

Sensors Overview

INCLINOMETERS



General Overview

About Strainsense

Established in 2002 and based in Milton Keynes. We focus on providing Sensor and Data Acquisition solutions in various markets not limited to Automotive/Autosport, Crash, Military, Aerospace and Research facilities.

All of us, Internal Engineers, Product Specialists & External Sales focus our time providing application solutions using various sensing technologies within our extensive portfolio. Uniquely we can provide custom products, solutions and systems.

Accredited ISO9001:2015 & ISO14001:2015

Full compliance Conflict Minerals, Reach, RoHS, Anti-Slavery, Anti-Bribery, Ethics & Standards.

Sensors and Data Acquisition

Pressure	General Industrial, High Temperature, Miniature/Dynamic
Force/Torque	Pancake, S-Beam, Low Profile, Multi-axis, Custom solutions
Position	Linear & Rotary, LVDT, Inclinometers, String Pots
Vibration	AC & DC coupled & Servo Accelerometers
Strain	Specialise in high temperature, gauging In-house, on site
Inertial	Gyros, IMUs, INS & GPS
Current	Zero Flux & Rogowski coils, AC & DC coupled
Data Acquisition	Mobile, Test rigs & analysis software

Solutions to integrate all the above with signal conditioning, displays, cables & amplifiers.



MICROSENSOR

PIEZOCRYST
ADVANCED SENSORIES GmbH



inelta
Sensorsysteme



Sherborne Sensors



Inclinometers

Inclinometers are used for measuring the angle relative to gravity of a subject. We can offer inclinometers from industrial to high precision applications, static, dynamic and wireless.

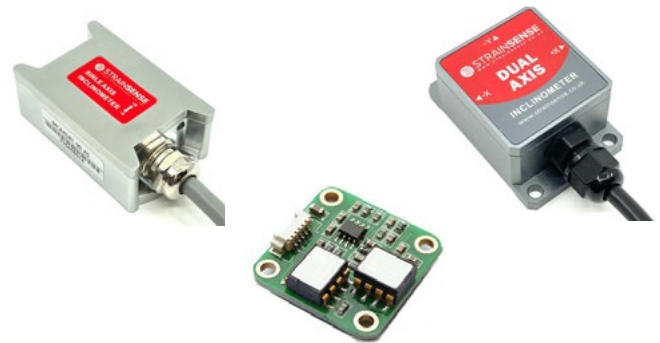
Static inclinometers behave like a pendulum, so if exposed to significant vibration they will begin to behave like an accelerometer. To combat this characteristic, we also offer dynamic inclinometers designed to operate where accelerations are present.

Industrial OEM and standard accuracy

Simple PCB only or Aluminium encapsulated sensors

Ranges from $\pm 10^\circ$ to $\pm 180^\circ$

Output choices Analogue or Digital



High Accuracy and Precision

Ranges from $\pm 2^\circ$ to $\pm 30^\circ$, Single or Dual Axis

Analogue and digital outputs available

Accuracy to 0.005 degrees



Digital output solutions

Ranges from $\pm 2^\circ$ to $\pm 180^\circ$, Single or Dual Axis

RS232, RS485, CANBUS and other protocols available

Accuracy to 0.001° , resolution to 0.0005°



Dynamic inclinometers

Digital output

Accuracy to 0.001 degrees

Up to 3 axis including Azimuth outputs



Industrial Inclinometers

Our Industrial grade inclinometers come as standard in an aluminium casing but can also be supplied as board only (PCB) to fit into your own equipment.

