

#### Gas & Flame Detection

#### **3M<sup>™</sup>Oldham 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.

- Analog and digital controller
- Up to eight detectors
- Fully scalable



Distributed by: Air-Met Scientific Pty Ltd Air-Met Sales/Service A P: 1800 000 744 F F: 1800 000 774 E E: sales@airmet.com.au

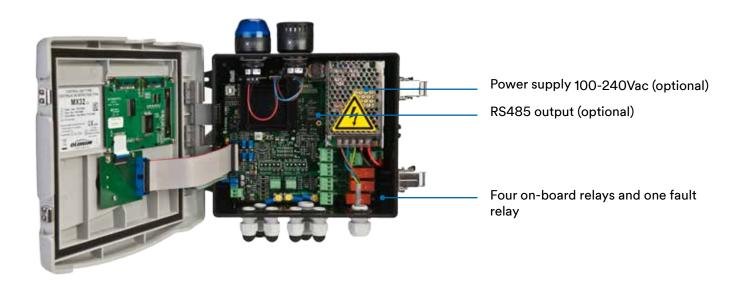
Air-Met Rental P: 1300 137 067 E: hire@airmet.com.au W: www.airmet.com.au



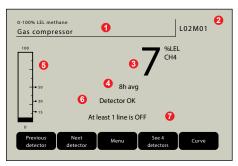
5" LCD back-lit graphic display

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.



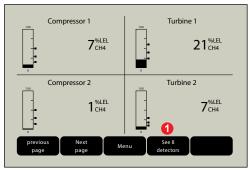
#### Normal mode



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

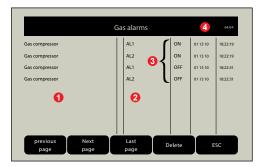
# Simultaneous display of several detectors



1Up to eight detectors displayed simultaneously

#### Data-logging

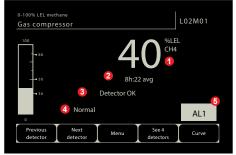
By default, the MX 32 can store up to 512 alarm events, 512 fault events and 512 system events.



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

#### Alarm mode

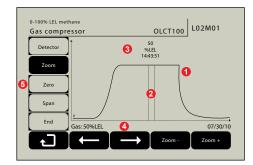
Grayscale mode in alarm conditions for immediate identification of the concerned detector.



- 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

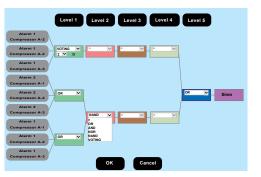
#### Calibration curve

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

#### 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)

## 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.

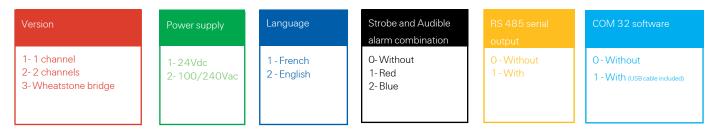
# Ordering information

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

# 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.

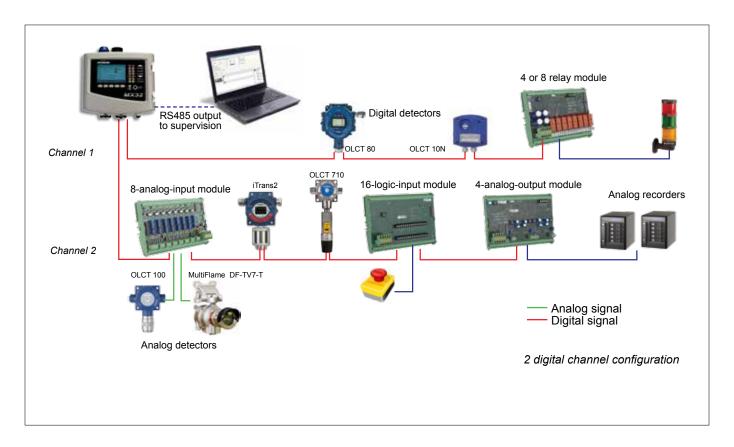


f.i: MX32-1-2-2-1-1 for MX32 1 channel, 100/240Vac, English, Blue strobe & horn, RS485 output et COM 32 software

### **Configuration examples**



Analog signal
Digital signal



Specifications

Model	MX 32 gas detection control panel
Dimensions (w*h*d)	265 × 266 × 96 mm (10.4 × 10.5 × 3.8 inches)
Ingress protection	IP55
Cable entries (wall-mounted version)	5 M16 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 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	0,65 to 1A with internal AC power or 1.5A with external DC power
Maximum current output in total	0,65 to 1A with internal AC power or 2×1.5A with external DC power
Alarms	
	5 Alarm levels (A1, A2, A3, Overscale, Underscale) + 1 Fault
Per channel	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 2A / 250 Vac - 30Vdc
External relays	Up to 16 fully programmable alarm relays Dry contact relay, DPCO relays, contact rating 2A / 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
-	-
SIL1	According to EN 50271:10 (pending)
CSA pending	

As an ISO 9001 & ISO 14001 approved company, OLDHAM quality assurance programmes demand the continuous assessment and improvement of all OLDHAM products. Information in this leaflet could thus change without notification and does not constitute a product specification. Please contact OLDHAM or their representative if you require more details.



Copyright © 2018 3M. All rights reserved. gasdetection.3m.com. GF-00226C

#### AMERICAS - Texas (USA)

4055 Technology Forest Blvd. The Woodlands, TX 77381 Tel.: +1-800-247-7257 Fax: +1-281-292-2860 **EMEA** 

ZI Est, Rue Orfila, CS 20417 62027 ARRAS CEDEX, France Tel.: +33-3-21-60-80-80 Fax: +33-3-21-60-80-00

#### ASIA PACIFIC

290 Guiqiao Road Pudong, Shanghai 201206 People's Republic of China Tel.: +86-21-3127-6373 Fax: +86-21-3127-6365