

# MAx FIRE ALARM PANELS

Morley 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.

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

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



## 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 (800 x 480 with backlight) with 256 colours for entering the control panel programming data and interacting with the operators.



### NETWORK BETWEEN PANELS

Each control panel, 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

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.

# 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, 400 logical groups in stand-alone systems and 1600 groups in network configuration with 64 panels or 128 total loops.
- Control-by-event (CBE) equations for activations with 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 lines with automatic recognition of the model of the devices.
- Decision algorithms for the 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.

**User Interface:** All functions are available with access to the 4 password levels as defined by the EN 54-2 standards.

Dedicated buttons below the screen for easy access to the following functions: Evacuation, Reset Delay, Silence Buzzer, Silence / Reset Sounder, Reset events.

The main display shows up to 40 Zone multi-colour LED indicators to monitor alarm, fault, test and disablement zone conditions.

**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 offer up to 2000 soft zones both in stand-alone configuration as well as in the 64 panels / 128 loop network configuration. Up to 50 points can be associated to each zone.

**Detection lines:** based on the proven Honeywell loop technology to connect devices in the field, MAx panels supports Systems Sensor protocol to offer the best and flexible experience to the installer maintains the simplicity of being able to power and communicate with devices via a pair of wires.

MAx panels are available in different loop configuration:

- 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 line:** on the panels programmed for System Sensor 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.

## Network between panels:

Any action taken against an event detected in any position can be performed anywhere on the network regardless of the panel that detected the alarm.

An optional CAN bus signal amplification board, model MA-BST-C, allows to double the standard distance of 500 meters between panels. Up to 8 CAN bus booster can be connected on the network. Optional fibre optics extension (external DIN rail mountable) for the network in single and Multi-mode. To extend the network distance between to the panels even further (up to 2km)

**MA-Tool:** configuration software tool with an "office-like" interface and great simplicity of use, which can be downloaded free of charge from the Honeywell website.

Configuration of the entire network of panels from a single position is possible. Transfer of programming with a USB key without the need for a cable connection with the control is possible.

# MAX Fire Alarm Panels Technical Specifications

PART NUMBER	DESCRIPTION
MA-1000-01	1 loop System Sensor, 100W 24V power supply, 12Ah max batteries, 7" colour touch display.
MA-2000-01	2 loop System Sensor, 120W 24V power supply, 17Ah max batteries, 7" colour touch display.
MA-8000-01	4 loop System Sensor, 200W 24V power supply, 38Ah max batteries, 7" colour touch display.
MA-LIB2-01	Expansion card 2 loop System Sensor 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.
MA-TOOL	System configuration software tool for Windows 64 bit.

MAIN FEATURE	MA-2000	MA-8000
<b>BASIC LOOP</b>	2	4
<b>ADDITIONAL 2 LOOP CARD</b>	No	2
<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 output 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 repeater 1 RS232/485 isolated TPP 1 RS232/RS485 isolated (Printer or TPP)	
<b>POWER SUPPLY</b>	24V-150W	24V-200W
<b>BATTERY</b>	2x 12V-17Ah	2x 12V-38A
NETWORKING AND CONNECTIVITY	MA-2000	MA-8000
<b>PANEL NETWORKING</b>	CAN-BUS, max 64 panels, max 128 loops	
MECHANICAL	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>	Yes	
<b>DIMENSION MM (HxWxD)</b>	265 x 483 x 217.5 (H= 6 rack units)	398 x 483 x 217.5 (H= 9 rack units)
<b>CABLES HOLE ON TOP</b>	11	21
<b>CABLE GROUNDING</b>	Bar	Bar
ENVIRONMENTAL	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	