

# Sigfox Tilt Sensor



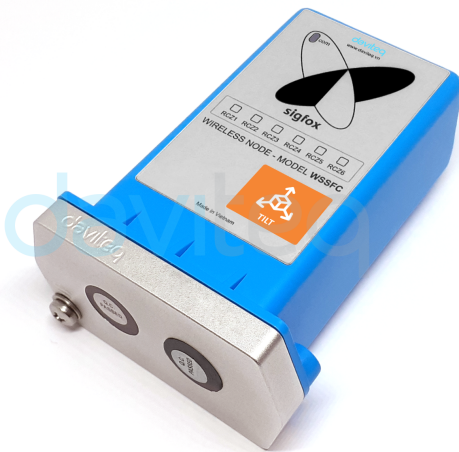
Smart Agriculture, Smart Building, Smart City, Smart Facility, Smart Farm, Smart Factory

SKU: WSSFC-AG

## SIGFOX XYZ TILT SENSOR WSSFC-AG



sigfox



WSSFC-AG-H1.PNG



WSSFC-AG is a Sigfox Tilt Sensor, can be used to measure tilt angles X, and Y any object as Tower, Building, Tree, Electricity Tower, Telecom Tower, Bridges... The Ultra-Low Power design and smart firmware allow the sensor to last up to 10 years with 02 x AA battery (depending on configuration). The sensor will transmit data in kilo-meters distance to Sigfox basestation. WSSFC-AG can support all regions of Sigfox network in over the World, RC1, RC2, RC3, RC4, RC5, RC6, RC7.

### Applications

Tilt Monitoring, Facility Monitoring, Flood Monitoring, Infrastructure Monitoring, Level Monitoring, Machine Health Monitoring, Safety Monitoring

### Notes For Applications

- This AG tilt sensor measures the static tilt angle of the static object vs. the Gravity direction. Please do not use it for other angle measurements.
- It measures the static tilt angle of stationary objects or slow-moving objects such as Tree, Bridge, Pole, Tower, Crane, and Building...
- It does not measure the tilt angle of a quick-moving object like construction equipment...

✔ **Sigfox Ready**  
Device are best operating performance on the SIGFOX network

✔ **10-Year battery**  
Ultra-low power sensing technology from Daviteq with Ultra-low power wireless technology allow the sensor can last up to 10 years with 2 x AA batteries 1.5VDC

✔ **High Accuracy & Stable**  
Advanced Accelerometer with Gyro meter to deliver high accuracy and stable measurement of Tilt angles.

✔ **Solar Powered for Fast Sampling**  
Solar Powered for Fast-sampling-rate applications

### AG-01 TILT SENSOR INSTALLED ON THE WALL



WSLRW-AG-H2.JPG

## DAVITEQ TECHNOLOGIES INC

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## Specification

Tilt Sensor	Built-in advanced accelerometer to deliver tilt angle measurement of XYZ for AG-01 version, XY for AG-03 version
Tilt Measurement range	±90° for AG-01 version  ±30° for AG-03 version
Tilt Resolution	±0.01° for AG-01 version   ±0.001° for AG-03 version
Tilt Repeatability	±0.075° for AG-01 version   ±0.010° for AG-03 version
Tilt Temperature Drift	±0.2° per 10°C for AG-01 version (when installation X~0° and Y~0°)
Sensor sampling rate	1Hz max (recommend for Solar powered version)
Shock Detection	Yes, max 2G threshold (only available in some FW version, please consult us)
COMMUNICATION	
Sigfox zones	select RC1-RC2-RC3a-RC3c-RC4-RC5-RC6, class 1u
Antenna	Internal Antenna 2.0 dBi
Power Supply	Primary batteries 02 x AA size 1.5VDC (battery not included) or Solar Panel (buy separately) with Rechargeable batteries 2 x AA Panasonic® Eneloop™ Standard (not included)
Data sending modes	interval time, alarm (from FW5) and manually triggering by magnetic key
Alarm function	from FW5, for X-axis only
RF Module complies to	CE, FCC, ARIB
Working temperature	-40~60°C (with AA L91 Energizer®)
Dimensions	H106xW73xD42
Net-weight	190g
Housing	Aluminum + Polycarbonate plastic, IP68 for Primary battery version and IP67 for Solar/External Power version.

