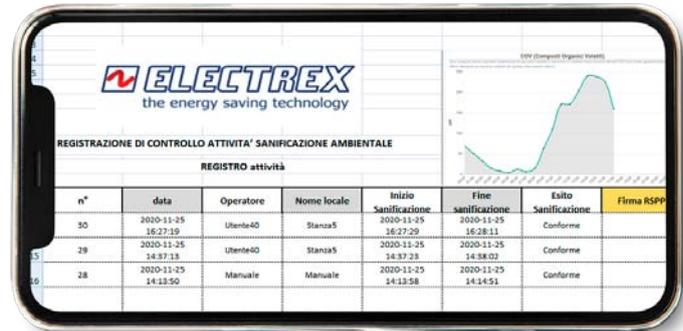


Electrex Sensing & Sani Solutions

AirQ SANI O₃



The **Electrex Sensing & Sani Solutions** allow the **sanitization of environments and surfaces using Ozone** and also the **monitoring of environmental parameters**. The same device is able to create **alerts / alarms** (E-mail, Telegram) and **interconnect** with sanitation **systems** and **HVAC** systems (API, MQTT) **optimizing energy consumption**.

AirQ SANI O₃ includes, in an elegant case, an advanced system for measuring and sanitizing environments, surfaces and objects through the production of Ozone.

The **Wi-Fi Web Data Manager** technology (IEEE 802.11b/g/n) allows, thanks to an **advanced calendar**, to **program the activation times and the local recording of the sanitation processes**. All through smartphone, tablet and PC using the embedded web interface.

AirQ SANI O₃ OZONE generator

OZONE production	10.000 mg/h
-------------------------	--------------------

AirQ SANI O₃ is an advanced system for measuring and sanitizing environments, surfaces and objects through the production of Ozone. It is equipped with a powerful 10,000 mg/h OZONE generator supplied by two ceramic plates in which an electric discharge transforms the oxygen molecules present in the air into ozone molecules; therefore it does not require product refills. It is simple and intuitive and can be used/configured both manually and remotely via customized web pages visible from smartphones, tablets and PCs.

OZONE is a gas that thanks to its oxidative power sanitizes, sanitizes and deodorizes the air, surfaces and objects in all environments, eliminating germs, bacteria, viruses, spores, fungi, formaldehyde and smells of smoke, food and animals. The time required to sanitize the premises is programmable and depends on their size and the type and concentration of pollutants. Sanitation is achieved in about 15-30 minutes of ozone saturation treatment which also creates a subsequent temporary barrier effect against pollutants.

WARNING: DO NOT USE IN THE PRESENCE OF PEOPLE AND ANIMALS as the high concentrations of ozone can cause obvious irritation to the throat and eyes, up to slight dizziness which passes quickly by turning off the appliance and moving away from the room.

After sanitizing, wait at least 2 hours before entering (the ozone molecules are unstable and turn into normal oxygen spontaneously) then open the windows for 30 minutes before staying there. In any case, never stop in the ozonated environment if you still smell the ozone.

Like all sanitizing and disinfectant treatments, sanitation also lasts until external events significantly change the level of pollution of the environment.

AirQ SANI O₃ Measures

AirQ SANI O₃ integrates sensors capable of measuring various key parameters indicating the level of healthiness of the environment:

- Volatile Organic Compounds (VOC)
- CO₂ equivalent (CO₂e)
- Temperature (T), Relative Humidity (RH) and Atmospheric Pressure (Pa)
- Ozone (O₃)

Optional: Particulate Matter (PM).

