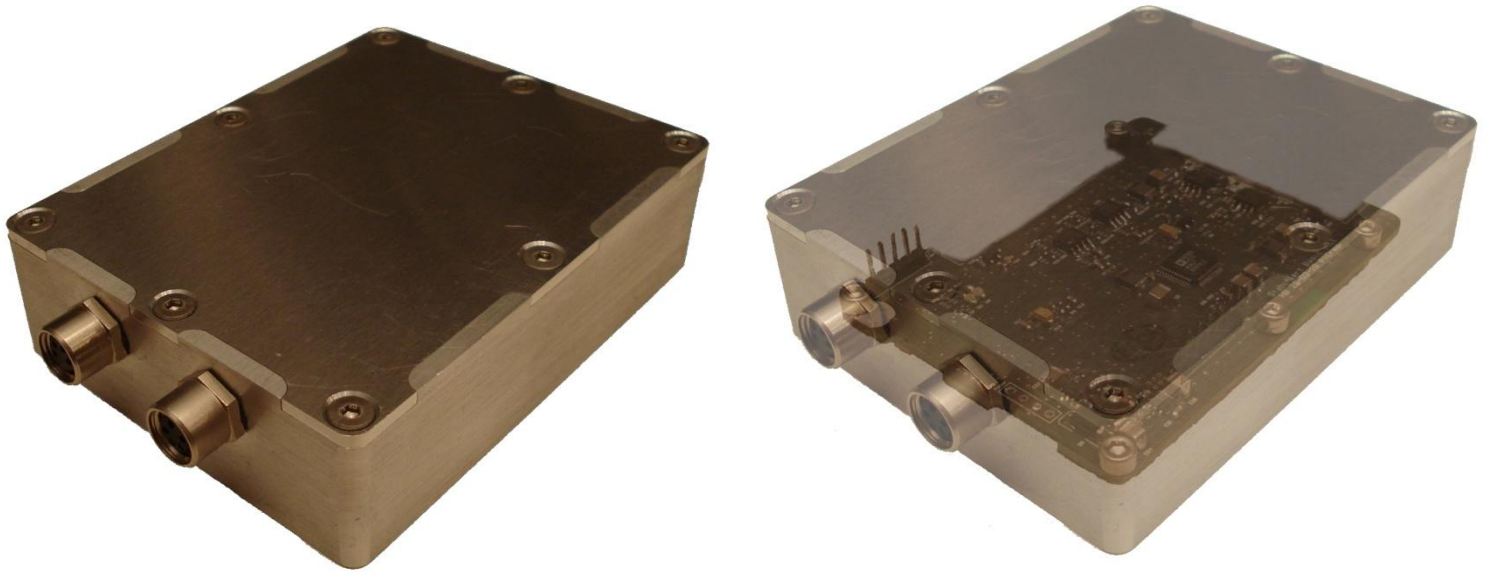


High Sensitive Tilt sensor



Measure microscopic movement and displacement in structures and objects

Read and register minor movements and displacements in buildings, bridges, tunnels and what ever object considered 'stable'. This extremely high sensitive Tilt Sensor already detects individuals walking in buildings just by sensing the bending of concrete floors.

Applying two Electrolytic tilt sensors which are squared mounted offer the basis for this highly sensitive 2D-XY tilt sensor. The embedded sensor elements interfaced with highly sensitive and stable excitation and signal processing electronics brings fast response combined with high accuracy and repeatability.

The unit is capable of producing extremely accurate pitch and roll measurements, it's internal microprocessor processes all data and compensates temperature plus individual pitch-and-roll effects for both sensor elements.

It was setup in various applications reading the tilt and movement of structures as houses and bridges. All data was transported to a web based database and an advanced data processing server. This aggregated and combined sensor data from numerous units is made available in simple graphs or complex 3D visualization.

The sensor unit can be applied in a variety of applications as it suppresses internal and external influences. Also for it's ruggedized enclosure it can be used in environments of extreme conditions.

General features:

- Resolution better then $1/20,000^\circ$
- Fast response and high repeatability
- Range: max. $\pm 1^\circ$ around zero-point
- Measurement rate: up-to 250Hz
- Narrow Angle sensor elements
- Aluminium IP66 casing
- Each X-Y axis dual Kalman signal filtering
- All parameters settable trough interface
- Custom protocol over RS232
- Power supply 9-24Vdc, max 1.2W
- Operating temperature -20 to +40 °C
- Very stable sensor excitation electronics
- Highly sensitive and stable sensor signal processing electronics

Originally designed for www.StabiAlert.nl