





Description

Fully scalable, and designed to functional safety performance level 1 standards, the MX 43 is an analog and digital controller that continuously measures and controls gases in the atmosphere.

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

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



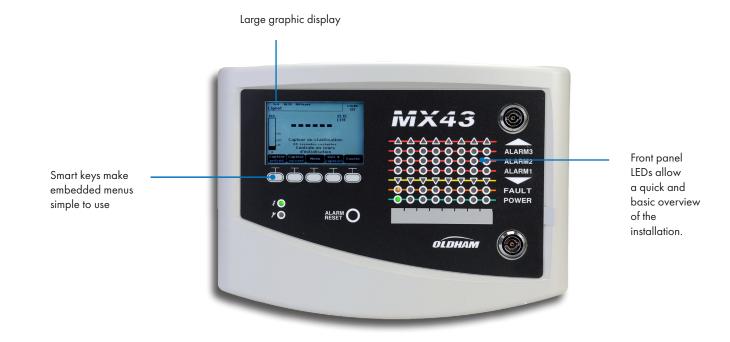
Features

- Analog and digital controller
- 4 or 8 lines / 16 to 32 detectors max
- Highly versatile controller
- SIL 1 reliability



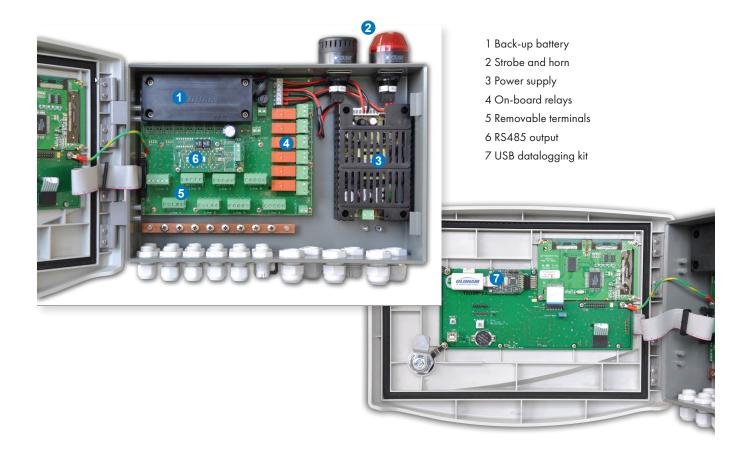
Controller presentation

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.



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

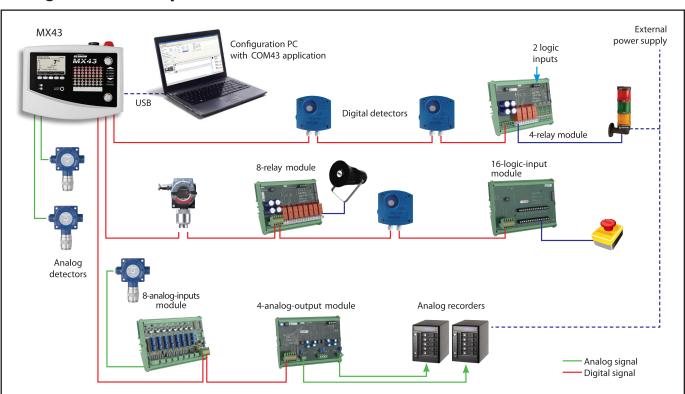


This module enables standard analog transmitters (gas or flame detectors for instance) to be connected on a digital line for cost savings.

4-Analog-output module



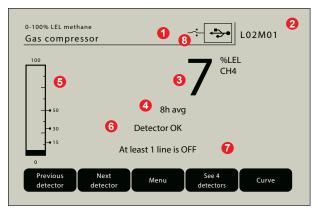
Addressable 4- analog output module which delivers 4 analog 4-20mA signal outputs (detector output copy, min, max, average of a group of detectors) for connection to a datalogger, a PLC, a building Management System (BMS), etc.



Configuration example



Normal Mode

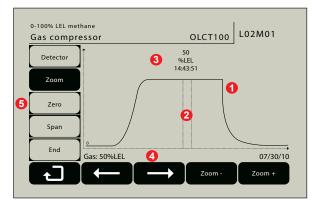


1 Measurement range, gas and detector tag

- 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
- 8 Records on progress

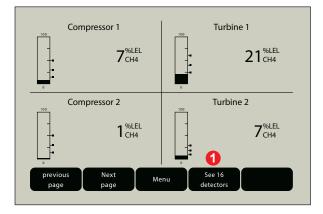
Calibration Curve

Simplified procedure that enables time savings (i.e. nonintrusive 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

In 4-channel display



1 Up to 16 detectors can be displayed simultaneously

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

Data-logging

By default, the MX 43 can store up to 512 alarm events, 512 fault events and 512 system events.