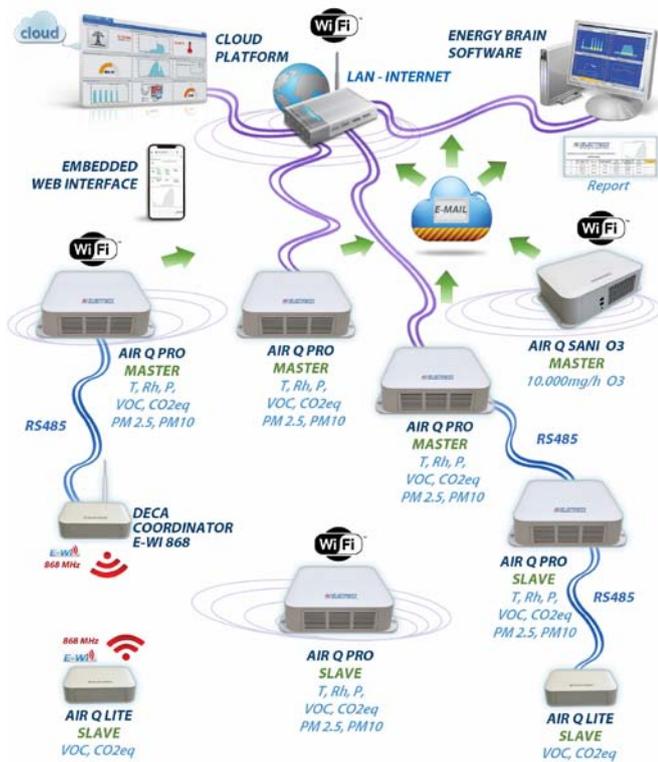
Parameters	Type	Range	Accuracy
Volatile Organic Compounds [TVOC]	TVOC ist	0 .. 60.000ppb	Dependent on gas types and particle concentration
	TVOC avg		
	TVOC min		
	TVOC max		
Carbon Dioxide Equivalent [CO ₂ e]	CO ₂ e ist	400 .. 60.000ppb	Dependent on gas types and particle concentration
	CO ₂ e avg		
	CO ₂ e min		
	CO ₂ e max		
Temperature [T]	T ist	-20°C .. +80°C	± 0,2°C
	T avg		
	T min		
	T max		
Relative humidity [RH]	RH ist	0 .. 100%	± 1,5% RH
	RH avg		
	RH max		
	RH min		
Atmospheric pressure [AP]	AP ist	800 .. 1.100mbar	Tipica ± 4mbar
	AP avg		
	AP max		
	AP min		

AirQ SANI^{O3} Advanced features

AirQ SANI^{O3} allows you to monitor the effectiveness of the sanitation process by checking the situation both before, during and after treatment. The storage of all parameters including those of the Ozone generator takes place inside the device and is available for viewing on **dashboards / graphs** that can be consulted via smartphone, tablet and PC. It is also possible to activate advanced functions such as creating **alerts / alarms** (E-mail, Telegram), **interconnecting** (API, MQTT) with **HVAC** (Heating, Ventilation and Air Conditioning) systems and systems, **optimizing energy consumption**.

AirQ SANI^{O3} Solution example

The **AirQ SANI^{O3}** devices can be networked with the **AirQ^{Pro}** devices for a complete solution of sanitation, monitoring and management of indoor air quality (even large buildings, Retail, Horeca, Offices, etc.).



In the example there is an AirQ SANI^{O3} that implements the sanitation of the rooms and is networked with other AirQPro and AirQLite devices inserted in different rooms for monitoring the local air quality. The devices are connected to each other both via Wi-Fi and Ethernet cable but also using a 868MHz radio communication via the Deca Coordinator E-Wi 868. **For further information on Electrex networks and their advanced and innovative functions, refer to the website www.electrex.it.**

AirQ SANI^{O3} Specifications

- O3 production: 10,000 mg / h
- Fan: 69 m3 / h
- Connectors: RJ45 for Ethernet network, terminal block for RS485 network and 12Vdc output
- Communication: Wi-Fi and Wi-Fi AP, Ethernet, RS485 Slave and E-Wi 868MHz via a Deca Coordinator RS485 E-Wi 868.
- Equipped with power switch with incorporated LED
- Power supply 230Vac ± 10% 50Hz
- Case color: White
- Dimensions mm (L1 [W2] xHxP): 350.5 [320] x 100 x 225.5
- Net weight: 2.2 Kg
- Low Noise: <= 54dB

