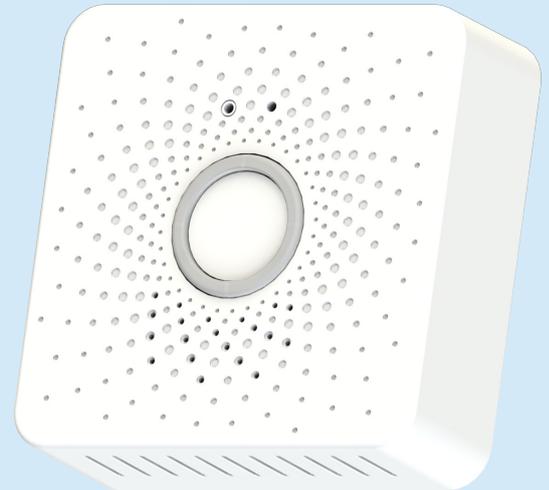# TEKTELIC BREEZE

A LoRaWAN® connected CO2 Monitoring Solution

The TEKTELIC BREEZE 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 measures and reports real-time CO2 levels, temperature, humidity and light in its surrounding environment, while the BREEZE-V also has additional PIR for motion detection.

- 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

» User Configurable Parameters and Thresholds

» Designed for Optimal Battery Life

» Pairable with E-Ink Display

» Wall, Ceiling or Table Mount Configurations

» Simple Deployment

» Sleek and Unobstructed Design

» Ambient Indoor Environment Monitoring

Applications

» Temperature

» Humidity

» Light

» Barometric Air Pressure

» CO2 Concentration

TEKTELIC BREEZE

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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 30 mm (with mounting clip)
	80 x 80 x 26 mm (without mounting clip)
Weight (including batteries)	91g (with Battery)
Battery	2x AA LTC

Wireless Parameters

	LoRa	BLE
RF Power	15 dBm	0 dBm
RF Sensitivity	-137dBm	-96 dBm (1 Mbps)
Radio	SX1261	STM32WB
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	0-100% +/- 4%, 20-80% +/- 2%
Light	5-1000 lux
Barometer	300 -1200 hPa +/- 1hPa
CO2 (using NDIR Sensor)	400-5000ppm +/- 30ppm +3% of reading

Optimized Battery Life

Operational Temperature	15-25°C
Tx Power	LoRa: 15dBm BLE: 0dBm

Battery Life in Years

Report Frequency	SF 10	SF 7	
Every 5 min (active), Every 1 hr (inactive)	5.0	8.4	Active: 10 hours during weekdays
Every 5 min (active), Every 30 min (inactive)	4.3	7.6	Inactive: Rest of the week outside of active hours
Always reports every 15 minutes	5.2	8.8	

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, FCC 15.109
	ICES-003, RSS-247, RSS-Gen

Specifications subject to change without notice*.

80 mm   80 mm   30 mm

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