable to be monitored 1-amp sounder circuits. Two of them allows 6 programmable functions.
- 1 x 24V 1Amp Aux supply.

**User Interface:** User Interface: as defined by the EN 54-2 standards.

The user interface has an intuitive event tab system which allows for easy navigation and information display for all event types.

A full virtual QWERTY keyboard including numbers and special characters is activated on screen to support label entry.

A CBE (Cause-by-event) keyboard is activated on screen during logic entry. Dedicated physical buttons below the screen for easy access to the following functions: Evacuation, Reset Delay, Silence Buzzer, Silence / Resound Sounders, Reset events.

**Zones:** They serve as a basic indication to identify the position of an event, as indicated in EN 54-2.

MA-2000 and MA-8000 offers up to 2000 soft zones in both stand-alone and network configuration. The MA-1000 single loop non networkable panel has up to 150 soft zones. Up to 50 points can be associated to each zone. Each Zone can be labelled with up to 32 characters.

All panels will display virtual zonal indicators from 1-40 on the touch screen display in both standalone and network configuration. Each zone provides a status colour coding, which includes: Fire (red), Pre-alarm (amber), Zone Fault (yellow), Zone disabled (grey), Zone healthy (green), Zone in Test (dark blue) and light blue if Zone is not used.

Zones are considered 'global' on a network which means they can be shared across loops and panels.

**Detection loops:** based on the proven Honeywell loop technology to connect devices in the field, Morley-IAS Max Panels are specifically designed to support the System Sensor & Morley-IAS protocol, to offer the best and most flexible experience to the installer and operator.

This includes compatibility with the System Sensor/Morley-IAS Agile™ wireless devices.

Morley-IAS Max Panels are available in different loop configurations:

- MA-1000 – 1 loop non-networkable
- MA-2000 – 2 loop networkable
- MA-8000 – 4-8 loop networkable

MA-8000 in its basic configuration has 4 loops. With two further MA-LIB2 boards, the panel can be expanded to up to 8 loops in the same enclosure.

**Addressing devices on the detection loop:** on the panels programmed for Morley-IAS devices, it is possible to assign addresses from 1 - 99. Set via the rotary-switches on the addressed devices, on the same loop can be connected 99 detectors and 99 input/output modules. Granting a total of 198 addresses per loop.

**Network between panels:** View and control all events and panels connected from anywhere on the network. Any action taken against an alarm or event detected in any position, can be performed anywhere on the network regardless of the panel that detected the alarm or event.

An optional CAN bus signal amplification board, model MA-BST-C, enables the standard distance of 500 meters between panels to be doubled. Up to 8 CAN bus boosters can be connected on the network.

Network limited to 64 panels or 128 loops.

**PKMA Tool:** is a configuration software tool with an "office-like" interface which includes guided rule building and fault detection features.

Configuration of the entire network of panels from a single panel and with a single configuration file. Transfer of the programming with a USB flash drive without the need for a cable connection is possible.

PKMA tool can be downloaded free of charge from the Honeywell website.

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PART NUMBER	DESCRIPTION
MA-1000-02	1 loop System Sensor, Morley-IAS & Apollo, 100W 24V power supply, 1.2Ah max batteries, 7" colour touch display.
MA-2000-02	2 loop System Sensor, Morley-IAS & Apollo, 150W 24V power supply, 1.7Ah max batteries, 7" colour touch display.
MA-8000-02	4 loop System Sensor, Morley-IAS & Apollo, 200W 24V power supply, 3.8Ah max batteries, 7" colour touch display.
MA-LIB2-02	Expansion card 2 loop System Sensor, Morley-IAS & Apollo for MA-8000.
E-SIB	Enablement dongle key for serial communications: CAN bus network and TPP.
MA-BST-C	Booster card for CAN bus network.
MA-1BZL	Flush bezel kit for MA-1000.
MA-2BZL	Flush bezel kit for MA-2000.
MA-8BZL	Flush bezel kit for MA-8000.

MAIN FEATURE	MA-1000	MA-2000	MA-8000
<b>BASIC LOOP</b>	1	2	4
<b>ADDITIONAL 2 LOOP CARD</b>	No	No	2
<b>PROTOCOL</b>	Morley-IAS (MIAS)		
<b>MAIN DISPLAY</b>	7" touch screen		
<b>PHYSICAL KEY</b>	5		
<b>VIRTUAL ZONAL LED</b>	40		
<b>SOUDER OUTPUT</b>	1 (monitored 1 A, balanced with resistor or diode)		
<b>OUTPUT</b>	1 fault (NO/NC) 3 Alarm / Function Configurable (Alarm - USR1-USR2) Configurable (NO/NC or monitored 1 A, balanced with resistor or diode)		
<b>USER 24 VDC OUTPUT</b>	1 max 1 Amp		
<b>LOOP POWER</b>	750 mA		
<b>USB</b>	1		
<b>SERIAL PORT</b>	1 RS485 isolated		
	1 RS232/RS485 isolated (Printer or TPP)	2 RS232/RS485 isolated (Printer or TPP)	
<b>POWER SUPPLY</b>	24V-100W	24V-150W	24V-200W
<b>BATTERY</b>	2x 12V-1.2Ah	2x 12V-1.7Ah	2x 12V-3.8A
NETWORKING AND CONNECTIVITY	MA-1000	MA-2000	MA-8000
<b>PANEL NETWORKING</b>	No	CAN Bus, max. 64 panels or 128 loops	
MECHANICAL	MA-1000	MA-2000	MA-8000
<b>COLOR (PLASTIC, METAL)</b>	RAL 9002		
<b>WALL MOUNT</b>	Yes		
<b>FLUSH MOUNT</b>	Yes		
<b>RACK MOUNTING</b>	No	Yes	
<b>DIMENSION MM (HxWxD)</b>	265 x 365 x 145	265 x 483 x 217.5	398 x 483 x 217.5
<b>CABLES HOLE ON TOP</b>		(H= 6 rack units)	(H= 9 rack units)
<b>CABLES HOLE ON TOP</b>	7	11	21
<b>CABLE GROUNDING</b>	Cabinet	Bar	Bar
ENVIRONMENTAL	MA-1000	MA-2000	MA-8000
<b>OPERATING TEMPERATURE</b>	-5 °C to +40 °C		
<b>STORAGE TEMPERATURE</b>	-10 °C to +50 °C		
<b>HUMIDITY</b>	5% - 95% non-condensing		
<b>IP</b>	30		