AirQ SANI^{O3} Packaging

- The package contains:
- 1 AirQ SANI O3
 - 1 power cable
 - 1 Instruction booklet

Ordering codes

Type	Code
AirQ SANI O3	PFATH2JS02W
AirQ Pro	PFATJ3J-04W
AirQ Lite 868	PFATM11-04W
AirQ Lite RS485.....	PFATM11-04W
Deca Coordinator RS485 E-Wi 868 12Vdc	PFATM01L04W
12Vdc power supply for Deca Coordinator	PFTP100-P2

Subject to modification without prior notice.
Data sheet Electrex Sani & Sensing Solutions

Preliminary - 2020 12 11-ENG

Electrex Sensing Solutions

The **Electrex Sensing Solutions** allow to **monitor key environmental parameters** with the ability to create **alerts/alarms** (E-mail, Telegram), **interconnect** (API, MQTT) with **sanitation systems and HVAC** (Heating, Ventilation and Air Conditioning) systems, **optimizing energy consumption**.

AirQ^{Pro} is the main device and is an integrated system for monitoring and managing Indoor Air Quality.



AirQ^{Pro} measurements

AirQ^{Pro} monitors the key parameters that allow a simple and sustainable management of the **environmental conditions in a building**:

- Volatile Organic Compounds (VOC)
- CO2 equivalent (CO2e)
- Particulate matter (PM1, PM2.5, PM10)
- Temperature (T), Relative Humidity (RH) and Atmospheric Pressure (Pa).

Other parameters on request e.g. PM4, Ozone (O3) or ultraviolet radiation (UV-A, UV-B, UV-C).

Parameters	Type ¹	Range	Accuracy
Volatile Organic Compounds [TVOC ²]	TVOC ist	0 .. 60.000ppb	Dependent on gas types and particle concentration
	TVOC avg		
	TVOC min		
	TVOC max		
Carbon Dioxide Equivalent [CO ₂ e]	CO ₂ e ist	400 .. 60.000ppb	Dependent on gas types and particle concentration
	CO ₂ e avg		
	CO ₂ e min		
	CO ₂ e max		
PM1 PM2,5 PM10	PM ist	0 .. 1.000µg/m ³	± 10% between 0-40°C
	PM avg		
	PM min		
	PM max		
Temperature [T]	T ist	-20°C .. +80°C	± 0,2°C
	T media		
	T min		
	T max		
Relative Humidity [RH]	RH ist	0 .. 100%	± 1,5% RH
	RH avg		
	RH max		
	RH min		
Atmospheric pressure [AP]	AP ist	200 .. 1.100mbar	Typical ± 4mbar
	AP avg		
	AP max		
	AP min		

AirQ^{Pro} user interface

The measurements and historical data are available on **dashboards and graphics** accessible through smartphones, tablets and PCs.



AirQ^{Pro} configuration

AirQ^{Pro} can be configured as **Master or Slave** allowing you to create networks composed of several **AirQ** units. The connection can be both wired (**Ethernet and RS485 serial**) and wireless (**Wi-Fi and 868MHz**) via a Deca Coordinator RS485 E-Wi 868). See network example.

AirQ^{Pro} Specifications

Connectors: RJ45 for Ethernet network, terminal block for RS485 network and female jack for 12Vdc power supply.

Communication: Wi-Fi and Wi-Fi AP, Ethernet, RS485 Slave and E-Wi 868MHz via a Deca Coordinator RS485 E-Wi 868.

Included in the package: external 12Vdc power supply.

