sperosens
safety through innovation

TELEDYNE
GAS AND FLAME DETECTION
Everywhere**you**look™

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.

FEATURES:

- Analog and digital controller
- Up to eight detectors
- Fully scalable
- SIL l 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.

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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-a nalog-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.

5" LCD back-lit graphic display

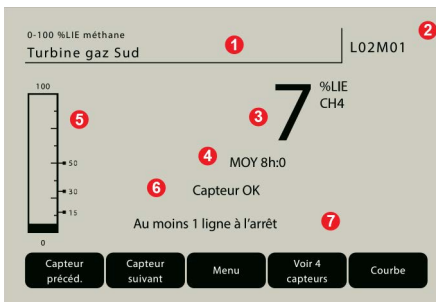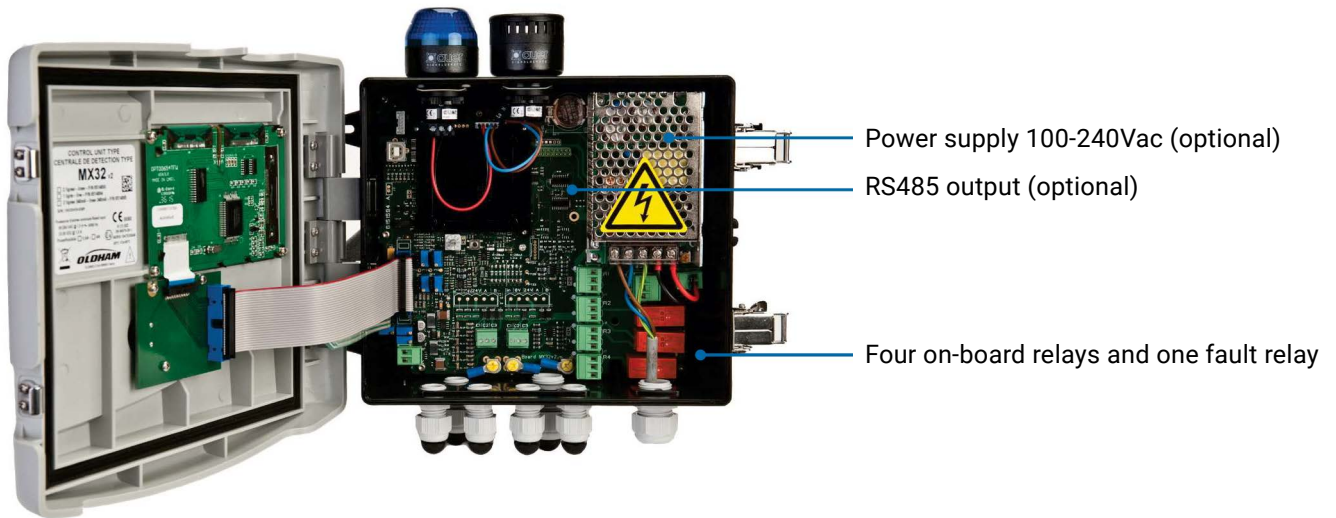Smart keys make embedded multi-language menus simple to use

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. Average value on the last eight hours
5. Bar graph with alarm threshold
6. Detector status (OK, OFF, FAULT)
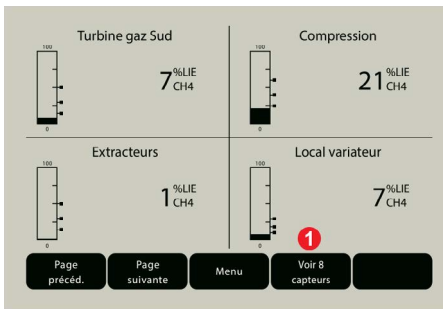7. MX 32 status information
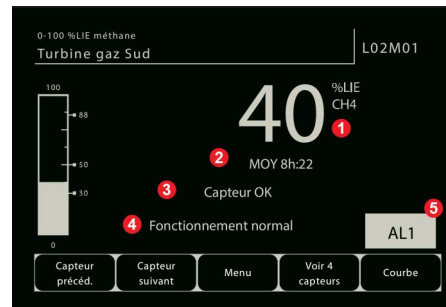
Alarm Mode

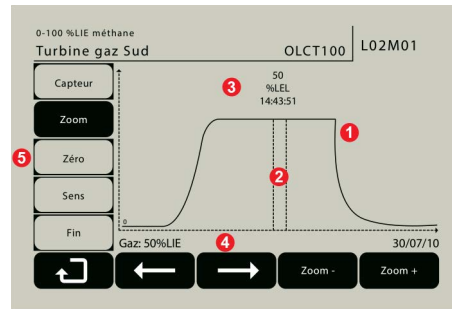Grayscale mode in alarm conditions for immediate identification of the concerned detector.

