

# yanzi



**Most Scalable**  
IP communication and standardized technologies enables scalability



**Easiest to install**  
Scan, remove adhesive protection and data is available in cloud within minutes



**Most Secure**  
Enterprise security with automatic security key management using ECC with AES encrypted communication

## Yanzi Health

PM | CO<sub>2</sub> | VOC | Temperature | Humidity | Barometer | Light | Noise | Occupancy | Tamper detection

**Yanzi Health** monitors room occupancy as well as indoor air quality including particulate matter in multiple sizes from PM1, PM2.5, and PM10, carbon dioxide (CO<sub>2</sub>), VOC Index, temperature, humidity, and barometric pressure. Yanzi Health also monitors ambient light and sound pressure in office spaces, schools, stores, etc.

**Yanzi Health** is optimized for building owners targeting a high level of quality in the work environment.

**Yanzi Health** connects wirelessly or via ethernet to Yanzi IoT Gateway in a secure way through Yanzi's "Zero-Touch configuration" and it can be immediately accessed through the Cirrus API or Yanzi Insights dashboard.

**Yanzi Health** is powered from a USB wall outlet or a PoE and acts as a mesh node for other Yanzi sensors.

## Good Indoor air quality

Type	Acceptable	High Performance
PM2.5	<35µg/m <sup>3</sup>	<12µg/m <sup>3</sup>
VOC Index	<150	<50
CO2	<1,000ppm	<600ppm

### Other typical recommendations

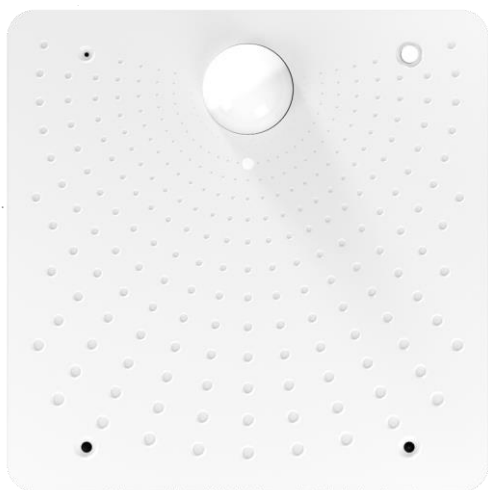
Type	Target
Humidity	30% to 70% RH
Temperature	+20°C to +24°C

### Calibration

The CO<sub>2</sub> and TVOC sensors operate using an automatic baseline calibration and is normally finished within 72 hours after each power on. Automatic calibration requires that the CO<sub>2</sub> level reaches 400 ppm and TVOC to reach <50ppb at least once over a 24 hour period which is typically the case for office environments.

### Sound Pressure Monitoring

The sound pressure level is measured every 5 poll periods (default every 10 minutes) over a period of 250ms. Actual frequency of measurements depend on the configured level. Note the sensor DOES NOT record sound



### Ordering Information

SWAR4-1730 : Yanzi Health

Country specific wall adapter and USB-C cable must be ordered separately.

### Packaging Information

Box size: 560 x 220 x15 mm  
22" x 8.5" x 6" inch

Box weight: 5.6kg / 12.4lbs

Units/box: 20

Minimum order quantities apply

## Specifications

### PIR Based Motion Detection

- Up to 10m motion detection distance
- 100° Vertical / 90° Horizontal field of view

### Measurements

Range	Accuracy *	Resolution
<b>Particulate Matter (PM1, PM2.5, and PM10)</b>		
0 to 100 ppm	±10 µg/m <sup>3</sup>	1 ng/m <sup>3</sup>
100 to 1,000 ppm	±10%	1 ng/m <sup>3</sup>
<b>Carbon Dioxide (CO<sub>2</sub>)</b>		
400 to 5,000 ppm	±(30 ppm + 3.5% reading)	1 ppm
<b>VOC Index***</b>		
0 to 500	<±15%	1 unit
<b>Temperature</b>		
+5°C to +40°C	±0.5°C *	0.001°C
<b>Humidity</b>		
20% to 80% RH	±3% RH *	0.1% RH
<b>Illuminance</b>		
0.1 to 20,000 Lux	±15%	0.001 Lux
<b>Barometer</b>		
260 to 1260 hPa	±1 hPa	0.01 hPa
<b>Sound Pressure</b>		
38 to 90 dBA	±4 dB (80 – 6000Hz)	0.01dB

### Power

- 5V, Max 600mA, USB Type-C connector  
External AC/DC wall adapter required\*\*
- Power over ethernet IEEE 802.3af max 5 Watts

### Wireless low power high density network

- IEEE 802.15.4, 2.4GHz IPv6 Sensor  
Network with Mesh technology
- Wireless Output Power 3dBm - 14dBm\*\*\*\*
- Wireless Range 5 - 25m indoor, (Indicative) \*\*\*\*\*
- Omnidirectional internal antenna, 0.5dBi peak gain

### Wireless low power long range network

- IEEE 802.15.4g, 868/915MHz IPv6 Network
- Wireless Output Power 3dBm - 14dBm\*\*\*\*
- Wireless Range 30 - 70m indoor (Indicative) \*\*\*\*\*
- Omnidirectional internal antenna, 0.4dBi peak gain

### Wired local area network

- IEEE 802.3 10/100/1000Base-T compatible networks
- AutoMDIX with IEEE 802.3af PoE+ support

### Environmental Requirements

- Operating Requirements +5°C to +40°C,  
20 - 80% RH(non-condensing)
- Storage Requirements 0°C to +50°C,  
20 - 80% RH(non-condensing)
- Indoor office use only. Dusty environments  
must be avoided.

### External Buttons

- Stat/RsT (press to show status on LED)  
(press and hold for >8 s to reset)

### Dimensions

- 110x110x28 mm, 160 grams

### Agency Approvals

- Europe: EU (CE and RoHS)
- UK: UKCA [PENDING]
- North America: US (FCC), Canada (IC) [PENDING]

\* Accuracy requires vertical mounting in no draft and time for auto calibration

\*\* Wall adapter not included. Ordered as accessory.

\*\*\* See installation manual for details on VOC Index

\*\*\*\* Actual output power depend on regional regulations

\*\*\*\*\* Actual range depends on walls, obstacles, radio disturbances, etc.  
See manual for more details.

For instructions and information about safety, warranty, and recycling, please visit

[www.yanzinetworks.com](http://www.yanzinetworks.com)