TELEDYNE OLDHAM SIMTRONICS
Everywhereyoulook™

MX 16

Wall Mounted Controller

Introduction

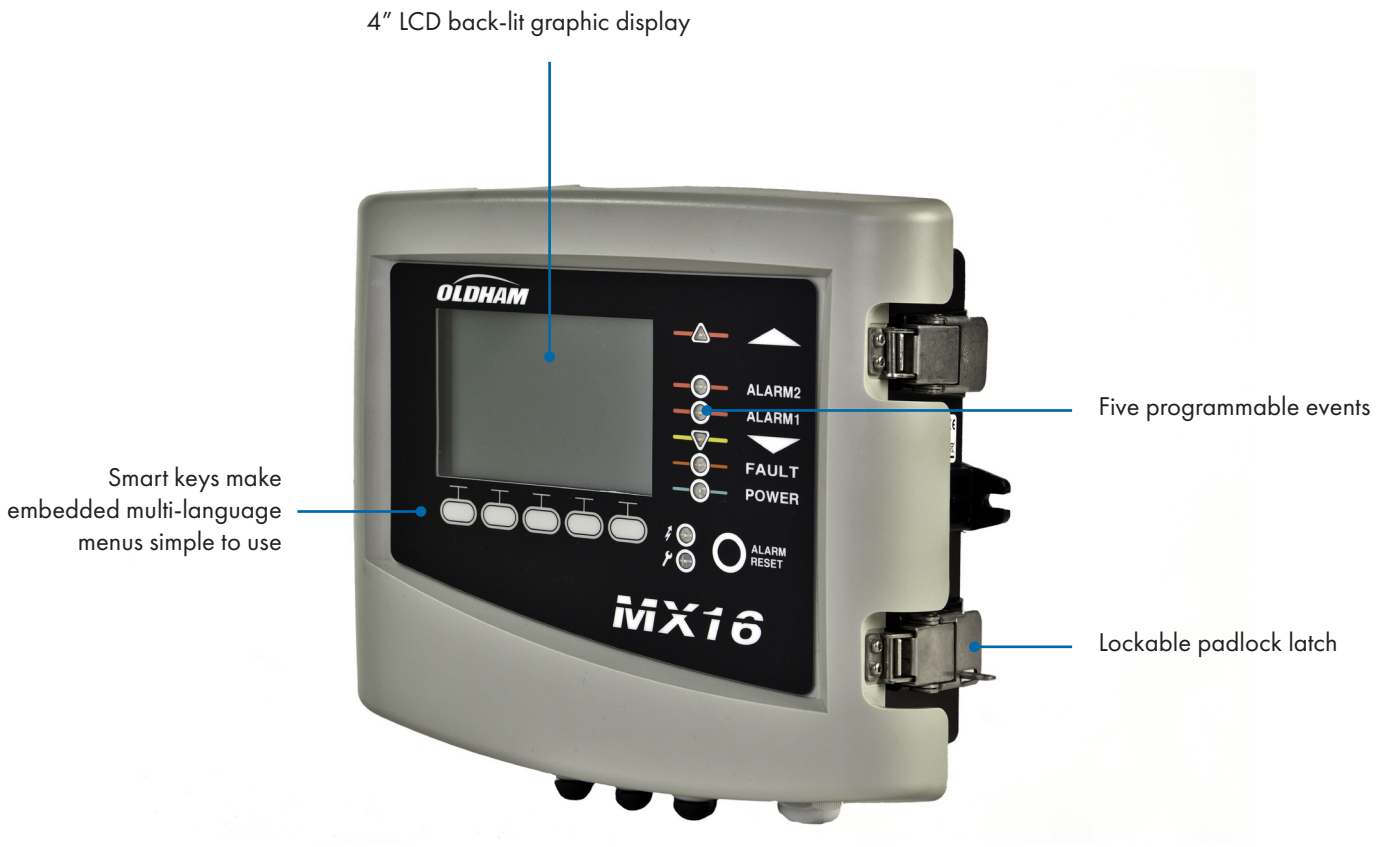
The MX 16 represents a compact and versatile controller, adept at handling both digital and analog inputs. With a single input, this low-profile device offers continuous monitoring capabilities, specializing in gas detection and, more broadly, the processing of signals such as 4-20 mA, or any compatible digital signals.

