TELEDYNE OLDHAM SIMTRONICS
Everywhereyoulook™

OLCT 80 Wireless

Wireless gas detection

New Wireless Version

Teledyne Gas & Flame Detection 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).

Features

- 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)

OLCT 80 Wireless

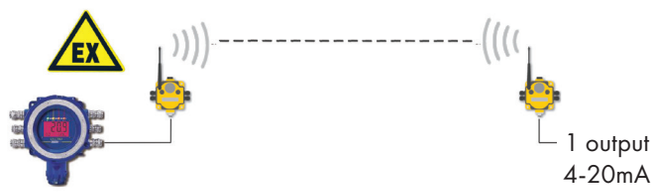
Wireless gas detection

Proposed Solutions

Point-to-point

One master - One slave

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

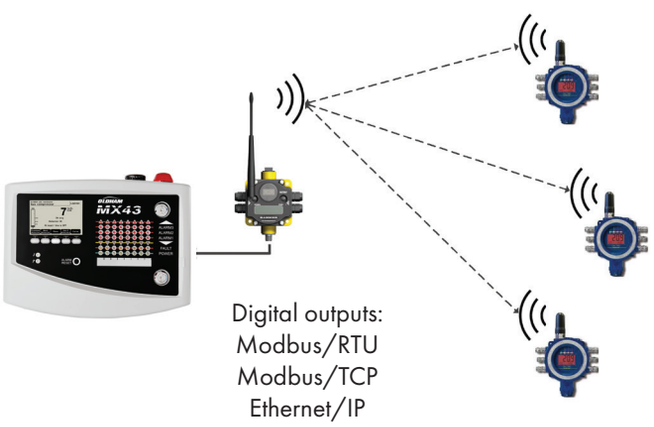


Star Configuration or Star Topology

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.

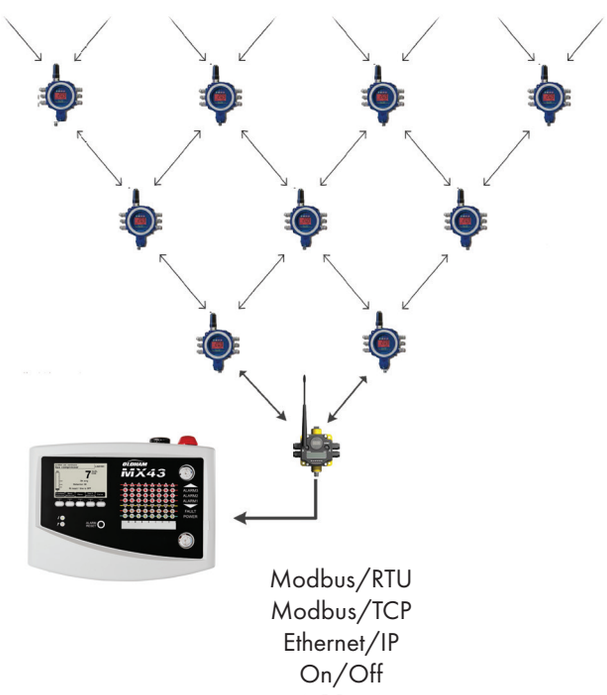


MESH Topology

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	
Sensor	Catalytic / Electrochemical / Semiconductor / Infrared
Material	Epoxy coated aluminum + 316 stainless steel sensor
Detected gases	Explosive or toxic gases, or O_2
Pre-calibrated sensor	Yes
Weight	4kg
Power supply	16 to 28 V DC Optional solar panels available. ATEX version in option.
Power consumption	
with RS485 communication	9 W (electrochemical) - 10 W (catalytic) - 12.5 (IR)
with signal output at 25mA	9 W (electrochemical) - 10 W (catalytic) - 13.2 (IR)
with signal output set at 25 mA and activated relays	10.4 W (electrochemical) - 11.5 W (catalytic) -14.7(IR)
Display	4-digit LCD display for measurement + 1 alphanumeric line 3 LEDS (green : on-power / yellow : fault / red : alarm)
Cable entry	4 M20 & 2 M25 cable entries
Loop impedance with OLDHAM controller at 21 V DC	128 Ω (electrochemical) 32 Ω (catalytic) 16 Ω (OLCT 80 XP IR)
Ingress protection	IP 66
Specifications antenna	Frequency band 900 MHz or 2400 MHz - to be specified when ordering Impedance : 50 Ω Gain 2dBi Power 2 watts
Range (line of sight)	3200 meters / 2 miles (2.4 Ghz) 9600 meters / 6 miles (900 MHz)
Approvals	Ex d IIB T5 for OLCT 80 with flameproof sensor Ex d ia IIB T4 for OLCT 80 with intrinsically safe sensor certificate INERIS 03ATEX0240X
Operating temperature	-20°C to +60°C
Analog input	2 x 4-20 mA analog input (load resistance 120 Ω)
Output signal	
Relays	3 dry relay contacts (Fault, Al1, Al2)
Analog	Standardized 4-20 mA output
Digital	One serial RS485 output
Signal faults	Current output < 0.5 mA
Alarms	2 programmable thresholds per channel
Relays	3 relays, RCT change over
Relay rating	2 A @250 VAC or 30 VDC
Load resistance	500 Ω

OLCT 80 Wireless

Wireless gas detection

Teledyne Oldham Simtronics quality assurance programmes demand the continuous assessment and improvement of all our products. Information in this leaflet could thus change without notification and does not constitute a product specification. For more information, please contact us or your company representative.

AMERICAS

4055 Technology Forest Blvd.
The Woodlands, TX 77381
USA
Tel.: +1-713-559-9200
Fax: +1-713-893-6729

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

TELEDYNE
GAS AND FLAME DETECTION
Everywhereyoulook™

gasandflamedetection@teledyne.com

www.teledynegasandflamedetection.com