The wireless gas detection at your Fingertips

OLCT 80 WIRELESS

Features

- Universally Acceptable Frequency 2.4 GHz
- Network Wide Control Processing Capability
- Low Power Requirement
- 1-3KM Line-of-Sight Range
- Robust Mesh Network Topology (option)
- Network Capacity up to 48 Devices
- Flexible I/O options

Omni instruments Ltd are proud to introduce the wireless OLCT80 system with detectors/transmitter.

This new model allows you to be connected wirelessly in ATEX 1 zone, the maximum range is 3km, line of sight.

The type of selected network will depend on the number of field detectors, the area coverage and the network architecture.

Measurement and data acquisition solutions

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Description

Oldham Model Series OLCT80 are ideal for transmitting signal data in a wide range of industrial detection and alarm system applications. The transceivers operate at a universally accepted frequency of 2.4 GHZ and are able to transmit signal data from 4-20 mA DC or serial MODBUS inputs.

Wireless installations eliminate the cost of point-to-point wiring and can be as simple as a single field device communicating with a controller, remote display, and audio/visual alarm stations.

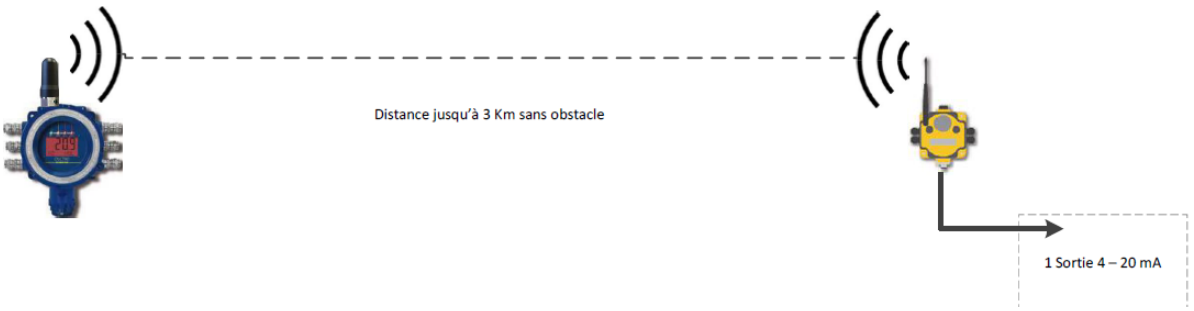
Wireless network integrity, security, and reliability are accomplished using direct sequence spread spectrum wireless technology.

Different solutions can be proposed:

Point-to-Point:

The signal 4 - 20mA is transmitted from one point to another (one master one slave). The image of the 4-20mA output of OLCT 80 is generated on the output 4 - 20mA receiver.

SureCross DX70 Wireless Modules networks utilize binding technology to ensure that a Node communicates only with its corresponding Gateway without noise obstruction or signal interference.



