



This Issue

- Bristol Sales Office **P.1**
- CoreSens Fibre Optic Modules **P.2**
- G-Link-200 Wireless Node **P.2**
- New Triaxial Accelerometers **P.3**
- Eddy Current Sensor Electronics **P.3**
- Accel. Calibration at temperature **P.4**
- GX4 - GX5 migration **P.4**

The latest by email

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Techni Measure Bristol Office

Techni Measure are excited to open our new sales and support office in Bristol as part of our continued commitment to customer service, being strategically located to provide local service and support to our customers across the South of the UK.

within the Frenchay campus of the University of the West of England, which aims to connect entrepreneurs and tech innovators with scientists, researchers and graduate talent, inspiring fresh thinking and collaboration – perfectly suited to Techni Measure as we work to configure measurement solutions to your vast



As some of our customers will already know, Andrew Ramage has been based in Bristol since the move of our Head Office to Doncaster during 2016, and we are also delighted to announce that we are currently recruiting an additional Technical Sales Engineer to join the Techni Measure team and work alongside Andrew in the Bristol office. The new office is at FutureSpace, a brand new development

and continually challenging range of applications. Easily accessible from the motorway network and national public transport links and close to some of the UK's largest Engineering firms, we have access to meeting rooms, a café and hot desk facilities, so do let us know if you are in the area or passing through.

New Introduction to Piezo-electric Accelerometers

Instead of our regular Technical Note, we would like to draw attention to a publication that we have recently added to the resources section of our web site. This is the Introduction to Piezo-electric Accelerometers that informs readers about the main points of accelerometer design and describes the various specifications that should be considered in choosing the right sensor for any application.

The full article can be found in the resources section of our website.

Online Store Expansion

Our new online store has so far been a success and we are adding to the range of items available to allow a much broader range of accessories for piezoelectric transducers, including mounting studs, adhesive/magnetic bases and cables.

store.technimeasure.co.uk



CoreSens Electronics for Fibre-optic Sensors

New from Opsens Solutions is the CoreSens electronic unit that is a versatile, scalable system which includes a control unit and modular signal conditioner unit (WLX-2 module) that supports a variety of fibre optic sensors. Each WLX-2 module has two channels to optimise the number of sensors per chassis. The new CoreSens is designed for the most demanding applications requiring synchronised high speed measurement.

Available in rackmount or stand-alone configurations, these units have Ethernet and analogue outputs, and offer excellent linearity, precision and resolution. The rackmount system offers up to 26 channels in

13 modules, and also offers a SDHC memory capability to store data locally. At the heart of the CoreSens is the Opsens Solutions' White Light Polarization Interferometry (WLPI) technology which provides a means



making accurate and reliable measurements of physical parameters such as temperature, strain, pressure, and displacement. Through its EtherCAT® capability (available soon), the system will offer a larger quantity of measuring

channels working simultaneously at sampling speeds up to 1 kHz. The CoreSens unit chassis can be easily stackable for applications involving hundreds of measuring points, and in this chassis configuration, an embedded web server application allows configuration and control of the system. Applications include simultaneous measurements of temperature, pressure, strain and displacement, synchronized monitoring for multiple measuring points, military and aerospace applications, dynamic surveillance of civil engineering and geotechnical infrastructures, and structural health monitoring.

New G-Link-200 Wireless Accelerometer

LORD MicroStrain have recently introduced the new G-Link-200-8G ruggedized high-speed triaxial accelerometer node with user settable ± 2 to ± 8 g measurement range. The G-Link-200-8G includes an on-board triaxial accelerometer that allows high-resolution data acquisition at noise levels as low as $25 \mu\text{g}/\sqrt{\text{Hz}}$, and the accelerometers have a bandwidth from DC up to 1kHz.

The lossless data transmission and node-to-node synchronized sampling at ± 50 microseconds help make the G-Link-200-8G ideal for vibration monitoring in a wide variety of vehicles, including high-speed transportation.

A user-configurable low pass filter

is standard and a high pass filter is also available, to remove the DC signal if required. Users can easily programme nodes for data logging, continuous, and periodic burst sampling with the SensorConnect software. The web based SensorCloud interface optimizes data aggregation, analysis, presentation, and alerts for gigabytes of sensor data from remote networks. High resolution data is achieved with a 20-bit A/D converter, and the unit is powered by three non-rechargeable $\frac{1}{2}$ AA batteries. The sensor is 46.6mm high with a

43mm diameter across the flats of the stainless-steel base which has a $\frac{1}{4}$ -28 threaded hole mounting.



