

**Toxic CO - NO₂ - NH₃ - H₂S - Cl₂ - CO₂ - SO₂ - O₂ - SF₆,
Refrigerants and early detection of H₂**



Standalone programmable detector designed to detect toxic gases and O₂ with electrochemical technology CO₂ and A1 safety grade refrigerants with infrared technology with infrared technology and early detection of H₂ in battery rooms.

Provided with a 16 X 2 lines backlit display, three keys, programmable alarm relay output, and internal acoustic.

Special functions for toxic gases:

- Digital control over the sensor status.
- Automatic testing of hardware status.
- Digital filter based on variable sampling of the sensor's average values.
- Automatic temperature compensation providing a correct response to temperature variations.
- Exact automatic zero adjustment. Monitors zero in relation to the electronics and sensor response. STANDGAS automatically runs a test every 30 minutes: if drift is higher or lower than 2% of the scale's total value, it will be readjusted to zero; otherwise, the datum will be displayed as a reading.
- Infrared sensors with microprocessor control for temperature compensation, linearisation, and memorisation of calibration parameters.
- Easy replacement in the installation without recalibration or use of gas.

Also available in a version with RS485 communication compatible with **DURGAS** control panels (as of software V04)

Especially indicated for use in laboratories or compartmentalised zones that in addition to local use require remote control, handling and reporting of their status.

Up to 8 units can be connected per zone while maintaining their compatibility with all other gases. (RS485 version)

- **Standalone functioning:** without connection to any control centre
- **Backlit 16 X 2 line display**
- **Mixed functioning:** Local information and actuation and RS485 communication to a control centre.
- **Protection grade IP65.**
- **Universal support with inclination for ceiling and floor - optional**
- **Power charger at 230V with capacity to connect 1 to 10 STANDGAS detector units - optional**

AVAILABLE GASES

Carbon monoxide CO - Nitrogen dioxide NO₂ - Ammonia NH₃ - Hydrogen sulphide H₂S - Chlorine Cl₂ - Carbon dioxide CO₂ - Sulphur dioxide SO₂ - Sulphur hexafluoride SF₆ and Oxygen O₂ Hydrogen H₂
Refrigerants: R-507/R-125/R-404a/R-407a/R-407f/R-410a/R-449/R-417a/R-448a/R-227ea/R-1233zd/R-513a/R-422d/R-452a/R-134a Others, please check.

APPLICATIONS

- Pharmaceutical laboratories - University labs - Aircraft industry - Galleries - Distilleries - Refrigeration installations in general - Livestock farming installations - Boiler rooms - Battery rooms - Car parks or electric buses - Industry in general - Early detection of hydrogen leaks from lithium-ion batteries.

FACTORY SETTINGS

GAS	HEIGHT INSTALLATION	RANGE	N. PREALARM	N. ALARM	STANDBY RELAY	RESET	ACOUSTIC	AREA COVERED
CO	1.50/2m. Floor	0-300 ppm	50 ppm	70 ppm	DISABLED	AUTO.	YES	Approx. 200m ²
NO ₂	40/50cm. Floor	0-20 ppm	3 ppm	5 ppm	DISABLED	AUTO.	YES	Approx. 100m ²
NH ₃	30/40cm. Ceiling	0-100 ppm	5 ppm	8 ppm	DISABLED	AUTO.	YES	Approx. 75m ²
H ₂ S	1.5m. Floor	0-100 ppm	5 ppm	10 ppm	DISABLED	AUTO.	YES	Approx. 100m ²
CO ₂	1m. Floor	0-20,000 ppm	5,000ppm	10,000 ppm	DISABLED	AUTO.	YES	Approx. 100m ²
O ₂	1.70m. Floor	0-25%	19%*	18%*	DISABLED	AUTO.	YES	Approx. 100m ²
Cl ₂	1m. Floor	0-10 ppm	0.5 ppm	1 ppm	DISABLED	AUTO.	YES	Approx. 100m ²
SO ₂	30/40cm. Floor	0-20 ppm	2 ppm	5 ppm	DISABLED	AUTO.	YES	Approx. 75m ²
H ₂	30/40cm Ceiling	0-500ppm	50ppm	100 ppm	DISABLED	MANUAL	YES	Approx. 25m ²
REFRIGERANT GASES								
REFRIGER. and SF ₆		0-2,000ppm	300ppm	600ppm	DISABLED	MANUAL	YES	**

**Protect all possible sources of leaks, connections, elbows, gas inlets/outlets, valves, welds, compressors, etc...

All gases of the A1 safety groups are heavier than air, take the above into account

The coverage data is a guideline, as it can vary depending on the environment.

