



## 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
- SIL1 reliability



### 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.

4" LCD back-lit graphic display

Smart keys make embedded multi-language menus simple to use

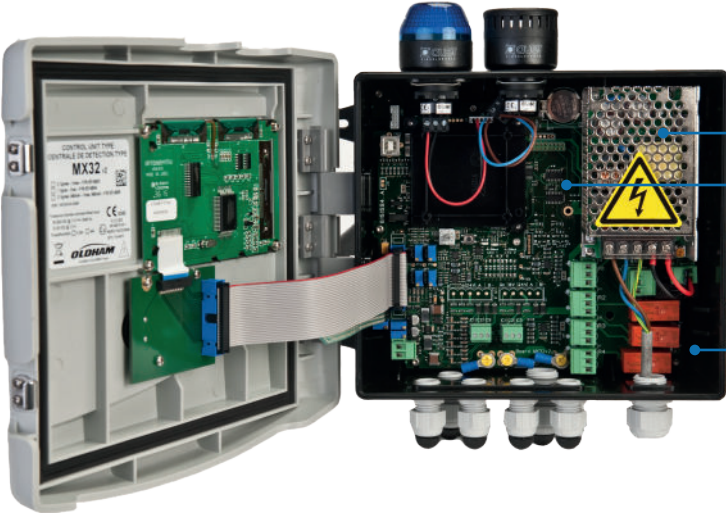
Five programmable events per detector

Lockable toggle latch



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.

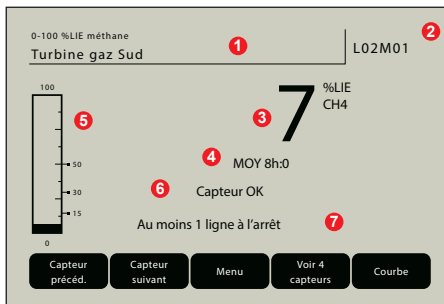


Power supply 100-240Vac (optional)

RS485 output (optional)

Four on-board relays and one fault relay

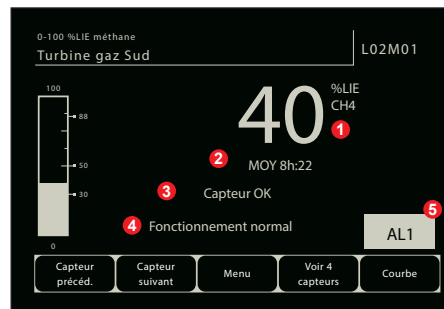
## Normal mode



- 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

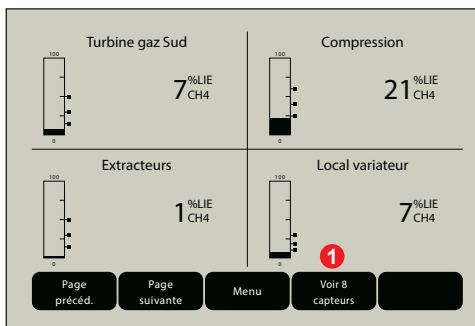
## Alarm mode

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

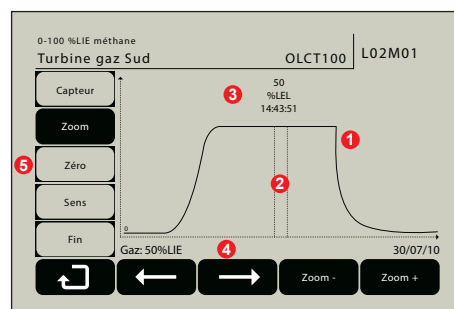
## Simultaneous display of several detectors



- 1 Up to eight detectors displayed simultaneously

## 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

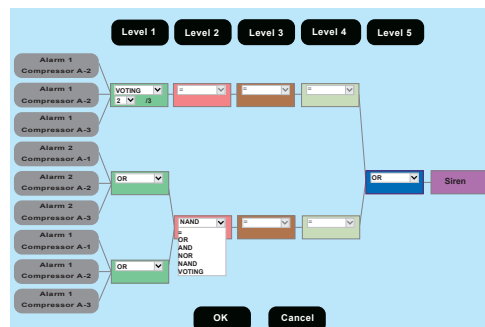
## Data-logging

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

Alarmes gaz					
Turbine gaz Sud	AL1	ON	13.01.10	18:22:19	4
Turbine gaz Sud	AL2	ON	13.01.10	18:22:19	
Turbine gaz Sud	AL1	OFF	13.01.10	18:22:31	
Turbine gaz Sud	AL2	OFF	13.01.10	18:22:31	