A polycarbonate screw on cover offering IP-67 protection fits onto the base. Later models should allow measurements up to 40g. Typical applications include health monitoring of rotating components, aircraft, structures, and vehicles, as well as general condition-based vibration monitoring, and product testing. We would be very pleased to discuss any application that you may have for wireless or general vibration measurements.

TML Triaxial Load Cell

We can now offer a 3 component load cell with simultaneous measurement in three mutually perpendicular axis, suitable for use in robotics or windtunnel applications. Four models are available to cover a full scale range between 100N and 1kN.



Stock Clearance

Since our relocation to Doncaster we have sorted through our UK stock inventory and we can offer a variety of now obsolete strain gauges and load cells, in new and unopened condition, from just £10+VAT per pack. Please ask for a list of what is available.

Two new Triaxial Accelerometers from Dytran

High Sensitivity, 160°C IEPE Triaxial Accelerometers

Dytran have recently introduced a 100mV/g, isolated triaxial accelerometer, able to withstand temperatures up to 160°C for continuous use. The model 3543A case isolated sensor can be placed



measurement of vibration in all types of hot test conditions. Additionally, this sensor eliminates the need for a charge mode sensor which results in a more straightforward setup because of IEPE power and standard cables.

mount, a 1/4-28 4-pin industry standard connector and is offered in a variety of sizes. Other applications include modal and structural analysis, NVH, squeak and rattle, and general purpose high temperature triaxial vibration measurements.

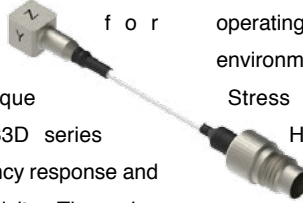
in the hotter sections under the car bonnet, and are ideal for the general

Ultra-Miniature Triaxial Accelerometer

Dytran have recently introduced a new series 3133D, ultra-miniature hermetically sealed IEPE triaxial accelerometers. This new range of sensors are 6 x 6 x 5.8mm high, which allows it to be mounted in spaces that are inaccessible to other types of triaxial accelerometers. It features a hermetically sealed titanium case suitable for adhesive mounting, and weighs only 0.8 grams. It is offered with

The 3543A features a 10-32 stud a sensitivity that ranges from 0.25mV/g to 10mV/g, and an integral 3 ft. long cable with a 4-pin connector, which is designed to mate with several models of extension cables for connection to IEPE power sources. Unique features of the 3133D series include its low frequency response and low base strain sensitivity. The series 3133D is ideal for shock and vibration

testing of small, lightweight specimens such as printed circuit boards, board-mounted components, and other miniature products. It is capable of operating in a variety of application environments including Environmental Stress Screening (ESS), HALT/HASS, modal and structural analysis, product response testing and general purpose triaxial vibration testing.



Eddy Current Sensor Electronics

New from ACUITY is the AR-Eddy, which is a digitally corrected eddy current signal conditioner designed to work with a wide variety of eddy current sensors. The AR-Eddy is easy to setup and calibrate via a USB interface and the provided software. The AR-Eddy can be used to achieve high performance from sensors provided by different manufacturers. Once the AR-Eddy has been configured, only power is required from the USB connection, so any USB adaptor can be used. Both the electronics and sensor can



also be independently temperature compensated in-situ to reduce any temperature sensitivity. Built into a 54mm x 80mm x 26mm housing, with DIN rail mounts supplied, it is also available in an OEM configuration with no enclosure. Connect either the analogue voltage or current output, or for the digital output use the USB interface. The analogue outputs are selected from 0-5V, ±5V, 0-10V, ±10V, 0-20mA, or 4-20mA using the front panel connections. A programmable digital filter is available, and the

AR-Eddy also contains a solid-state relay connected to pins 6 of the terminal block. This relay has a 40 Ohm closed impedance and is rated for 60V and 100mA. The relay is controlled by the limit settings and is set up as a window comparator. As with all eddy current type sensors, the performance will vary depending on the material of the target, with the best performance being against an aluminium target. The AR-Eddy will work with many off the shelf sensors from various manufacturers, and it is also possible to make a DIY sensor.

