

# OLCT 80

## WIRELESS

- Frequency 2.4 GHz (EU) / 900 MHz (USA)
- Low Power Requirement
- Up to 3 km Line-of-Sight Range
- Robust Mesh Network Topology
- Up to 49 devices per network
- Flexible Input/Output options (analog, on/off, Modbus RS485)



### NEW WIRELESS VERSION

Oldham is proud to introduce its wireless system with the OLCT 80 field detector/transmitter. This new model allows wireless connectivity in ATEX 1 zones. The maximum range is 3km, line of sight. The type of network selected will depend on the number of field detectors, the area coverage and the network architecture.

### SIGNAL PROCESSING

OLCT 80 is ideal for transmitting signal data in a wide range of industrial detection and alarm system applications.

Transceiver operates at a universally accepted frequency of 2.4 GHz / 900 MHz and is able to transmit signal data from its analog or Modbus outputs.

The wireless version of the OLCT 80 eliminates wiring costs and is very easy to commission in the field. The device can be associated with our MX 43 control panel, touch screens and audible or visible alarms.

Wireless network integrity, security and reliability are guaranteed by using FHSS technology (Frequency Hopping Spread Spectrum).

### PROPOSED SOLUTIONS

#### POINT-TO-POINT

One master - One slave

The 4-20mA signal is transmitted from one point to another.

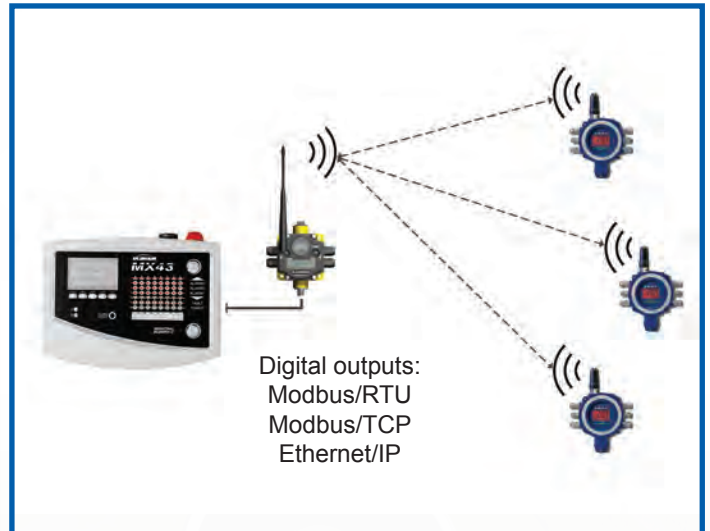


#### STAR CONFIGURATION OR STAR TOPOLOGY

One master - Several slaves

This secured wireless network consists of a radio frequency network system built around a master.

The signal is transmitted to the master which provides a digital output communication. One master can monitor up to 49 slave devices.

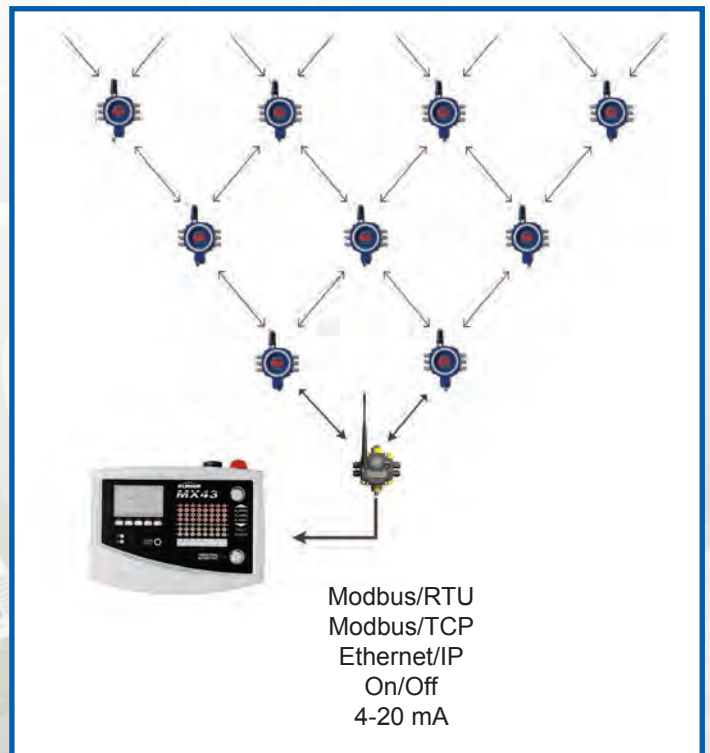


#### MESH TOPOLOGY

One master - Several repeaters

The signal is transmitted to the master which provides RS485 (Modbus RTU), analog (4-20 mA) or logic (On/Off) output.

