RAIL SENSE
an i³Group company

VOIDSENSE®

Remote Rail Void & Temperature Monitoring System – VoidSense

The RailSense Remote Track Void & Temperature instrument provides real time vertical movement and rail temperature measurements.

Measurements are logged internally and sent via the mobile data network to a secure cloud server.

- ✓ Linear Displacement Sensor-based movement sensing – up to 100mm vertical displacement range with an accuracy of better than 0.2mm
- ✓ Battery powered, with solar assistance can provide almost maintenance free operation
- ✓ Simple vibration and tamper resistant mounting
- ✓ Robust carrier plate that can withstand contact with ballast
- ✓ Secure communication of data over mobile data network
- ✓ On-Board GPS receiver providing location-based measurements
- ✓ Alarm event transmission (e-mail or SMS)
- ✓ Data time stamped & stored locally in the event of comms loss
- ✓ Environmental sealing to minimum IP67
- ✓ Operational temperature range -20°C to +60°C
- ✓ Magnetic temperature sensor for direct attachment to rail

Specifications		Notes
Temperature	Operating Range -20°C to +60°C Measuring Range -25°C to +85°C Accuracy better than +/- 0.75°C	Configurable sample rate with Automatic Temperature Alert Messages Configurable
Measuring Range	100mm	100mm Sensor
Resolution	0.01mm	Typical
Repeatability	0.1mm	Typical
Accuracy	0.2mm	Typically better than 0.2mm
Communication	2G/4G/LTE	Best-Network Embedded SIM
Position	<10m rms Multi GNSS	Multi GNSS
Power	Rechargeable Internal Li-Ion Cells	With Solar Panel
Battery Capacity	>24 Months	Without solar - Usage and configuration dependent
Battery Life Span	Indefinite with>5 Years	With Solar assistance Typical
Charging	<14h for Full Charge	Using supplied charging lead
Dimensions	440 x 150 x 160mm	Excluding antenna & sensor
Weight	6.5 kg	Weight with sensor and foot attached
Weight While Attaching to Rail	4.7 kg	Sensor and foot detached while mounting to rail
Enclosure and Base Materials	Aluminium	Grade 6082
Data Storage	Data is stored internally until a successful transmission to the storage database is achieved	Internally 8Mb of Flash memory is installed, available for long duration logging
Rail Clamp	2 x 10mm Hex. Allen	No-tool attachment under development
Water Proofing	IP67 with IP67 breather	
CE	CE Rated	