

DATASHEET



Wireless Battery-Powered Hall Effect Proximity Sensor



SKU: IMAG163110-HALL-LIN

Category: Sensors

Description

Industrial Wireless Battery-Powered Hall Effect Proximity Sensor (Magnetic)

The iQunet Proximity Sensor monitors (linear) distance of machine components. By measuring the magnetic field, the accurate and easily programmable sensors are able to detect the proximity of a magnet in a range of a few μm . More powerful magnets will allow the detection of the magnetic field over a larger distance, although with less resolution. The sensor is powered with **2 standard CR2032 coin cells** (included) which assures function for several years in standard operation mode.

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, magnetic field data in combination with battery voltage level, etc.

Used in: accurate monitoring of e.g. alignment and tension of conveyor belts over long periods of time, follow up of displacement of equipment over time, etc.

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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:**
 - **Hall field range:** -2048 to +2047
 - **Units:** -
 - **Combined Hall voltage measurement:** for calibration purposes
- **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)