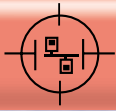


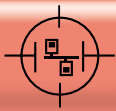
# 16 CHANNEL GAS MONITOR PANEL

CH<sub>4</sub>, CO, O<sub>2</sub>, H<sub>2</sub>S  
CO<sub>2</sub>, NH<sub>3</sub>, Cl<sub>2</sub>, O<sub>3</sub>, NO, H<sub>2</sub>, HCN, SiH<sub>4</sub>

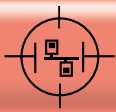
**MX52**



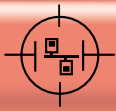
**Programming  
keyboard**



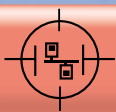
**Modular control  
panel (3U, 19")**



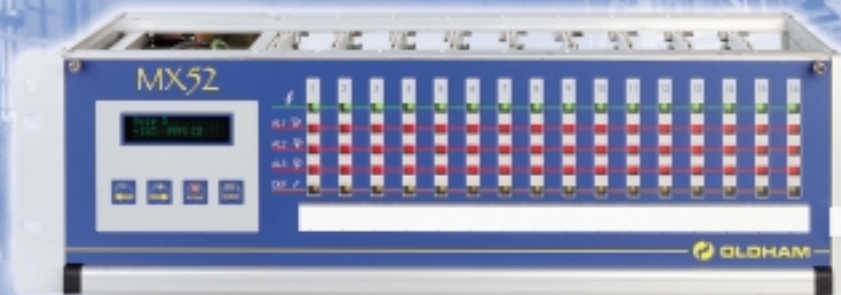
**Master digital  
display**



**Up to 16  
independent channels**



**3 gas alarm thresholds,  
one with time delay  
1 common fault alarm**



# **OLDHAM**

*Your environment, your safety,  
let's master them together*

CE

# MX 52 control unit



Example : waste treatment station

*The control unit type MX 52 allows various detectors to be connected and can be utilised by other manufacturers' instruments with a 4-20 mA output signal.*

*The modular design and programmability enable the MX52 to be adapted to the end users exact requirements.*

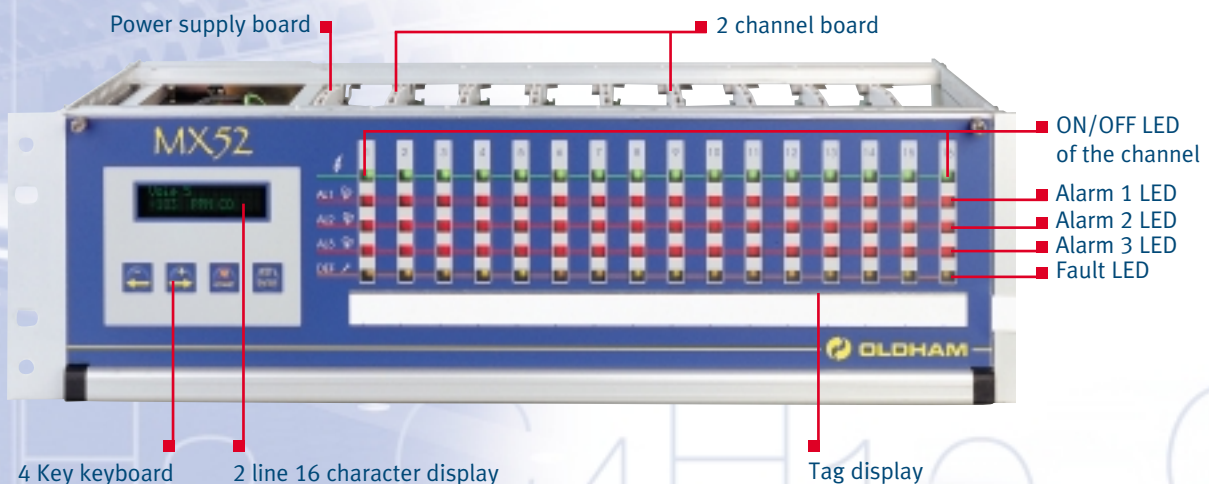
## A control unit adapted to your needs

The innovative features of the **MX52** are integrated in 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 perform the following :