1. Current value with unit and detected gas
2. Average value on the last eight hours
3. Detector status (OK, OFF, FAULT)
4. MX 32 status information
5. Detector in alarm
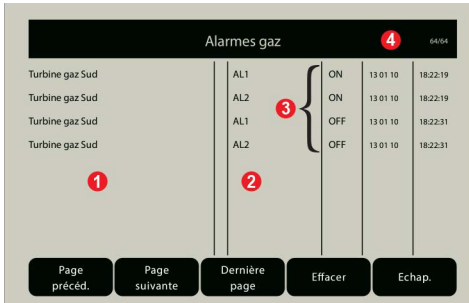
Simultaneous display of several detectors

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.

1. Detector tag
2. Event
3. Date and time of events appearance or clearance
4. Page number (up to 64 pages)
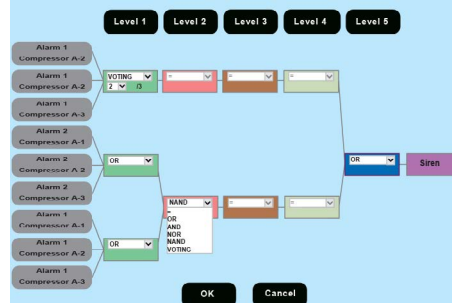
COM 32 configuration software

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

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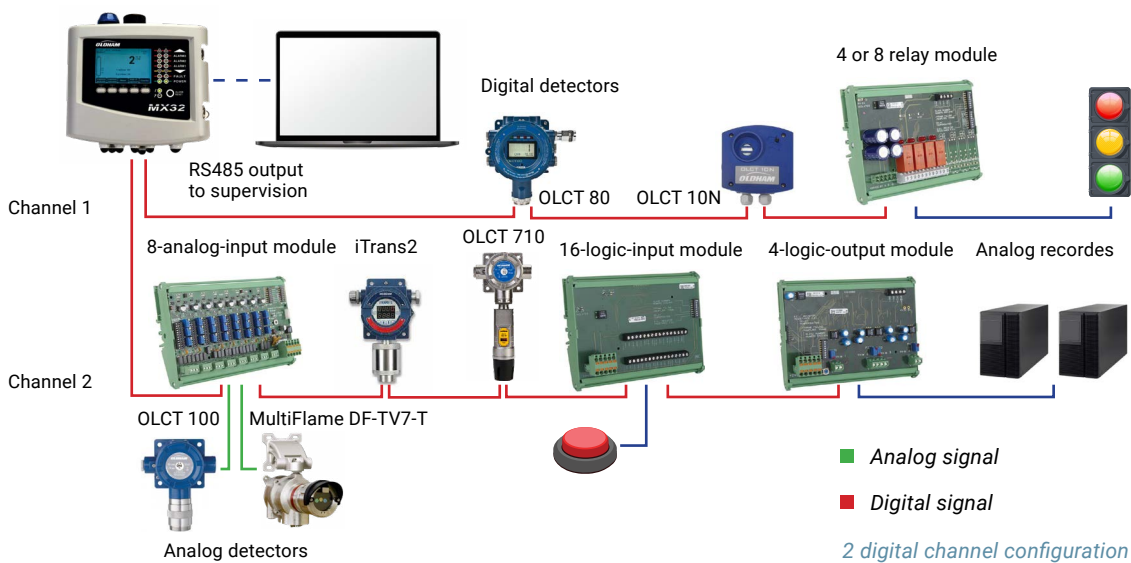
MX32-A-B-C-D-E-F

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	1-24Vcd 2-100/240Vac	1-French 2-English	0-Without 1-Red 2-Blue	0-Without 1-With	0-Without 1-With (USB cable included)

CONFIGURATION EXAMPLES

■ *Analog signal*

■ *Digital signal*

OLCT10N   OLCT10N   OLCT10N

OLC 100   OLC 100

Configuration and Wheatstone Bridge   *Configuration with 1 analog channel and 1 digital channel*

Channel 1

RS485 output to supervision

Digital detectors

OLCT 80   OLCT 10N

4 or 8 relay module

8-analog-input module   iTrans2   OLCT 710   16-logic-input module   4-logic-output module   Analog recordes

Channel 2

OLCT 100   MultiFlame DF-TV7-T

Analog detectors

■ *Analog signal*

■ *Digital signal*

2 digital channel configuration

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MODEL	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 M 16 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 l0Twin and OLC 100 Aammable gas detectors (Wheatstone bridge type) 120 Ohm load resistance 2 or 3 core shielded cable depending on detector

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MEASUREMENT LINES

Maximum current output per line	0.42A (@ 50°C) to lA (@ 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 lA (@ 30°C) with internal AC power or 2xl.5A with external DC power

ALARMS

Per channel	5 Alarm levels (A 1, 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 5A / 250 Vac - 30Vdc
External relays	Up to 16 fully programmable alarm relays
	Dry contact relay, DPCO relays, contact rating 5A / 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
ATEX	Metrological performances according to EN 60079-29-1 :2016 and EN 50277: 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)	SIL 1 capability according to EN 50271 :2010
	du =1,60 to 1,80.10-6, PFDavg=7, 10 to 8,02.10-3, Ti=l year, MTBF=25 to 28 years, SFF 60%