

Sense Freely
Self-Powered
Wireless-Batteryless

AIR QUALITY MONITORING



ESCOM Enhanced Solutions

The Future of Wireless - Batteryless Energy Harvesting Sensing Technologies

ESCOM-ES is the R&D center founded in 2018 and owned by ESCOM Power Plants Engineering Services. We are focusing on and developing Self Powered – Wireless - Batteryless Sensors which is eliminating all wiring and cabling cost and workmanship which can reach many kms in a simple industrial plant. And offering smart and green solutions getting rid of batteries and cables...

No Battery - No Cable - No Wiring

ESCOM-ES offers a wide range of domestic and industrial sensing systems that can be used in harsh environment harvests its own power from ambient sources such as motion, temperature, sunlight, magnetic fields, or where energy is available to scavenge...

Self-powered, wireless sensing technology, combined with engineering expertise and rich analytics provide real-time information for our customer's needs...

AiM - Air Quality Monitoring

AiM is an indoor air quality measurement system developed by ESCOM-ES. It monitors Temperature, Humidity, Pressure, Air Quality and CO2 levels without battery and maintenance. With the receiver module, it is possible to monitor the data on the screen or via the web interface.

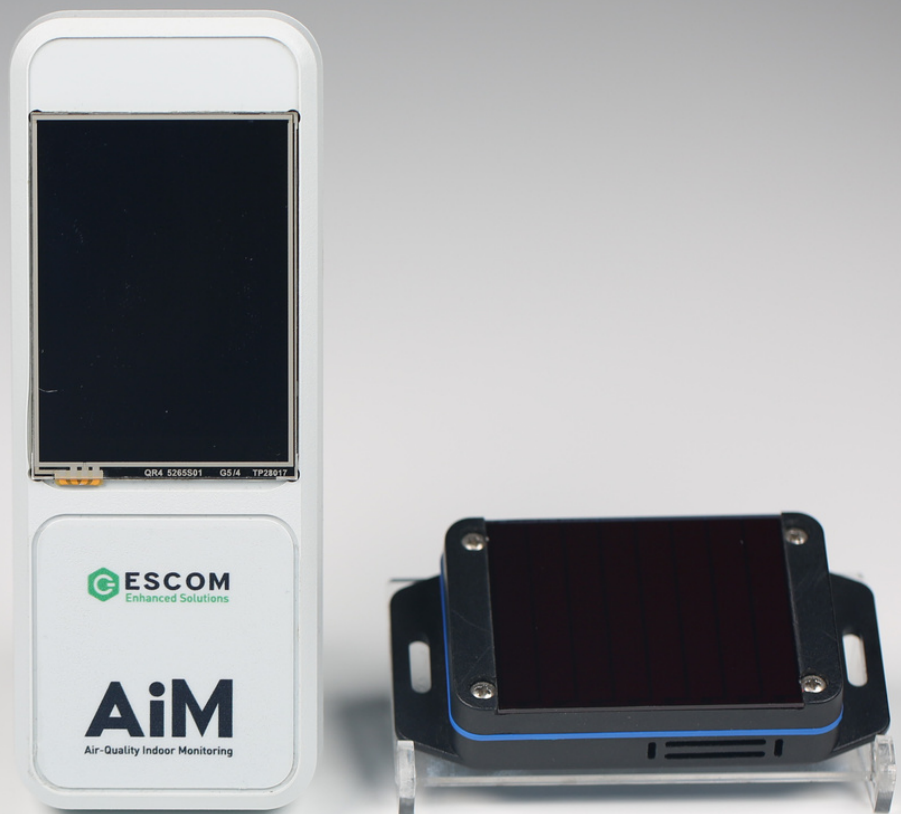
Product Highlights

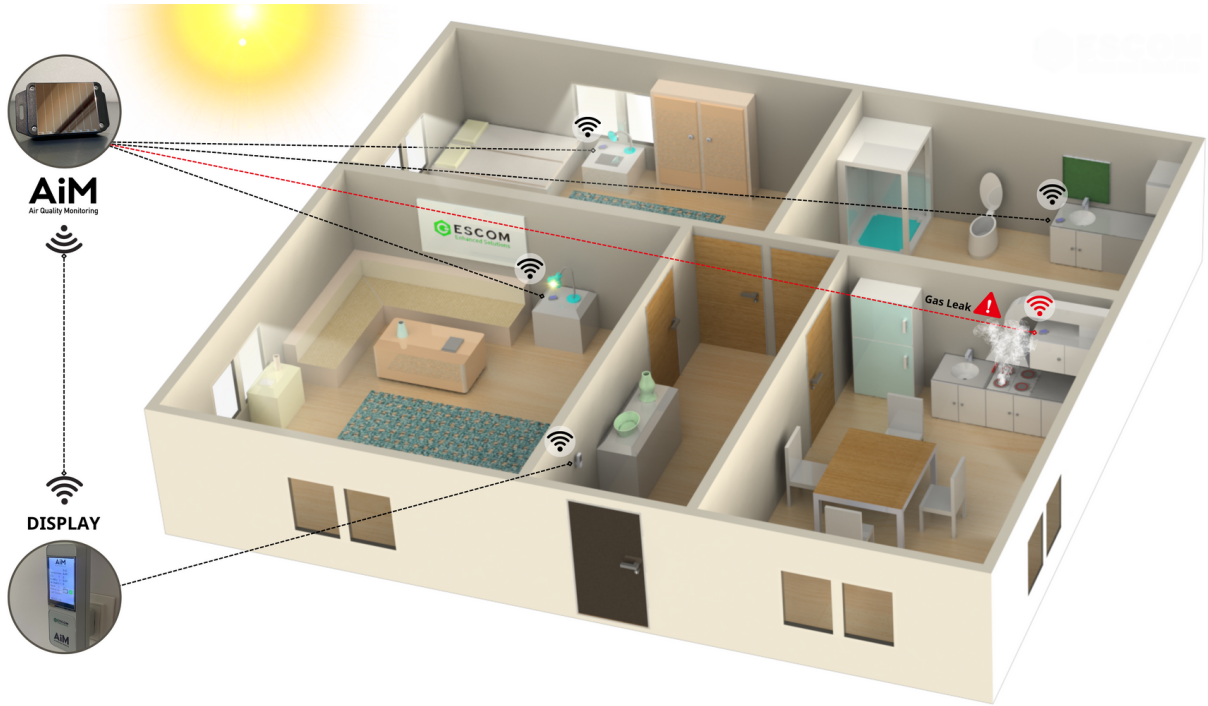
- Wireless, batteryless, maintenance-free.
- It is designed for 7/24 operation.
- Indicates Temperature-Humidity- CO2 levels.
- It harvests energy with its built-in solar panel. Provides long-term use.
- It works uninterrupted for 1 week even in the dark when maximum energy is stored.
- It gives a warning at low energy level.
- It gives an audible warning when the CO2 level reaches threshold value.
- Simple and portable using by mobile application.



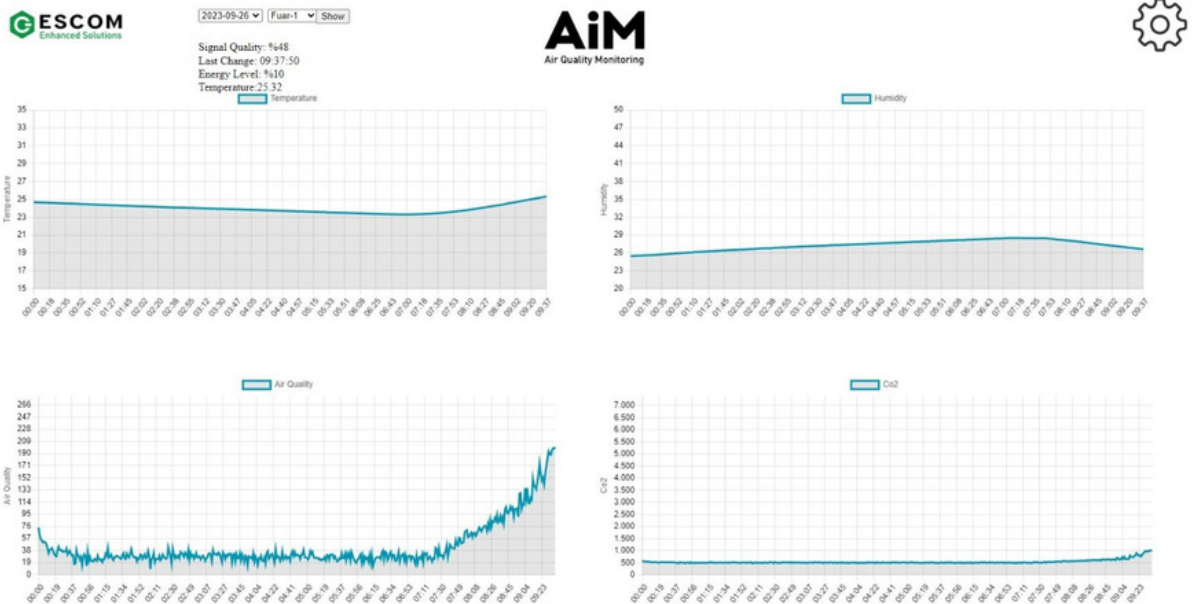
The CO2 sensor has a built-in automatic calibration routine. This routine calibrates the sensor to set it to 400 ppm. It is the lowest reading in an approximately 8-hour period. This sensor must be in a well-ventilated environment at least once for calibration to be completed within an 8-hour period.

