Tilt Sensor

Featuring LoRaWAN®

EM320-TILT

EM320-TILT is an LoRaWAN® tilt sensor mainly for angle measurement and asset movement detection. With a compact size and 3-axis accelerometer, EM320-TILT can be installed to the objects easily to measure its X, Y, Z tilt angles. In addition, EM320-TILT supports customizing initial position to detect 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.

EM320-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

➢ Anti-theft design on back cover to secure firm and sturdy installation

➢ Ultra-wide-distance wireless transmission up to line of sight of 15 km

➢ Equipped with NFC for one touch configuration

➢ 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	
Power On & Off	NFC Configuration via Mobile App, Power Button (Internal)
Configuration	NFC Configuration via Mobile App
Physical Characteristics	
Power Supply	2 × 2700 mAh ER14505 Li-SOCl$_2$ Batteries
Battery Life*	≥3 Years (10min reporting interval, SF10)
Operating Temperature	-30°C to +60°C
Relative Humidity	≤95% (non-condensing)
Ingress Protection	IP67
Dimension	85 × 58 × 18 mm (3.34 × 2.28 × 0.70 in)
Material & Color	PC + ABS, White
Installation	Wall Mounting

* Tested under laboratory conditions and for guideline purposes only.

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