STRAINSENSE
MAKING SENSE WITH SENSORS

Sensors Overview

DC RESPONSE ACCELEROMETERS

MEMS ACCELEROMETERS

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strainsense.co.uk

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.

MEMS Accelerometers for DC measurement

From ultra light-weight to our servo high precision accelerometers, we have the technology to suit your application. Widely used in impact testing, structural tests, geotechnical and motion testing Strainsense can advise on the suitability and options for your vibration and acceleration sensor choice.

DC Coupled MEMS Accelerometers

- Ranges from ±1g Up to ±10000g
- Frequency from 0Hz to 7Khz
- Millivolt or amplified output
- Weight from 0.5 grams (single axis)
- Amplified voltage or current options
- Aluminium or Stainless steel package
- Single, Dual or Triaxial models available
- IP65, IP67, IP68 (submersible) options

Accelerometer Calibration service

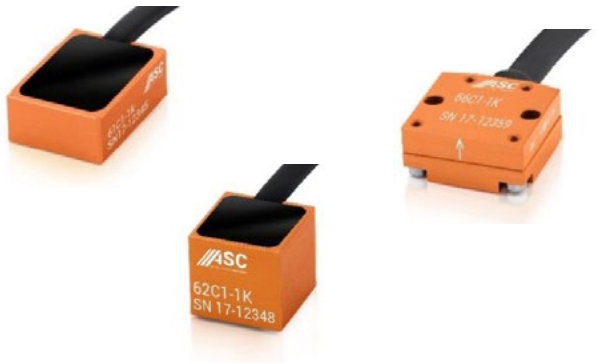
- UKAS or DAkkS accredited
- ISO17025 option available

Piezoresistive Unamplified Accelerometers

Millivolt output with fast response. These Accelerometers will respond down to 0Hz and have many uses such as Impact and drop testing, materials analysis, shock analysis and more. Some models available additional damping to mechanically filter out high frequencies enabling a clean signal tailored to the application.

61C1, 62C1, 66C1 Lightweight Piezoresistive accelerometers

- Single, Dual axis or Triaxial models available
- 500g to 2000g range
- High shock protection > 5000g
- IP67 (single axis) IP65 (triaxial)
- Frequency response: 0 to 2500Hz



74C1, 75C1, 76C1 Rugged Piezoresistive accelerometers

- Single, Dual axis or Triaxial models available
- 500g to 2000g range
- High shock protection > 5000g
- IP65
- Frequency response: 0 to 2500Hz

Mounting options

Triaxial mounting blocks available for single axis accelerometers and adhesive mounting blocks available for all package sizes

**Connector fitment and customisation available*

MEMS Single Axis Amplified Accelerometers

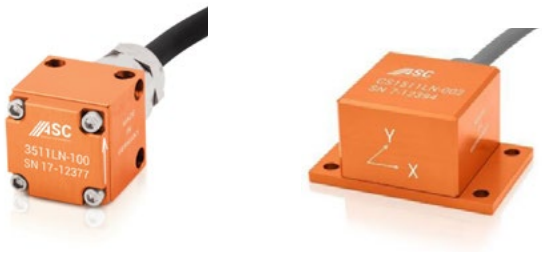
DC Capacitive accelerometers with integral amplifier for frequency response from 0Hz upwards. Widely used for test and measurement with low noise signals.

4000 series Single Axis and 5000 series Triaxial

- Low noise (LN) or medium frequency (MF) models
- Ranges 2g to 200g (MF) or 400g (LN)
- Low signal to noise ratio
- Frequency ranges from 0-250Hz to 0-3000Hz
- MF models include enhanced temperature stability
- 3-way split cable options (triax) and connector fitment options

3000 series Single Axis

- Low noise (LN) or medium frequency (MF) models
- Ranges 2g to 200g (MF) or 400g (LN)
- Aluminium lightweight package <3 grams
- IP65 protection
- Adhesive or screw mount options



4-20mA output CS series Capacitive accelerometers

- 2g to 50g ranges
- Frequency ranges 0-250Hz to 0-1600Hz
- Single,Dual or triaxial with cable split options
- Low noise from 10µg/sqrt hz
- IP67 Aluminium package

**Connector fitment and customisation available*

MEMS Triaxial Amplified Accelerometers

DC Capacitive accelerometers with integral amplifier for frequency response from 0Hz upwards. Widely used for test and measurement with low noise signals.

Accelerometers for Road load data

- Medium frequency (MF) models single axis 4421MF or Triaxial 5521MF
- Ranges 2g to 200g
- Good signal to noise ratio from 10µg/sqrt Hz
- Frequency ranges 0Hz up to 2500Hz depending on g range

Marine grade Accelerometers OS series

- Low noise (LN) or Medium frequency models (MF)
- Ranges 2g to 400g
- OS series have Stainless steel casing and optional IP68 sealing

Civil structural CS series and ECO CS series

- 4-20mA output sensors single dual or triaxial
- High accuracy low noise models ±2g to ±50g and from 10µg/sqrt Hz
- Frequency ranges from 0-250Hz to 0-1600Hz
- Custom cable lengths and connector fitment available

**Connector fitment and customisation available*

Precision ultra-low noise Accelerometer EQ series

- 3g or 5g ranges
- Frequency ranges 0-550Hz to 0-900Hz
- Ultra low noise from 0.7µg/sqrt Hz
- IP65 or IP68 hermetically sealed package

MEMS Special purpose Accelerometers

In addition to our standard ranges, we offer accelerometers designed with specific purposes in mind. We can also customise to your specification.

ECO low power consumption sensors

- 4-20mA or voltage output
- 2g to 40g ranges
- Low power consumption (from 16mA)
- Wide range of uses from structural monitoring to vehicle data
- Single, Dual or Triaxial options

Motorsport customised accelerometers

- Voltage output with customised filtering
- Designed for rugged dynamic use
- Hard-anodised aluminium light-weight package
- IP67 protection as standard
- Motorsport grade FDR25 cable

Seat-Pad accelerometer

- Seat-pad accelerometer for ride comfort testing in vehicles
- Ultra-low noise <0.7µg single or triaxial

**Connector fitment and customisation available*

Digital output Accelerometers

In addition to our standard ranges, we offer accelerometers designed with specific purposes in mind. We can also customise to your specification.

DISENS

- 2 to 40g range or ±3/±5g ultra low noise options
- USB, CAN, RS232 output options
- Triaxial as standard, single and dual axis options available
- 4kHz Sampling frequency
- Robust design with 10000g shock resistance

DISENS MD 2/4/8

- 2 , 4 , or 8g sensitivity rangeUSB, CAN, RS232 output options
- EtherCAT output signal
- Up to 12 units can be daisy-chained
- 1000Hz Bandwidth

Digital Twin Accelerometers

- Software modelling of real objects to connect the real and virtual worlds
- Advanced real sensor data modelled to your design
- Functions and features integrated into the data analysis simplifying your structural and physical calculations

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Thank you.

Contact us today for the latest sensor technology.

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