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

## 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)

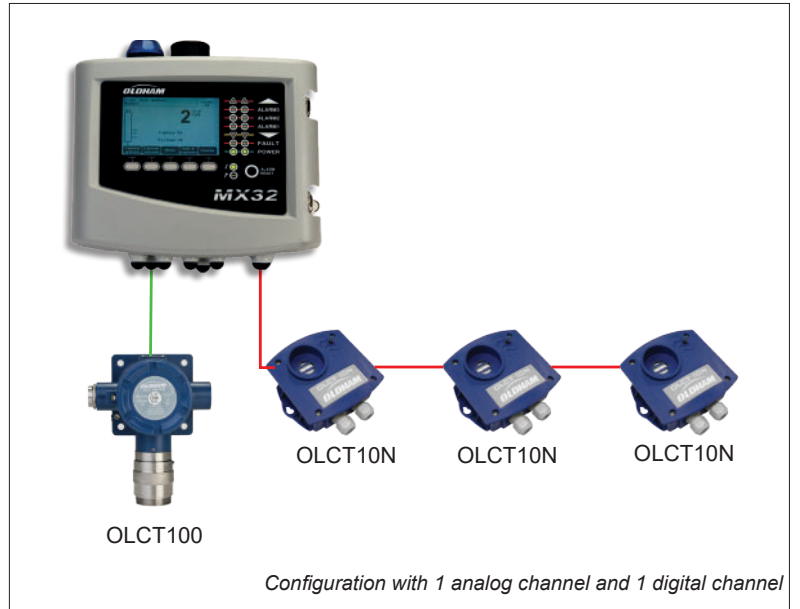
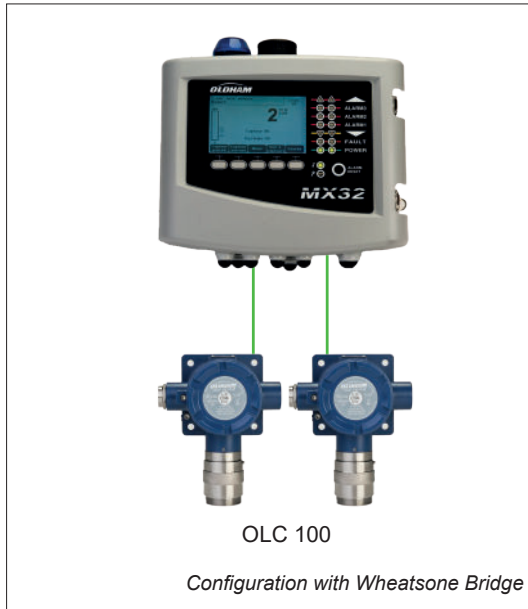
## Ordering information

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

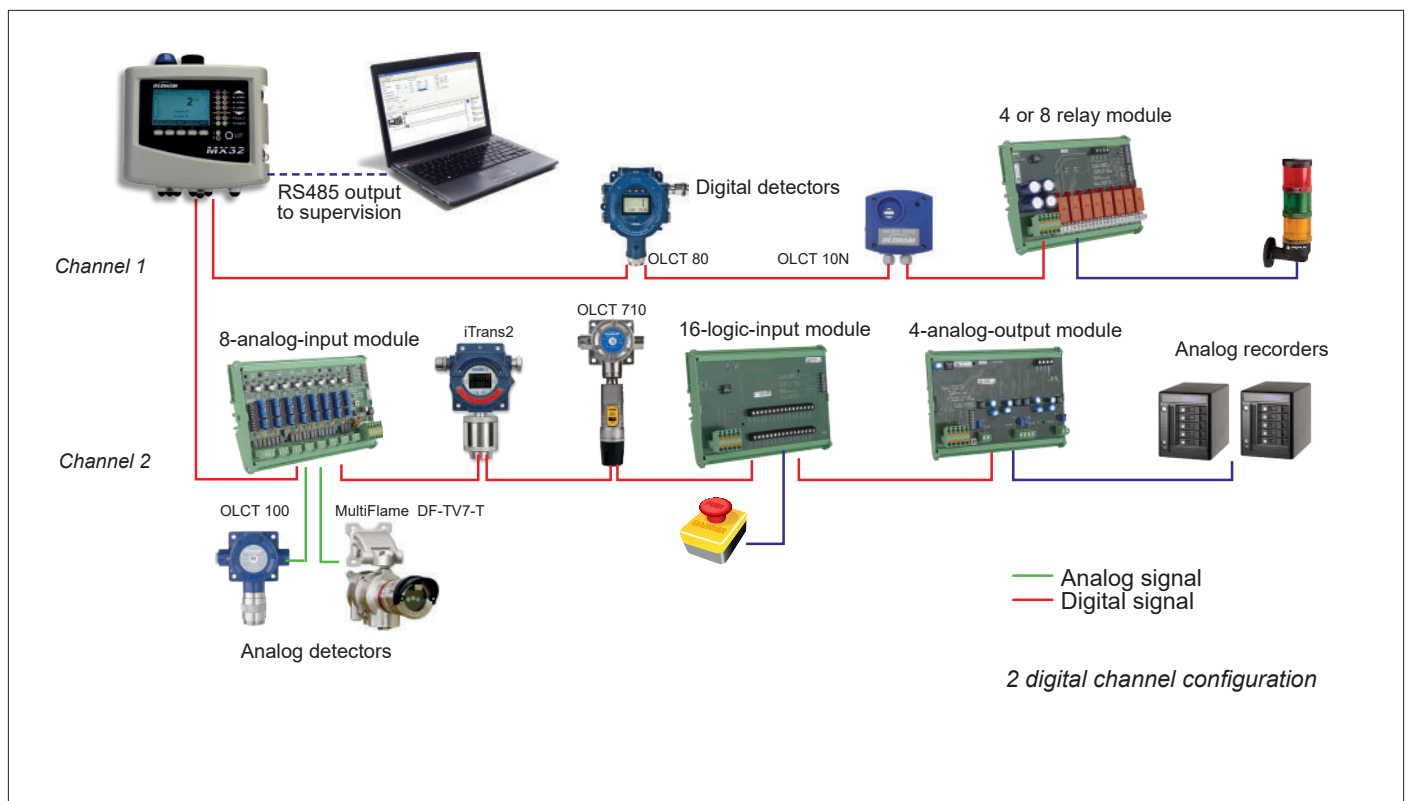
Version	Power supply	Language	Strobe and Audible alarm combination	RS 485 serial output	COM 32 software
1- 1 channel 2- 2 channels 3- Wheatstone bridge	1- 24Vdc 2- 100/240Vac	1 - French 2 - English	0- Without 1- Red 2- Blue	0 - Without 1 - With	0 - Without 1 - With (USB cable included)