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



# Performance, reliability, safety

## ⊕ PERFORMANCE

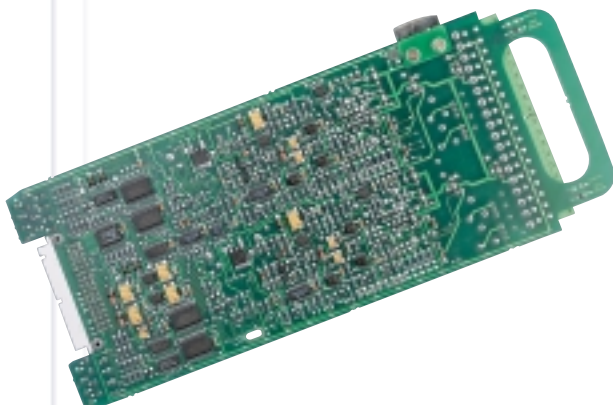
- The main frame is a 19" rack frame 3U high with up to 16 channels (8 cards - 2 channels each)
- Easy wiring
- Simple programming
- Fault and gas alarms monitored by a built in micro-controller and internal software
- 8 cards with 2 independent channels each
- Fixed or scrolling fluorescent display 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 enables the connection, not only with **OLDHAM** detectors, but also with other types of detector (temperature, air speed, pressure)
- Common serial output with RS485 MODBUS protocol and 4-20 mA output per channel

## ⊕ RELIABILITY

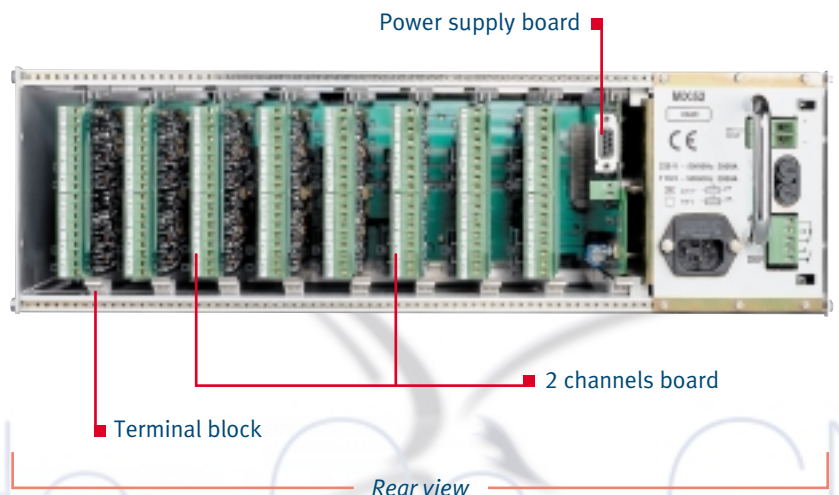
- Protection against radio-frequencies and electromagnetic interference prevents false alarms (CE marked)

## ⊕ 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 a LED
- Conformance to European standards EN 50054, 50081 and 50082.