Power Source	Solar Cell
Installed Sensors	Temperature, Humidity, Pressure, Co2
Data Transmission	BLE
RF Transmission Power	+8 dBm
Data Output	Temperature, Humidity, Pressure, Co2
Weight	52 grams
Dimension	96 x 50 mm
Operating Temperature	-15 °C - +70 °C





IAQ Index	Air Quality
0 – 50	good ¹⁰
51 – 100	average
101 – 150	little bad
151 – 200	bad
201 – 300	worse ²
301 – 500	very bad

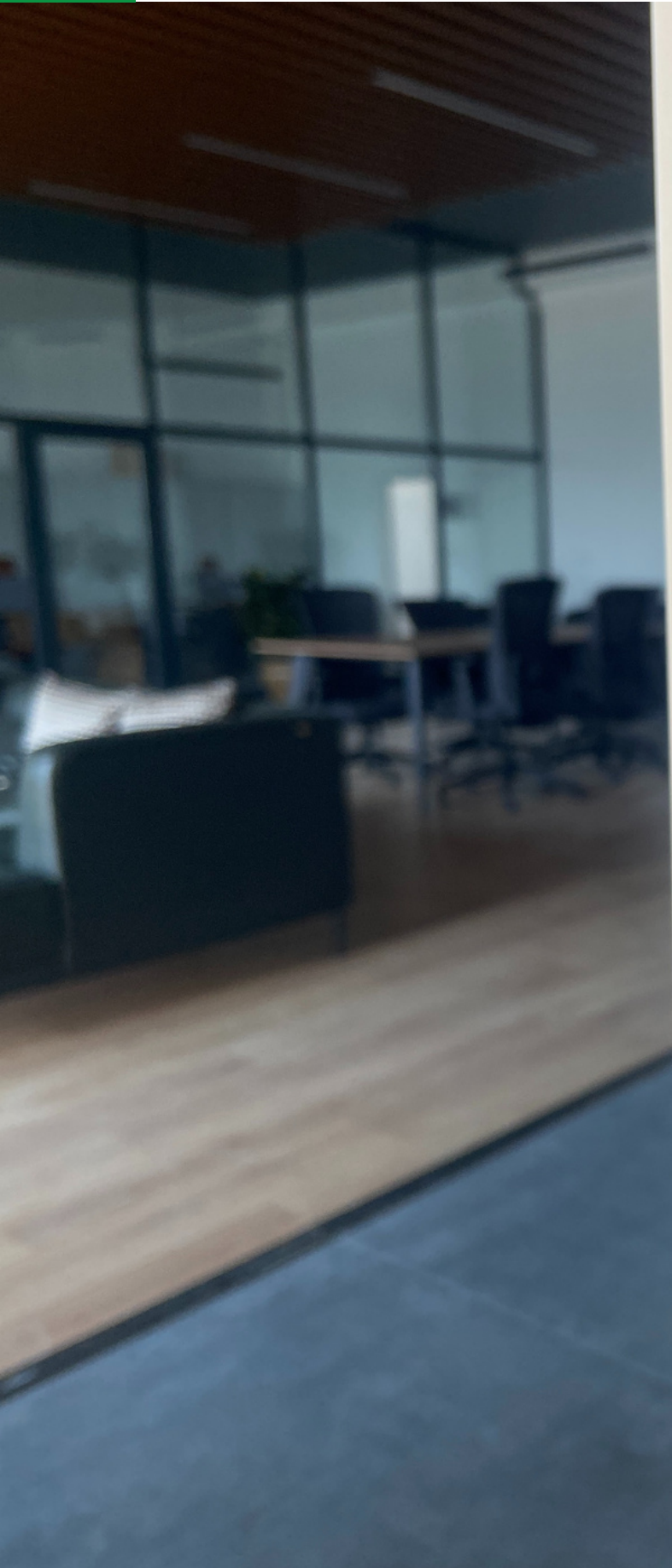


The sensor data taken from the AiM can be transferred to the display up to a maximum of 20 meters.

Up to 15 AiMs can be connected to one display at the same time.

Refresh Rate	Light Intensity	Power Consumption
3 sec	65000 Lux/Day	1500 μ W
6 sec	36000 Lux/Day	850 μ W
15 sec	18000 Lux/Day	425 μ W
45 sec	15000 Lux/Day	270 μ W
75 sec	9000 Lux/Day	175 μ W







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