



PRODUCT OVERVIEW

arbn well is an environmental quality measurement and analysis system based on high-quality, low-cost sensing. It comprises a dense network of sensors measuring a variety of parameters affecting human health and comfort. This continuous and ubiquitous sensing is supplemented by occupant feedback (collected using the arbn well app), to create a uniquely rich and detailed picture of environmental conditions inside buildings and the satisfaction of occupants. Based on the needs of a client, three devices are available: Comfort, AQ, and AQ+.

For more information, go to www.arbnwell.com or write to us as info@arbnco.com.

APPLICATIONS

The arbn well system can be used in several applications including:

- Commercial (offices, conference rooms)
- Education (classrooms, auditoria, offices)
- Government (offices, conference rooms)
- Healthcare (wards, offices, common areas)
- Residential (bedrooms, living spaces)
- Urban farming (non-condensing applications)

Each application does not necessarily require each device. The AQ+ device described in this sheet measures: Temperature, Humidity, CO₂, PM, and TVOC.

INTERNAL SENSOR CAPABILITIES

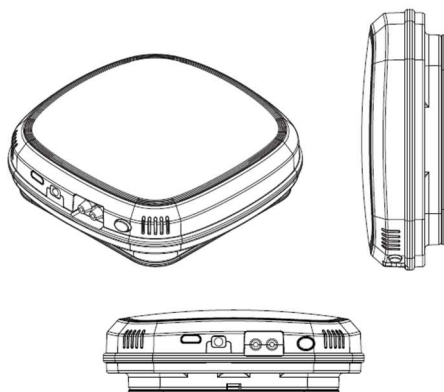
The individual internal sensors used in this arbn well device have the following reported capabilities:

INTERNAL SENSOR	RANGE	REPORTED ERROR	REPORTED RESOLUTION
Temperature	-40 – 125 °C	0.2 °C	0.01 °C
Relative humidity	0 – 100 %	2 %	0.01 %
CO ₂	0 – 5000 ppm	50 ppm, at 0 – 50 °C	N/A
PM	1 – 999 µg/m ³	10 µg /m ³ , at less than 100 µg /m ³	0.3 µg /m ³ , at -10 – 60 °C
		10 %, at more than 100 µg /m ³	
TVOC	0 – 32768 ppb	N/A	1 ppb

DEVICE ERROR TOLERANCES

The following are the device error tolerances for the individual parameters:

DEVICE PARAMETER	MIN. ERROR	MAX. ERROR
Temperature	0.75 °C	0.75 °C
Relative humidity	5 %	5 %
CO ₂	75 ppm	10% of value
PM	5 µg /m ³	25% of value
TVOC	40 ppb	25% of value



GENERAL	
MOUNTING	Command Brand® Damage-Free Hanging Strips; 2 strips per sensor
DIMENSIONS	112x112x35mm
WEIGHT	200g
OPERATING/STORAGE TEMPERATURE	-10-70 °C
OPERATING/STORAGE HUMIDITY	0-95 % (RH), non-condensing
SENSOR/DEVICE LIFETIME	Approx. 5 years. Deployment in high contamination environments will significantly shorten the lifespan of the humidity and CO2 sensors, and potentially the circuits.
WARRANTY	Standard warranty of 1 year for factory defects
CERTIFICATIONS	CE, FCC
SENSORS	
TEMPERATURE and RELATIVE HUMIDITY	Sensirion SHT30-DIS-B
CO₂	GSS CoziR-IP (NDIR-type)
PM	Plantower PMSA003
TVOC	AMS CCS811
ELECTRICAL	
POWER SOURCE	Micro USB B cable
ADAPTOR INPUT	AC 100-240V, 50/60Hz 0.4A
ADAPTOR OUTPUT	DC 5V, 750mA
POWER ADAPTOR CERTIFICATONS	CE, FCC, UL
COMMUNICATIONS	
Sub-GHz (DASH7)	Supported channels: US902-928, EU863-870, AS923, AU915-928, KR920-923, CN470-780
WiFi	Requires 2.4GHz network