



3M™ Oldham™ MX 32 Controller



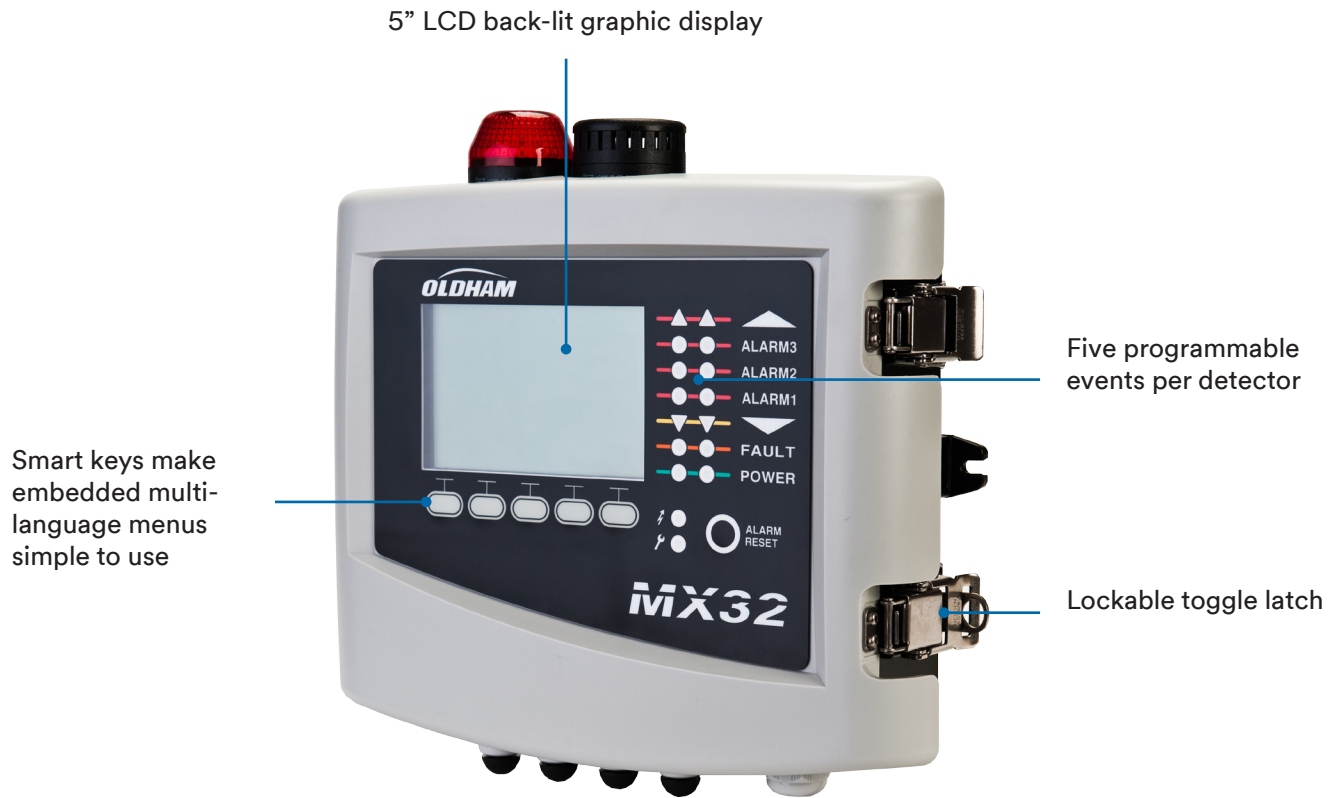
Presentation

The MX 32 is a compact, low-profile controller that continuously monitors gas detection, including 4-20 mA, dry logic input, MODBUS RS485 signal from compatible detectors.

