DATASHEET

Wireless Battery-Powered Inclination Sensor

SKU: IVIB161210-INC-LPO

Category: Sensors

Description

Industrial Wireless Battery-Powered Inclination Sensor

The iQunet Inclination Monitoring Sensor monitors the inclination angle of machine components. Pitch and roll are collected in burst mode for statistical monitoring purposes. A continuous roll guard parameter can be set to detect whether the machine component surpasses the set angle. The sensor is powered with **2 standard CR2032 coin cells** (included) which assures function for several years in standard operation mode.

The alarm broadcast from the Inclination Sensor can be picked up by the iQunet Actuator (not included) which can e.g. drive a machine PLC to switch off the machine or flash a warning light.

The sensor makes a network direct to the central Base Station node or via the optional Repeater. Sensor data is visualized in the iQunet **Sensor Dashboard** on the iQunet Data Server, offering temperature graphs, pitch and roll values and graphs, etc.

Used in: wireless monitoring of tilt behavior of static machinery or parts like paper/steel mill pinch rollers and wheels; position monitoring of freely suspended equipment or tools.

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Technical specifications

- **Physical:**
    - **Dimensions (mm):** 57 x 47 x 14
    - **Weight:** 35g
    - **Case material:** thermoplastic
    - **Sealing:** IP65 (IP68 with upgrade set)
- **Installation:** M3 screw (epoxy adhesive for permanent mount)
- **Operating temperature:** -20°C to +70°C
- **Recommended storage temperature:** +30°C maximum
- **Certifications:**
    - CE
    - FCC
    - KC
- **Wireless communications range:** up to 50 m typically in plant (actual range depends on specific site topology and device placement)
- **Power supply:** 2 x 3V (replaceable CR2032 battery)
- **Measurements:**
    - **Measurement range:** -90 deg to +90 deg
    - **Measurement axis:** pitch and roll
    - **Number of samples:** 1 to 255 samples
    - **Units:** deg
    - **Guard roll:** 15 deg to 75 deg
    - **Activity threshold:** 0G to 1G
- **Temperature sensor on board:** yes
- **Start data acquisition:**
    - Manual trigger (REC button in Sensor Dashboard)
    - Automatic measurements (programmable time interval)
    - Conditional automatic measurements (programmable threshold level)
- **Communication protocols:**
    - Subscribe to sensor parameters and data with OPC UA
    - Control sensor settings and start measurements using GraphQL mutations
    - Read out sensor parameters and data using GraphQL queries
- **Data storage:** on iQunet Data Server
- **Compliance:**
    - RoHS: 2011/65/EU and 2015/863
    - EMC: EN 301 489-1 / EN 301 489-3
    - SPECTRUM: EN 300 220-2
      868.8 Mhz, Max. EIRP < 10dBm (<10mW)

Subject to reasonable modifications due to technical advances