Low Consumption:... W

Case color: White

Dimensions mm (L1 [W2] xHxP): 230.5 [200] x 60 x 200.5
Net Weight: 0.760 kg (device) and 80 g (12Vdc power supply)

AirQ^{Pro} Packaging

The package contains:

- 1 AirQ^{Pro}
- 1 12Vdc power supply
- 1 Instruction booklet

Ordering codes

Type	Code
AirQ SANI O3	PFATH2JS02W
AirQ Pro	PFATJ3J-04W
AirQ Lite 868	PFATM11-04W
AirQ Lite RS485.....	PFATM11-04W
Deca Coordinator RS485 E-Wi 868 12Vdc.....	PFATM0IL04W
12Vdc power supply for Deca Coordinator	PFTP100-P2

AirQ^{Lite} RS485 and AirQ^{Lite} 868

AirQ^{Lite} is instead a Slave of AirQ^{Pro} and measures:
- Volatile Organic Compounds (VOC)
- CO2 equivalent (CO2e)

AirQ^{Lite}



Parameters	Type ¹	Range	Accuracy
Volatile Organic Compounds [TVOC ²]	TVOC ist	0 .. 60.000ppb	Dependent on gas types and particle concentration
	TVOC avg		
	TVOC min		
	TVOC max		
Carbon Dioxide Equivalent [CO ₂ e]	CO ₂ e ist	0 .. 60.000ppb	Dependent on gas types and particle concentration
	CO ₂ e avg		
	CO ₂ e min		
	CO ₂ e max		

AirQ^{Lite} configurations

The AirQ^{Lite} can be inserted into a network as a slave of a AirQ^{Pro} using an RS485 serial connection (AirQ^{Lite} RS485) and/or wireless 868MHz (AirQ^{Lite} E-Wi 868) via a Deca Coordinator RS485 E-Wi 868 to be connected in RS485 to the AirQ^{Pro}. See network example.

AirQ^{Lite} Specifications

AirQ^{Lite} RS485 terminal block for RS485 network and female jack for 12Vdc power supply
AirQ^{Lite} E-Wi 868 wireless communication at 868MHz via a Deca Coordinator RS485 E-Wi 868.
Included in the package: external 12Vdc power supply.
Case color: White
Dimensions mm (L1[L2]xHxP): [125] x 40 x 85
Weight: 0.760 kg (device) and 80 g (12Vdc power supply)

AirQ^{Lite} Packaging

The package contains:
- 1 AirQ^{Lite}
- 1 Instruction booklet

Deca Coordinator RS485 E-Wi 868

The Deca Coordinator RS485 E-Wi 868 12Vdc is a device that can be connected in the RS485 subnet to a Gateway datalogger such as the AirQ^{Pro} and / or the Net Electrex families (Libra net, Kilo net, Exa net, Femto ECT net, Lyra net, etc.). It performs the function of coordinator of the radio network on the 868MHz frequency (Wireless) managing 'end devices' such as the AirQ^{Lite} E-Wi 868 that transmit TVOC and CO₂e measurements via radio at 868MHz using the E-Wi protocol. See network example.



Deca Coordinator E-Wi 868 specifications

868MHz radio reception-transmission with E-Wi protocol:
Speed: 19,200 bps
Transmission: up to 14 dBm
Reception: -109 dBm
External antenna
Terminal: block with 5 screw terminals, three of which galvanically isolated for the RS485 port and two for the 12Vdc power supply (powered by an external power supply)
Terminals:..... screw terminals (for power supply and RS485)
Maximum cable section: 1 mm²
Absorption:..... ≤ 1VA
Operating temperature:..... -10 / + 60 °C
Relative humidity: 95% non condensing
Degree of protection: IP40 on the front, IP20 on the terminal side
Wall mounting or placed on a horizontal surface
Black or white container in self-extinguishing ABS UL 94 V0
Dimensions (w x h x d): 125 x 40 x 85 mm

Ordering codes

Type	Code
AirQ SANI O3	PFATH2JS02W
AirQ Pro	PFATJ3J-04W
AirQ Lite 868	PFATM11-04W
AirQ Lite RS485.....	PFATM11-04W
Deca Coordinator RS485 E-Wi 868 12Vdc	PFATM01L04W
12Vdc power supply for Deca Coordinator	PFTP100-P2

Subject to modification without prior notice.
Data sheet Electrex Sensing & Sani Solutions

Preliminary - 2020 12 11-ENG

Distributor