Key Features

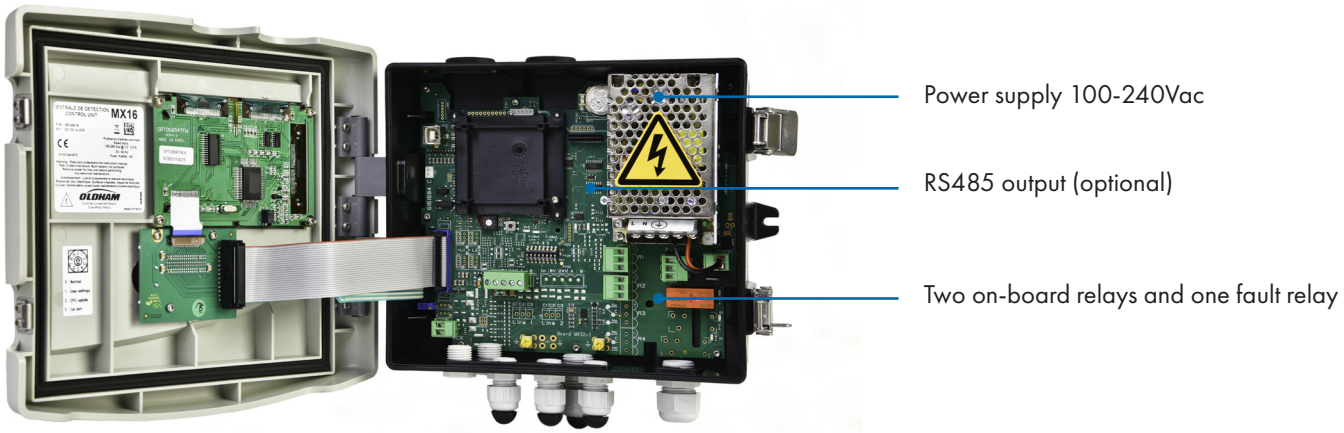
- Dual-functionality as an Analog and Digital Controller
- Cost-Effective with Easy Installation
- Single Measurement Line supporting up to 1 Detector
- Integrated Relay System for Enhanced Functionality
- Optional RS-485 Signal Output with MODBUS RTU Integration

MX 16
Wall Mounted Controller

Specifically engineered for applications in MRI rooms (with the dedicated CTX 300 O_2 Helium-free system), laboratories, storage facilities, small boiler rooms, breweries, or battery charging rooms, the MX 16 measuring unit mitigates the risks associated with the presence of toxic, anoxic, and explosive gases in the ambient air. Its compact size, straightforward installation, and user-friendly operation are key attributes. Whether paired with the OLCT 10N, iTrans 2, OLCT 80, Méridian, OLCT 710 digital sensor series 1 Head, or any other analog sensor, the MX 16 ensures a compliant solution adhering to European standards.

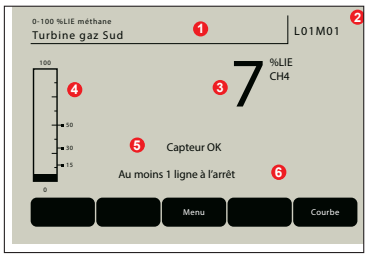


Installation Simplicity: Installation is a breeze with the MX 16. All it needs is a power connection and a cable linking the control unit to the detector (included with the Easy Duo). The MX 16 N-xxx and A-xxx versions come pre-configured, eliminating the need for any additional configuration software—they are factory configured for seamless setup. For the MX 16 0-xxx versions, configuration is made easy through the optional COM 16 software.



MX 16
Wall Mounted Controller

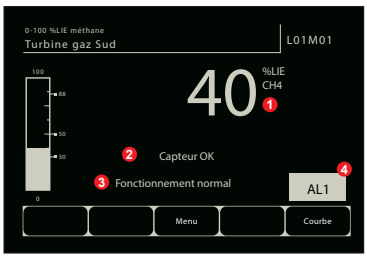
Normal mode



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

Alarm mode Enhancement

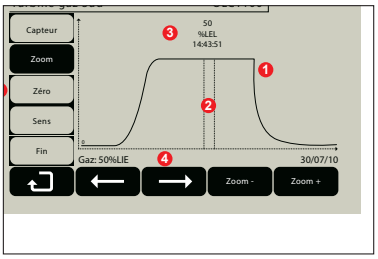
Experience heightened situational awareness with our alarm mode, featuring a grayscale display for instant identification of the specific detector under concern. This innovative feature ensures swift and precise response in alarm conditions.



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

Calibration curve

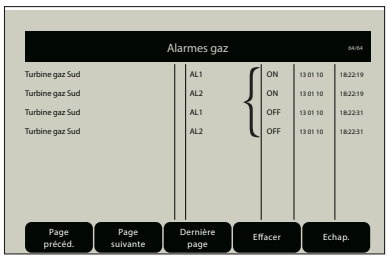
Simplified procedure that enables time savings (i.e. non-intrusive and one-man calibration).



1 Calibration curve
2 Cursors for span settings
3 Measured value
4 Calibration gas value
5 Detector selection, zeroing and spanning

Data-logging

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



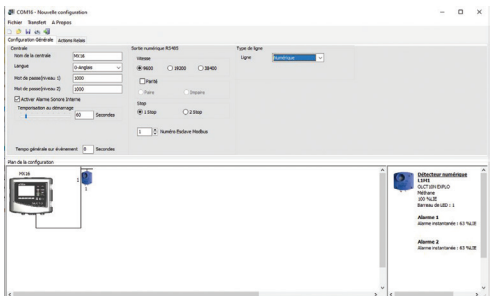
Customization :

Detector label
Alarm thresholds
Password protection
Digital output
Display language

COM 16 programming software

(for programmable MX 16 versions only, ref MX16-0-000-X-0-0)

Programming of detector type, input type, type of gas detected including CO, O_2, CO_2, CH_4, LPG, H_2.
Simplified programming of relays, configuration of the RS 485 digital output (optional), time delays
Advanced management of audible alarms (acknowledgment, reactivation, evacuation).