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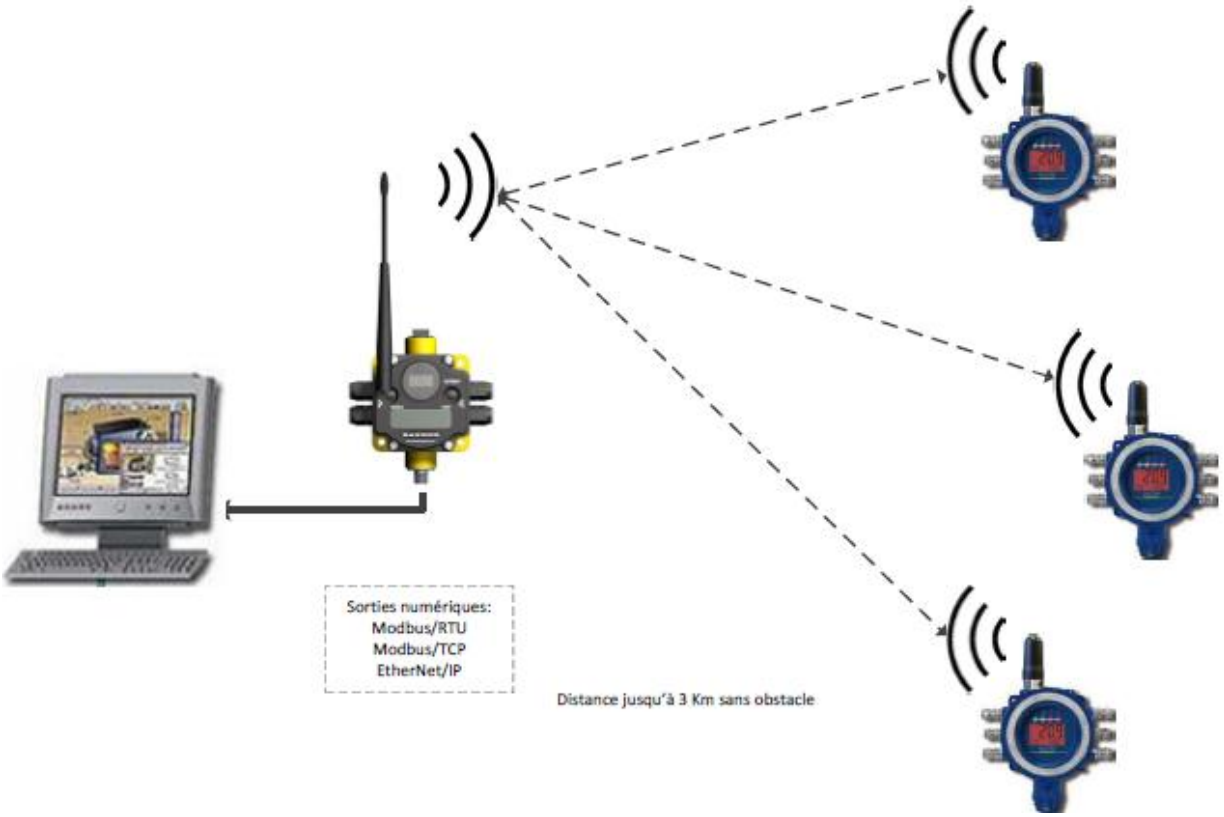
Point-to-Bus:

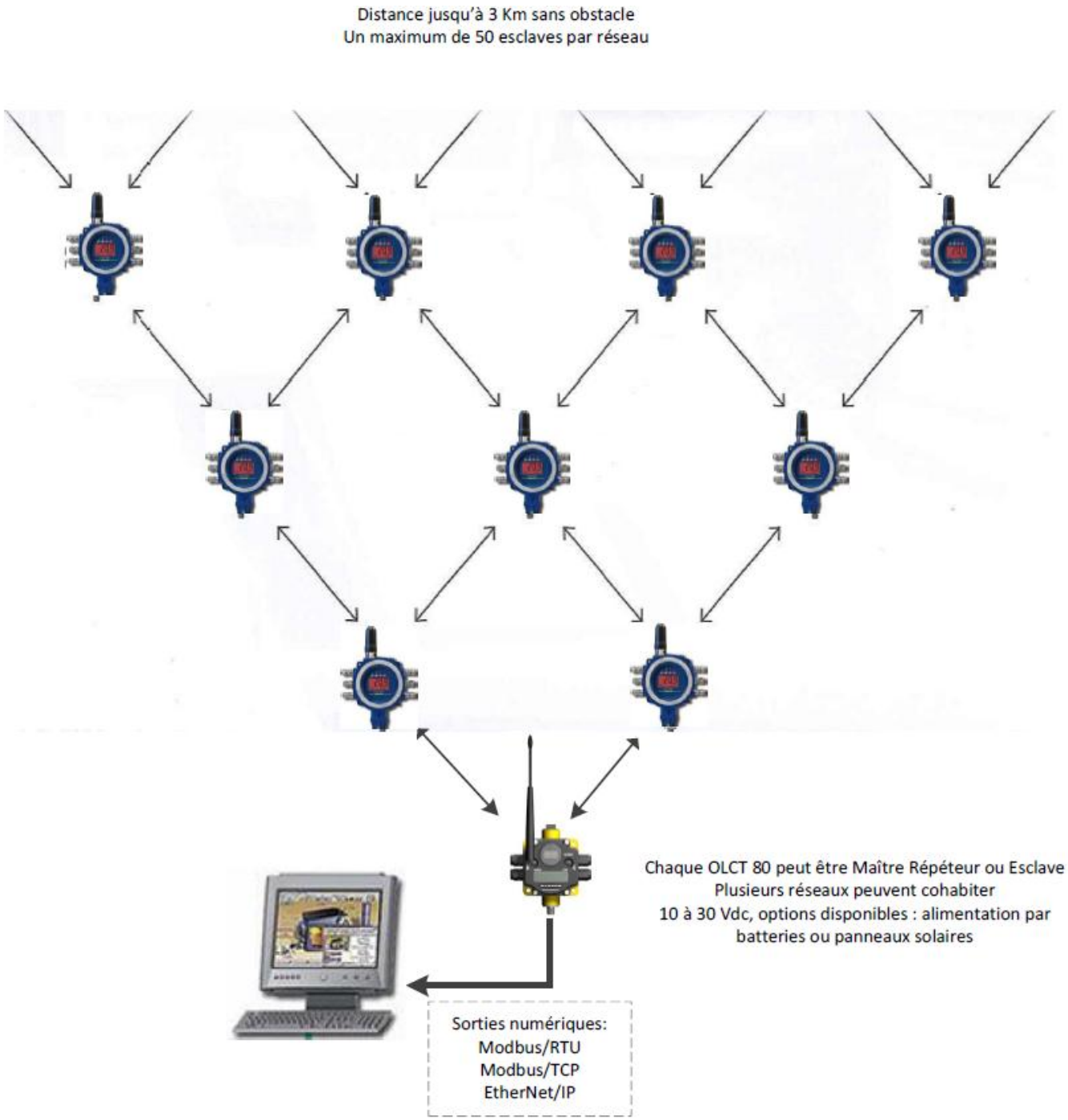
The signal is transmitted to the master which has an output digital communication. Up to 47 slaves per master module.

