MX43

- Analog and digital controller
- 4 or 8 lines / 16 to 32 detectors max
- Highly versatile controller
- Cost savings on wiring installation
MX 43
Controller presentation

The MX 43 is an analog and digital controller designed for the continuous measurement and control of the gases present in the atmosphere and for 4-20 mA or digital contact signal.

MX 43 manages both digital lines and analog channels, and covers all needs for a wide variety of applications.

The MX 43 digital technology allows up to 32 detectors to be distributed on 8 lines for increased cost savings.

1 Back-up battery
2 Strobe and horn
3 Power supply
4 On-board relays
5 Removable terminals
6 RS485 output
7 USB datalogging kit
**Normal Mode**

1. Measurement range, gas and detector tag
2. Detector address
3. Current value with unit and detected gas
4. Averaged value on the last 8 hours
5. Bar graph with alarm thresholds
6. Detector status (OK, OFF, fault)
7. MX 43 status information
8. Records on progress

**In 4-channel display**

1. Up to 16 detectors can be displayed simultaneously

**Data-logging**

By default, the MX 43 can store up to 512 alarm events, 512 fault events and 512 system events.

**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

**Alarm mode**

Reverse video in alarm conditions for immediate identification of the concerned detector.

1. Current value with unit and detected gas
2. Averaged value on the last 8 hours
3. Detector status (OK, OFF, fault)
4. MX 43 status information
5. Detector in alarm

The USB option enables gas measurements to be saved at a sampling rate of 2 seconds to 15 minutes while events are saved when they happen.

The 4 Gb USB drive provides more than 2 years of storage in most of configurations. The USB option also delivers the ability to save and restore configuration and firmware files.
GAS DETECTION CONTROL PANEL

Modules

Different modules can be connected to the controller:

4 or 8-relay module

4 or 8-programmable-relay module can be located closer to the actuators 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.

8-analog-input module

This module enables standard analog transmitters (gas or flame detectors for instance) to be connected on a digital line for cost savings.

4-analog-output module

Addressable 4- analog-output module which delivers 4 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.

Configuration example
<table>
<thead>
<tr>
<th>Model</th>
<th>MX 43 gas detection control panel</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Dimensions (wall-mounted version)</strong></td>
<td>370 x 299 x 109 mm (14.6 x 11.8 x 4.3 inches)</td>
</tr>
<tr>
<td><strong>Dimensions (rack)</strong></td>
<td>19&quot;, 4U ; 482.8 x 177 x 192.5 mm (19.1 x 7 x 7.6 inches)</td>
</tr>
<tr>
<td><strong>Ingress protection</strong></td>
<td>IP55 (wall-mounted), IP31 (rack)</td>
</tr>
<tr>
<td><strong>Cable entries (wall-mounted version)</strong></td>
<td>12 M16 cable glands, 4 to 8 mm² (8 to 11 AWG) outer diameter cable 6 M20 cable glands, 6 to 12 mm² (7 to 9 AWG) outer diameter cable</td>
</tr>
<tr>
<td><strong>Display</strong></td>
<td>LCD back-lit display + smart keys Display in video inverse in case of fault Customizable by user (display 1 to 16 channels simultaneously, fixed or scrolling, on events...) Bar graph with alarm threshold</td>
</tr>
<tr>
<td><strong>Visual indicators</strong></td>
<td>7 LEDs per line 1 LED fault indicator 1 LED fault indicator</td>
</tr>
<tr>
<td><strong>Buttons</strong></td>
<td>5 smart keys 1 audible alarm accept/reset button</td>
</tr>
<tr>
<td><strong>Operating use</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Operating temperature</strong></td>
<td>-20°C to +50°C</td>
</tr>
<tr>
<td><strong>Storage temperature</strong></td>
<td>-20°C to +50°C</td>
</tr>
<tr>
<td><strong>Humidity</strong></td>
<td>5 to 95% RH</td>
</tr>
<tr>
<td><strong>Power</strong></td>
<td>100-240 Vac 50-60 Hz or 21-28 Vdc, 112 W max</td>
</tr>
<tr>
<td><strong>Battery</strong></td>
<td>Embedded back up power supply in option (0.6 Ah)</td>
</tr>
<tr>
<td><strong>Consumption</strong></td>
<td>500 mA min (without module)</td>
</tr>
<tr>
<td><strong>Measurement lines</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Digital lines</strong></td>
<td>8 maximum RS-485 communication, proprietary protocol, 9600 Baud 2 twisted shielded-pair cable</td>
</tr>
<tr>
<td><strong>Analog channels</strong></td>
<td>8 maximum 0-23 mA analog signal input (4 to 20 mA reserved for measurement) 120 Ohm load resistance 2 or 3-core shielded cable</td>
</tr>
<tr>
<td><strong>Voltage (typical)</strong></td>
<td>21 to 28Vdc</td>
</tr>
<tr>
<td><strong>Maximum current output per line</strong></td>
<td>1.2 A (1.5 A intermittently)</td>
</tr>
<tr>
<td><strong>Maximum current output in total</strong></td>
<td>2.4 A permanent (3.2 A intermittently)</td>
</tr>
<tr>
<td><strong>Alarms</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Per channel</strong></td>
<td>5 alarm levels (A1, A2, A3, Overscale, Underscale) + Fault Non-ambiguity reading option for combustible gases monitoring</td>
</tr>
<tr>
<td><strong>Programmable thresholds</strong></td>
<td>On instantenous ou averaged values, rising or falling alarms, manual or automatic acknowledgement</td>
</tr>
<tr>
<td><strong>On-board relays</strong></td>
<td>5 fully programmable alarm relays 1 fault relay (non-configurable) Dry contact relay DPCO relays with contact rating of 250 Vca 2 A (inductive)</td>
</tr>
<tr>
<td><strong>Digital outputs</strong></td>
<td>RS-485 Modbus RTU serial link</td>
</tr>
<tr>
<td><strong>Approvals</strong></td>
<td></td>
</tr>
<tr>
<td><strong>EMC</strong></td>
<td>According to EN50270</td>
</tr>
<tr>
<td><strong>ATEX</strong></td>
<td>EN50271 and metrological performances according to EN60079-29-1</td>
</tr>
<tr>
<td><strong>Low Voltage Directive</strong></td>
<td>According to EN61010</td>
</tr>
<tr>
<td><strong>CSA</strong></td>
<td>Pending</td>
</tr>
<tr>
<td><strong>MTBF</strong></td>
<td>20 years (4 lines, powered with 24 Vdc) 17 years (8 lines, powered with 24 Vdc)</td>
</tr>
<tr>
<td><strong>MED</strong></td>
<td>According to Marine Equiment Directive 96/98/EC. Fulfills the EMC requirements for installation in General Power Distribution Zone and/or Deck Zone.</td>
</tr>
</tbody>
</table>
Our fixed detector range

OLCT 10
OLCT 10N
CTX 300
OLCT 100
iTrans 2
OLCT 80

OLCT 60
OLCT 60 / OLCT IR
OLCT IR
SaEye
Sharpeye

www.oldhamgas.com

AMERICAS
Tel.: +1-713-559-9280
Fax: +1-281-292-2860
americas@oldhamgas.com

EMEA
Tel.: +33-3-21-60-80-80
Fax: +33-3-21-60-80-00
info@oldhamgas.com

ASIA PACIFIC
Tel.: +66-21-3127-6373
Fax: +66-21-5899-3280
sales@oldhamgas.com

For your safety, test and calibrate your gas monitors regularly.