



## CPS

Car Park System, Fixed Gas Detection for parking facilities and tunnels.



### Presentation

The CPS Car Park System provides accurate and reliable monitoring for the highest level of protection in parking facilities and tunnels.

#### Features

- Up to 256 points per system
- Up to 1,000 times faster than a pumped system
- Parking facility electricity savings of up to 40%

#### Available for all vehicles

- Diesel
- Gasoline
- LPG
- Biofuel
- Electrical

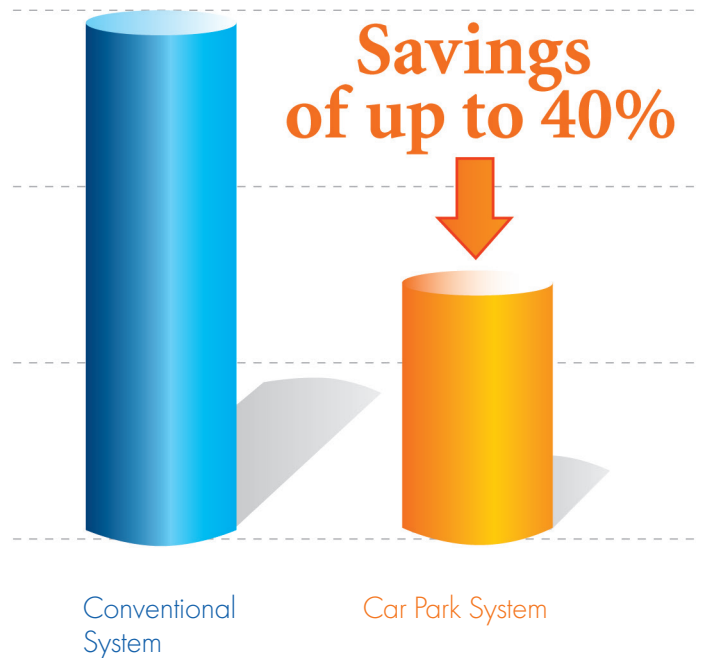


### Safe, accurate and reliable

The system was designed to comply with the high safety standards enforced in such European countries as Germany, the Netherlands and Belgium.

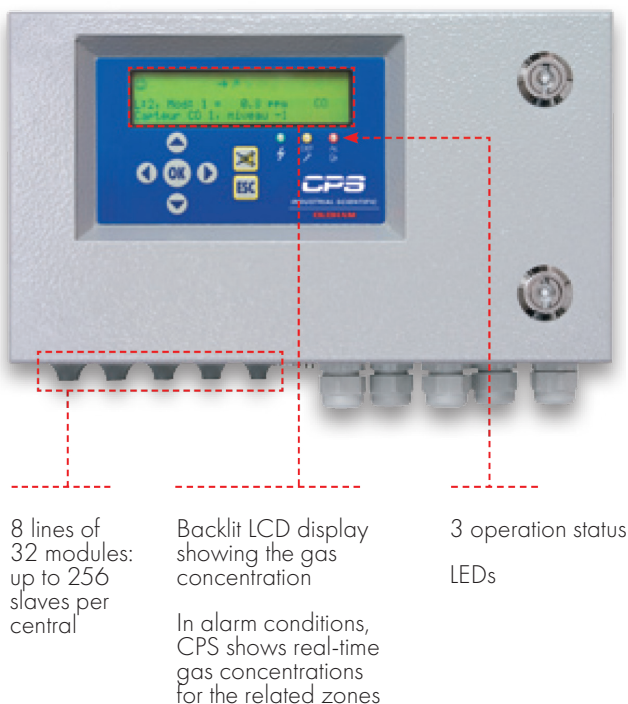
### Economical

Continuous monitoring significantly reduces your operating costs by optimizing the efficiency of ventilation systems and servo controls. Such efficiencies can produce energy savings of up to 40% when used with specific equipment.



Up to 40% electricity savings per year compared to a conventional system.

Analysis in underground parking garages in Arras, France.