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

## Configuration examples



— Analog signal  
— Digital signal



<b>Model</b>		MX 32 gas detection control panel
Dimensions (w*h*d)	265 x 266 x 96 mm (10.4 x 10.5 x 3.8 inches)	
Ingress protection	IP55	
Cable entries (wall-mounted version)	5 M16 cable glands, 4 to 8 mm <sup>2</sup> (8 to 11 AWG) outer diameter cable 2 M20 cable glands, 6 to 12 mm <sup>2</sup> (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	
<b>Operating use</b>		
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)	
<b>Measurement lines</b>		
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 2x1.5A with external DC power	
<b>Alarms</b>		
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	
<b>Output</b>		
On-board relays	4 fully programmable alarm relays + 1 fault relay (non-configurable) Dry contact relay, DPNO relays, contact rating 5A / 250 Vac - 30Vdc	
External relays	Up to 16 fully programmable alarm relays Dry contact relay, DPNO relays, contact rating 5A / 250 Vac - 30Vdc	
Digital outputs	RS-485 Modbus RTU	
Analog outputs	Up to 8 outputs (4-20mA)	
<b>Approvals</b>		
EMC	According to EN 50270:15	
Low voltage directive	According to EN 61010-1:10	
ATEX	Metrological performances according to EN 60079-29-1:2016 and EN 50271:10	
CSA	CAN/CSA-C22.2 No. 0-10; CAN/CSA-C22.2 No. 61010-1-12; UL Std. No. 61010-1 (3rd Edition)	
Functional safety (reliability data)	SIL1 capability according to EN 50271:2010 du = 1,60 to 1,80.10-6, PFDavg=7,10 to 8,02.10-3, Ti=1 year, MTBF=25 to 28 years, SFF 60%	



# TELEDYNE OLDHAM SIMTRONICS

Everywhereyoulook™



*Teledyne Oldham Simtronics quality assurance programmes demand the continuous assessment and improvement of all our products. Information in this leaflet could thus change without notification and does not constitute a product specification.*



**TELEDYNE**  
**GAS AND FLAME DETECTION**  
Everywhereyoulook™

#### **AMERICAS**

14880 Skinner Rd  
Cypress, TX 77429, USA  
Tel.: +1 713-559-9200  
Fax: +1 281-746-3064

#### **EMEA**

ZI Est, Rue Orfila,  
CS 20417  
62027 ARRAS CEDEX, France  
Tel.: +33-3-21-60-80-80

#### **ASIA PACIFIC**

Room 04, 9th Floor, 275 Ruiping  
Road,  
Xuhui District, Shanghai, China  
TGFD\_APAC@teledyne.com