0	Gas alarms	64/64
Gas compressor	AL1	ON 01 13 10 18:22:19
Gas compressor		ON 01 13 10 18:22:19
Gas compressor	AL1 0	DFF 01 13 10 18:22:31
Gas compressor	AL2 C	OFF 01 13 10 18:22:31
0	0	
previous Next page page	Last Dele	ete ESC

1 Detector tag

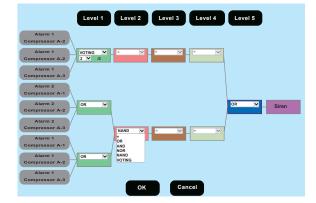
- 2 Event
- 3 Date and time of events appearance or clearance
- 4 Page number (up to 64 pages)

COM 43 configuration software

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The USB option enables gas measurements to be saved at a sampling rate of 2 seconds to 15 minutes while events are saved when they happen.

The 4 Gb USB drive provides more than 2 years of storage in most of configurations. The USB option also delivers the ability to save and restore configuration and firmware files.



1 Simple relay programming

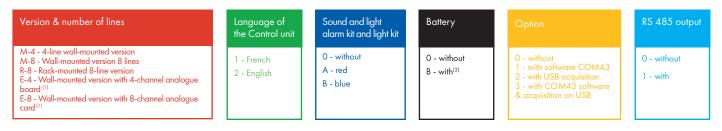
2 Up to 5 embedded functions: OR, AND, NOR, NAND, VOTING

3 Several timers available

4 Advanced management of audible alarms (acknowledgment, reactivation, evacuation)

Which part number to order?

The reference is broken down as follows: WMX43A-B-C-D-E-F



⁽¹⁾ Version intended exclusively for replacing an existing MX42 or MX48 central unit and connected to 'bridge' sensors ⁽²⁾ Battery pack not available in the WMX43E-8 version controller

e.g. WMX43M-8-1-A-B-0-0 for a MX 43 wall-mounted 8-channel controller, central unit menus in English, delivered with audible and luminous alarm kit, battery pack

Model	MX 43 gas detection control panel							
Dimensions (wall-mounted version)	370 x 299 x 109 mm (14.6 X 11.8 X 4.3 Inches)							
Dimensions (rack)	19", 4U ; 482.8 X 177 x 192.5 mm (19.1 X 7 x 7.6 Inches)							
Ingress protection	IP55 (wall-mounted), IP31 (rack)							
Cable entries (wall-mounted version)	12 M 16 cable glands, 4 to 8 mm² (8 to 11 AWG) outer diameter cable 6 M20 cable glands, 6 to 12 mm² (7 to 9 AWG) outer diameter cable							
Display	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							
Visual indicators	7 LEDs per line for detector status 1 Common LED for fault condition 1 Common LED for power indicator							
Buttons	5 Smart keys 1 Audible alarm accept/reset button							
Operating use								
Operating temperature	-20°C to +50°C							
Storage temperature	-20°C to +50°C							
Humidity	5 To 95% RH							
Power	100-240 Vac 50-60 Hz or 21-28 vdc, 112 W max							
Battery	Embedded back up power supply in option (0.6 Ah)							
Consumption	500 mA min (without module)							
Measurement lines								
Digital lines	8 Maximum RS-485 communication, proprietary protocol, 9600 baud 2 Twisted shielded-pair cable							
Analog channels	8 Maximum 0-23 mAa analog signal input (4 to 20 mA reserved for measurement) 120 Ohm load resistance 2 Or 3-core shielded cable							
Voltage (typical)	21 To 28Vdc							
Maximum current output per line	1.2 A (1.5 A intermittently)							
Maximum current output in total	2.4 A permanent (3.2 A intermittently)							
Alarms								
Per channel	5 Alarm levels (A1, A2, A3, overscale, underscale) + fault Non-ambiguity reading option for combustible gases monitoring							
Programmable thresholds	On instantenous or averaged values, rising or falling alarms, manual or automatic acknowledgement							
On-board relays	5 Fully programmable alarm relays 1 Fault relay (non-configurable) Dry contact relay DPCO relays with contact rating of 250 Vca 2 A (inductive)							
Digital outputs	Rs-485 modbus RTU serial link							
Approvals								
EMC	According to EN50270							
ATEX	EN50271 and metrological performances according to EN60079-29-1							
Low voltage directive	According to EN61010							
CSA	Pending							
Functional safety (Reliability data)	SIL1 capability according to EN50271:2010							
· · ·	du =2,29.10-6, PFDavg=1,03.10-2, Ti=1 year, MTBF=20 years, SFF 60% (data for 4 channel version, 24 vdg powered)							
MED	According to marine equiment directive 96/98/EC. Fulfills the EMC requirements for installation in general power distribution zone and/or deck zone.							

MX 43 Controller

Our fixed detector range



OLCT 10



OLCT 10N





OLCT 80



CTX 300





iTrans 2



OLCT 60

Meridian

SafeEye

SharpEye



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