

WiSen: S-Tilt Node



This internally battery powered sensor node allows measurement of tilt in 2 axis from a horizontal plane. With wide tilt range ($\pm 30^\circ$) and very high accuracy ($\pm 0.01^\circ$) and precision ($\pm 0.0025^\circ$).

The node also includes an integrated temperature sensor and wireless mesh radio transmitter via the external antenna.

The battery lifespan is +10 years even at $\frac{1}{2}$ hourly readings.

Sensors communicate via mesh radio technology can be up to 400m from each other or the SmartGateway. The sensors mesh together and automatically form a network relaying data off each other (up to 9 sub mesh levels of data hop) and back to a central data hub called a SmartGateway which contains the data logging functions, radio mesh control systems and external communication to the WiSenMeshNet cloud based datacentre.

Features

- WiSen Mesh Node
- Dual axis tilt $\pm 30^\circ$ range
- $\pm 0.0025^\circ$ precision
- Intelligent node/repeater
- Battery life +10 years
- Upto 1 second frequency
- End user configurable
- Rugged housing
- IP66



Interface accessible via the internet



Call **03 9823 1533** for more information
survey.crkennedy.com.au



WiSen: S-Tilt Node

| Specification | |
|----------------------------------|--|
| Basics | 1302: S-Tilt |
| Battery Power | Qty. x 1 (3.6V Lithium primary D-Cell ER34615) |
| Accuracy Stop Voltage | 2.7VDC |
| Mesh Stop Voltage | 2.1VDC |
| Battery Connection | Standard Aluminium Battery Holder |
| Working Current (DC) | Max. 23mA (Typ. 18mA) |
| Local Storage | Min. 450 Messages during Meshing |
| L x W x H | 80 x 75 x 57mm |
| Weight | 0.43kg |
| Primary Sensor | |
| Sensor Type | MEMS Dual-Axis Tilt Sensor, A-axis; B-axis Tilt Values |
| Range | -30° to +30° |
| Accuracy | 0.01° (36" or 0.1745mm/m) for readings within range [-10°, +10°]; 0.04° (144" or 0.700mm/m) for readings within range [-30°, +30°] |
| Precision | 0.0025° (9" or 0.0436mm/m) |
| Long Term Stability | < 0.014° (50" or 0.2443mm/m) |
| Standard System Parameter | |
| Temperature | Range: -40 to 85°C, Accuracy: +/-2°C |
| Voltage | Accuracy: +/- 0.1V |
| WSN Interface | |
| WSN Protocol | WISENMESHNET® Protocol |
| Industrial Standard | |
| Casing and Painting Materials | Aluminium-Alloy Die Castings 12 (Epoxy Polyester Powder Coating) |
| IP Rating | >= IP66 |
| Operating Temperature | -40 to 85°C |
| Fire Proof | Approved |
| Certificates | CE, London Underground Product Approval, Network Rail Approval |
| Re-Calibration Method | |
| Inspection Period | Every 3 Years by Manufacturer (or inspected by arranged methods) |



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