

# IAQ Kit

## **Turning Data into Actionable Insight**

## Fast | Flexible | Futureproof

Milesight, Actility and Akenza design and develop IAQ Kit that employs IoT strategies into users' insights in indoor air quality (IAQ) scenarios. The Kit will help building staff, building managers and facility operators connect with the right place, at the right time, with the right data.

### What Challenges Do You Face?

#### For Building Staff

They are worried they face high operational expenses to maintain a good air quality system.

#### For Building Managers

They are frustrated since their building occupants experience adverse health effects that are apparently linked to the time they spend in their building.

#### For Facility Operators

They are anxious by the time they need to invest in monitoring their indoor air quality in a manual and often inefficient way.

### What Will You Get?



Surpass Cellular with Wireless IoT in Range, Cost Efficiency, and Sensor Battery Life Automated and Always Connected Everything IoT Gets Ready



Alআ

LoRaWAN

LOT

Smarter and Seamless than You Ever Imagined

# IAQ Kit

Milesight IAQ Kit will help building staff, building managers and facility managers take action in an instant, take adjustment in time and take care by all efforts. With straightforward data directly shown on display and cloud platform, you can always stay informed and alert before it is too late. Through reports and analysis, you identify problems that previously were ignored and keep real-time monitoring of factors such as temperature and humidity, as well as air that is free of irritants, allergens, and unwelcome odors.

Purchase this IAQ Kit online here: https://market.thingpark.com/milesight-iaq-kit.html



"It's quite nice to be able to order a box to try out the different devices."

- Jonatan Roose, Director of Healthy Workers



# IAQ Kit Specification Overview

Item	Description	Applications		
1 x AM103L IAQ Sensor	AM103L is a 3-in-1 ambience monitoring sensor including the measurement of temperature, humidity and CO <sub>2</sub> concentration and can transmit to network server using LoRaWAN® technology.	<ul> <li>Applications</li> <li>Monitor temperature, humidity and CO<sub>2</sub> levels</li> <li>Indicate CO<sub>2</sub> levels via traffic light</li> <li>Suitable for office or school indoor air quality monitoring</li> </ul>		
1 x AM103 IAQ Sensor	AM103 is a 3-in-1 ambience monitoring sensor including the measurement of temperature, humidity and CO <sub>2</sub> concentration and can display indoor status visually on the E-ink screen in real-time and transmit to network server using LoRaWAN® technology.	<ul> <li>Monitor temperature, humidity and CO<sub>2</sub> levels</li> <li>Indicate CO<sub>2</sub> levels via traffic light or emoticon on the E-ink screen</li> <li>Suitable for office or school indoor air quality monitoring</li> </ul>		
The second secon	AM307 is a 7-in-1 ambience monitoring sensor including the measurement of temperature, humidity, CO <sub>2</sub> concentration, TVOC, pressure, light, motion, etc. It can show visually with differ modes on the E-ink screen in real-time and transmit to network server using LoRaWAN® technology.	<ul> <li>Monitor main pollutants in indoor environment</li> <li>Indicate polluted levels via traffic light or emoticon on the screen</li> <li>Suitable for office or school indoor ambience monitoring</li> </ul>		
1 x AM319 IAQ Sensor	AM319 is a 9-in-1 ambience monitoring sensor including the measurement of temperature, humidity, CO <sub>2</sub> concentration, TVOC, pressure, light, motion, PM2.5 & PM10, HCHO/O <sub>3</sub> , etc. It can show visually with differ modes on the E-ink screen in real-time and transmit to network server using LoRaWAN <sup>®</sup> technology.	<ul> <li>Monitor main pollutants in indoor environment</li> <li>Indicate polluted levels via traffic light or emoticon on the screen</li> <li>Suitable for office or school indoor ambience monitoring</li> </ul>		
1 x UG65 Semi-Industrial LoRaWAN® Gateway	UG65 semi-industrial indoor LoRaWAN® gateway provides stable connectivity between sensors and mainstream network servers or Milesight IoT cloud.	<ul> <li>Collect data from LoRaWAN<sup>®</sup> sensors</li> <li>Forward data to Milesight IoT Cloud or mainstream network servers via Ethernet or Wi-Fi</li> </ul>		

	Description	Applications	
ningPark Enterprise	<u>\</u>		
Actility ThingPork Enterprise	ThingPark Enterprise is the leading LoRaWAN <sup>®</sup> private networking solution that streamlines the digitalization of your business processes by connecting your most valuable assets with efficiency.	<ul> <li>ThingPark Enterprise dashboards provide key operational insights &amp; alarm management.</li> <li>Your LPWAN gateways and devices are managed by a fully geo-redundant platform with 24/7 supervision.</li> </ul>	
kenza			
IIII akenza.io	<ul> <li>Akenza is the self-service IoT platform allowing you to build great IoT products and services with value. It connects, controls, and manages IoT devices all in one place. With simple and secure management of smart devices, connectivity, and data, the akenza platform enables the rapid introduction of innovative, smart solutions.</li> <li>The low-code features of akenza to start your IoT case immediately without coding skills. The ultimate for your smart solution.</li> </ul>		
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https://market.thingpark.com/milesight-iaq-kit.htm

