

# TEKTELIC PELICAN Ex

## A LoRaWAN® & BLE Asset Tracker for Hazardous Locations

TEKTELIC's PELICAN Ex is a rugged, long-life LoRaWAN® and Bluetooth® Low Energy (BLE) asset tracker designed for reliable asset visibility in hazardous and industrial environments where explosive atmospheres may be present. ATEX-certified for Zone 1/21 locations, it combines the long-range, low-power performance of LoRaWAN® with the flexibility and ubiquity of BLE, and can operate as either a tracker or a BLE beacon to support a wide range of outdoor and industrial asset-tracking applications. PELICAN Ex optimizes battery life and operational efficiency while enabling safe, scalable deployments in demanding environments such as oil and gas sites, mining operations, and processing plants.



### Sensing Functions



BLE  
TRANSCIVER



TRACKER MODE



BEACON MODE  
(100MS ADVERTISING  
INTERVAL)



ACCELEROMETER



AMBIENT MCU  
TEMPERATURE



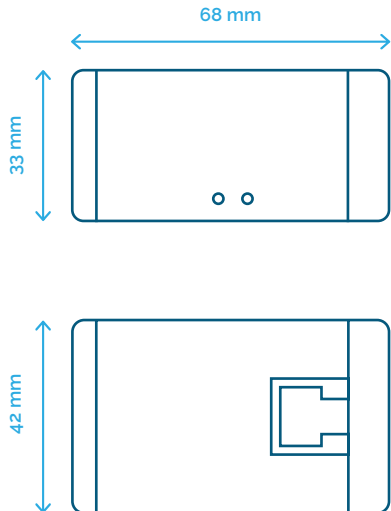
MAGNETIC  
HALL-EFFECT  
SENSOR



BATTERY LEVEL  
INDICATOR

### Features

- ✓ **ATEX Zone 1 certified** for safe operation in hazardous and explosive environments
- ✓ **Exceptional** battery life, supporting up to **10+ years\*** in Tracker mode and 3 years in Beacon mode
- ✓ **Dual-mode operation** supporting both LoRaWAN® asset tracking and BLE beacon functionality
- ✓ **Rugged IP67-rated** enclosure designed for reliable operation in harsh indoor and outdoor environments
- ✓ **Compatible with standard LoRaWAN® gateways and network servers** for broad interoperability
- ✓ **Quick and easy device onboarding & data viewing** using TEKTELIC LeapX™ mobile application
- ✓ TEKTELIC Kona Atlas™ support for payload encoding and decoding
- ✓ TEKTELIC Locus™ integration for centralized device, data, and fleet management
- ✓ **Compact form factor** enabling discreet installation across diverse asset types
- ✓ **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	-20°C to 50°C	
Operational Relative Humidity	10% - 100% Non-Condensing	
Ingress Protection	IP67	
Size	68 x 42x 33 mm (excluding mounting features)	
Weight (without bracket)	107.8 g (51.3 g enclosure + 56.5 g battery)	
Battery	1 x C-Cell LTC	
Battery Life		
Reporting Period - 60 min @SF10 (Tracker)	10 Years	
Reporting Period - 24 hrs @ SF10 (Beacon)	3 Years	
Wireless Parameters (LoRa)	LoRa	BLE
RF Power (Max)	15 dBm	0 dBm
RF Sensitivity	-137 dBm (SF12, 125 kHz)	125 kbps: -103 dBm 500 kbps: -98 dBm 2 Mbps: -91 dBm
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	1.0.2	5.0
Sensor Specifications		
Accelerometer Sensitivity	Sample rate: 1, 10, 25, 50, 100, 200, 400 Hz Measurement range: +/-2, +/-4, +/-8, +/-16 g Precision: 16, 32, 64, 192 mg	
BLE Protocols	iBeacon, Eddystone UID, Eddystone TLM	
Default BLE Advertising Interval	100 ms	
Certifications & Compliance		
Regulatory	FCC, ISED, CE (RED)	
Radio	ETSI EN 300 220	
	ETSI EN 301-489-1/-3	
ATEX	EN IEC 60079-0	
	EN 60079-11	
	<Ex> II 2G Ex Ia IIC T4 Gb	
	<Ex> II 2D Ex Ia IIIC T135°C Db	

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.