SureCross DX80 Wireless Networks consist of a radio frequency network system built around a Gateway system controller, one or more remotely located Nodes and integrated I/O.



Bus-Bus:

The signal is transmitted to the master which has an output digital communication.



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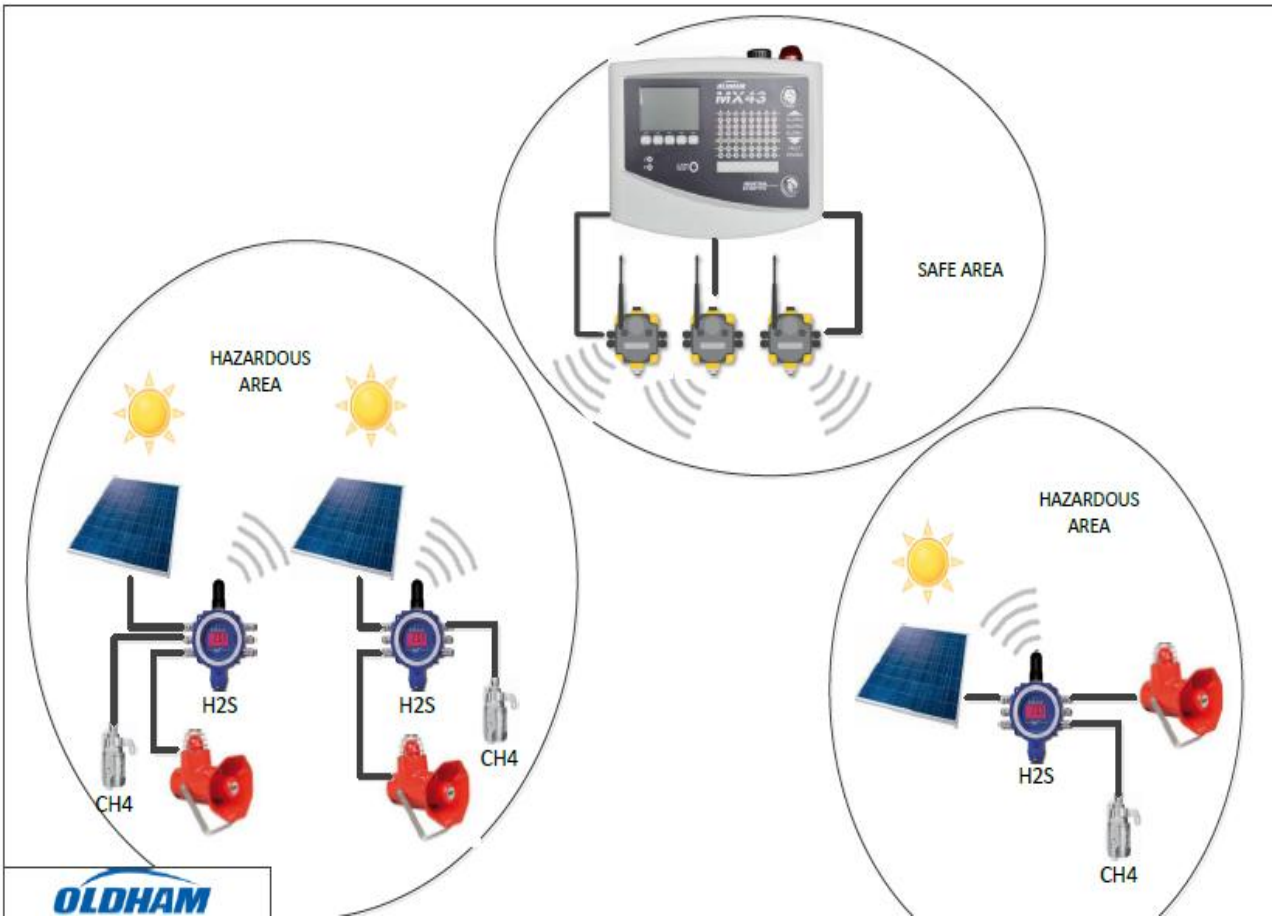
Typical Application

