

# MX 43

Gas Detection Control Panel

- Analog and digital controller
- 4 or 8 lines /  
16 to 32 detectors max
- Highly versatile controller
- Cost savings  
on wiring installation



The next generation of controllers



## Certifications



**ATEX**



The Fixed Gas Detection People

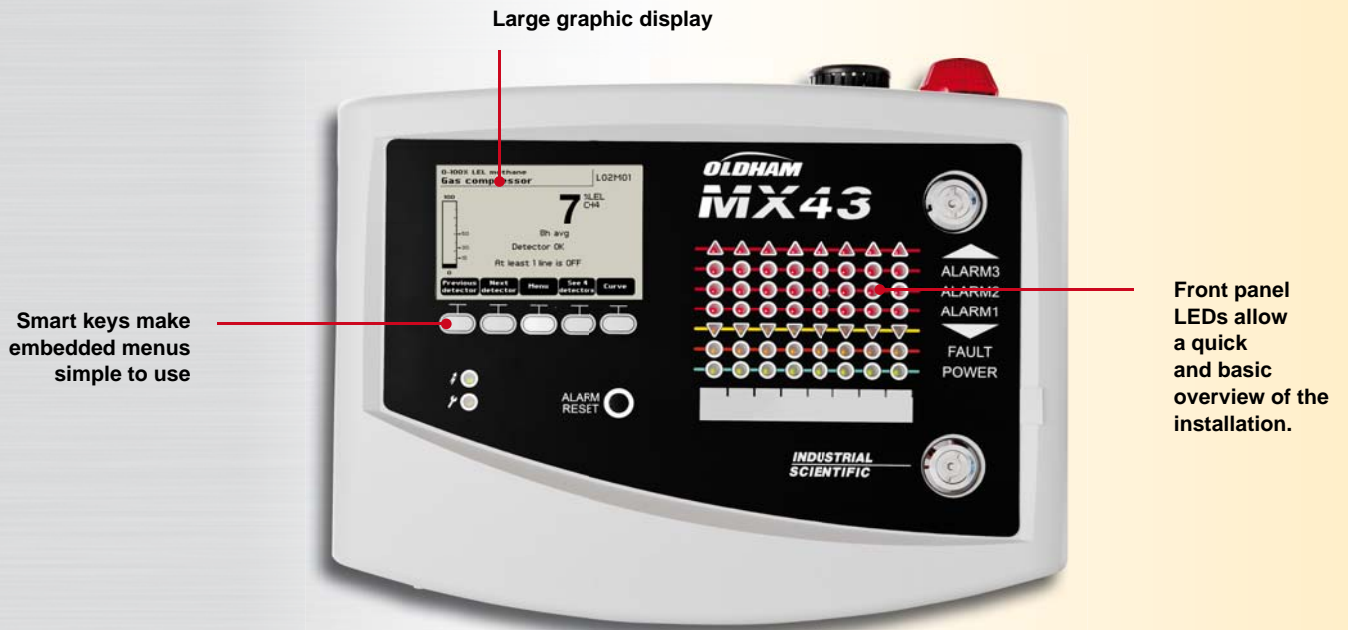
**OLDHAM**  
An Industrial Scientific Company