MCA /LCA

Ranges from $\pm 10^\circ$ to $\pm 180^\circ$

Single or Dual axis

Accuracy 0.3° (MCA) 0.1° (LCA)

Analogue outputs 4-20mA or 0-5V DC

Digital outputs RS232, RS485, TTL

Horizontal or vertical mounting options on top or underneath surfaces

Custom models available

PVC 1 Metre cable as standard, other lengths available to order

Withstands shocks up to 100g

Designed for static applications



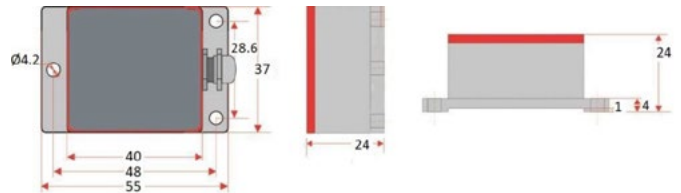
Uses

Machine conveyor levelling

Platform levelling

Drawbridge positioning

Vehicle / ship docking



Standard Inclinometers

Our SCA Standard inclinometers come as in an aluminium casing but can also be supplied as board only (PCB) to fit into your own equipment. With a range of mounting possibilities and outputs suits many applications.

SCA Standard range

Ranges from $\pm 5^\circ$ to $\pm 90^\circ$

Accuracy 0.02° (5°) 0.08°(45°)

Single or Dual axis

Analogue outputs 4-20mA or 0-5V DC

Digital outputs RS232, RS485, TTL

Horizontal or vertical mounting options

Custom models available

1 Metre PVC cable as standard, other lengths available to order

Withstands shocks up to 100g

Designed for static applications

Compatible displays available



Uses

Machine conveyor levelling

Platform levelling

Drawbridge positioning

Vehicle / ship docking

High accuracy Inclinometers

Our HCA High Accuracy inclinometers supplied in an aluminium casing and are able to be customised for your application. The high accuracy sensing element with internal processing with Analogue and Digital output options proves to be a popular solution for angle measurements.

HCA Standard range

Ranges from $\pm 2^\circ$ to $\pm 30^\circ$

Accuracy 0.005° (2°) 0.02°(30°)

Single or Dual axis

Analogue outputs 4-20mA or 0-5V DC

Digital outputs RS232, RS485, TTL, CANBUS

Horizontal or vertical mounting options

Internal linearity correction

Custom models available

M12 or WEIPU IP67 connector

Withstands shocks up to 100g

Designed for static applications



Uses

Structural monitoring

Platform levelling

Vehicle / ship docking

Positioning systems

Precision accuracy Inclinometers

Our ACA High Accuracy inclinometers come as in an aluminium casing and are able to be customised for your application. The high accuracy sensing element with internal processing with Analogue and Digital output options proves to be a popular solution for angle measurements.

ACA Standard range

Ranges from $\pm 2^\circ$ to $\pm 30^\circ$

Accuracy 0.003° (2°) 0.01°(30°)

Single or Dual axis

Analogue outputs 4-20mA or 0-5V DC

Digital outputs RS232, RS485, TTL, CANBUS

Horizontal or vertical mounting options

Internal temperature and linearity correction

M12 connector with optional Cable assembly

Withstands shocks up to 100g

Designed for static applications



Uses

Structural monitoring

Mechanical levelling

Vehicle positioning and Rail

Positioning systems

Special purpose Inclinometers

Ultra precision Digital inclinometer

Our PCA Digital inclinometer is export restriction free, but gives a very accurate output. Originally designed for wind power generation this inclinometer can be used anywhere that you need to monitor very small variations in angle.

Horizontal or vertical mounting package

Ultra precision accuracy to 0.001°

Low power consumption 16mA

Digital outputs: RS232, RS422, RS485, CANBUS

Range options $\pm 5^\circ$ to $\pm 60^\circ$



Dynamic Digital output inclinometers

Our HDA436T and TL725D digital dynamic inclinometers use an internal accelerometer and gyroscope to output up to 3 axis inclination information. Based on an IMU the internal processor eliminates the traditional movement issues seen with other inclinometers.

Horizontal or vertical mounting package

HDA high accuracy or TL725 for use under high vibration conditions

CANBUS or other digital outputs RS232, RS422

HDA can be daisy-chained to save on cabling

Full Range as standard $\pm 180^\circ$ roll, $\pm 90^\circ$ pitch, $\pm 180^\circ$ Azimuth



Thank you.

Contact us today for the latest sensor technology.



Strainsense Limited

Old Stratford Business Park,
Falcon Drive, Old Stratford,
Milton Keynes MK19 6FG