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AG-01 TILT SENSOR INSTALLED ON THE TREE



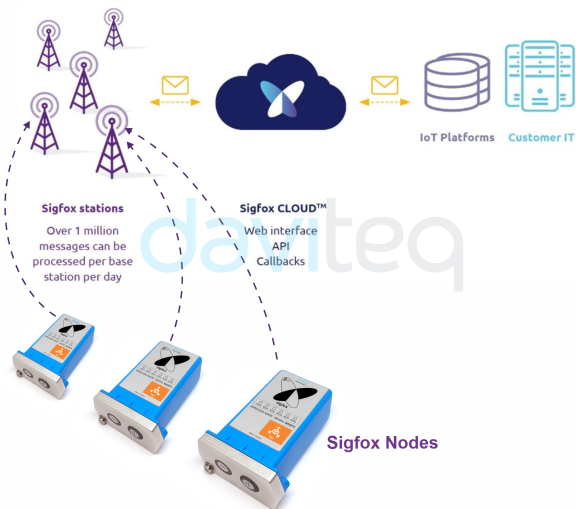
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TILT SENSOR FOR CRANE MONITORING



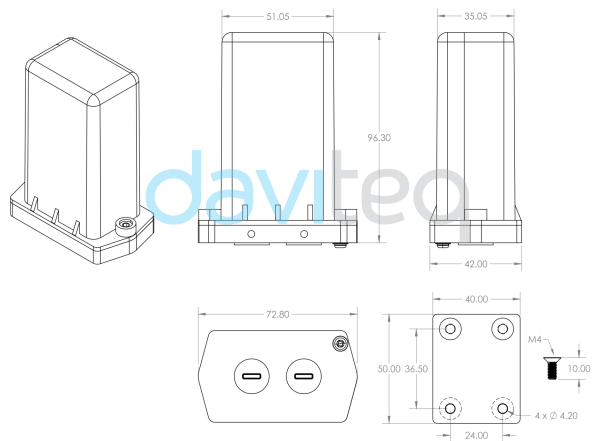
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SYSTEM ARCHITECTURE



WSSFC-AG-H5.PNG

DIMENSION DRAWING OF WIRELESS SENSOR  
(Unit: mm)



WSSFC-AG-H6.PNG

RECOMMENDED BATTERIES

E91 AA Alkaline battery



- 18 .. + 60 oC working temperature
- 10-year shelf life
- 3000 mAh Capacity
- Price: 1X

L91 AA Lithium battery



- 40 .. + 60 oC working temperature
- 20-year shelf life
- 3500 mAh Capacity
- Price: 3.5X

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WSSFC-AG-H8.PNG

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## Ordering Information

ITEM CODE	DESCRIPTIONS
WSSFC-AG-01	Sigfox-Ready General Tilt sensor, Internal antenna, 0.075° Repeatability, Type AA battery 1.5VDC, IP68, 860-930MHz
WSSFC-AG-03	Sigfox-Ready Precision Tilt sensor, Internal antenna, 0.01° Repeatability, Type AA battery 1.5VDC, IP68, 860-930MHz
WSSFC-AG-03S	Sigfox-Ready Precision Tilt sensor, Internal antenna, 0.01° Repeatability, for Solar Panel or External Power 6VDC, IP67, 860-930MHz
ACCESSORIES	
SOLAR-PN-1W6V-PU-M12F-20-1/4BRK	SOLAR PANEL FOR SENSOR OR DEVICE, 1W 6V, PU COATED, M12-F CONNECTOR, 20CM CABLE, DOUBLE BALL BRACKET 1/4"

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