

Tilt Sensor

Featuring LoRaWAN®

EM310-TILT

Milesight



EM310-TILT is a LoRaWAN® tilt sensor mainly for angle measurement and asset movement detection. With a compact size and 3-axis accelerometer, EM310-TILT can be installed to the objects easily to measure its X, Y, Z tilt angles. It can also detect the movement based on angle changes and send threshold alarms. Compliant with Milesight LoRaWAN® gateway and Milesight IoT Cloud solution, users can know the angles and tilt threshold alarms in real-time via browser or mobile app remotely.

EM310-TILT can be widely used in tree monitoring, pole lean detection, landslide monitoring, etc.

◆ Features

- Built-in MEMS accelerometer sensor to measure the 3-axis angles of any objects
- Flexible threshold condition settings, suitable for different kinds of applications
- Easy to install, suitable for various types of objects as trees, poles, grounds, etc.
- IP67 waterproof enclosure for outdoor applications and easy to clean
- Ultra-wide-distance wireless transmission up to line of sight of 15 km
- Equipped with NFC for one touch configuration, supports card emulation mode
- Function well with standard LoRaWAN® gateways and network servers
- Compliant with Milesight IoT Cloud

◆ Specifications

| Wireless Transmission | |
|--------------------------|---|
| Technology | LoRaWAN® |
| Frequency | CN470/IN865/RU864/EU868/US915/AU915/KR920/AS923-1&2&3&4 |
| Tx Power | 16 dBm (868 MHz)/22 dBm (915 MHz)/19 dBm (470 MHz) |
| Sensitivity | -137 dBm @300bps |
| Mode | OTAA/ABP Class A |
| Measurement | |
| Axis | X, Y, Z |
| Range | - 90° ~ +90° |
| Accuracy | ± 1° |
| Resolution | 0.01° |
| Others | |
| Configuration | NFC Configuration via Mobile App |
| Button | 1 × Reset Button (Internal) |
| Physical Characteristics | |
| Power Supply | 2 × 3500 mAh ER17505 Li-SOCl ₂ Batteries |
| Battery Life* | Over 5 years (6 triggers per hour) |
| Operating Temperature | -20°C to +60°C |
| Relative Humidity | ≤95% (non-condensing) |
| Ingress Protection | IP67 |
| Dimension | 111 × 62 × 33 mm (4.37 × 2.44 × 1.30 in) |
| Material & Color | ABS, Black |
| Installation | On the flat surfaces with screws |

* Tested under laboratory conditions and for guideline purposes only.

