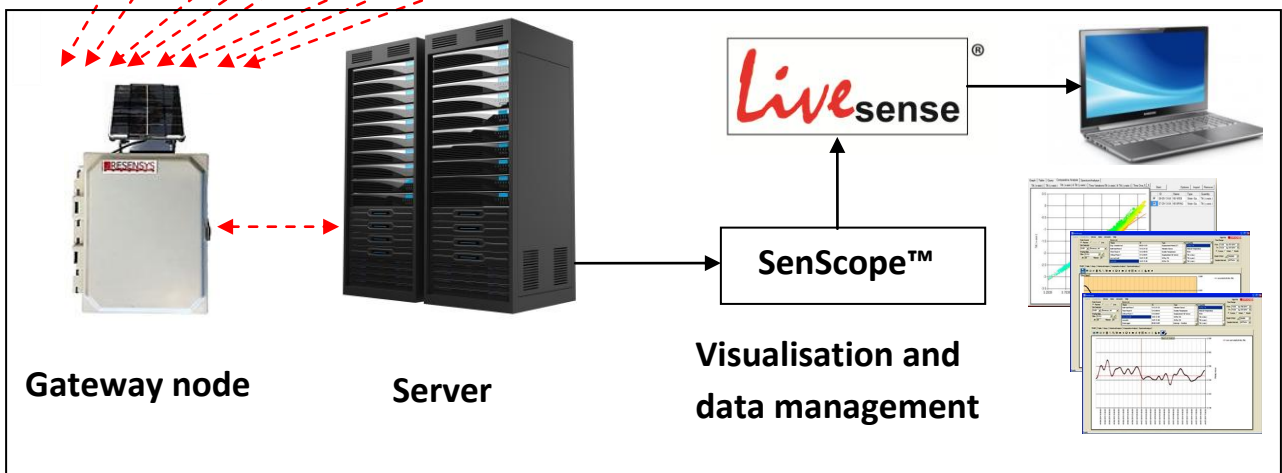
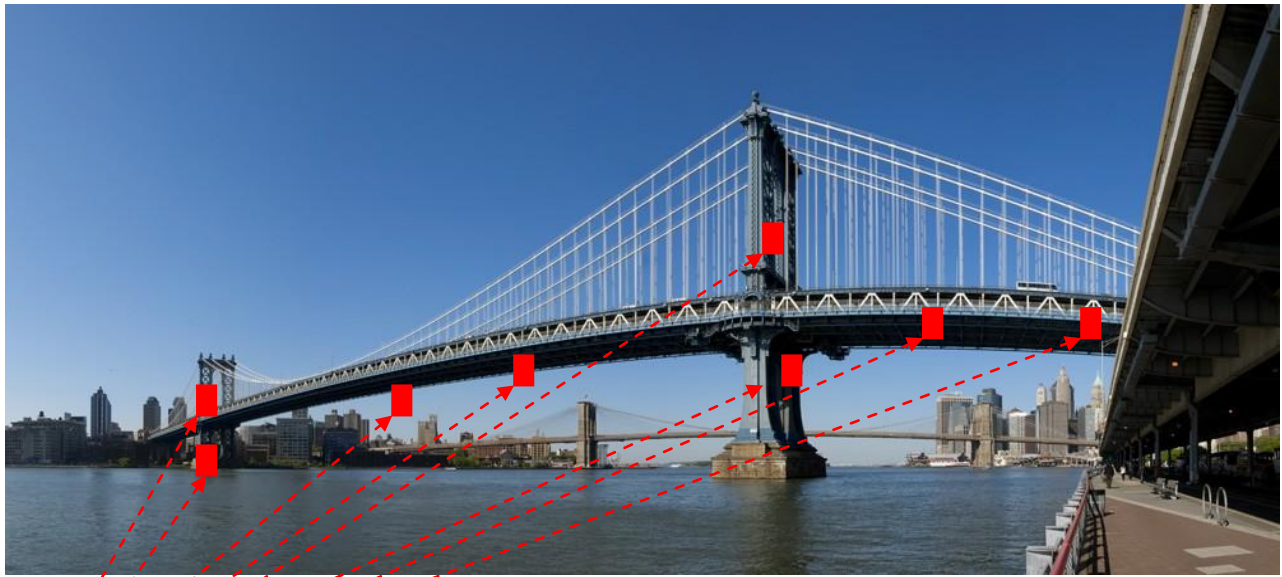


WIRELESS STRUCTURAL HEALTH MONITORING



A typical Inventec wireless structural monitoring package is composed of a number of battery powered sensor nodes that are attached to the structure and that communicate in wireless mode with a gateway node. One single gateway is capable of accommodating up to 1000 sensors. The gateway node transmits the measurement data wirelessly to a server that runs the SenScope software. The measurement data are visualised and archived in Livesense®, Inventec's web platform for structural monitoring applications. By logging-in on Livesense® our clients can follow the structural behaviour of their asset in real-time and assess its condition by evaluating the measurements over extended periods of time.

The parameters that can be measured are vibration, strain, inclination, displacement, temperature and humidity. Once the system is in place the individual sensor nodes can be managed and (re)programmed wirelessly if so desired.

The smart design of our system offers an ultra-efficient power consumption resulting in an average battery lifetime of 10 years. The sensor nodes are very easy to install and have a relatively wide communication distance range of one kilometre.

Thus the ideal and field proven technology for dynamic structural monitoring and the implementation of Condition Based Maintenance (CBM).

SenSpot™ Inclination/Tilt



Resolution 3 arc sec (0,001°)
Dimensions 50x50x34 mm

SenSpot™ Vibration



Resolution 16 mg
Dimensions 50x50x34 mm

SenSpot™ Strain Gauge



Resolution 1 microstrain
Dimensions:
- Sensor 109x33x9 mm
- Transmitter 50x0x34 mm

SenSpot™ Humidity/Temperature



Resolution:
- Humidity 1%
- Temperature 0,5°C
Dimensions 50x50x34 mm

SenSpot™ Displacement



Resolution 0,1 mm
Dimensions:
- Sensor 114x33x20 mm
- Transmitter 50x50x34 mm

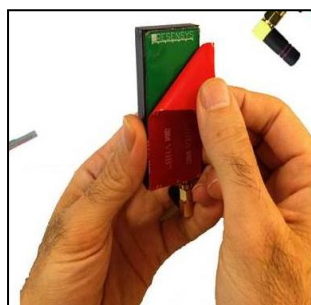
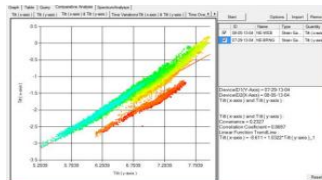
SeniMax™ transmission gateway



Power 20 mW via solar panel
Serves up to 1000 SensPot sensors

SenScope™ software

- Real-time communication and visualisation
- Archiving
- Alarms at pre-set measurement values



INVENTEC specialises in Structural Health Monitoring. We provide the full package including system engineering, Installation and start-up and, if desired by our client, the data processing and management via our Livesense web platform. For wireless monitoring we apply the sensors manufactured by our partners Resensys. SenSpot, Senimax and SenScope are registered tradenames of Resensys.

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