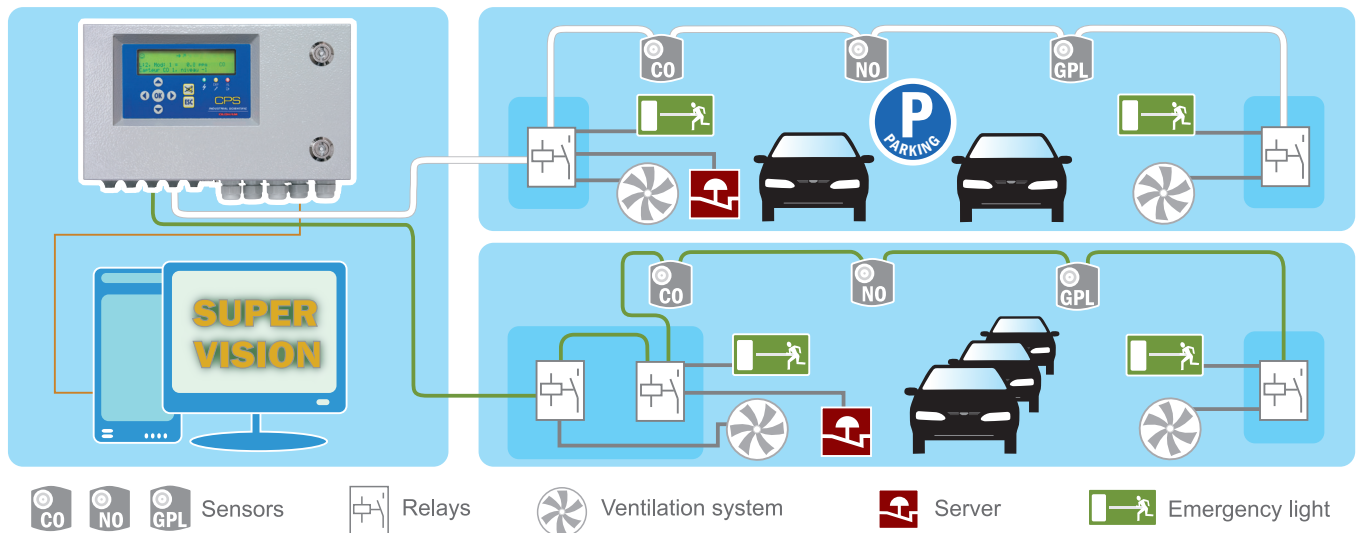


### Versatile

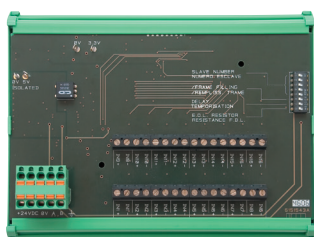
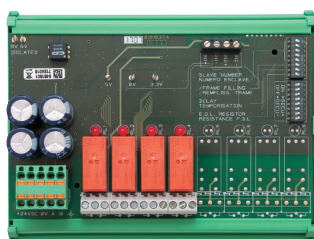
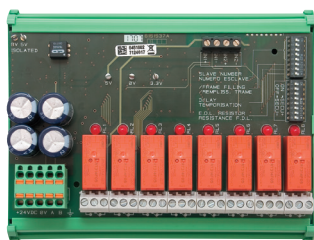
Available in wall- and rack- mounted versions, the CPS central controller and its various modules are user-programmable for specific applications. The system's networking technology also enables the Car Park System to adapt to any installation up to:

- 256 sensors capable of monitoring 6 different gases
- 256 addressable relays
- 64 logic inputs
- 256 analog outputs

Several servo controls can be used: low speed/high speed, delays, forced operation, night mode, etc.



