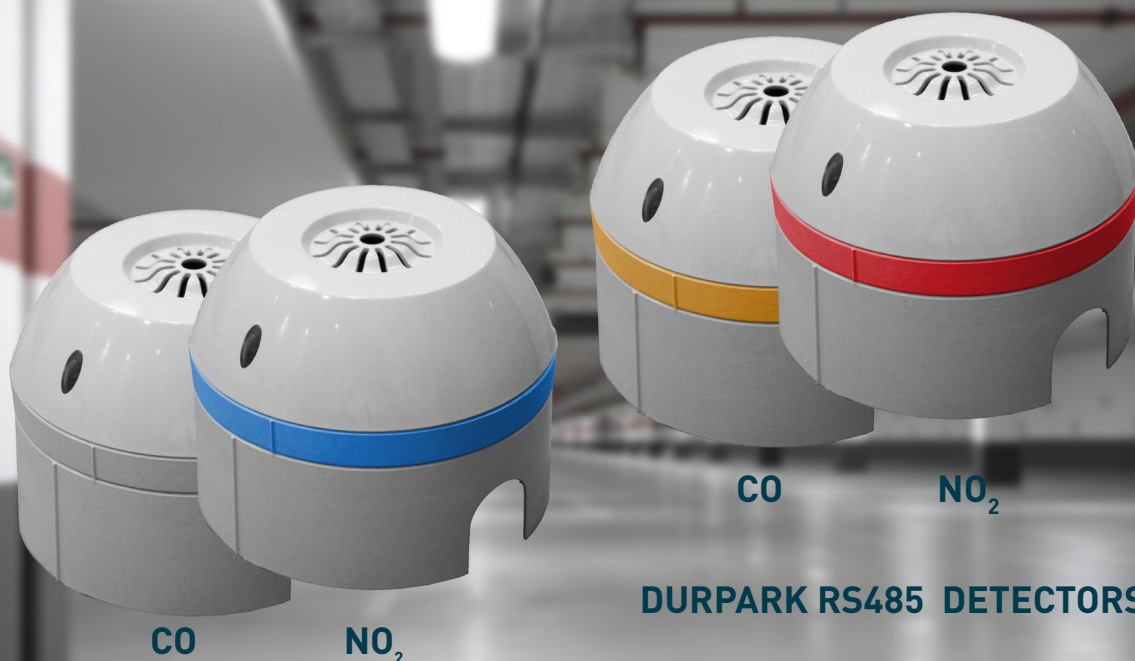




DURAN
electrónica

DURPARK

CO and NO₂ Detectors using 2- and 3-wire electrochemical sensor



DURPARK DETECTORS 2- AND 3- WIRE

DURPARK RS485 DETECTORS

DURPARK AND DURPARK RS485 DETECTORS

This new range of detectors is designed with a new type of electrochemical sensor with low cost and big performance that allows a useful life of up to 5 years (CO) and 3 years (NO₂) with almost no maintenance.

Specially designed for use in car parks. Two models in two versions are available:

A model for CO detection with a range of 0-300 ppm and a resolution of ± 1 ppm, and a model for NO₂ detection with a 0-20ppm range and a resolution of ± 0.5 ppm, available with a 4-wire RS485 communications format and a 2- and 3-wire format, addressable in both cases.

In these detectors, calibration and maintenance tasks have been simplified. Algorithms have been created for gain and zero automatic calibration through the use of software, as well as an algorithm and a special hardware that allows verifying CO sensor sensibility without the need to apply gas.

For the CO detector, the composition of its electrolyte is respectful with the environment. Its structural shape cancels the risk of the electrolyte leaking. It does not use up active materials in its electrodes during operation, has a lower sensitivity to interfering gases, long life and good stability and precision.

This new range of detectors is compatible with the new DURPARK control panels in its 2- and 3-wire version and with DURGAS control panels in their DURPARK RS485 version with 4 wires.

TECHNICAL CHARACTERISTICS OF THE CO/NO₂ DETECTOR, DURPARK & DURPARK RS485

Technology.	Microprocessor and electrochemical sensor.
Power supply tension.	9V to 15V DC.
Consumption.	14mA (standby) 24mA (alarm).
Measuring range.	From 0 to 300ppm CO, and 0-20ppm NO ₂ .
Resolution.	±1ppm CO, ±0.5ppm NO ₂ .
Repeatability.	±1% and 3% full scale respectively.
Linearity.	Linear throughout its full scale.
Calibration gas and recommended concentration.	Precise mixture 150ppm CO + N ₂ 150ml/min. Precise mixture 10ppm NO ₂ + N ₂ 400ml/min.
Sensor useful life.	>5 years in normal working conditions for CO and 3 years for NO ₂ .
Relative humidity.	From 5% to 90% RH, without condensation.
Atmospheric pressure.	±10%.
Operational temperature.	-10°C to +60°C.
T90 response time.	<90 s CO and <30 s NO ₂ .
Parallel communication.	2 and 3 wires, own addressable protocol (1 to 16) 4 wires DURPARK RS485.
Protection level.	IP20.
Materials.	ABS.
Weight (gr) and measurements, diameter/height (mm).	146, 90 x 42 without base / 90 x 74 with base.
*Installation height.	1.8 / 2 m from floor CO and 40/50 cm from floor NO ₂ .
*Approximate coverage.	200 m ² CO (following current Spanish standards), 100 m ² NO ₂ (Recommended)
Long-term drift	CO<2% per 5 years and NO ₂ <2% per month

Standard conditions 20° ± 2°C, 40% ± 10% RH

*** Installation height and coverage, apply the regulations in force in each case.**

CROSS SENSITIVITY DATA

GAS	FORMULA	CONCENTRATION	CO DTR. RESPONSE	NO ₂ DTR. RESPONSE
Ammonia	NH ₃	25 ppm	0 ppm	0 ppm
Carbon Dioxide	CO ₂	5000 ppm	0 ppm	0 ppm
Carbon Monoxide	CO	30 ppm	30 ppm	0 ppm
Chlorine	Cl ₂	1.0 ppm	0 ppm	0 ppm
Unsaturated Hydrocarbons	-	1%	2 ppm	0 ppm
Hydrogen	H ₂	100 ppm	20 ppm	0 ppm
Hydrogen Sulfide	H ₂ S	10 ppm	0 ppm	-0.7 to 0.3 ppm

The crossed sensitivity values are based on test on a small quantity of detectors. Detectors could show a different behavior depending on environmental conditions or production batch.