3M Science. Applied to Life.™

Gas & Flame Detection

3M™ Oldham MX 32

Controller

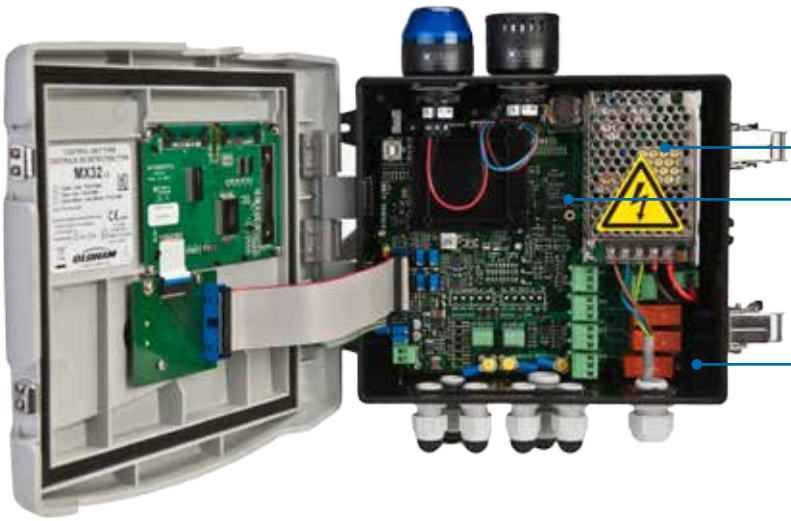
The MX 32 is a compact, low-profile controller that continuously monitors gas detection, including 4-20 mA, dry logic input, MODBUS RS485 signal from compatible detectors.

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

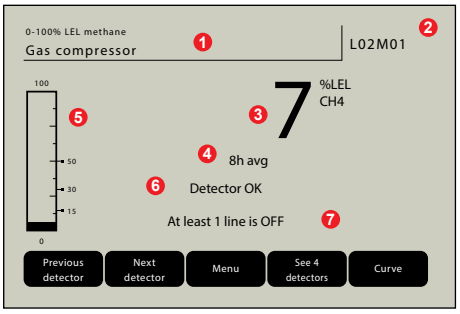
3M™ Oldham MX 32

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.

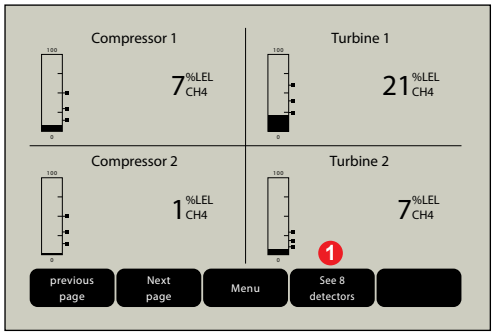


Normal mode



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

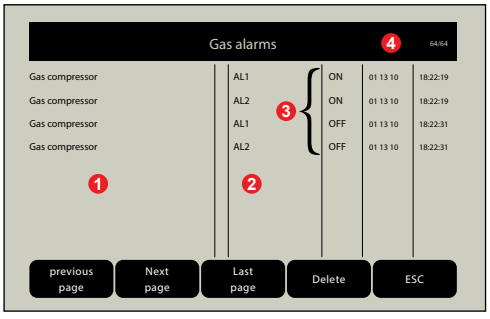
Simultaneous display of several detectors



1 Up to eight detectors displayed simultaneously

Data-logging

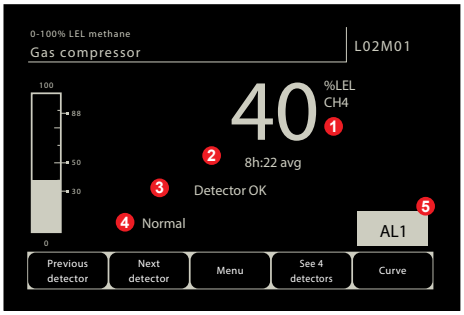
By default, the MX 32 can store up to 512 alarm events, 512 fault events and 512 system events.



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

Alarm mode

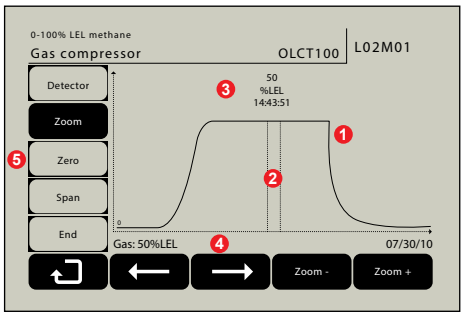
Grayscale mode in alarm conditions for immediate identification of the concerned detector.