2 channels board



Power supply board

2 channels board

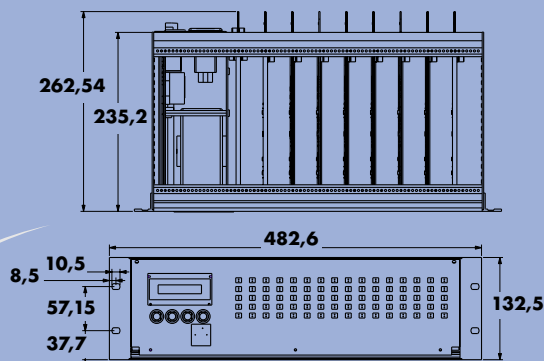
Terminal block

Rear view

# TECHNICAL SPECIFICATIONS

|                        |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>MANUFACTURER :</b>  | • OLDHAM SA                                                                                                                                                                                                                                                                                                                                                                                                                                                 |
| <b>TYPE :</b>          | • MX 52                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
| <b>FUNCTION :</b>      | • Micro controller based multichannel monitor                                                                                                                                                                                                                                                                                                                                                                                                               |
| <b>CAPACITY :</b>      | • 8 cards, 2 independent channels each (max 16 channels)                                                                                                                                                                                                                                                                                                                                                                                                    |
| <b>DISPLAY :</b>       | • Fluorescent 2 lines 16 fixed or scrolling characters                                                                                                                                                                                                                                                                                                                                                                                                      |
| <b>ALARMS :</b>        |                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
| <b>FAULT ALARMS :</b>  | <ul style="list-style-type: none"> <li>• System functioning normally</li> <li>• Faulty interface link</li> <li>• Faulty detector</li> <li>• Faulty microcontroller</li> <li>• Specific channel identification with yellow LED</li> <li>• Common fault relay</li> </ul>                                                                                                                                                                                      |
| <b>GAS ALARMS :</b>    | <ul style="list-style-type: none"> <li>• 3 independent thresholds per channel</li> <li>• Third threshold delayed or averaged</li> <li>• Automatic or manual reset</li> <li>• Programmable increasing or decreasing alarm</li> <li>• Visual red LED</li> <li>• Relay output per channel (alarm 1 and 2), common relay on alarm 3</li> </ul>                                                                                                                  |
| <b>AUDIBLE ALARM :</b> | • Follows the fault sequence and panel acknowledgement gas alarm                                                                                                                                                                                                                                                                                                                                                                                            |
| <b>OUTPUTS :</b>       | <ul style="list-style-type: none"> <li>• 2 independent gas alarm relays per channel (2 A-250 VAC Rating for resistive load)</li> <li>• 1 common gas alarm 3 relay or common audible alarm transfer (programmable)</li> <li>• 1 common fault relay</li> <li>• Programmable positive or negative safety on alarm relays</li> <li>• Fail safe on fault</li> <li>• Programmable NC or NO output on alarm 1, alarm 2 and fault alarm, SPDT on alarm 3</li> </ul> |

|                            |                                                                                                                                                                                                                                                                                                                                                                                                              |
|----------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>INPUTS :</b>            |                                                                                                                                                                                                                                                                                                                                                                                                              |
| <b>TYPE OF DETECTORS :</b> | <ul style="list-style-type: none"> <li>• Flammable detector bridge type</li> <li>• Oxygen, toxic or flammable detector 4-20 mA output, 2 or 3 wire</li> <li>• Other detectors standard current output</li> </ul>                                                                                                                                                                                             |
| <b>LINKS :</b>             | • 2 or 3 wires re-inforced cable                                                                                                                                                                                                                                                                                                                                                                             |
| <b>LOOP IMPEDANCE :</b>    | <ul style="list-style-type: none"> <li>• Flammable 3 wire : 32 Ω</li> <li>• 4-20 mA : 2 or 3 wire - 56 Ω</li> <li>• Average line length (in meters at 20°C for a 1,5 mm<sup>2</sup> conductor) : <ul style="list-style-type: none"> <li>- Flammable : Bridge type - 1000 m 4-20 mA - 2000 m</li> <li>- Power supply control per LED on each channel (power ON/OFFgreen LED indicator)</li> </ul> </li> </ul> |
| <b>SIGNAL OUTPUT :</b>     | <ul style="list-style-type: none"> <li>• Analogue 4-20 mA per channel</li> <li>• Serial RS 485 or 232 MODBUS protocol</li> </ul>                                                                                                                                                                                                                                                                             |
| <b>POWER SUPPLY :</b>      | <ul style="list-style-type: none"> <li>• 103 to 122 V AC or 207 to 244 VA</li> <li>• 21 to 31 V DC</li> <li>• Power consumption : 300 VA or 240 W</li> </ul>                                                                                                                                                                                                                                                 |
| <b>MISCELLANEOUS :</b>     | <ul style="list-style-type: none"> <li>• Local or remote acknowledgement</li> <li>• Operating temperature : -10 +45°C</li> <li>• Relative humidity : 5 to 95 % non condensed</li> <li>• In compliance with European Standards 50054, 50081 and 50082</li> </ul>                                                                                                                                              |
| <b>DIMENSIONS :</b>        | <ul style="list-style-type: none"> <li>• Rack 3U, 19" frame</li> <li>• Dimensions : 482 w x 132 h x 266 d in mm</li> </ul>                                                                                                                                                                                                                                                                                   |
| <b>WEIGHT :</b>            | • 15 Kgs                                                                                                                                                                                                                                                                                                                                                                                                     |



OLDHAM

Subject to operation conditions



Your local representative

**OLDHAM**  
 DETECTION GAZ / MESURE A L'EMISSION  
 GAS DETECTION / STACK GAS MONITORING

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