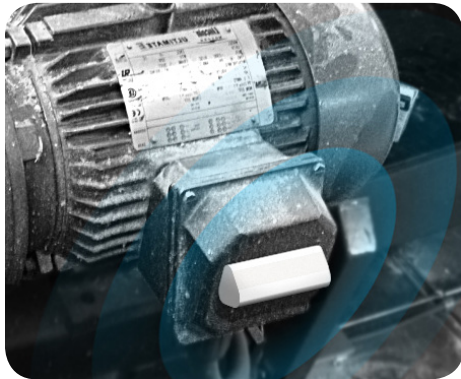


BEEKs™ Industrial Beacons



TECHNOLOGY HIGHLIGHTS:

- Bluetooth Smart 4.1 compliant beacons
- iBeacon (Apple), Eddystone (Google) and sBeacon (Bluision) supported simultaneously
- Highly accurate environmental sensors
- Up to 5 years battery life time
- Location precision down to 6 ft (2 m)
- Central management possible
- Fast and easy roll-out, equipment agnostic

BLE BEACONS FOR CONDITION MONITORING, ASSET LOCATION OR OTHER APPLICATIONS

- **Flexible** – Simultaneously supports iBeacon, Eddystone and sBeacon protocol for optimal application compatibility.
- **Multi-Purpose** – Used as promotional / way-finding beacons or industrial sensor network.
- **Rapid Implementation** – Gather real-time data on item location and equipment condition with minimal infrastructure.

BEEKs™ Bluetooth Low-Energy (BLE) beacons are among the most advanced beacons in the industry. Being fully Apple iBeacon and Google Eddystone compatible, BEEKs beacons may be used for any standard beacon application that provides location based promotional or way-finding services to smartphone users.

When combined with HID Global's end-to-end IoT ecosystem, that includes BluFi™ BLE to WiFi gateways and the Bluzone™ cloud services, BEEKs can be centrally managed through the cloud to transfer new messages, firmware updates and battery status checks remotely. Their unique design allows BEEKs to broadcast reliably even in densely populated WiFi environments.

BEEKs are not limited to standard beacon applications. HID Condition Monitoring Services, enabled by Bluision, include a range of sensor beacons for capturing motion, temperature, light, vibration or magnetic field. This sensor data is sent via BluFi gateways to the Bluzone Cloud to perform operational analysis for motorized equipment performance, capacity load, door open

status etc. Alerts according to policy are received via e-mail or web service.

Equipment agnostic, 3-axis vibration and temperature trend monitoring provides predictive analysis when a motor or bearing is going to fail-to proactively replace parts when needed to prevent costly unplanned downtime. Optional on-board memory of up to 512 KB allows recording of condition status e.g. for cold chain applications.

HID Global Location Services, enabled by Bluision, is an efficient real-time asset location (RTLS) platform leveraging BEEKs beacons to effectively pin down the locations of assets inside a warehouse, campus or manufacturing hall.

BEEKs beacons are available in multiple form factors and sensor configurations like in form of badges for Workplace Optimization or with anti-tamper sensors to raise an alarm upon removal. Their extensible architecture allows organizations to scale deployments of standard beacon applications and extend to centralized management, real-time condition monitoring or location services in a later phase.

APPLICATION AREAS:
Condition Monitoring (requires Bluzone™ cloud)

- Wireless status info on motorized equipment (on/off)
- Failure prediction, based on vibration or temperature trends
- Reporting of equipment duty cycles
- Cold chain applications

Real-time location for assets (requires Bluzone™ cloud)

- Indoor position tracking of assets (Tools, portable equipment, vehicles)
- Position based alerting, heat-maps etc.

Retail advertisement

- BEEKs beacons may be used in iBeacon and/or Eddystone mode for advertising messages or location based services
- Central provisioning or monitoring via BluFi and Bluzone optionally possible

SPECIFICATIONS

	BEEKs			
	Industrial	CM	Cooler	Mini
Base Model Number	BVBI45W (White) BVBI45G (Grey)	BVCM24SG	BVBL45C	BVBM33B BVBM33BT (Tamper-proof)
ELECTRONIC				
Bluetooth communication	Bluetooth Low Energy 4.1, 2.4 GHz ISM			
BLE Protocols	Eddystone, iBeacon, sBeacon			
Sensitivity	-97dBm			
Transmission power	-40dBm to +5dBm (-3 m to -150 m line of sight range)			
Processor type	ARM Cortex M3 and M0			
Data rates	1Mbit/s / 2Mbit/s			
Memory	55KB Flash			
Sensors	Motion, Light, Vibration (3-axis, up to 800 Hz), Temperature -13° to +149° F (-25° to +65° C)	Motion, Light, Vibration (3-axis, up to 800 Hz (8,000 Hz option coming soon)), Temperature -13° to +149° F (-25° to +65° C)	Motion, Light, Vibration (3-axis, up to 800 Hz), Magnetometer, Temperature -13° to +149° F (-25° to +65° C)	Motion, Vibration (3-axis, up to 800 Hz), Magnetometer (tamper function), Temperature -13° to +149° F (-25° to +65° C)
PHYSICAL				
Length x Width	2.36 in x 0.83 x 0.98 in (60 x 21 x 25 mm)			1.3 in x 0.3 in (34.2 x 8.35 mm)
Mounting Method	3M VHB adhesive sticker			
Housing Material	Polycarbonate and ABS			
Color	White or Grey			Black
Weight	1 oz (28 g)			0.24 oz (7 g)
BATTERY				
Type	3.6V / 2600mAh - Primary Lithium			CR-2032 - 3V
Life	up to 5 years			up to 3 years
CHEMICAL AND MECHANICAL RESISTANCE				
Water	IP67, 68° F (20° C), 3.3 ft (1 m) x 1 h			
Withstands Exposure To	Water and UV resistant			
THERMAL				
Storage	-22° to +170° F (-30° to +77° C)			
Operating Temperature	-22° to +170° F (-30° to +77° C)			
OTHER				
Speciality	General purpose industrial beacon for asset real-time location and basic condition monitoring.	Condition Monitoring beacon with AI firmware. Required for Advanced Condition Monitoring SaaS.	Temperature logger beacon w/ logger firmware to be queried by Bluzone or phone SDK. Incl. magnetometer to detect door openings. Not suitable for Condition Monitoring SaaS.	Small beacon with or without removal alert. For asset real-time location and basic condition monitoring.
Standards	FCC / CE / JRF / IC; BLE			FCC / CE; BLE
Options	512 KB Flash memory (for more advanced internal recording and machine learning with accurate per minute timestamp recordings)			
Box Size	10 pcs.			
Warranty	2 years			



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