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# MX 43

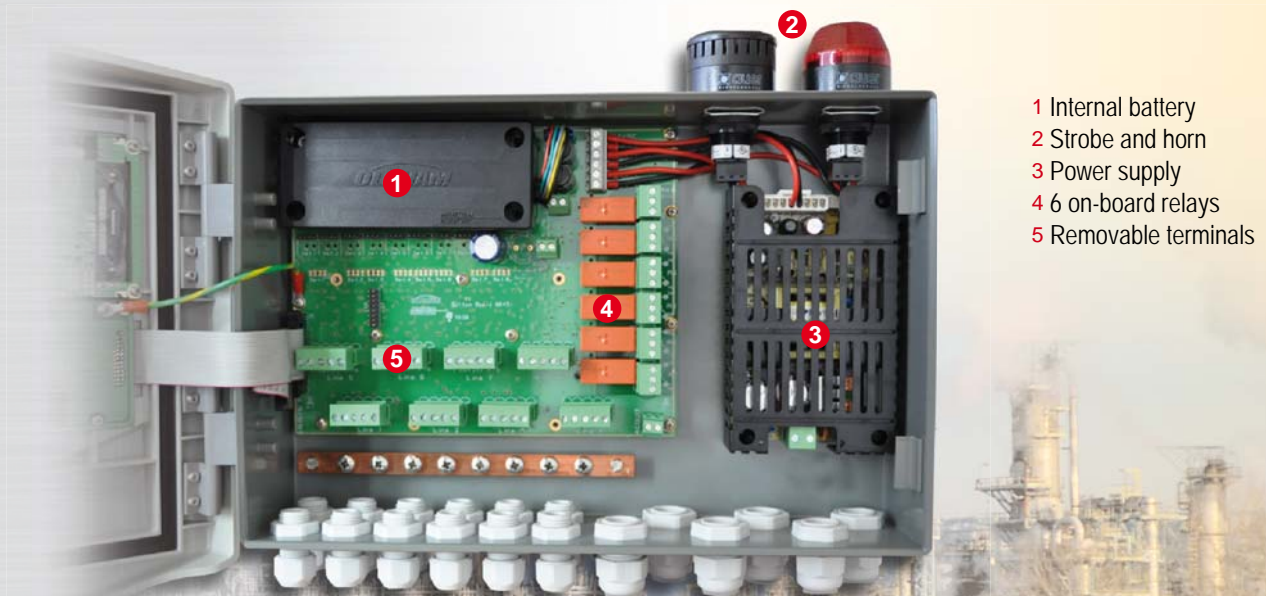
## Controller presentation

The MX 43 is an analog and digital controller designed for the continuous measurement and control of the gases present in the atmosphere and for 4-20 mA or digital contact signal.



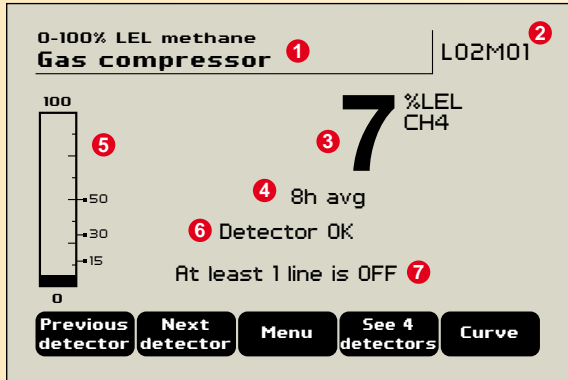
MX 43 manages both digital lines and analog channels, and covers all needs for a wide variety of applications.

The MX 43 digital technology allows up to 32 detectors to be distributed on 8 lines for increased cost savings.



## Graphic display

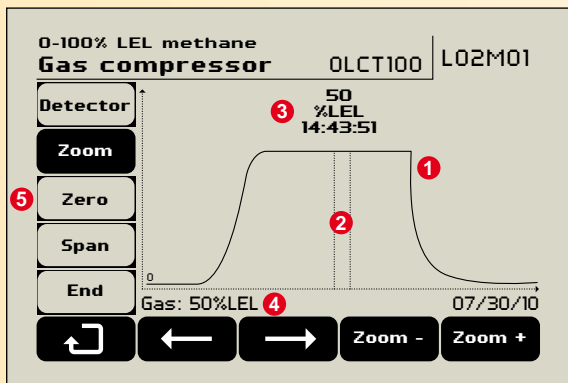
### Normal Mode



- 1 Measurement range, gas and detector tag
- 2 Detector address
- 3 Current value with unit and detected gas
- 4 Averaged value on the last 8 hours
- 5 Bar graph with alarm thresholds
- 6 Detector status (OK, OFF, fault)
- 7 MX 43 status information

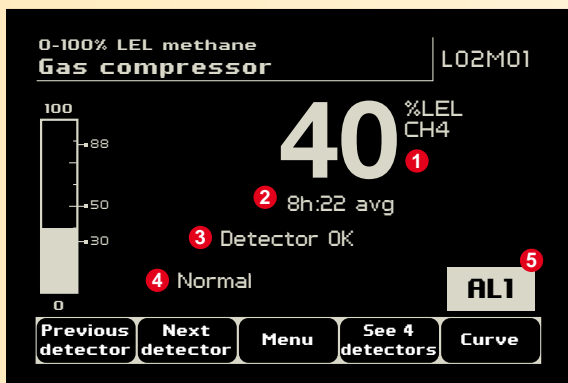
### Calibration Curve

Simplified procedure that enables time savings (i.e. non-intrusive and one-man calibration).



- 1 Calibration curve
- 2 Cursors for span settings
- 3 Measured value
- 4 Calibration gas value
- 5 Detector selection, zeroing and spanning

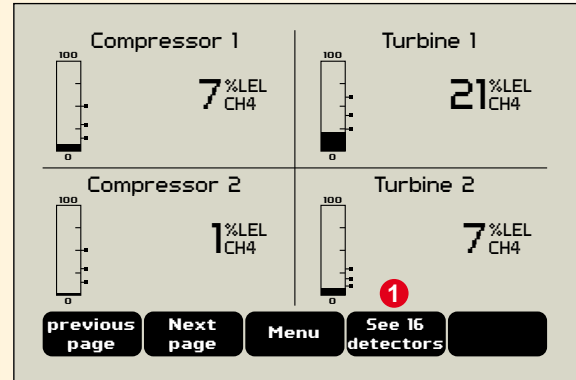
### Alarm mode



Reverse video in alarm conditions for immediate identification of the concerned detector.

