



THE DIGITAL DETECTOR DESIGNED TO REDUCE CABLING COSTS.

The OLCT 10N detector has been specially designed to detect the most commonly found gases in the commercial or light industry sector.

Intended for use via digital connection with the MX 43 control panel, the OLCT 10N provides a fast and accurate response. You can have up to 16 detectors on the same digital line or distribute 32 detectors across the 8 lines of an MX43. All the sensor and relay information is processed by the control panel in under one second.

With an ultra-bright LED and a magnet, calibration of the detector is automatic and does not require the housing to be opened. The calibration information, including the gas response curve, are logged by the MX 43.

IP65 and ATEX 3 GD certified, the OLCT 10N is approved for use in ATEX zones 2 and 22 and is ingress protected.



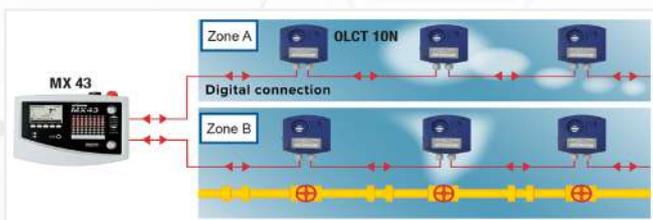
TECHNICAL DATA

| | |
|---|--|
| Size | 4.6 x 4.3 x 2.4 in. (11.8 x 11.0 x 6.0 cm) |
| Protection Class | IP65 |
| Output | RS485 Modbus, proprietary protocol |
| Humidity | Electrochemical sensors: 15-90 %RH, non-condensing Catalytic sensors: 0-100 %RH, non-condensing |
| Power supply | 12-30 Vcc |
| Integrated relay within the detector | no |
| Cable inlet | Up to 32 detectors at 1000 m with a 0.9 mm ² (AWG 18) core size cable Up to 8 explosive gas detectors at 225 m with a 0.9 mm ² (AWG 18) core size cable |
| Consumption | Electrochemical sensor: 2.5 mA in normal operation @ 24 Vdc Catalytic sensor : 50 mA in normal operation @ 24 Vdc CO2 Infrared sensor: 20mA in normal operation @24Vdc |

Approvals

| | |
|--------------|---|
| ATEX | *Ex nA nC IIC T4 Gc for explosimetric versions / Ex nA IIC T4 Gc for others (except CO2 versions) |
| IECEX | II 3 GD - IECEX 11.0029X |
| EMC | Electromagnetic compatibility according to EN50270 |

SETUP EXAMPLE



DID YOU KNOW?

ATEX ZONE EQUIPMENT SUITABILITY:

REGULATORY MARKING

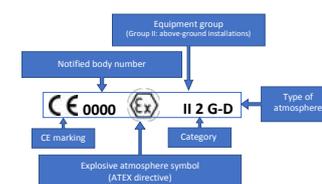
All equipment in explosion hazard zones, whether electrical or otherwise, as well as protective systems, must meet the technical requirements corresponding to the type of zone. There are three categories, corresponding to the requisite equipment safety levels.

In addition, a specific marking is used to identify the equipment and its features.

Equipment marking (above-ground installations)

| RISK | ZONE | DEVICE | CATEGORY |
|---------------------|---------|------------------------|-----------------------------|
| Continuous hazard | Zone 0 | Category 1 | CE II ⚡ 1 G |
| | Zone 20 | Category 1 | CE II ⚡ 1 D |
| Intermittent hazard | Zone 1 | Category 2 (or 1) | CE II ⚡ 2 G (or 1 G) |
| | Zone 21 | Category 2 (or 1) | CE II ⚡ 2 D (or 1 D) |
| Possible hazard | Zone 2 | Category 3 (or 2 or 1) | CE II ⚡ 3 G (or 2 G or 1G) |
| | Zone 22 | Category 3 (or 2 or 1) | CE II ⚡ 3 D (or 2 D or 1 D) |

G : gases / vapors, D : dust



This regulatory marking is usually accompanied by standard equipment markings, so the compatibility of the equipment can be checked against the physical and chemical characteristics of the constituents of the explosive atmosphere.

SENSOR SPECIFICATIONS

| GAS | MEASURING RANGE | OPERATING TEMPERATURE | RESPONSE TIME | ACCURACY | LIFETIME |
|--|---------------------------------------|-------------------------------------|--|-------------------------|-----------|
| ▶ Combustible gas (Methane,...) | 0-100% LEL | -4°F to +131°F (-20°C to +55°C) | T50 / T90 (sec) : 6/15 | ± 1% LEL (0-70% LEL) | 48 months |
| Oxygen (O₂) | 0-30% vol | -4°F to +122°F (-20°C to +50°C) | T50 / T90 (sec) : 6/15 | 0,4% vol 15-22% vol | 28 months |
| ▶ Carbone monoxide (CO) | 0-300 ppm 0-1,000 ppm | -4°F to +122°F (-20°C to +50°C) | T50 / T90 (sec) : 15/40 | ± 3% | 36 months |
| Hydrogen sulfide (H₂S) | 0-30 ppm 0-100 ppm | -4°F to +122°F (-20°C to +50°C) | T50 / T90 (sec) : 15/30 | ± 3% | 36 months |
| ▶ Nitrogen monoxide (NO) | 0-100 ppm 0-300 ppm | -4°F to +122°F (-20°C to +50°C) | T50 / T90 (sec) : 10/30 | ± 3% | 36 months |
| Nitrogen dioxide (NO₂) | 0-10 ppm 0-30 ppm | -4°F to +122°F (-20°C to +50°C) | T50 / T90 (sec) : 30/60 | ± 1% | 24 months |
| ▶ Ammonia (NH₃) | 0-100 ppm 0-1,000 ppm | -4°F to +104°F (-20°C to +40°C) | T50 / T90 (sec) | ± 5 ppm ± 20 ppm | 24 months |
| Carbon dioxide (CO₂) | 0-5,000 ppm 0-5% vol 0-100% vol | -40°F to +122°F (-40°C to +50°C) | T50 / T90 (sec) : 18/32 T50 / T90 (sec) : 19/33 T50 / T90 (sec) : 113/22 | ± 5% | 60 months |



DID YOU KNOW?

SUITABILITY OF THE EQUIPMENT FOR THE HAZARDS: STANDARD EQUIPMENT MARKING

Several criteria must be considered to ensure the equipment is suitable for the hazards:

• **The method(s) of protection** used to ensure equipment safety level. There are several different types that are adapted, as appropriate, to gases/vapours, dust, or electrical or non-electrical materials : Gases/vapours and dust groups.

• **Gases/vapours** are categorised into three groups, according primarily to their ignitability, IIC being the most dangerous group.



• **Dust** is categorised into three groups, according primarily to its state of matter (size of particles) and its conductivity.



• **The surface temperature of the equipment**, to be compared with the autoignition temperature of the hazards. For dust, the maximum temperature that can be reached is indicated directly; for gases/vapours, it is shown as a numerical code.

| TEMPERATURE | CLASS MAXIMUM VALUE (°C) |
|-------------|--------------------------|
| T1 | 450 |
| T2 | 300 |
| T3 | 200 |
| T4 | 135 |
| T5 | 100 |
| T6 | 85 |

• The **ingress protection** rating (protection against entry of water and entry of dust), indicated by the letters 'IP' followed by two figures, the first relating to dust entry and the second to water entry. The higher the figure, the higher the ingress protection. EEX de II C T6

