



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.

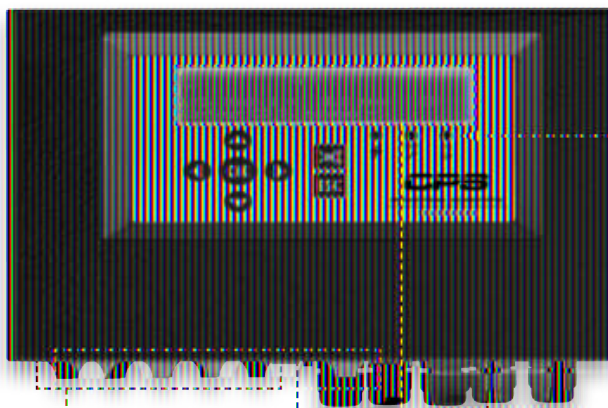


Conventional System

Car Park System

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

Analysis in underground parking garages in Arras, France.



8 lines of 32 modules: up to 256 slaves per central

Backlit LCD display showing the gas concentration

In alarm conditions, CPS shows real-time gas concentrations for the related zones

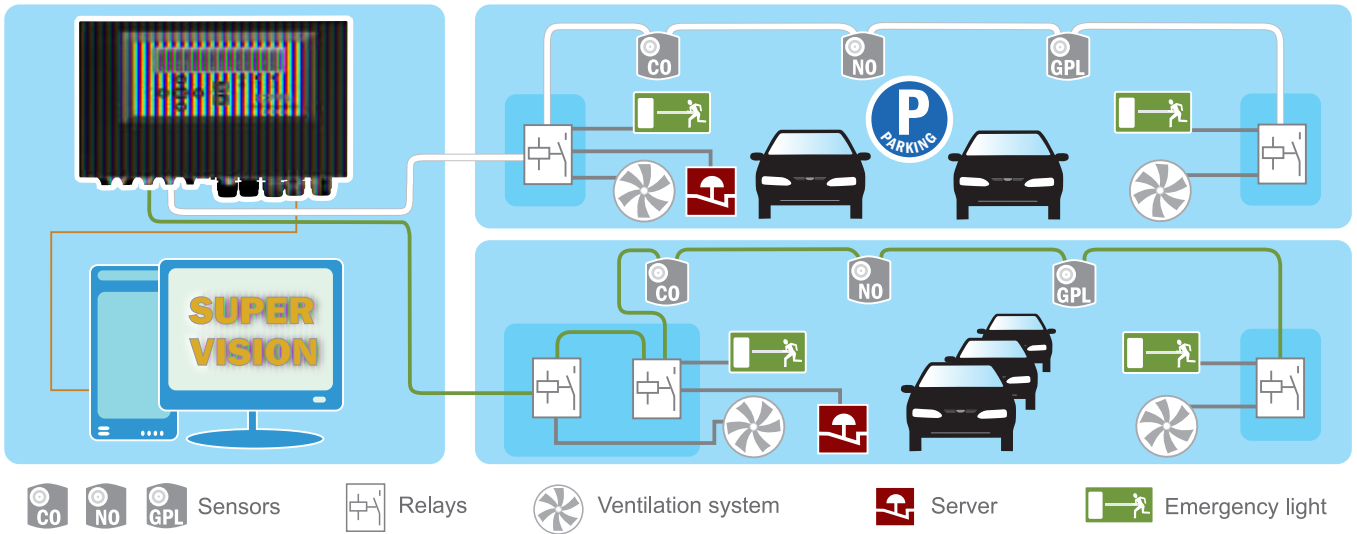
3 operation status LEDs

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 ²)
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



*Excluding batteries, sensors and consumable parts.

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