

Air quality 5 Click



PID: MIKROE-3056

Air quality 5 click is a triple MOS sensor on a single Click board™, which can detect gas pollution for a number of different gases. The onboard sensor is specially designed to detect the pollution from automobile exhausts, as well as the gas pollution from the industrial or agricultural industry. This Click board™ uses the MiCS-6814, a compact MOS sensor with three fully independent sensing elements in one package: RED sensor, OX sensor, and NH3 sensor. Each of these sensors reacts with the specific type of gases, providing gas readings that including carbon monoxide (CO), nitrogen dioxide (NO2), ethanol (C2H5OH), hydrogen (H2), ammonia (NH3), methane (CH4), propane (C3H8), and isobutane (C4H10). Measurement conversion is handled by the onboard 12bit ADC converter and it is available via the I2C interface.

Mikroe produces entire development toolchains for all major microcontroller architectures.

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ISO 27001: 2013 certification of informational security management system.
ISO 14001: 2015 certification of environmental management system.
OHSAS 18001: 2008 certification of occupational health and safety management system.



ISO 9001: 2015 certification of quality management system (QMS).

Specifications

Type	Gas
Applications	Various environmental pollution measurement and detection applications, or various types of gas alarms in the automotive industry or production/manufacturing chambers with a high risk of gas poisoning.
On-board modules	MiCS-6814, a compact triple MOS sensor from SGX Sensortech; ADS1015, a low-power 12bit ADC with Internal reference and programmable comparator, from Texas Instruments.
Key Features	Increased robustness for harsh environments, low noise 12bit onboard ADC converter, reasonably high accuracy, three separate sensors on the same die for sensing of the number of different types of gases.
Interface	I2C
ClickID	Manifest,No
Compatibility	mikroBUS
Click board size	M (42.9 x 25.4 mm)
Input Voltage	3.3V,5V

Resources

[mikroBUS™](#)

[mikroSDK](#)

[Click board™ Catalog](#)

[Click Boards™](#)

Downloads

[Air quality 5 click example on Libstock](#)

[Air quality 5 click 2D and 3D files](#)

[ADS1015 datasheet](#)

[MiCS-6814 datasheet](#)

[Air quality 5 click schematic](#)

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