Features

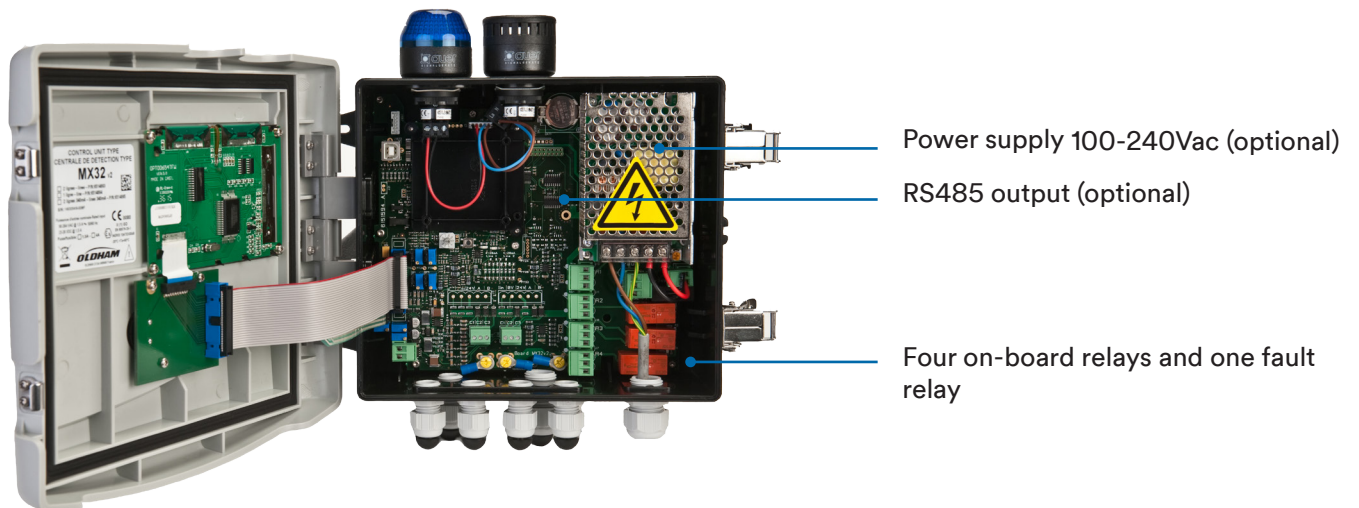
- Analog and digital controller
- Up to eight detectors
- Fully scalable

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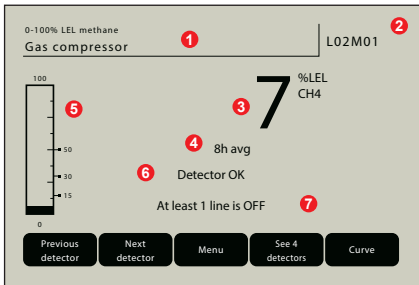


MX 32 takes analog and digital inputs and covers all needs for a wide variety of applications.

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

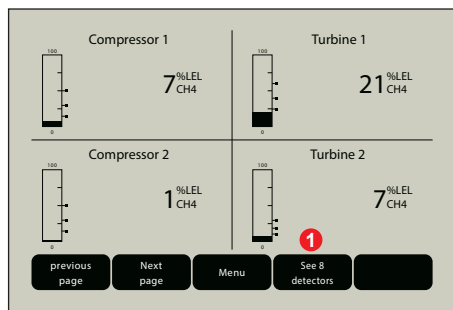


Normal mode



- 1 Measure Range, gas and detector tag
- 2 Detector address
- 3 Current value with unit and detected gas
- 4 Averaged value on the last eight hours
- 5 Bar graph with alarm thresholds
- 6 Detector status (OK, OFF, FAULT)
- 7 MX 32 status information

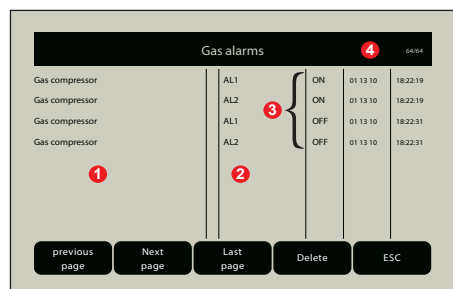
Simultaneous display of several detectors



- 1 Up to eight detectors displayed simultaneously

Data-logging

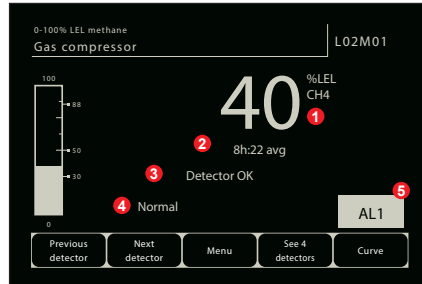
By default, the MX 32 can store up to 512 alarm events, 512 fault events and 512 system events.