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

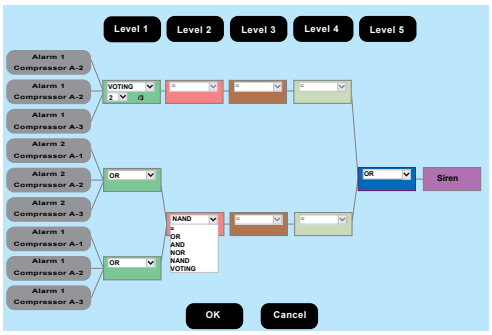
Calibration curve

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)

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

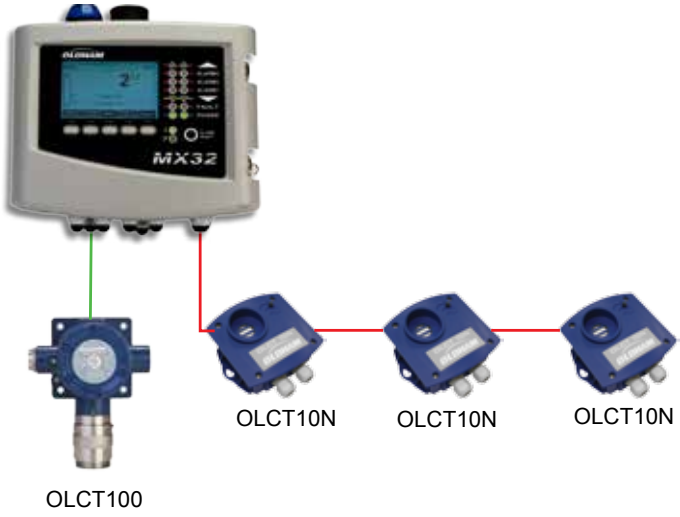
MX32-A-B-C-D-E-F

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 et COM 32 software

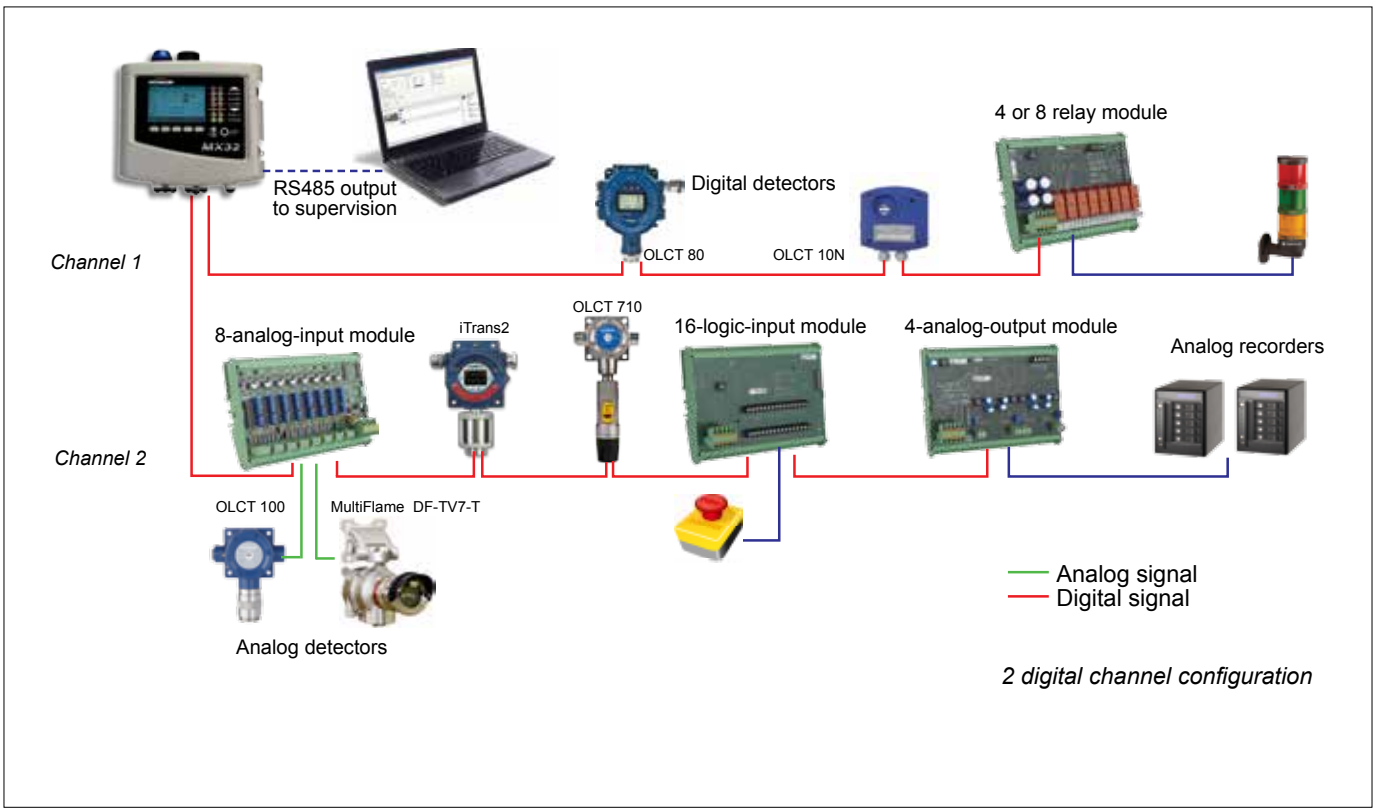
Configuration examples

Wheatstone bridge configuration



1 analog channel + 1 digital channel configuration

Analog signal
Digital signal



2 digital channel configuration

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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 mm² (8 to 11 AWG) outer diameter cable 2 M20 cable glands, 6 to 12 mm² (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	0,65 to 1A with internal AC power or 1.5A with external DC power
Maximum current output in total	0,65 to 1A 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 instantenous 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 2A / 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 pending	

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Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.

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