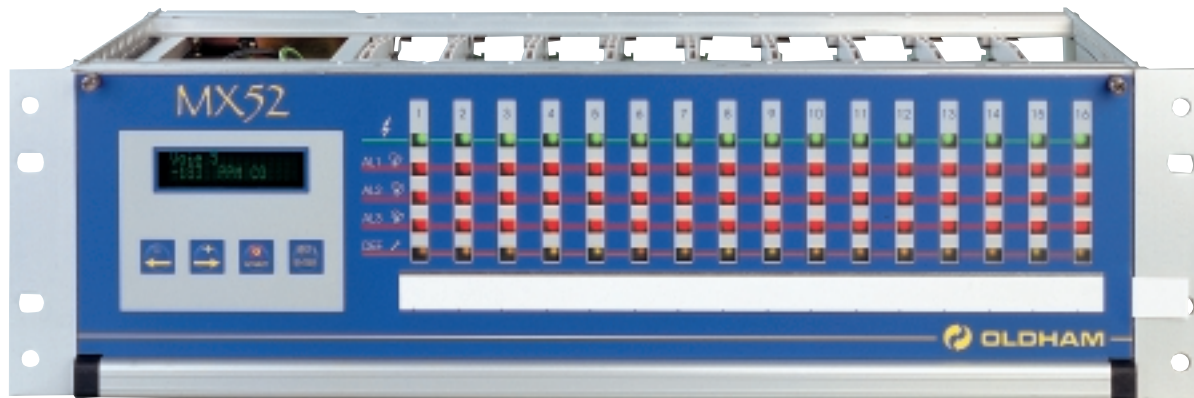


# MX 52

16 Channel Controller

- Programmable keyboard
- Modular control panel (3U, 19")
- Master digital display
- Up to 16 channels
- 33 gas alarm thresholds, one with time delay, 1 common fault alarm



**T**he MX 52 control unit allows various detectors to be connected and monitored. Any gas detector from Industrial Scientific or any other 4-20 mA device can be monitored and controlled.

The modular design and flexibility enable the MX 52 to be adapted to your exact requirements.



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# MX 52

## A Control Unit Adapted To Your Needs

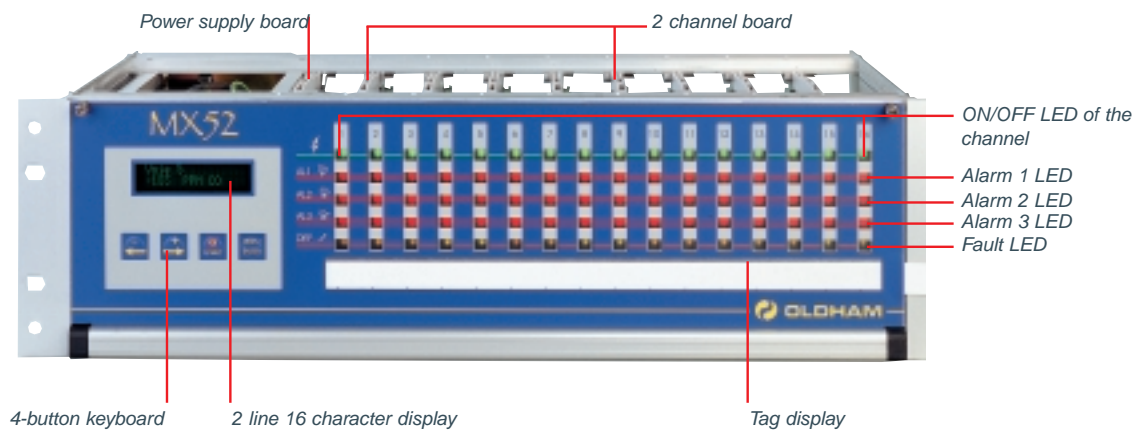
The innovative features of the MX 52 are integrated into a 3U 19" rack frame for use in a variety of applications.

The MX 52 can be programmed either through the keyboard or by an external PC.

## Detection, display and alarms

Each of the 16 channels performs the following:

- continuous monitoring of connected detector(s)
- cyclic display of the detected gas, its status, content and unit (ppm, LEL or %)
- alarms are initiated if concentration exceeds preset thresholds
- relays activated to enable external warning devices (valves, audio/visual alarms)
- fault alarms
- 4-20 mA outputs
- serial RS485 Modbus interface