**ALL DETECTORS ARE MADE BY DURAN ELECTRÓNICA
FACTORY-CALIBRATED USING SPAN GAS**

TECHNICAL CHARACTERISTICS

Technology	Electrochemical / infrared sensor + 12 Bit microprocessor
Supply voltage	From 10V to 24V DC/ 10 to 15V, version RS485
Maximum consumption at 12 V DC	Aprox. 43 mA in standby - 73 mA, acoustic and relay activated / 3 mA and 30 mA CO ₂ / 127mA max. RS485
Communication	RS485
Gas measurement range	See table of Factory Settings 0-2000ppm refrigerants.
Resolution	± 1% F.S. toxic -0.25% O ₂ , 1.5% CO ₂ and 1% refrigerant measurement range.
Repeatability	± 2% F.S. and ± 0.5% H ₂
Annual span drift	± <1% electrochemical / 0.7% CO ₂ / ± 0.1% F.S. refrigerants.
Stabilisation time	< 5 min -all specifications-
T90 Response time	CO, NO ₂ SO ₂ and NH ₃ ≤ 30s / H ₂ S ≤ 20s / H ₂ ≤ 60s / O ₂ ≤ 15s / CO ₂ ≤ 15s / ≤ 30s refrigerants
Useful life (MTBF) approx.	approx. 2 years electrochemical NH ₃ , H ₂ S, NO ₂ Cl ₂ SO ₂ H ₂ and O ₂ , 4 years CO and > 5 years CO ₂ and refrigerants.
Maintenance periods	Every year -recommended- or pursuant to current standards.
Environmental conditions	-10°C to +50°C and from 15 to 90% R.H. without condensation
Atmospheric pressure limits	80 to 110kPa (0.8 to 1.1 bar)
Alarm relay	Fuse-protected dry contact switch output 3A 250V AC
Coverage area	See Factory Settings table
Material and protection grade	Makrolon & ABS IP65
Input and cable diameter	Cable glands / 6-10mm ²
Dimensions in mm and weight in g	120 X 160 X 60 / 350

Characteristics in conditions of 20°C, 50% RH, 1000mbar (100Kpa)

WARRANTY

STANDGAS PRO LCD detectors are guaranteed against any manufacturing defect for 1 year after purchase of the equipment. Warranty conditions are laid down in the detector's installation manual.

ORDER INFORMATION

When placing your order please provide the correct code for the product required and verify that its description is in order.

STANDGAS PRO LCD TOX

CODE	DESCRIPTION
SIRYCO2rLI	STANDGAS PRO LCD CO ₂ 0-20,000 ppm with relay (infrared sensor) ENGLISH
SIRYREFrLI**	STANDGAS PRO LCD REFRIGERANTS with relay (infrared sensor) ENGLISH
SIRYSF6rLI	STANDGAS PRO LCD SF ₆ 0-2,000 ppm with relay (infrared sensor) ENGLISH
SSQNxxxrLI	STANDGAS PRO LCD (GAS*) with relay (electrochemical sensor) ENGLISH

(*) AVAILABLE GASES: SSQNCOrLI (CO 0-300ppm), SSQNH2SrLI (H₂S 0-100ppm), SSQNNH3rLI (NH₃ 0-100ppm), SSQNN02rLI (NO₂ 0-20ppm), SSQN-02rLI (O₂ 0-25%), SSQNCL2rLI (Cl₂ 0-10ppm), SSQNSO2rLI (SO₂ 0-20ppm) and SSQN-H2rLI (H₂ 0-500ppm).

**The gas must be specified, for example: SIRYREFrLE - R-410a. SEE LIST OF AVAILABLE GASES OVERLEAF.

STANDGAS PRO LCD TOX RS485

CODE	DESCRIPTION
SIRYRSCO2rLI	STANDGAS PRO LCD CO ₂ 0-20,000 ppm RS485 with relay (infrared sensor) ENGLISH
SIRYRSREFrLI**	STANDGAS PRO LCD REFRIGERANTS RS485 with relay (infrared sensor) ENGLISH
SIRYRSSF6rLI	STANDGAS PRO LCD SF ₆ 0-2,000 ppm RS485 with relay (infrared sensor) ENGLISH
SSQNRSxxxrLI	STANDGAS PRO LCD (GAS*) RS485 with relay (electrochemical sensor) ENGLISH

(*) AVAILABLE GASES: SSQNCOrLE (co 0-300ppm), SSQNRSH2SrLE (H₂S 0-100ppm), SSQNRSNH3rLE (NH₃ 0-100ppm), SSQNRSN02rLE (NO₂ 0-20ppm), SSQN-02rLE (O₂ 0-25%), SSQNRSCL2rLE (Cl₂ 0-10ppm) and SSQNRSSO2rLE (SO₂ 0-20ppm).

**The gas must be specified, for example: SIRYREFrLE-R-410a. SEE LIST OF AVAILABLE GASES OVERLEAF.

ACCESSORIES

CODE	DESCRIPTION
SOPMUN	Universal multiple support
SALIM230	Power adapter at 230V for connection of 1 to 10 STANDGAS detector units

I-fichastandgasPROLCDTox-v07



FS82426

C/ Tomás Bretón, 50
28045 MADRID - Spain
TEL.- + 34 91 528 93 75 - FAX.- + 34 91 527 58 19
duran@duranelectronica.com - www.duranelectronica.com



DURAN
electrónica