



MX 16

Controller



Presentation

The MX 16 is a compact digital or analog controller, one input, low-profile controller that continuously monitors gas detection and more generally to the processing of any 4-20 mA, on/off or compatible digital signal.

Features

- Analog and digital controller
- Low cost and Easy to install
- 1 measurement line / up to 1 detectors
- Integrated relays
- RS-485 Signal Output MODBUS RTU (optional)



MX 16

Controller

Specially designed for applications in MRI room (with dedicated CTX 300 O₂ Helium free), laboratory, storage, small boiler room, and brewerie or battery charging rooms, the MX 16 measuring unit prevents the risks linked to the presence of toxic, anoxic and explosive gases in the ambient air. Small size, ease of installation and use are the main strengths of the plant. Used with the OLCT 10N, iTrans 2, OLCT 80, Méridian, OLCT 710 digital sensor series 1 Head, or any other analog sensor, the MX 16 guarantees you a solution that complies with European standards.

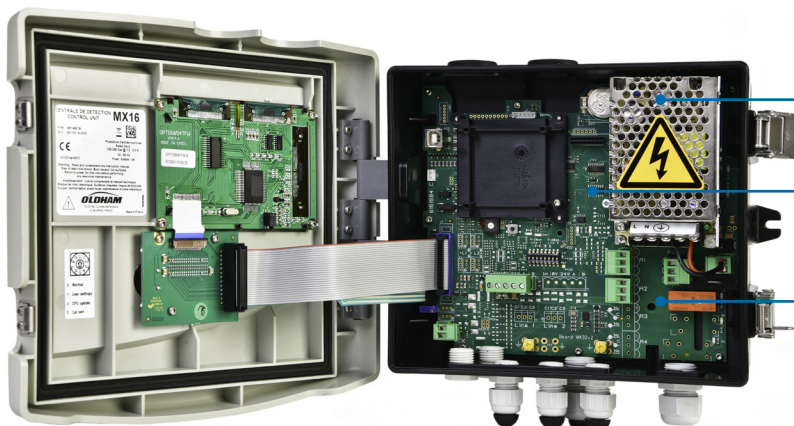
4" LCD back-lit graphic display

Smart keys make
embedded multi-language
menus simple to use

Five programmable events

Lockable padlock latch

Easy to install: requires a power connection, a cable between the control unit and the detector (supplied with the Easy Duo). The MX16 Nxxxx and Axxxx versions are pre-configured, they do not require any configuration software (factory configured). The MX 16 00X00 versions can be configured via the optional COM 16 software.

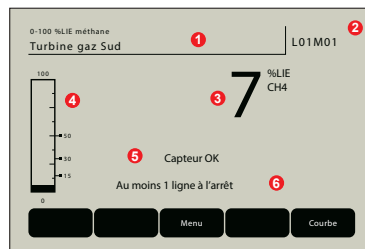


Power supply 100-240Vac

RS485 output (optional)

Two on-board relays and one fault relay

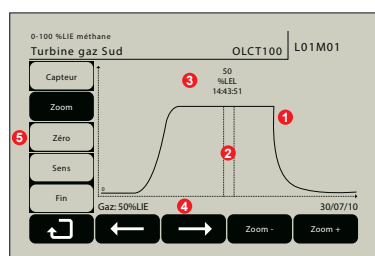
Normal mode



- 1 Measure Range, gas and detector tag
- 2 Detector address
- 3 Current value with unit and detected gas
- 4 Bar graph with alarm thresholds
- 5 Detector status (OK, OFF, FAULT)
- 6 MX 16 status information

