

Standalone and Standalone RS485 programmable detector with display for Toxic gases

CO - NO₂ - NH₃ - H₂S - Cl₂ - CO₂ - SO₂ & O₂

Standalone programmable detector designed for the detection of toxic gases and O₂ using electrochemical technology and CO₂ using infrared technology.

Provided with a backlit 16 X 2 line display, three keys, programmable relay output and internal acoustics.

Special functions:

- Digital control of sensor status
- Hardware status automatic testing
- Digital filter based on variable samplings of the averages in sensor values
- Automatic thermal compensation that supplies a correct answer when faced with temperature variations (SIEDESTAN O₂ does not need this characteristic)
- Exact automatic zero adjustment. Monitors zero in relation to the sensor response and the electronics. SIEDESTAN automatically carries out a test every 30 minutes: if the drift is greater or lesser than 2% of the total value of the scale, it will readjust to zero; if not the data will be shown as a reading

- Other functions only accessible in factory allow it to know the remaining useful life of the sensor, date of manufacture and of last calibration, as well as the serial number

There is also available a standalone version with RS485 communication compatible with SIEDEGAS control panels (V04 and onwards software version of SIEDEGAS).

Especially indicated for use in laboratories or compartmentalized areas which apart from local operation, need to be controlled and carry out maneuvers, and report remotely on their status.

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

- **Standalone functioning:** without connection to a control panel
- **Display** backlit 16 x 2 line
- **Mixed operation:** information and local actuations and RS485 communication to a control panel.
- **Protection** grade IP65
- **Universal support** with inclination for ceiling and floor – optional
- **Power** adapter, 230V with capacity to connect from 1 to 10 units of SIEDESTAN detectors – optional

AVAILABLE GASES

Carbon Monoxide CO - Nitrogen Dioxide NO₂ - Ammonia NH₃ - Hydrogen sulfide H₂S - Chlorine Cl₂ - Carbon dioxide CO₂ - Sulfur dioxide SO₂ and Oxygen O₂

APPLICATIONS

- Pharmaceutical laboratories - University laboratories - Aviation Industry - Galleries - Distilleries
- Livestock farms - Boiler rooms - Industries in general

FACTORY PARAMETERS

GAS	INSTALLATION HEIGHT	RANGE	PREALARM L	ALARM L	RELAY AT REST	REARM	ACOUSTICS	AREA COVERED
CO	1.50/2m Floor	0-300 ppm	50 ppm	75 ppm	DEACTIVATED	AUTO.	YES	Approx. 200m ²
NO ₂	40/50cm Floor	0-20 ppm	3 ppm	5 ppm	DEACTIVATED	AUTO.	YES	Approx. 100m ²
NH ₃	30/40cm Ceiling	0-100 ppm	5 ppm	8 ppm	DEACTIVATED	AUTO.	YES	Approx. 75m ²
H ₂ S	1,5m Floor	0-100 ppm	5 ppm	10 ppm	DEACTIVATED	AUTO.	YES	Approx. 100m ²
CO ₂	1m Floor	0-20.000 ppm	5.000ppm	10.000 ppm	DEACTIVATED	AUTO.	YES	Approx. 100m ²
O ₂	1.70m Floor	0-25%	19%*	18%*	DEACTIVATED	AUTO.	YES	Approx. 100m ²
Cl ₂	1m Floor	0-10 ppm	0.5 ppm	1 ppm	DEACTIVATED	AUTO.	YES	Approx. 100m ²
SO ₂	30/40cm Floor	0-20 ppm	2 ppm	5 ppm	DEACTIVATED	AUTO.	YES	Approx. 75m ²

(*) Prealarm and Alarm activate due to lack of oxygen.

Coverage data is illustrative, as it can vary depending on the surrounding environment.



TECHNICAL CHARACTERISTICS

Technology	Electrochemical/infrared sensor + 12bit microprocessor
Power supply tension	From 10V to 24V DC / From 10 to 15V, RS485 version
Maximum consumption at 12V DC	43 mA at rest – 73 mA, acoustics and relay activated 3 mA and 30 mA CO ₂ / 127mA max. V. RS485
Communication	RS485
Gas measurement range	See Factory Parameters table
Resolution	± 1% F.S. toxic -0.25% O ₂ and 1.5% CO ₂
Reproducibility	± 2% F.S.
Annual span drift	± <1% electrochemical / 0.7% CO ₂
Stabilization time	< 5 minutes – all specifications –
Response time T90	CO, NO ₂ SO ₂ & NH ₃ ≤ 30s / H ₂ S ≤ 20s / O ₂ ≤ 15s / CO ₂ ≤ 15s
Approx. useful life (MTBF)	2 years electrochemical NH ₃ , H ₂ S, NO ₂ Cl ₂ SO ₂ & O ₂ , 4 years CO & > 6 years CO ₂
Maintenance periods	Annual – recommended –
Environmental conditions	-10°C to +50°C and from 0 to 90% H.R. without condensation
Atmospheric pressure limits	80 to 110 kPa (0.8 to 1.1 bar)
Alarm relay	Commutated output dry contact 3A 250V AC fuse protected
Coverage area	See Factory Parameters table
Material and protection grade	Makrolon & ABS IP65
Cable entry and diameter	Cable glands /6 -10mm ²
Dimensions in mm. and weight in gr.	120 X 160 X 60 / 350

WARRANTY

SIEDESTAN PRO LCD detectors are guaranteed against any manufacturing defect for 1 year after date of purchase of the equipment. Warranty conditions are included in the installation manual of the detector.

ORDERING INFORMATION

When placing the order, please be sure about the correct product code according to the description and check that it complies with your requirements.

SIEDESTAN PRO LCD TOX – MESSAGES IN ENGLISH

CODE	DESCRIPTION
SIEIRYCO2rLI	SIEDESTAN PRO LCD CO2 0–20.000 ppm STANDALONE DTOR. with relay.
SIESQN***rLI	SIEDESTAN PRO LCD (GAS*) STANDALONE DTOR. with relay.

(* AVAILABLE GASES: SIESQNCOrLI (CO 0–300ppm), SIESQNH2SrLI (H₂S 0–100ppm), SIESQNNH3rLI (NH₃ 0–100ppm), SIESQNNO2rLI (NO₂ 0–20ppm), SIESQN–O2rLI (O₂ 0–25%), SIESQNCL2rLI (Cl₂ 0–10ppm) and SIESQNSO2rLI (SO₂ 0–20ppm).

SIEDESTAN PRO LCD TOX RS485 – MESSAGES IN ENGLISH

CODE	DESCRIPTION
SIEIRSCO2rLI	SIEDESTAN PRO LCD CO2 0–20.000 ppm RS485 STANDALONE DTOR. with relay.
SIEQRS***rLI	SIEDESTAN PRO LCD (GAS*) RS485 STANDALONE DTOR. with relay.

(* AVAILABLE GASES: SIEQRSCOrLI (CO 0–300ppm), SIEQRSH2SrLI (H₂S 0–100ppm), SIEQRSNH3rLI (NH₃ 0–100ppm), SIEQRSNO2rLI (NO₂ 0–20ppm), SIEQRS–O2rLI (O₂ 0–25%), SIEQRSCL2rLI (Cl₂ 0–10ppm) and SIEQRSSO2rLI (SO₂ 0–20ppm).

ACCESORIES

CODE	DESCRIPTION
SOPINCLN	Universal support with inclination for ceiling and floor
SALIM230	Power adapter, 230V with capacity to connect from 1 to 10 units of SIEDESTAN