

TEKTELIC BREEZE-V

A LoRaWAN® connected CO2 Monitoring Solution

The TEKTELIC BREEZE-V is a member of our Smart Room Sensor family and integrates practical functionality into a very small form factor. With two variants options, it is an ideal solution for holistically monitoring ambient indoor environments. BREEZE-V measures and reports real-time CO2 levels, temperature, humidity light and motion detection in its surrounding environment.

- Smart Home & Office
- Schools & Universities
- Retail
- Public Buildings
- Ambient Air Quality Monitoring
- Indoor Environment Monitoring
- Facility Management
- HVAC Optimization



Features

- » NDIR (Non-Dispersive Infrared) Technology is used for CO2
- » Auto Calibration
- » User Configurable Parameters and Thresholds
- » Optimized Battery Life
- » Multiple PIR Masking Options
- » Pairable with E-Ink Display
- » Simple Deployment
- » Sleek and Unobstructed Design
- » Ambient Indoor Environment Monitoring

Applications

- » Temperature
- » Humidity
- » Light
- » Barometric Air Pressure
- » CO2 Concentration
- » Occupancy Detection

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Technical and Functional System Specifications

General System Parameters

Operational Temperature	0°C to 60°C
Storage Temperature	-40°C to 60°C
Relative Humidity - Operational	5% - 95% Non-Condensing (Operational)
Ingress Protection	IP30
Size	80 x 80 x 33 mm (with mounting clip)
	80 x 80 x 30 mm (without mounting clip)
Weight (including batteries)	91g (with Battery)
Battery	2x AA LTC

Optimized Battery Life

Battery Life in Years		
Report Frequency	SF 10	SF 7
Every 5 min (active), Every 1 hr (inactive)	4.1	6.5
Every 5 min (active), Every 30 min (inactive)	3.7	5.9
Calculated under conditions		
Operational Temperature	15-25°C	
Tx Power	LoRa: 15dBm BLE: 0dBm	
Activity	10 hours during weekdays	

Wireless Parameters

	LoRa	BLE
RF Power	15 dBm	0 dBm
RF Sensitivity	-137dBm	-94.8 dBm (1 Mbps)
Radio	SX1261	EFR32BG13 (MCU)
Supported ISM Bands	All Regions Identified by LoRa Alliance	2.4GHz ISM
Antenna	Internal	Internal
LoRa Device Class	A	/

Sensing Functions

Temperature	0-60C +/- 0.3C
Humidity	5-95% +/- 4%
Light	5-1000 lux
Occupancy Detection	
CO2 (using NDIR Sensor)	400-5000ppm +/- 30ppm + 3% of reading
Barometer	300 -1200 hPa +/- 1hPa

PIR Detection Range (Ceiling Mount)

X Angle	104° (No mask)
Y Angle	104° (No mask)
Height	3 m (No mask)

* Assumes object in center of field of view

Regulatory Compliance

Safety	IEC 60529-1
Regulatory	ETSI EN 300 220 -1/-2
	ETSI EN 301-489-1/-3
	FCC 15.247, FCC 15.209
	ICES-003, RSS-247, RSS-Gen

Specifications subject to change without notice*.



TEKTELIC Communications is a premier supplier of best-in-class LoRaWAN® IoT Gateways, Sensors, and custom applications. These elements combined provide a powerful end-to-end solution that can be easily, quickly, and cost effectively deployed to address the most demanding IoT challenges.

For more information please visit www.tektelic.com