MX 16
Wall Mounted Controller

Ordering information

REF	Programmable version via COM 16
MX16-000-0-0-0-0	MX 16 Digital or Analog ** control unit
MX16-000-0-1-0-0	MX 16 Digital or Analog control unit, with RS485 output **

REF	Analog version MX16
MX16-A-001-0-0-0	MX 16 Analog control unit, 1 input 4-20mA, configured as CH_4 (0-100% LEL) **
MX16-A-001-1-0-0	MX 16 Analog control unit, 1 x 4-20mA, input configured as CH_4 (0-100% LEL), with RS485 output **
MX16-A-003-0-0-0	MX 16 Analog control unit, 1 input 4-20mA, configured as H_2 (0-100% LEL) **
MX16-A-003-1-0-0	MX 16 Analog control unit, 1 input 4-20mA, configured as H_2 (0-100% LEL), with RS485 output **
MX16-A-032-0-0-0	MX 16 Analog control unit, 1 input 4-20mA, configured as GPL (0-100% LEL) **
MX16-A-032-1-0-0	MX 16 Analog control unit, 1 x 4-20mA, input configured as GPL (0-100% LEL), with RS485 output **
MX16-A-200-0-0-0	MX 16 Analog control unit, 1 input 4-20mA, configured as O_2 (0-30% Vol.) **
MX16-A-200-1-0-0	MX 16 Analog control unit, 1 input 4-20mA, configured as O_2 (0-30% Vol.), with RS485 output **
MX16-A-239-0-0-0	MX 16 Analog control unit, 1 input 4-20mA, configured as CO_2 (0-5% Vol.) **
MX16-A-239-1-0-0	MX 16 Analog control unit, 1 input 4-20mA, configured as CO_2 (0-5% Vol.), with RS485 output **

REF	Digital version MX16 Easy Duo
MX16-N-001-0-0-0	Easy Duo MX 16 Digital unit with OLCT 10N CH4 (0-5.0% Vol.)*
MX16-N-001-1-0-0	Easy Duo MX 16 Digital control unit with OLCT 10N CH_4 (0-5.0% Vol.), with RS485 output*
MX16-N-002-0-0-0	Easy Duo MX 16 Digital Controller with OLCT 10N CH_4 (0-4.4% Vol.)*
MX16-N-002-1-0-0	Easy Duo MX 16 Digital Controller with OLCT 10N CH_4 (0-4.4% Vol.), with RS485 output*
MX16-N-003-0-0-0	Easy Duo MX 16 Digital Controller with OLCT 10N H_2 (0-4% Vol.)*
MX16-N-003-1-0-0	Easy Duo MX 16 Digital Controller with OLCT 10N H_2 (0-4% Vol.), with RS485 output*
MX16-N-200-0-0-0	Easy Duo MX 16 Digital control unit with OLCT 10N O_2 (0-30% Vol. - 2-year cell life)*
MX16-N-200-1-0-0	Easy Duo MX 16 Digital control unit with OLCT 10N O_2 (0-30% Vol. - 2-year cell life), with RS485 output*
MX16-N-204-0-0-0	Easy Duo MX 16 Digital control unit with OLCT 10N CO (0-300ppm)*
MX16-N-204-1-0-0	Easy Duo MX 16 Digital control unit with OLCT 10N CO (0-300ppm), with RS485 output*
MX16-N-239-0-0-0	Easy Duo MX 16 Digital Controller with OLCT 10N CO_2 (0-5% Vol.)*
MX16-N-239-1-0-0	Easy Duo MX 16 Digital control unit with OLCT 10N CO_2 (0-5% Vol.), with RS485 output*

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

MX 16
Wall Mounted Controller

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 line	1 (for OLCT 10N, iTrans 2, OLCT 80, Meridian, OLCT 710) RS-485 communication, proprietary protocol, 9600 Baud 2 twisted shielded-pair cable
Analog input	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 intermal AC power

Alarms

Per channel	2 Alarm levels (Al1, Al2) negative drift faults, overrange, doubt clearance for explosive gases Accessible and modifiable alarm threshold Al1 and Al2, manual acknowledgment
	Configuration of thresholds as standard*: • O_2 : decreasing threshold • $CO/CO_2/CH_4/LPG/H_2$: 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

MX 16

Wall Mounted Controller

Teledyne Oldham Simtronics' quality assurance programs require continuous assessment and improvement of all our products. Therefore, the information in this leaflet may change without prior notification and should not be considered a product specification. If you require more details, please don't hesitate to contact Teledyne Oldham Simtronics or one of their representatives.

TELEDYNE
GAS AND FLAME DETECTION
Everywhereyoulook™

AMERICAS
14880 Skinner Rd
Cypress, TX 77429 USA
Tel.: +1 713-559-9200
Fax: +1 281-746-6034

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

gasandflamedetection@teledyne.com

www.teledynegasandflamedetection.com