Gas Detector

# Teta EcoWent, Teta EcoN

Product code: PW-105-CO, PW-111-NO2

**Reliability**

**Innovations**

**Cost efficiency**

Teta Gas Dual Wire concept

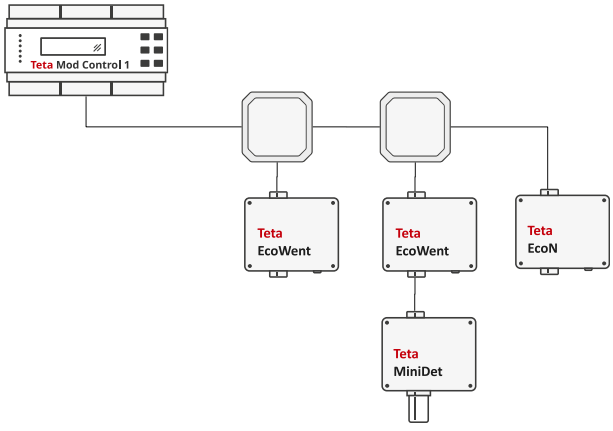
## Information about the product

Teta EcoWent and Teta EcoN gas detectors are monitoring devices designed to check carbon monoxide and nitrogen dioxide concentrations in open-access confined spaces (garages and underground car parks) and meant as components of the innovative system for gas detection – Teta Gas.

Key advantages of detector:

- power supply and data transmission via a single two-core cable,
- safe installation with low power supply voltage of any polarization,
- easy assembling and networking,
- possibility to couple with the Teta MiniDet gas detector and to set up a pair of collaborating devices for combined detection of CO and LPG concentrations,
- simple and clear procedure to assign and verify addresses of individual detectors within a gas monitoring network,
- possibility to verify status of individual detectors by means of the supervising control unit,
- optional calibration of the detector parameters by replacement of the detector PCB (electronics board) – very short time of calibration,
- three configurable alarm thresholds that trigger when a specified concentration is exceeded,
- option to adjust the averaging time for alarm thresholds 1 and 2, and the delay time for alarm threshold 3,
- indication of detector faults

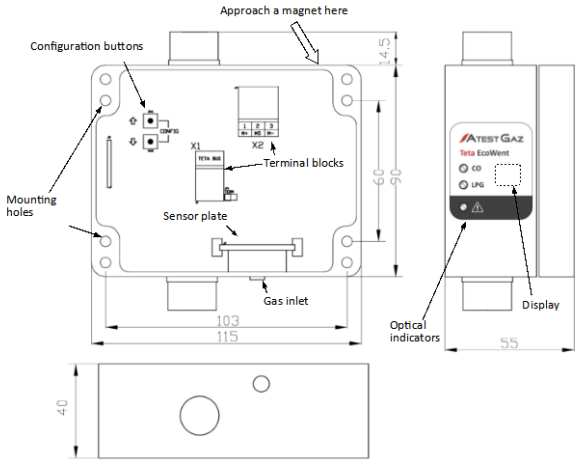
## Location and role of the device in Gas Safety System



## User interface

Teta EcoWent can indicate their operation status. It is accomplished by means of a signal LED visible on the side part of the detector enclosure. The exceptional functionality of the detector consists in its ability to easily disclose its address within the gas detection network with no need to open its enclosure – it is enough to approach a permanent magnet to a specific point of the enclosure.

## Electrical interface and dimension




| Designation | Name | Pin | Description |
|---|---|---|---|
| X1 | TETABUS | | Teta Bus port |
| | | | Power supply / Signal line |
| | | | |
| X2 | | | Teta MiniDet detector port |
| | M+ | 1 | Positive |
| | MS | 2 | Signal line |
| | M- | 3 | Negative |

## Technical specification

| | | |
|---|---|---|
| Power supply<br>• Voltage $V_{CC}$<br>• Power<br>  • $CO/NO_2$<br>  • CO+LPG | 12 – 50 V ⎓<br><br>0,5 W<br>1.5 W | |
| Environment | In operation | Storage |
| • Ambient temperatures<br>• Humidity<br><br>• Pressure | -20 – 50 °C<br>10 – 90% long term<br>0 – 99% short term<br>1013 ± 10% hPa | 0 – 50 °C<br>30 – 90% long term |
| Monited gases | Carbon monoxide (CO)<br>Nitrogen dioxide ($NO_2$)<br>LPG ($C_3H_8$, $C_4H_{10}$) | |
| Measurement ranges | **CO**: 0 – 300 ppm<br>**$NO_2$**: 0 – 10 ppm<br>**LPG**: 0 % – 50 % LEL | |
| Default alarm thresholds | **A1**: CO – 20 ppm, $NO_2$ – 1,8 ppm, LPG – 10 % LEL<br>**A2**: CO – 40 ppm, $NO_2$ – 2,7 ppm, LPG – 15 % LEL<br>**A3**: CO – 100 ppm, $NO_2$ – 3,6 ppm, LPG – 20 % LEL | |
| Alarm thresholds range | 10 – 95 % of the measurement range | |

| | |
|---|---|
| Default averaging time A1/A2 | **CO** or **$NO_2$** – 5min<br>**LPG** – 1 min |
| Default delay time A3 | **CO** or **$NO_2$** – 1min<br>**LPG** – 0 min |
| Integrated signalling equipment (visual) | LED indicators<br>7-segment type display LED |
| IP | IP 43 |
| Digital communication parameters<br>• Communication port | <br>Teta BUS |
| Protection class | III |
| Cable glands (cable diameter range) | Gland pressed into the installation pipe – diameter of the pipe 16 mm. Glands multi-band – diameter of wire 3.5 – 12 mm |
| Acceptable cables | 0.2 – 2.5 $mm^2$ – solid wire<br>0.2 – 2.5 $mm^2$ – multi-wire cable |
| Enclosure | ABS |
| Weight | 0.3 kg |
| Mandatory periodic inspection | Every 12 months |
| Mounting | 4 screw holes 4 mm, spacing as shown in the picture |

## Product marking

| Product code | Device |
|---|---|
| PW-105-CO | Teta EcoWent Gas Detector |
| PW-111-NO2 | Teta EcoN Gas Detector |

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