- 1 Current value with unit and detected gas
- 2 Averaged value on the last 8 hours
- 3 Detector status (OK, OFF, fault)
- 4 MX 43 status information
- 5 Detector in alarm 1

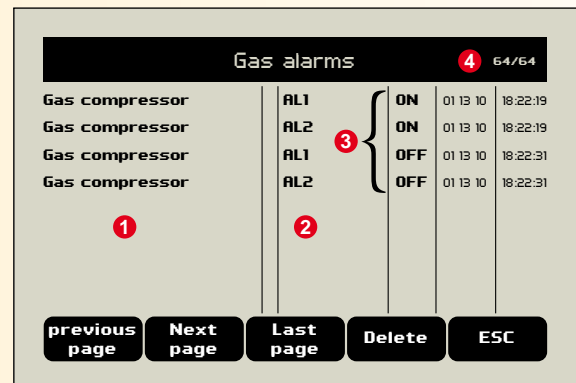
### In 4-channel display



- 1 Up to 16 detectors can be displayed simultaneously

### Data-logging

The MX 43 can store up to 512 alarm events, 512 fault events and 512 system events.



- 1 Detector tag
- 2 Event
- 3 Date and time of events appearance or clearance
- 4 Page number (up to 64 pages)



## Modules

Different modules can be connected to the controller:

### 4 or 8-relay module



4 or 8-programmable-relay module can be located closer to the actuators for cost savings.

### 16-logic-input module



Addressable module of 16 logic input for recovery of digital information such as fire or intrusion alarms, emergency stop, limit switch activation, etc.

### 8-analog-input module



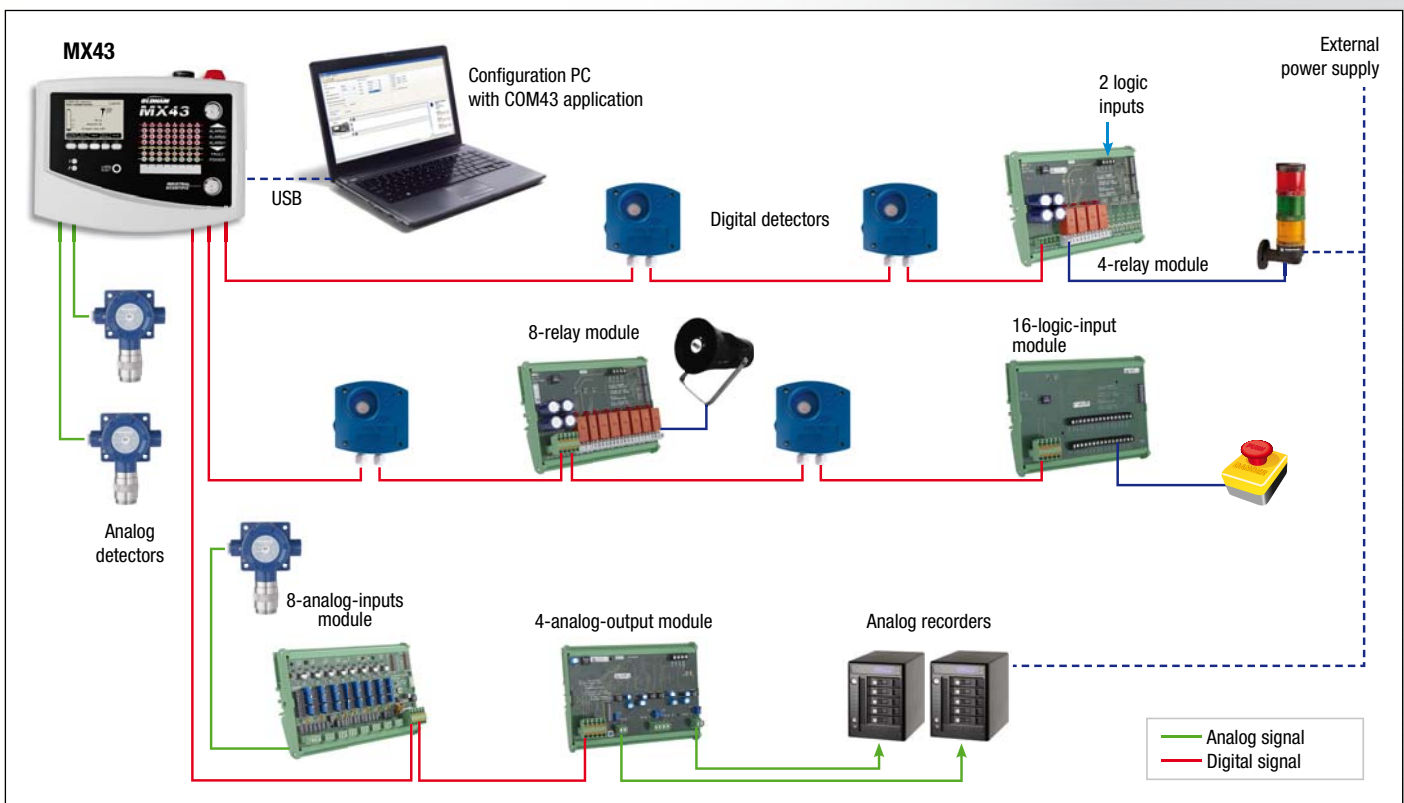
This module enables standard analog transmitters (gas or flame detectors for instance) to be connected on a digital line for cost savings.