IAQ Sensor						
Model	AM319	AM307	AM103	AM103L		
Hardware Interfaces						
Screen	4.2 Inc	4.2 Inch E-ink		/		
LED		1 × Traffic Light Status Indicator				
Buzzer	Sup	Support		/		
Configuration	NFC or USB Type-C Port	NFC or USB Type-C Port	NFC	NFC		
Sensors						
Temperature	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		
Humidity	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		
CO2	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$		
PIR	$\checkmark$	$\checkmark$	/	/		
Light	$\checkmark$	$\checkmark$	/	/		
TVOC	$\checkmark$	$\checkmark$	/	/		
Barometric Pressure	$\checkmark$	$\checkmark$	/	/		
PM2.5 & PM10	$\checkmark$	/	/	/		
HCHO/O3	Alternative	/	/	/		
Physical Characteristics						
Power Supply	5V/1A by Type-C Port	4 × 2700 mAh ER14505 Li-SOCl <sub>2</sub> Batteries	2 × 2700 mAh ER14505 Li-SOCl2 Batteries	2 × 2700 mAh ER14505 Li-SOCl2 Batteries		
Battery Life	/	Up to 3 Years	Up to 3 Years	Up to 4 Years		
Dimension	100.8 × 11	100.8 × 114 × 22 mm		68 × 65 × 20.5 mm		
Operating Temperature		-20 to +60 °C (E-Ink Screen: 0 to +40 °C)				
Ingress Protection		IP30				
Installation		Wall Mounting				

## UG65 Semi-Industrial LoRaWAN® Gateway

Chip	SX1302		
Antenna	2 × Internal Antennas + 1 × 50 $\Omega$ N-Female External Connector		
Channel	8 (Half/Full-Duplex)		
Package Forwarder	Semtech UDP PF, Basics Station, Loriot, Chirpstack, etc.		
Network Server	Support		
Hardware Interfaces			
Ethernet Port	1 × 10/100/1000 Mbps (PoE PD)		
Wi-Fi Interface	IEEE 802.11 b/g/n, 2.4 GHz, Support AP and Client Mode		
Console Port	1 × Type-C		
LED Indicators	1 × POWER, 1 × STATUS, 1 × LoRa, 1 × Wi-Fi, 1 × LTE, 1 × ETH		
Reset Button	1 × RST		
Built-in	Watchdog, RTC, Timer		
Physical Characteristics			
Power Supply	1. DC Jack Connector for 9-24 VDC Power Supply 2. 1 × 802.3 af PoE Input		
Operating Temperature	-40°C to +70°C		
Ingress Protection	IP65		
Dimension	180 x 110 x 56.5 mm		
Installation	Desktop, Wall or Ceiling Mounting		

## **About Milesight**

Milesight is a fast-growing tech company offering smart IoT and video surveillance products with a focus on AI, 5G, Sensing and IoT technologies since 2011. With improved sensing capability and advanced IoT insights, we help customers worldwide optimize their business operation in an efficient and sustainable way. In collaboration with a global network of distributors and system integrators, we are committed to building open ecosystems and accelerating IoT strategies to the next level.

Milesight IoT delivers products including Cellular & 5G Industrial Routers and LoRaWAN<sup>®</sup> Products to offer complete device-to-cloud-solutions for markets of smart office, smart building and smart agriculture.

## **About Actility**

Actility is a world leader in Low-Power Wide-Area Networks (LPWAN) industrial-grade connectivity solutions for the Internet of Things. Actility provides ThingPark<sup>®</sup>, the leading IoT Mediation Platform and network technology to deploy, operate and maintain public and private wireless IoT networks within a unified, scalable and versatile network infrastructure. It's used by thousands of companies and tier-1 global operators, demonstrating 10+ years of field experience in all regions of the world. With a strong background in large-scale project delivery, it offers you all-inclusive industrial grade service and full deployment flexibility with 24/7 monitoring, geo-redundancy, high-availability and continuous upgrade.

## About akenza.io

Akenza is the self-service IoT platform allowing you to build great IoT products and services with value. It connects, controls, and manages IoT devices all in one place. With simple and secure management of devices, connectivity, and data, the akenza IoT platform enables the rapid introduction of innovative solutions.

Akenza was developed to help organizations build their smart solutions on a solid technological foundation without reinventing the IoT wheel. The akenza IoT platform can be seen as a bridge between the physical world and the cloud, allowing you to pierce through the barrier between devices and software quickly.



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