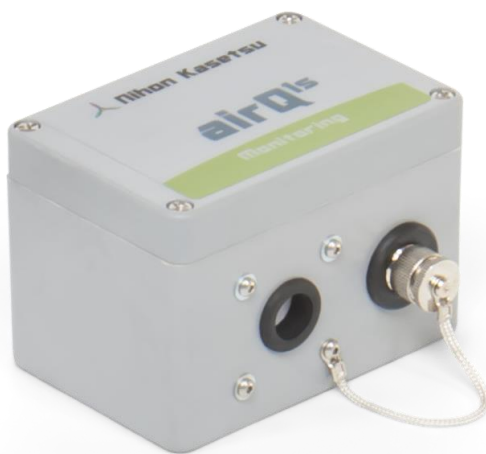




Gas sensing kits For air quality monitoring



Air pollution is caused by the emission to the atmosphere of certain substances which, alone or through chemical reaction, **can damage human health and the environment**. Increased awareness of this health danger, has raised significantly the importance of monitoring the quality of the air and the concentration of pollutant gases.

The single pollutants causing most damage to ecosystems, human health and materials are **nitrogen oxides (NO_x)**, **sulphur dioxide (SO₂)**, **ammonia (NH₃)**, **carbon oxides (CO_x)** and **ground level ozone (O₃)**.

NIHON KASETSU has developed a complete range of **gas sensing kits** to monitor the air quality in all kinds of environments. The gas sensing family **airQ** offers a **simple, versatile and reliable solution** to monitor, both indoor and outdoor, the concentration of gases in cities, construction and civil engineering projects, industry, etc.

Main features

Extremely compact and simple design, with the best gas sensing technology inside.

- **Customizable**
1, 2 or 4 sensors per kit, to choose among a long list of different types of gases.
- **Robust**
IP-66 heavy-duty casing with waterproof Tajimi analogue connectors. High-quality IP-63 gas probes protected with rubber seals.
- **Advanced technology**
Sensors use electrolyte or infrared sensing technologies, offering a very wide operating range while providing high sensitiveness of parts per billion (ppb) detection levels.
- **Accurate**
Electronic PCBs are low noise and low consumption, with specific analogue transmitter boards adapted to each sensor type to enhance accuracy and reliability. All sensors are tested and calibrated individually.





Specifications

Three versions available: airQ1s (one gas probe), airQ2s (two gas probes), and airQ4s (four gas probes). The type of gases, must be chosen in each case among the gases in the lists below.

airQ1s / airQ2s

POWER SUPPLY		
Maximum consumption power per sensor	0,6	W
Maximum consumption power CO ₂ sensor *	1,8	W
Power supply voltage	3,5 ÷ 6,4	VDC
Power supply voltage CO ₂ sensor *	10 ÷ 30	VDC

OUTPUT			
Number of outputs	1 / 2		
Output type	Analog	200 ÷ 500	mVDC
Output type CO ₂ sensor*		4 ÷ 20	mADC

KEY SPECIFICATIONS		
Number of sensors	1 / 2	
Supported sensors	NO ₂ - NO - CO - CO ₂ - H ₂ S - SO ₂ - Cl ₂ - HCl - ETO - HBr - HCN - PH ₃ - NH ₃ - O ₃ - Br ₂ - H ₂	
Temperature range	-30 ÷ 40	°C
Pressure range	80 ÷ 120	kPa
Humidity range	15 ÷ 85	% rh continuous
IP	63	
Dimensions	84x110x75 / 84x160x75	mm
Weight	0,30 / 0,50	

* Some data are specific only for the case of CO₂ sensor.

airQ4s

POWER SUPPLY		
Maximum consumption power	1,5	W
Power supply voltage	3,5 ÷ 6,4	VDC

OUTPUT			
Number of outputs	4		
Output type	Analog	200 ÷ 500	mV DC

** CO₂ sensor are not available in airQ4s model.

KEY SPECIFICATIONS		
Number of sensors	4	
Supported sensors **	NO ₂ - NO - CO - H ₂ S - SO ₂ - Cl ₂ - HCl - ETO - HBr - HCN - PH ₃ - NH ₃ - O ₃ - Br ₂ - H ₂	
Temperature range	-30 ÷ 40	°C
Pressure range	80 ÷ 120	kPa
Humidity range	15 ÷ 85	% rh continuous
IP	63	
Dimensions	84x190x75	mm
Weight	0,50	

Output connector



Pin connections:

- E. 6V DC
- F. GND
- G. Analog pin (+)
- H. Analog pin (-)

* Pin connections for CO₂ sensor:

- B. 12V DC
- F. GND
- G. Analog pin (+)
- H. Analog pin (-)

eComo System



airQ series are designed to reach its highest performance with eComo03 and the rest of NIHON KASETSU Monitoring product range.



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