49 slaves maximum per network.  
Each OLCT 80 is configured as a repeater and several networks can co-exist.



**Nota bene:** power the OLCT 80 wireless with 16 to 30 Vdc (230 or 110 VAc/24Vdc, batteries, solar panels).

## TECHNICAL SPECIFICATIONS

TRANSMITTER	
<b>Sensor</b>	Catalytic / Electrochemical / Semiconductor / Infrared
<b>Material</b>	Epoxy coated aluminum + 316 stainless steel sensor
<b>Detected gases</b>	Explosive or toxic gases, or O <sub>2</sub>
<b>Pre-calibrated sensor</b>	Yes
<b>Weight</b>	4kg
<b>Power supply</b>	16 to 28 V DC Optional solar panels available. ATEX version in option.
<b>Power consumption</b> with RS485 communication with signal output at 25mA with signal output set at 25 mA and activated relays	9 W (electrochemical) - 10 W (catalytic) - 12.5 (IR) 9 W (electrochemical) - 10 W (catalytic) - 13.2 (IR) 10.4 W (electrochemical) - 11.5 W (catalytic) -14.7(IR)
<b>Display</b>	4-digit LCD display for measurement + 1 alphanumeric line 3 LEDs (green : on-power / yellow : fault / red : alarm)
<b>Cable entry</b>	4 M20 & 2 M25 cable entries
<b>Loop impedance with OLDHAM controller</b> at 21 V DC	128 Ω (electrochemical) 32 Ω (catalytic) 16 Ω (OLCT 80 XP IR)
<b>Ingress protection</b>	IP 66
<b>Specifications antenna</b>	Frequency band 900 MHz or 2400 MHz - to be specified when ordering Impedance : 50 Ω Gain 2dBi Power 2 watts
<b>Range (line of sight)</b>	3200 meters / 2 miles (2.4 Ghz) 9600 meters / 6 miles (900 MHz)
<b>Approvals</b>	EEx d IIB T5 (T 100°C) for OLCT 80 with flameproof sensor EEx d [ia] ia IIB T4 (T 135°C) for OLCT 80 with intrinsically safe sensor certificate INERIS 03ATEX0240X
<b>Operating temperature</b>	-20°C to +55°C
<b>Analog input</b>	2 x 4-20 mA analog input (load resistance 120 Ω)
<b>Output signal</b> Relays Analog Digital Signal faults Alarms	3 dry relay contacts (Fault, AI1, AI2) Standardized 4-20 mA output One serial RS485 output Current output < 0.5 mA 2 programmable thresholds per channel
<b>Relays</b> Relay rating	3 relays, RCT change over 2 A @250 VAC or 30 VDC
<b>Load resistance</b>	500 Ω

## **PRESERVING HUMAN LIFE IN WORKPLACES AROUND THE WORLD.**

**Oldham, headquartered in Arras, France, employs hundreds of experts all over the world.** With over 100 years in business, Oldham is the fixed gas detection expert, worldwide. Oldham's mission is to provide the highest performance, quality and reliability in everything we do.

Oldham offers a wide range of gas detection products and solutions.



**● Americas - Houston (USA)**

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

**● EMEA - Arras (FR)**

Telephone : +33 3 21 60 80 80  
Fax : +33 3 21 60 80 00  
info@oldhamgas.com

**● Asia Pacific - Shanghai (CN)**

Telephone : +86 21 3127 6373  
Fax: +86 21 5899 3280  
sales@oldhamgas.com



**GLOBAL GAS DETECTION AND  
MONITORING SOLUTIONS**

Z.I. Est - rue Orfila / CS 20417  
62027 Arras Cedex - France

Telephone : +33 3 21 60 80 80  
e-mail : info@oldhamgas.com  
[www.oldhamgas.com](http://www.oldhamgas.com)

