

Comfort Device



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 <u>www.arbnwell.com</u> or write to us as <u>info@arbnco.com</u>.

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 Comfort device described in this sheet measures: Temperature, Humidity, and Light.

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 %
Light ¹	0 – 26000 lx	1 lx	N/A

DEVICE ERROR TOLERANCES

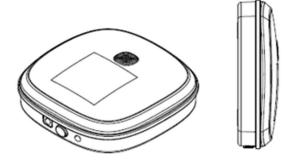
The following are the device error tolerances for the individual parameters:

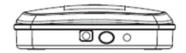
DEVICE PARAMETER	MIN. ERROR	MAX. ERROR
Temperature	0.75 °C	0.75 °C
Relative humidity	5 %	5 %

 $^{^{\}rm 1}$ We provide illuminance in lux as standard. RGB and IR are available in W/m2 on request.



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GENERAL		
MOUNTING	Command Brand® Damage-Free Hanging Strips; 2 strips per sensor	
DIMENSIONS	76x76x21mm	
WEIGHT	67g	
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	
LIGHT	Avago APDS-9250	
ELECTRICAL		
POWER SOURCE	ER26500 battery; approx. 3-year lifespan.	
VOLTAGE	3.6V	
BATTERY CAPACITY	30.6Wh	
COMMUNICATIONS		
Sub-GHz (DASH7)	Supported channels: US902-928, EU863-870, AS923, AU915-928, KR920-923, CN470-780	