The OLCT80 WIRELESS SUB STATIONS equipped each with LEL & H2S detectors/transmitters, transmitting data up to 3 km line of sight on a Point-Point bases.
Then connecting to a Controller type MX43 located in a Control Room (Safe area).



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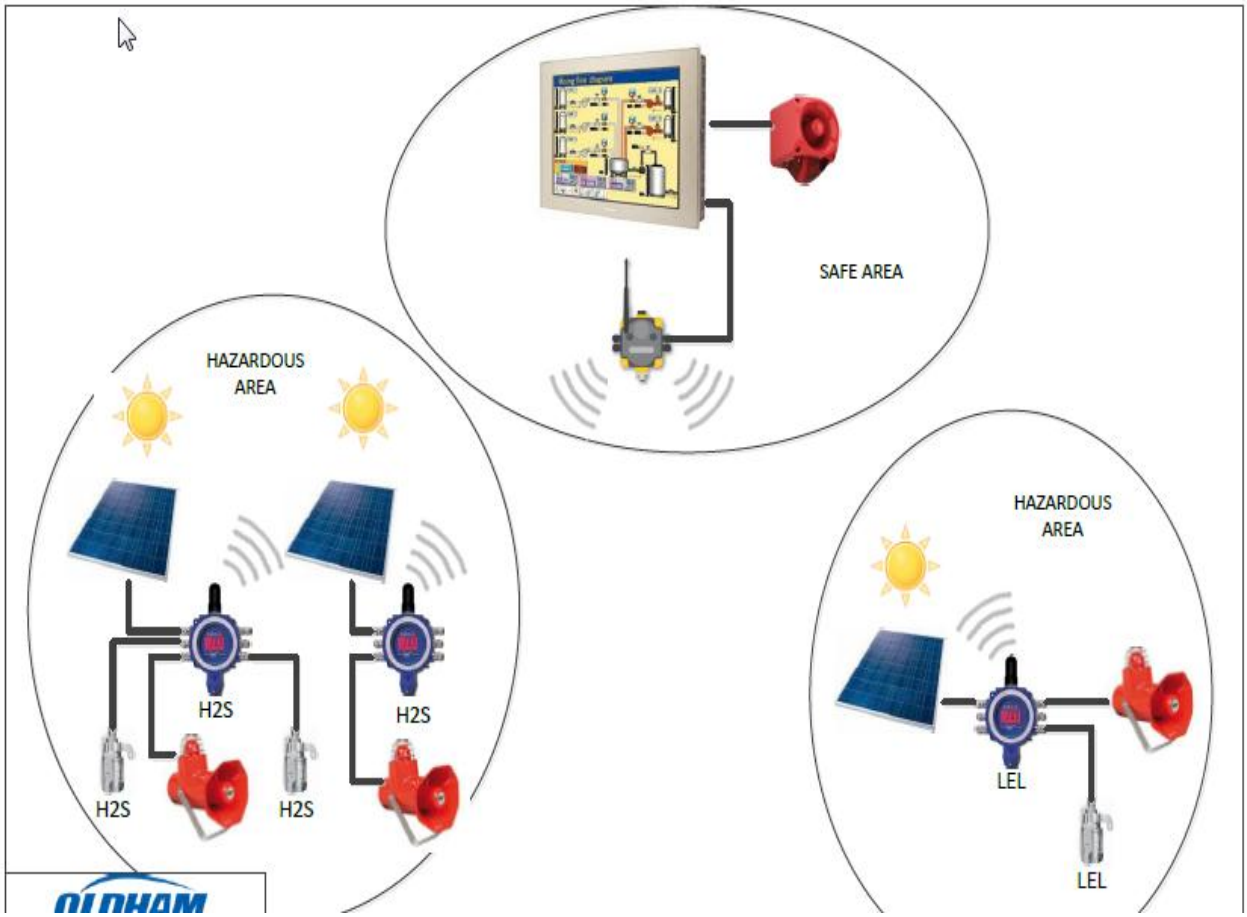
Typical Application