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

Alarm mode

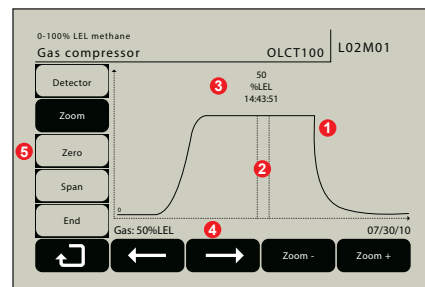
Grayscale mode in alarm conditions for immediate identification of the concerned detector.



- 1 Current value with unit and detected gas
- 2 Averaged value on the last eight hours
- 3 Detector status (OK, OFF, FAULT)
- 4 MX 32 status information
- 5 Detector in alarm

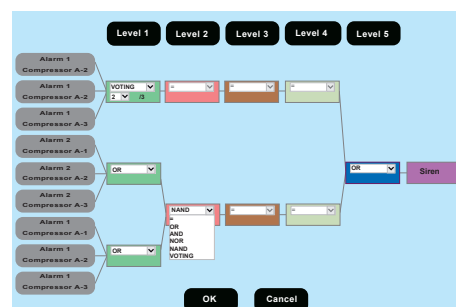
Calibration curve

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

COM 32 configuration software



- 1 Simple relay programming
- 2 Up to five embedded functions: OR, AND, NOR, NAND, VOTING
- 3 Multiple timers available
- 4 Advanced management of audible alarms (acknowledgment, reactivation, evacuation)

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Modules

Different modules can be connected to improve the capabilities of the controller.

4 or 8-relay module



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

8-analog-input



Can connect standard analog transmitters (gas or flame detectors for instance) on a digital line 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.

4-analog-output



Addressable 4-analog-output module that delivers four 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.

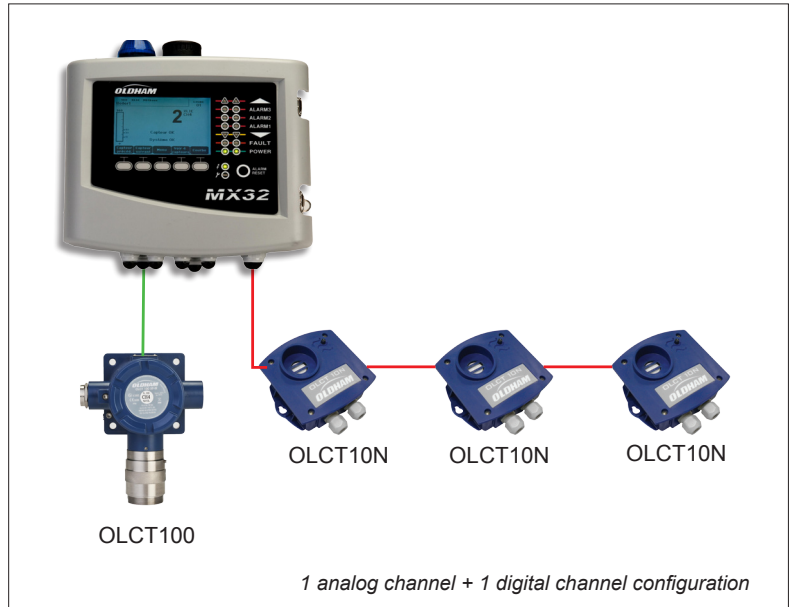
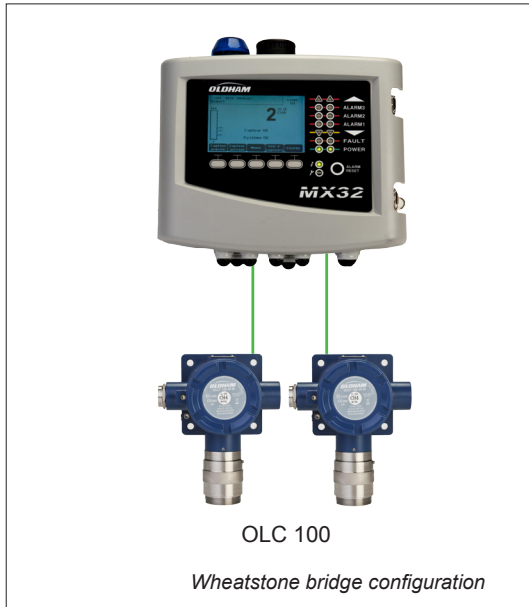
Ordering information