## Performance, Reliability, Safety

### Performance

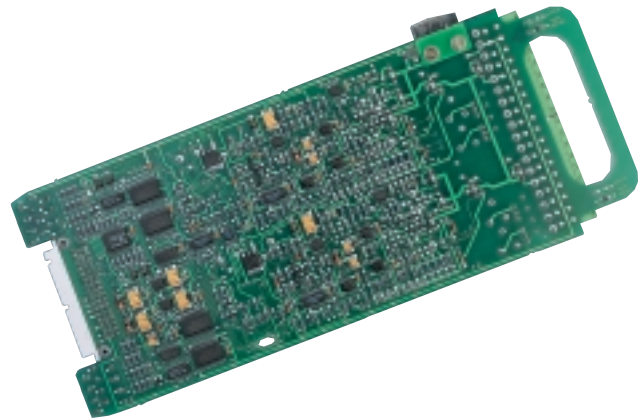
- 19" rack frame 3U high with up to 16 channels (8 cards - 2 channels each)
- Easy wiring and installation
- Simple programming
- Fault and gas alarms monitored by a built in micro-controller
- 8 cards with 2 independent channels each
- Fixed or scrolling fluorescent display with 2 lines, 16 characters
- 3 gas alarm thresholds, individually adjustable
- Instantaneous alarms 1 and 2
- Alarm 3 delayed or averaged
- 5 LED indicators per channel
- Local or remote alarm acknowledgement
- 4-20 mA input with gas detectors, but also with other types of detectors (temperature, air speed, pressure)
- Common serial output with RS485 Modbus protocol
- 4-20 mA output per channel

### Reliability

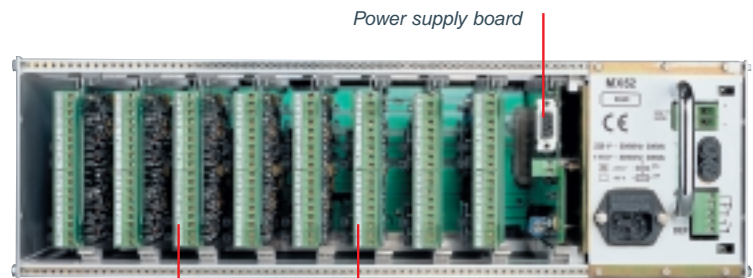
- Protection against radio-frequency and electromagnetic interference prevents false alarms (CE marked)

### Safety

- General fault alarm
- Remote audible alarm
- Transmission for each measurement channel, alarms, faults, state of relays on RS232 or 485 output
- Integrated display and LED test
- Fail safe relay operation
- Maintenance bypass mode indicated by LED indicators



2 channel board



Power supply board

Terminal block

2 channel board

Rear view



# MX 52

## SPECIFICATIONS

Type: Wall mounted controller  
Function: Microcontroller-based multichannel monitor  
Capacity: 8 cards, 2 independent channels each (max 16 channels)  
Display: Fluorescent 2 lines 16 fixed or scrolling characters

### Alarms

**Fault alarms:** System functioning normally  
Faulty interface link  
Faulty detector  
Faulty microcontroller  
Specific channel identification with yellow LED  
Common fault relay

**Gas alarms:** 3 independent thresholds per channel  
Third threshold delayed or averaged  
Automatic or manual reset  
Programmable increasing or decreasing alarm  
Visual red LED  
Relay output per channel (alarm 1 and 2), common relay on alarm 3

**Audible alarm:** 80 dB at 30cm

**Outputs:** 2 independent gas alarm relays per channel (2 A - 250 VAC Rating for resistive load)  
1 common gas alarm 3 relay or common audible alarm transfer (programmable)  
1 common fault relay  
Programmable positive or negative safety on alarm relays  
Fail safe on fault  
Programmable NC or NO output on alarm 1, alarm 2 and fault alarm, SPDT on alarm 3

### Inputs

Type of detectors: Flammable detector bridge type  
Oxygen, toxic or flammable detector 4-20 mA output, 2 or 3 wire  
Other detectors standard current output

**Links:** 2 or 3 wires re-inforced cable

**Loop impedance:** Flammable 3 wire : 32 Ω  
4-20 mA: 2 or 3 wire - 56 Ω  
Average line length (in meters at 20°C for a 1,5 mm<sup>2</sup> conductor) :  
- Flammable : Bridge type - 1000 m 4-20 mA - 2000 m  
- Power supply control per LED on each channel (power ON/OFF green LED indicator)

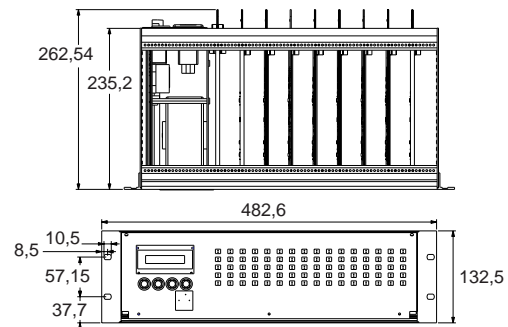
**Signal output:** Analog 4-20 mA per channel  
Serial RS 485 or 232 MODBUS protocol

**Power supply:** 103 to 122 V AC or 207 to 244 VA  
21 to 31 V DC  
Power consumption : 300 VA or 240 W

**Miscellaneous:** Local or remote acknowledgement  
Operating temperature: -10 +45°C  
Relative humidity: 5 to 95 % non condensed  
In compliance with European standards 50054, 50081 and 50082

**Dimensions:** Rack 3U, 19" frame  
Dimensions : 482 w x 132 h x 266 d in mm

**Weight:** 15 Kgs



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