# **Sensor Interface Range**

Wide range of easy to connect geotechnical and structural sensors

# **Nano and Nano+**

**Triaxial Tilt Sensor Range** 







Senceive's sensor interface range allows a wide range of external geotechnical and structural sensors to be easily integrated into our monitoring architecture. The range includes the Vibrating Wire Node, which accommodates strain gauges, load and pressure cells. IPIs, extensometers and much more. The Millivolt Sensor Node brings a wide range of resistive bridge sensors into our system, such as load pins/cells, pressure sensors, torque sensors etc. The PT100 RTD Sensor Node allows for precision temperature monitoring for a variety of assets including rail, for critical temperature alerting, concrete and steel structures, and heating/ventilation systems. Our Crack Sensor Nodes interface to linear displacement sensors to measure movement between two points.

We are continuously working with our customers to bring evermore new external sensors into our wireless



### **WE MEASURE**

- Slippage/Movement
- Settlement/Heave
- Soil Moisture Content
- Ground Water Level
- Piezometric Pressures
- Rail Temperature
- Earth Pressures
- Structural Deformation
- Strain
- Differential Movement
- Load
- Tilt

# **SENSOR TECHNOLOGIES**

- Vibrating Wire Node (Single/4 port)
- Millivolt External Sensor Node
- PT 100 External Sensor Node
- Crack Sensor Node (Single/2 port)





The Nano and Nano+ are discreet triaxial tilt sensors that can be quickly installed in any orientation to any surface using a wide range of fixings including: glue, screw and magnetic mounting.



## **APPLICATIONS**

- Tunnels
- Bridges
- Building Facades
- Retaining Walls
- Trackbed
- Embankments

## **KEY SPECS**

- Repeatability of ±0.0005° (30.009 mm/m)
- Battery life of up to 5
- 2 second reporting rate



#### Get in touch today:

info@positionpartners.com.au www.positionpartners.com.au

**Shaping New Dimensions** 

**Position** 

- Durable IP68 rated shell. No external aerial
- years with the Nano+



- Designed for and by civil engineers/surveyors/asset owners
- Proven to be reliable and robust over 13 years
- High precision and repeatable sensing
- Full range of sensors for measuring tilt, displacement, strain, load, water pressure, temperature and much more
- Wireless and mains or solar 3G gateways
- · Choice of platforms: Dense and fast reporting vs long range



**Earthworks** 







ROBUST

DISCREET

**RELIABLE** 

**ACCURATE** 

**LONG LIFE** 





Australia • New Zealand • SE Asia





# **ODS Optical Displacement Sensor**

GeoWAN is our new wireless IoT platform that builds upon the strengths of our existing proven FlatMesh". With its extremely long range transmission capability of up to 15km and ability to transmit though buildings. It is ideal for widely dispersed monitoring points, basements and subsurface and congested urban environments as well as mines, dams and quarries.

15 km Jp to 15 km range when line of sight is maintained Up to 4 km range in urban areas Up to 2 km range when the line of sight is obstructed (e.g. manhole, layer of soil)

#### **KEY SPECS**

- Tunnels and pipelines
- Dams, mines and quarries

**APPLICATIONS** 

- Covered or obstructed assets and open areas or congested urban environments
- Burred or subsurface sensing e.g. basements
- Highly dispersed asset monitoring
- Busy construction sites

- Full range of wireless geotechnical/structural sensors
- Up to 1.000 sensors per gateway
- Waterproof to IP66/68
- Can accommodate buried equipment
- Up to 15 years battery life on nodes
- Powered gateway or public network connectivity

Senceive's FlatMesh™ platform provides high precision, low noise observations using robust wireless communications. Robust self-healing mesh networks combined with extreme energy efficiency nodes to give up to 15 years of operation life. Cable less infrastructure eliminates costly cable damage and system downtime. Extensive and flexible sensor availability enhance effective structural awareness.



**APPLICATIONS** 



**KEY SPECS** 



The Optical Displacement Sensor node is a completely wireless laser displacement monitoring device with a repeatability of ±0.15mm even at 100-150m. It is fully enclosed and integrated within our standard FlatMesh" wireless node offering high precision displacement measurements and includes an integrated triaxial tilt sensor.



#### **WE MEASURE**

- Tunnel and Shaft Convergence/ Divergence
- Arch Stability
- Bridge Abutment Movements
- Retaining Wall Movements
- Floor to Ceiling Measurements
- Rail Track Slew
- Water Level

## SENSOR TECHNOLOGIES

• Wireless

- Repeatability of 30.15mm
- Range up to 150m
- Integrated high precision triaxial tiltmeter
- Waterproof to IP66/68
- Minimum range is 50mm