MX32-A-B-C-D-E-F

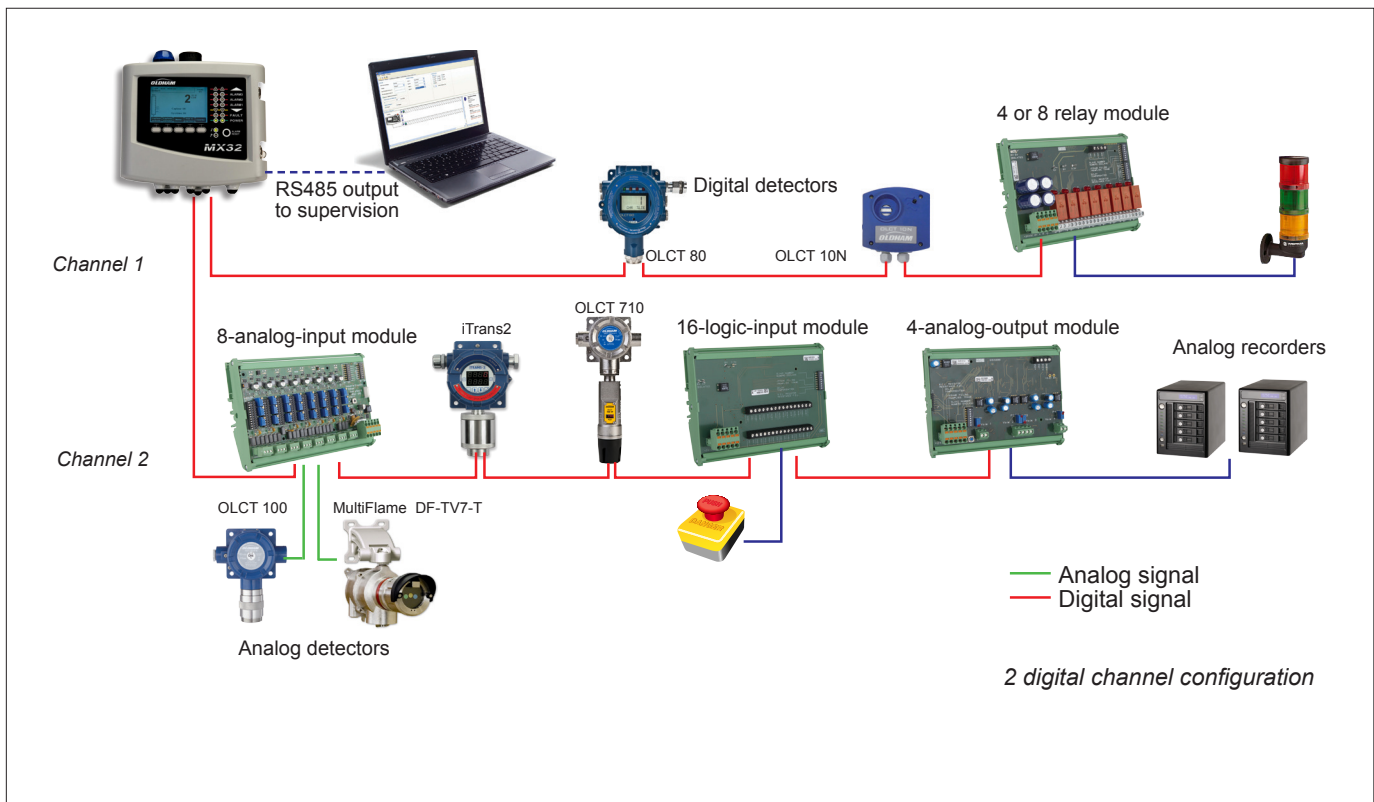
Version	Power supply	Language	Strobe and Audible alarm combination	RS 485 serial output	COM 32 software
1- 1 channel 2- 2 channels 3- Wheatstone bridge	1- 24Vdc 2- 100/240Vac	1 - French 2 - English	0- Without 1- Red 2- Blue	0 - Without 1 - With	0 - Without 1 - With (USB cable included)