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

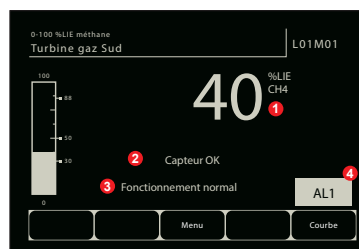
Ordering information

REF	Programmable version via COM 16.
MX16-0-0-0-0-0	MX16 Digital or Analog unit**
MX16-0-0-1-0-0	MX16 Digital or Analog unit**, with RS485 output
REF	Digital version MX16 Easy Duo
MX16-N-1-0-0-0	Easy Duo* Digital controller MX 16 with OLCT 10N O ₂ (0-30% Vol. - cell 2 years lifespan)
MX16-N-1-1-0-0	Easy Duo* Digital controller MX 16 with OLCT 10N O ₂ (0-30% Vol. - cell 2 years lifespan), with RS485 output
MX16-N-2-0-0-0	Easy Duo* Digital controller MX 16 with OLCT 10N CO ₂ (0-5% Vol.)
MX16-N-2-1-0-0	Easy Duo* Digital controller MX 16 with OLCT 10N CO ₂ (0-5% Vol.), with RS485 output
REF	Analog version MX16
MX16-A-3-0-0-0	Analogic controller MX 16**, 1 input 4-20mA, O ₂ configured (0-30% Vol.)
MX16-A-3-1-0-0	Analogic controller MX 16**, 1 input 4-20mA, O ₂ configured (0-30% Vol.), with RS485 output
MX16-A-4-0-0-0	Analogic controller MX 16**, 1 input 4-20mA, CO ₂ configured (0-5% Vol.)
MX16-A-4-1-0-0	Analogic controller MX 16**, 1 input 4-20mA, CO ₂ configured (0-5% Vol.), with RS485 output
MX16-A-5-0-0-0	Analogic controller MX 16**, 1 input 4-20mA, CH ₄ configured (0-100% LIE)
MX16-A-5-1-0-0	Analogic controller MX 16**, 1 input 4-20mA, CH ₄ configured (0-100% LIE), with RS485 output
MX16-A-6-0-0-0	Analogic controller MX 16**, 1 input 4-20mA, LPG configured (0-100% LIE)
MX16-A-6-1-0-0	Analogic controller MX 16**, 1 input 4-20mA, LPG configured (0-100% LIE), with RS485 output
MX16-A-7-0-0-0	Analogic controller MX 16**, 1 input 4-20mA, H ₂ configured (0-100% LIE)
MX16-A-7-1-0-0	Analogic controller MX 16**, 1 input 4-20mA, H ₂ configured (0-100% LIE), with RS485 output

* Delivered with 10m of cable type MPI 22A. ** The control unit is delivered alone and does not include a detector.

Alarm mode

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



- 1 Current value with unit and detected gas
- 2 Detector status (OK, OFF, FAULT)
- 3 MX 16 status information
- 4 Detector in alarm

Data-logging

By default, the MX 16 can store up to 512 alarm events, 512 fault events and 512 system events.

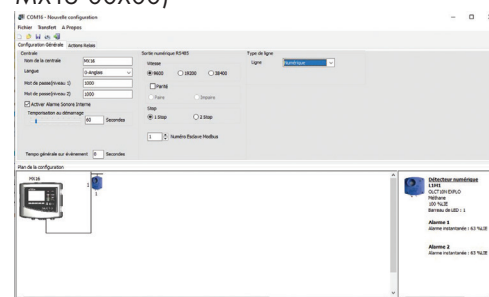
Alarmes gaz					
Turbine gaz Sud	AL1	ON	13 01 10	18 22 19	
Turbine gaz Sud	AL2	ON	13 01 10	18 22 19	
Turbine gaz Sud	AL1	OFF	13 01 10	18 22 31	
Turbine gaz Sud	AL2	OFF	13 01 10	18 22 31	

Customization :

Detector label
Alarm thresholds
Password protection
Digital output
Display language

COM 16 programming software

(for programmable MX 16 versions only, ref MX16-00X00)



Programming of detector type, input type, type of gas detected including O₂, CO₂, CH₄, LPG, H₂.
Simplified programming of relays, configuration of the RS 485 digital output (optional), time delays
Advanced management of audible alarms (for programmable MX 16 versions only, ref MX16-00X00)

Configuration example



Technical data

Model	MX 16 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)	3 M16 cable glands, 4 to 8 mm ² 2 M20 cable glands, 6 to 12 mm ²
Display	LCD back-lit display + smart keys Display in grayscale mode in case of fault Bar graph with alarm threshold
Visual indicators	6 LEDs 5 LEDs for Detector status line 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	100-240Vca 50-60Hz (35W)
Consumption	250mA max. (without detector)

Measurement lines

Digital lines	1 (for OLCT 10N, iTrans 2, OLCT 80, Meridian, OLCT 710) RS-485 communication, proprietary protocol, 9600 Baud 2 twisted shielded-pair cable
Analog channels	1 (4-20mA) 0-23mA analog signal input (4 to 20mA reserved for measurement) 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

Alarms

Per channel	4 Alarm levels (AI1, AI2, Overscale, Underscale) + 1 fault Dispute doubt for explosive gases Accessible and modifiable alarm threshold AI1 and AI2, manual acknowledgment Configuration of thresholds as standard*: • O ₂ : decreasing threshold • CO ₂ /CH ₄ /LPG/H ₂ : increasing threshold * for Easy Duo and factory pre-configured versions MX16-N and MX16-A
-------------	--

Output

On-board relays	2 alarm relays + 1 fault relay (non-configurable), positiv security Dry contact relay, RCT, 5A / 250Vca – 30Vcc
Digital outputs	RS-485 Modbus RTU

Approvals

EMC	According to EN 50270:15
Low voltage directive	According to EN 61010-1:10

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. Please contact Teledyne Oldham Simtronics or their representative if you require more details.