

TEKTELIC BREEZE-V

A LoRaWAN® Indoor Air Quality (IAQ) & Occupancy Sensor

The TEKTELIC BREEZE-V Indoor Air Quality and occupancy sensor provides continuous, real-time monitoring of key indoor environmental parameters, including air quality, temperature, humidity, ambient light, and occupancy. Designed with a compact and unobtrusive form factor, BREEZE-V enables data-driven optimization of occupant comfort, health, space utilization, and energy efficiency. Leveraging LoRaWAN® connectivity, it delivers reliable long-range communication with minimal power consumption, supporting scalable deployments across commercial, educational, and public indoor environments.



Sensing Functions



CO₂
CONCENTRATION



OCCUPANCY
SENSOR



AMBIENT
TEMPERATURE



AMBIENT RELATIVE
HUMIDITY



AMBIENT LIGHT



BAROMETRIC AIR
PRESSURE

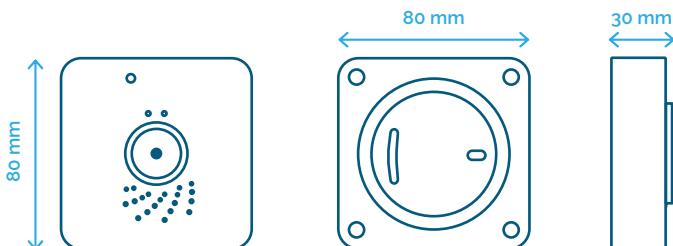


BATTERY LEVEL
INDICATOR

Features

- ✓ **9+ Years battery life*** enabled by an optimized low-power design for extended maintenance-free operation
- ✓ **Optional E-Ink display enabled via Bluetooth** connectivity providing convenient at-a-glance IAQ monitoring
- ✓ **Integrated occupancy detection with multiple PIR masking options** for flexible space-utilization monitoring
- ✓ **Quick and easy device onboarding & data viewing** using TEKTELIC LeapX™ mobile application
- ✓ **Automatic sensor calibration** to maintain long-term accuracy and reduce maintenance
- ✓ **Simple onboarding and real-time data visualization** through the BREEZE application
- ✓ **Barometric pressure compensation** for improved measurement accuracy across varying indoor conditions
- ✓ **TEKTELIC Kona Atlas™ support** for payload encoding and decoding
- ✓ **Dynamic reporting schedules** optimized for maximum battery life and application flexibility
- ✓ **TEKTELIC Locus™ integration** for centralized device, data, and fleet management
- ✓ **Compatible with standard LoRaWAN® gateways and network servers** for broad interoperability
- ✓ **Rapid deployment** for scalable commercial and enterprise installations

* Actual battery life varies based on configuration, data rate, and operating temperature.



Technical and Functional System Specifications

General System Parameters			
Operational Temperature	0°C to 60°C		
Storage Temperature	-40°C to 60°C		
Operational Relative Humidity	5% - 95% Non-Condensing		
Ingress Protection	IP30		
Size	80 x 80 x 30 mm (with mounting clip)		
	80 x 80 x 26 mm (without mounting clip)		
Weight (including batteries)	128 g		
Battery	2 x AA LTC		
Battery Life			
Reporting Period = 15 min @SF7	10 Years		
Reporting Period = 15 min @SF10	6 Years		
Wireless Parameters	LoRa	BLE	
RF Power (Max)	15 dBm	0 dBm	
RF Sensitivity	-137 dBm (SF12, 125 kHz)	-96 dBm (1 Mbps)	
Channel Plans	EU868, US915, AU915, AS923-1,-2,-3,-4, IN865, KR920	2.4GHz ISM	
Antenna	Internal	Internal	
LoRa Device Class	Class A	N/A	
Specification Version	1.0.4	5.2	
Sensor Specifications	Range	Accuracy	Resolution
CO2 (using NDIR Sensor)	400-5000ppm	+/- 30 ppm +3% of reading	1 ppm
Ambient Temperature	0-60°C	+/- 0.3°C	0.1°C
	5-60°C	+/- 0.2°C	
Ambient Relative Humidity	0-100%	+/- 4%	0.5%
	20-80%	+/- 2%	
Light	5-1000 lux	N/A	N/A
Barometer	300-1100 hPa	+/- 2 hPa	0.1 hPa
	700-1100 hPa	+/- 15 hPa	
PIR Detection Range (Ceiling Mount) *	X Angle: 104° (No mask) Y Angle: 104° (No mask) Height: 3 m (No mask)		
Wall Mount	Horizontal angle: 104° (no mask) Detection range: up to 7 m (no mask) Vertical coverage: dependent on mounting height		
Certifications & Compliance			
Regulatory	FCC, ISED, CE (RED)		
Product Safety	IEC 62368-1		
Environmental	RoHS		

* Assumes object in center of field of view

TEKTELIC Communications is a premier supplier of complete LoRaWAN® IoT solutions. Our end-to-end systems combine network infrastructure, devices, and applications to enable easy, fast, and cost-effective deployment for the most demanding IoT challenges.