f.i: MX32-1-2-2-2-1-1 for MX32 1 channel, 100/240Vac, English, Blue strobe & horn, RS485 output and COM 32 software

Configuration examples



— Analog signal
— Digital signal



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Specifications

Model		MX 32 gas detection control panel
Dimensions (w*h*d)		265 × 266 × 96 mm (10.4 × 10.5 × 3.8 inches)
Ingress protection		IP55
Cable entries (wall-mounted version)		5 M16 cable glands, 4 to 8 mm ² (8 to 11 AWG) outer diameter cable 2 M20 cable glands, 6 to 12 mm ² (7 to 9 AWG) outer diameter cable
Display		LCD back-lit display + smart keys Display in grayscale mode in case of fault Customizable by user (display 1 to 8 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 condition
Buttons		5 smart keys 1 audible alarm accept/reset button
Operating use		
Operating temperature		-20°C to +50°C (-4°F to +122°F)
Storage temperature		-20°C to +50°C (-4°F to +122°F)
Humidity		5 to 95% RH
Power input		100-240Vac 50-60Hz (35W) or 22-28Vdc (92W)
Consumption		250mA max. (without module or detector)
Measurement lines		
Digital lines		2 maximum RS-485 communication, proprietary protocol, 9600 Baud 2 twisted shielded-pair cable
Analog channels		2 maximum (4-20mA or Wheatstone Bridge) 0-23mA analog signal input (4 to 20mA reserved for measurement) or OLC 10, OLC 10Twin and OLC 100 flammable gas detectors (Wheatstone bridge type) 120 Ohm load resistance 2 or 3 core shielded cable depending on detector
Maximum current output per line		0.42A (@ 50°C) to 1A (@ 30°C) with internal AC power or 1.5A with external DC power
Maximum current output for the 2 lines		0.42A (@ 50°C) to 1A (@ 30°C) with internal AC power or 2×1.5A with external DC power
Alarms		
Per channel		5 Alarm levels (A1, A2, A3, Overscale, Underscale) + 1 Fault Catalytic bead over range protection Programmable thresholds on instantaneous or averaged values, rising or falling alarms, manual or automatic acknowledgement
Output		
On-board relays		4 fully programmable alarm relays + 1 fault relay (non-configurable) Dry contact relay, DPCO relays, contact rating 5A / 250 Vac - 30Vdc
External relays		Up to 16 fully programmable alarm relays Dry contact relay, DPCO relays, contact rating 2A / 250 Vac - 30Vdc
Digital outputs		RS-485 Modbus RTU
Analog outputs		Up to 8 outputs (4-20mA)
Approvals		
EMC		According to EN 50270:15
Low voltage directive		According to EN 61010-1:10
SIL1		According to EN 50271:10 (pending)
CSA		CAN/CSA-C22.2 No. 0-10; CAN/CSA-C22.2 No. 61010-1-12; UL Std. No. 61010-1 (3rd Edition)

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