

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

Whilst every effort has been made to ensure the accuracy of this specification, we cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.

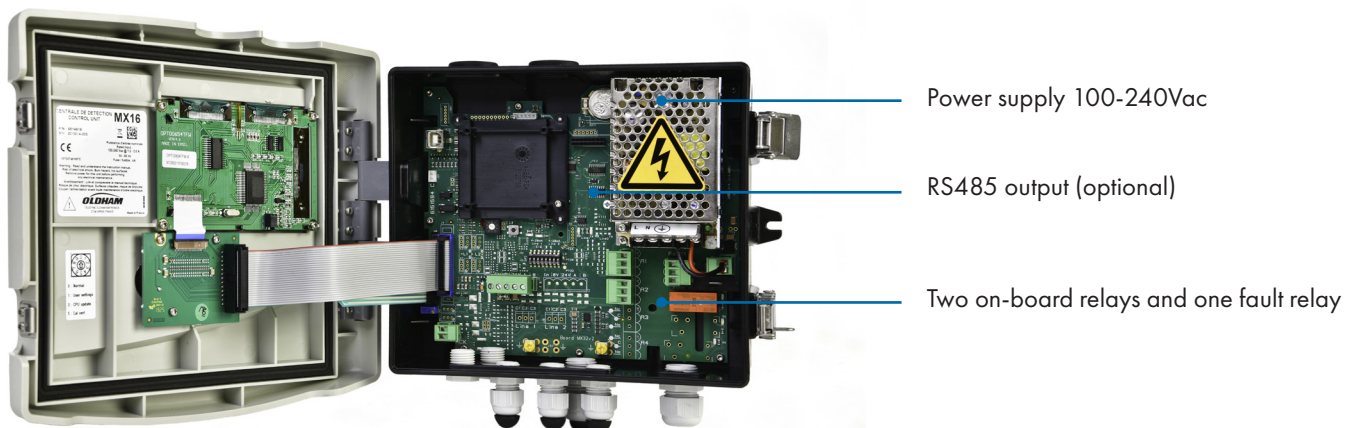
For pricing or any further information, please contact Omni Instruments Ltd.

Specifically engineered for applications in MRI rooms (with the dedicated CTX 300 O₂ 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, Mériidian, OLCT 710 digital sensor series 1 Head, or any other analog sensor, the MX 16 ensures a compliant solution adhering to European standards.

4" LCD back-lit graphic display

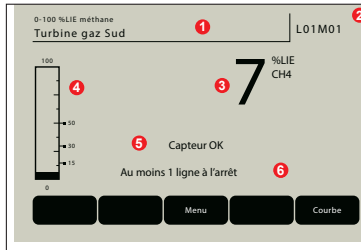


Installation Simplicity: Installation is a breeze with the MX 16. All it needs is a power connection and a cable linking the control unit to the detector (included with the Easy Duo). The MX 16 N-xxx and A-xxx versions come pre-configured, eliminating the need for any additional configuration software—they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



For pricing or any further information, please contact Omni Instruments Ltd.

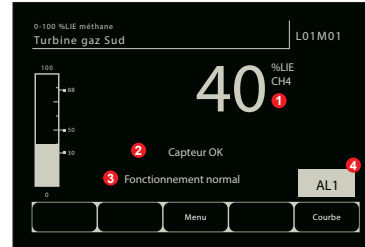
Normal mode



- 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

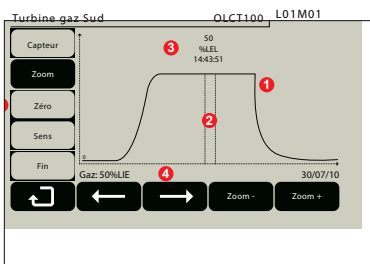
Experience heightened situational awareness with our alarm mode, featuring a grayscale display for instant identification of the specific detector under concern. This innovative feature ensures swift and precise response in alarm conditions.



- 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.

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	

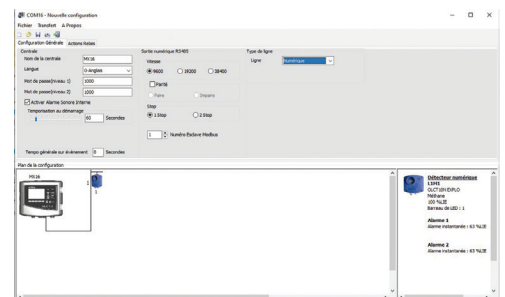
Customization :

- Detector label
- Alarm thresholds
- Password protection
- Digital output
- Display language

COM 16 programming software

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

Programming of detector type, input type, type of gas detected including CO, O₂, CO₂, CH₄, LPG, H₂.
Simplified programming of relays, configuration of the RS 485 digital output (optional), time delays
Advanced management of audible alarms (acknowledgment, reactivation, evacuation).



Whilst every effort has been made to ensure the accuracy of this specification, we cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.

For pricing or any further information, please contact Omni Instruments Ltd.



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 CH ₄ (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.

Whilst every effort has been made to ensure the accuracy of this specification, we cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.

For pricing or any further information, please contact Omni Instruments Ltd.

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 internal AC power

Alarms

Per channel	2 Alarm levels (AI1, AI2) negative drift faults, overrange, doubt clearance for explosive gases Accessible and modifiable alarm threshold AI1 and AI2, manual acknowledgment
	Configuration of thresholds as standard*: <ul style="list-style-type: none"> O₂: decreasing threshold CO/CO₂/CH₄/LPG/H₂: 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

Whilst every effort has been made to ensure the accuracy of this specification, we cannot accept responsibility for damage, injury, loss or expense from errors or omissions. In the interest of technical improvement, this specification may be altered without notice.

For pricing or any further information, please contact Omni Instruments Ltd.