The OLCT80 WIRELESS SUB STATIONS equipped each with LEL & H2S detectors/transmitters, transmitting data up to 3 km line of sight on a Point-Bus philosophy.
Then connecting to a SCADA / Supervision system located in a Control Room (Safe area). Up to 48 Points can be connected.



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Technical Specifications of OLCT 80 Wireless Sub Station / Detector

-Capacity: Can accept up to 3 sensor modules, Catalytic / Electrochemical or Infrared
-Housing: Copper free aluminum blue epoxy enamel
-Gases detected: Flammable, Toxic or Oxygen
-Weight: 4kg
-Power supply: 16 to 28 VDC
-Power consumption: 1 to 3 W (cellule electrochemical) – 3.5 W (catalytic)
-Display: LCD 4 characters, 4 LED's (green = power ON, red = alarm, yellow = fault
-Cable entry: 6 (4 M20 & 2 M25)
-Loop impedance: 128 Ω (electrochemical version), 32 Ω (catalytic version), 16 Ω (IR version)
-Ingress protection: IP 66
-Antenna specifications:

- Frequency band 900 MHz or 2400MHz (to be specified)
- Impedance : 50 Ω
- Gain 2dBi
- Power 2 watts

-Certifications : ATEX II 2 GD, EEx d IIC T5 (T 100°C), INERIS 03ATEX0240X, CE to EN 50270
-Operating temperature: -25°C à +55°C
-Signal outputs: SPDT relay, analogue & 2 isolated RS 485
fault signal: 1 < 0,5 mA
-Alarm thresholds: 2 programmable levels per channel
-Relays: 3 relays, SPDT resistive load 2A under 250 VAC or 30 VDC

omni INSTRUMENTS
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Technical Specifications of the SureCross DX70 Wireless Modules

General
Power:+10 to 30V dc
Power consumption:less than 1.4 W @ 24V dc
Indicators:Green Power ON LED, Yellow Signal Strength LED
Case material:polycarbonate
Weight:0.26 kg

Radio
Range with standard 2 dB antenna*:
2.4 GHz models:up to 3.2 km (2 miles)
Transmit power:
2.4 GHz models:18 dBm conducted, 20 dBm EIRP max.
Spread spectrum technology:Frequency Hopping Spread Spectrum (FHSS)

Inputs
Discrete: four sourcing (or sinking)
Sample rate:62 milliseconds
Analog:two, 0 to 20 mA

Outputs
Discrete: four sourcing
Analog:two, 0 to 20 mA
Max. end-to-end Latency*:400 milliseconds

Environmental
Environmental rating*:IEC IP67; NEMA 6
Operating temperature**:-40 to +85° C (electronics); -20 to +80° C (LCD)
Relative humidity:95% (non-condensing)
Shock and vibration:IEC IEC 68-2-6 and IEC 68-2-7