### 4-analog-output module



Addressable 4- analog-output module which delivers 4 analog 4-20mA signal outputs (detector output copy, min, max, average of a group of detectors) for connection to a datalogger, a PLC, a Building Management System (BMS), etc.

## Configuration example



# MX 43

<b>Model</b>	<b>MX 43 gas detection control panel</b>
<b>Dimensions (wall-mounted version)</b>	370 x 299 x 109 mm (14.6 x 11.8 x 4.3 inches)
<b>Dimensions (rack)</b>	19", 4U ; 482.8 x 177 x 192.5 mm (19.1 x 7 x 7.6 inches)
<b>Ingress protection</b>	IP55 (wall-mounted), IP31 (rack)
<b>Cable entries (wall-mounted version)</b>	12 M16 cable glands, 4 to 8 mm <sup>2</sup> (8 to 11 AWG) outer diameter cable 6 M20 cable glands, 6 to 12 mm <sup>2</sup> (7 to 9 AWG) outer diameter cable
<b>Display</b>	LCD back-lit display + smart keys Display in video inverse in case of fault Customizable by user (display 1 to 16 channels simultaneously, fixed or scrolling, on events...) Bar graph with alarm threshold
<b>Visual indicators</b>	7 LEDs per line 1 LED fault indicator 1 LED fault indicator
<b>Buttons</b>	5 smart keys 1 audible alarm accept/reset button
<b>Operating use</b>	
<b>Operating temperature</b>	-20°C to +50°C
<b>Storage temperature</b>	-20°C to +50°C
<b>Humidity</b>	5 to 95% RH
<b>Power</b>	100-240 Vac 50-60 Hz or 21-28 Vdc, 112 W max
<b>Battery</b>	Embedded back up power supply in option (0.6 Ah)
<b>Consumption</b>	500 mA min (without module)
<b>Measurement lines</b>	
<b>Digital lines</b>	8 maximum RS-485 communication, proprietary protocol, 9600 Baud 2 twisted shielded-pair cable
<b>Analog channels</b>	8 maximum 0-23 mA analog signal input (4 to 20 mA reserved for measurement) 120 Ohm load resistance 2 or 3-core shielded cable
<b>Voltage (typical)</b>	21 to 28Vdc
<b>Maximum current output per line</b>	500 mA
<b>Maximum current output in total</b>	2.4 A permanent (3.2 A intermittently)
<b>Alarms</b>	
<b>Per channel</b>	5 alarm levels (A1, A2, A3, Overscale, Underscale) + Fault Non-ambiguity reading option for combustible gases monitoring
<b>Programmable thresholds</b>	On instantaneous ou averaged values, rising or falling alarms, manual or automatic acknowledgement
<b>On-board relays</b>	5 fully programmable alarm relays 1 fault relay (non-configurable) Dry contact relay DPCO relays with contact rating of 250 Vca 2 A (inductive)
<b>Digital outputs</b>	RS-485 Modbus RTU serial link
<b>Approvals</b>	
<b>EMC</b>	According to EN50270
<b>ATEX</b>	EN50271 and metrological performances according to EN60079-29-1
<b>Low Voltage Directive</b>	According to EN61010
<b>CSA</b>	Pending

## Our fixed detector range



OLCT 10



OLCT 10N



OLCT 100



OLCT 80



OLCT 60



OLCT 60 / OLCT IR



OLCT IR



Flame detector

## OUR MISSION

Preserving human life, above and below the earth.

Delivering highest quality, best customer service...  
Every transaction, every time



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