## CPS 10 sensor module



### Module specifications

#### CPS 10 sensor module

Dimensions	118 mm x 110 mm x 60 mm (4.65" x 4.35" x 2.36")
Degree of protection	IP 65
Cable glands	2 M16 cable glands 4-8 mm diameter – Power supply / local relays
Consumption	2.5 mA for the toxic sensor (max 4-20 mA) 50 mA explo: max 90.7 mA
Status indication after calibration	Red/green electroluminescent diode
Calibration	Automatic, non-intrusive
Measuring ranges	Carbon Monoxide – 0 to 300 ppm in 1 ppm increments Nitric Oxide – 0 to 100 ppm in 1 ppm increments Nitrogen Dioxide – 0 to 30 ppm in 0.1 ppm increments Methane – 0 to 100% LEL in 1% increments Liquefied Petroleum Gas – 0-100% LEL in 1% increments Hydrogen – 0 to 100% LEL in 1% increments
Sensor replacement	Sensor replacement switch on the interior of the CPS 10 case

#### CPS RM4 or RM8 relay module

Dimensions	125 mm x 165 mm x 60 mm (4.92" x 6.5" x 2.36")
Number of relays	4 relays (CPS RM4); 8 relays (CPS RM8) – Contacts: RCT-type
Contact rating	2 A / 250 V
Consumption	3.4 mA (max: 5.7 mA)
Connection	Screwing Terminals (cable: 1.5 mm <sup>2</sup> )
Mounting	On DIN rail

Configuration of positive or negative relay security with mini switches.

Relay modules are equipped with 2 all-or-nothing inputs.

Dimensions	125 mm x 165 mm x 60 mm (4.92" x 6.5" x 2.36")
Number of all-or-nothing inputs	16
Consumption	3.2 mA (max: 5.5 mA)
Dimensions	125 mm x 165 mm x 60 mm (4.92" x 6.5" x 2.36")
Number of analog outputs	4
Consumption	130 mA (max: 256 mA)

### CPS central detection controller

#### Wall-mount dimensions

320 mm x 180 mm x 95 mm (12.6" x 7.09" x 3.74")

#### Degree of protection

IP 54

#### Cable Glands

5 M20 cable glands– Diameter: 5 to 12 mm for power supply and local relays

9 grommets - Diameter: 5 to 7 mm or PG-9.

#### Rack-mount dimensions

Length: 19" - Height: 4 U (176 mm)

#### Degree of protection

IP 31

### Operating conditions

#### Ambient temperature

-10°C to +40°C

#### Storage temperature

-20°C to +85°C

#### Humidity

5 to 95% noncondensing

#### Main power supply

Voltage: 85 to 264 VAC Current: 1.5 A (115 VAC) / 0.8 A (230 VAC)

#### Internal back-up battery

Optional, 600 mA/h capacity

#### Consumption

140 mA + 12 mA per measurement line (240 mA max.)

### Measuring lines

#### Capacity

8 lines of 32 modules

#### Cable type

2 shielded twisted pairs RS-485 cable

#### Module power supply

12 to 30 VCC power supply delivered to modules via the central controller

#### Digital Module Network

ModBus RS-485, 1-32 addresses selected with mini switches.

#### Isolation

1500 V between the power supply and the digital network

#### Display

Backlit LCD display screen

(2 lines of 32 characters each – 1 line of pictograms)

3 operation status LEDs: OK, Fault, Alarms

#### Keyboard

Intuitive 7-key

#### Local buzzer

Audible alarm and fault signals

#### Integrated printer

Optional for rack-mounted version

### Alarms

#### Number of alarms

6 per sensor (Out of range – Fault)

#### Programmable thresholds

For instantaneous or averaged values, increasing or decreasing values, and manual or automatic rearming

#### 3 local internal relays

R1 (alarm/fault) – R2 (alarm) – R3 (alarm)

#### Minimum charge for RCT contacts

2A/250 VAC-30 VCC (resistive charge)

#### Digital Outputs

ModBus RS-485 protocol

(connection with a centralized supervision device)

RS-232 or USB: USB protocol priority

(permanent connection to system configuration)

### Approvals

#### Low Voltage Directive

This device is in compliance with the security requirements of Directive 2014/35/EU based on standard 61010-1 and its second amendment

#### Metrology

Underground parking facilities: according to VDI 2053

#### EMC Electromagnetic compatibility

According to EN 50270 ETL approval for US & Canada

#### NTRL Approval

In compliance with ANSI/UL 61010-1-2005 and in compliance with CAN/CSA-C22.2 No. 61010-1



\*Excluding batteries, sensors and consumable parts.

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**TELEDYNE**  
**GAS AND FLAME DETECTION**  
Everywhereyoulook™

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