






# World leader in predictive maintenance for electric motors










**BEGE Smart Motor Sensor is an AI-based, full turnkey hardware and software solution that helps avoid downtime & optimize maintenance cost**

-  **Actionable diagnostics**  
Diagnose 9 mechanical and electrical motor faults
- Includes fault severity and recommended actions to address specific faults
  - Performance indicator identifies potential issues with the load or a change in the process that might require additional action

-  **Automated**  
Automatically generated diagnostics and alarms customized to your motor
- No need to manually set alarms or thresholds
  - No manual device training required
  - No experts required for initial analysis

-  **Scalable**  
Quick to set up, easy to use
- No wires or additional gateways required
  - Works with most motors (see Motor Compatibility overleaf)
  - Easy to use interface reduces training and device maintenance

## Detectable Motor Faults

-  **Power system**  
Asymmetry in motor currents
-  **Stator winding**  
Stator resistance variation
-  **Rotor**  
Rotor resistance variation
-  **Motor shaft/ Balance**  
Gravity center displacement
-  **Eccentricity**  
Stator/rotor concentricity issue
-  **Alignment**  
Motor/load misaligned
-  **Cooling system**  
Motor cooling system problem
-  **Soft/loose foot**  
Fixing system problem
-  **Bearing**  
Failures/defects in bearing



## Requirements

### Network

Network	Dedicated 2.4GHz network (5GHz networks not supported)
Security	WEP, WPA, or WPA2
Signal strength	Greater than -60dB
Ports	Port 8883 and HTTPS port (443) must be open

### Environment

Operation	-40 °C to +60°C
Storage	50°C to avoid energy leakage from lithium batteries

### App

iPhone	iOS 13 or later
iPad	iPadOS 13 or later
Android phone/tablet	Android 6.0 (Marshmallow) or later

## Specifications

### Physical characteristics

Weight	0.5 kg
Case material	ABS
Mounting	Cooling fins
Battery type	4 x replaceable AA lithium batteries

### Vibration measurement

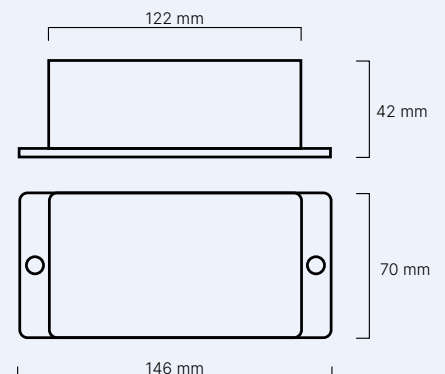
Amplitude range	±40 g
Frequency range	1 Hz to 3.1 kHz
Data format	Waveform, FFT, rms
2-axis vibration	Axial and radial

### Wireless communication

Network standard	Wi-Fi b/g/n
Radio standard	IEEE 802.11 b/g/n
Frequency	2.4 GHz
Range (nominal)	>50 m

### Certifications and standards

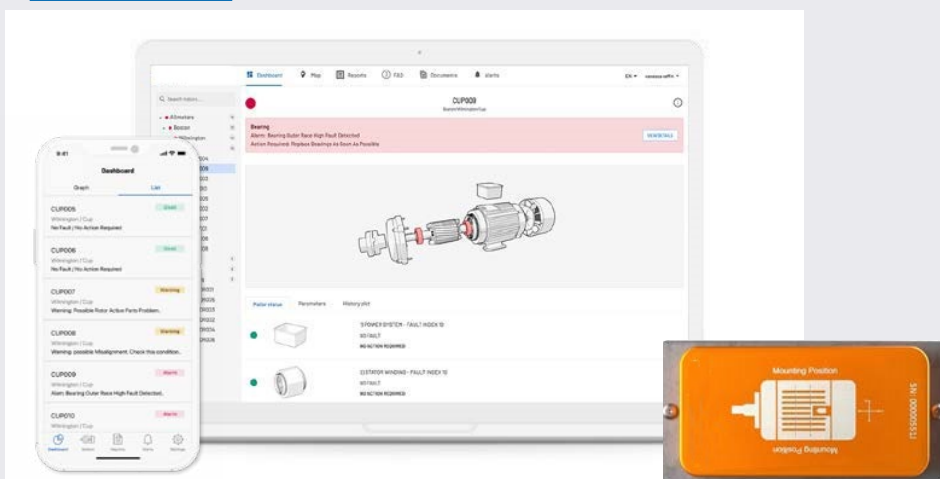
CE IP55



### Motor compatibility

- 3-phase squirrel cage induction motor
- Standard low voltage IEC and NEMA motors
- Frames up to 450 (IEC 60034) or 500 (NEMA MG1) whose power range varies from 0.37 kW to 500 kW or from 0.5 hp to 700 hp
- Motors driven by any type of device: directly on line (DOL), by variable frequency drive (VFD), soft starter, and star delta

## Optimizing Resources & Critical Asset Utilization



With SMS, you can monitor /manage your Enterprise's critical assets from all locations through a single organizationally shared dashboard

- Optimize your maintenance scheduling
- Better plan your maintenance repair
- Prevent equipment failures
- Avoid unscheduled downtime