Posimag, a non-contact position sensor

Position Sensor manufacturers ASM have introduced a magnetoresistive non-contact position sensor. The recently developed sensor uses a compact non-contact sensor head that moves above a magnetic strip. It is robust and fast, and has high resistance to dust, moisture and many fluids. A choice of configurations is possible and resolution to within 5 microns can be achieved. Power supply to the sensor can be between +5v and +30v to produce an equivalent incremental encoder output with differential push-pull for compatibility with LT, TTL, HTL and CMOS.

New range of impact hammers

Bruel & Kjaer has launched a new line of impact hammers with integral DeltaTron/ISOTRON line drive for excitation of everything from small disk drives to large civil engineering structures. The impact hammer has made simple modal testing possible with savings in costs and test times. For scaled modal models requiring a precise force measurement, test engineers can choose either electrodynamic or servohydraulic exciters controlled by a signal generator via a power amplifier or a hammer fitted with a high quality piezoelectric (PE) force transducer. Impact hammer testing is quick and doesn’t require elaborate modal exciters or cumbersome stinger attachments. DeltaTron/ISOTRON outputs are provided on all hammers except for miniature force transducer/impact hammer Type 8203. Practical and fitted with ergonomic rubber grips, all the impact hammers feature a high quality PE force transducer with acceleration compensation. A variety of tips and extender masses is also available for easier shaping of the input force spectrum.

For further information contact: Bruel & Kjaer, Tel: 01438 739000 Fax: 01438 739099 Email: info@bkgb.co.uk

Bruei & Kjaer - Endevco is a corporate member of BSSM

Bespoke strain gauge service

Kyowa Electronic Instruments are extending their presence in the UK with the introduction of a bespoke design and manufacturing service. This is available through Sensors UK Ltd. their UK distributor. This service is focused on the development of low cost OEM strain gauges for load cell and other strain gauge based transducer manufacturers, and includes both foil and semiconductor strain gauge technology. In addition, customised sensors for specific applications can be designed. Concurrent with this new service, an upgraded range of standard high performance strain gauges and accessories is introduced. These include foil, semiconductor, weldable, high temperature, high elongation, waterproof and self temperature compensating.

For further information contact: Sensors UK (Graham & White Instruments Ltd), Tel: 01727 844323 Fax: 01727 844272 E-mail: sales@sensorsuk.com

Graham & White is a corporate member of BSSM

Oscilloscope sends email

New from Yokogawa Martron, the DL1740 SignalExplorer is a compact 4-channel digital oscilloscope that combines a sampling rate of 1 GS/s, an analogue bandwidth of 500 MHz and an exceptional memory length of 1Mword. Despite its high-range performance the new instrument, which is small enough to occupy an A4 size footprint on a test bench and weighs only 5.5kg, is priced as a mid-range model. The 500 MHz bandwidth is achieved using a dedicated single-chip input amplifier, and the very fast screen update rate of 30 times per second (even at 1 MW record length) results from the use of a dedicated high-speed data-processor set known as the Data
Stream Engine. Both these innovations are based on components designed in-house by Yokogawa, as are the high performance A/D converters. The combined effect of these new circuits is a big reduction in component count, very low power consumption, minimal heat sink requirements and therefore significant cost savings.

The DL1740 uses a 6.4-inch colour TFT Liquid crystal display. The repetition frequency of waveform data can be determined by using brightness, thus emulating analogue oscilloscopes, but with the additional capability of frequency of occurrence distinguished by colour. The instrument is equipped with USB compliant interfaces as standard, allowing keyboards and USB printers to be connected. The ability to use a keyboard has greatly improved the instrument’s ease of use and screen images from the colour display can be easily output to a colour printer. The Waveform Viewer software provided allows the user to exchange waveform data and screen images between the oscilloscope and a PC. Other interfaces include GP-IB, RS-232 and an options SCSI link. A 100BaseTX Ethernet interface is available from LAN compatibility, and an e-mail transmission function will provide ‘go/no-go’ determination results and error messages, as well as measurement data at designed time intervals sent to a specified email address. A 250 MB Zip drive meets the need for large-capacity built-in storage, necessary to take full advantage of the long memory capability of the oscilloscope. Other facilities include: history memory; history search; ‘search and zoom’; dual-zoom; auto-measure; and statistical measurements. One unique function allows the user to designate two areas of the waveform for waveform parameter measurement and calculate both together. An image save key allows screen image data to be saved with one-touch operation to the internal floppy disk or Zip drive, via SCSI to an external media, or via LAN to a network drive.

For further information contact: Yokogawa Martron Ltd., Tel: 01494 459200, Fax: 01494 535002, www.martron.co.uk

Multi-channel filter card with gain for VME and VXI systems

Kemo Ltd. has developed a multi-channel filter card with gain that is physically compatible with data-acquisition and instrumentation systems based on the 6U VME and B-size VXI industry standards. The new 6UG/1600 Is ideally suited to alias protection, noise elimination and signal-conditioning applications where compactness and industry-standard compatibility are key requirements. The single-width (0.8 inch) card can be made to fit any 6U based system, and can be fitted to C-size VXI systems using standard adaptors. The 8-channel card makes use of Kemo’s standard 1600 Series filter modules, which use continuous-time filtering techniques to offer very high analogue performance in a small volume. Each filter module can be programmed over a 255:1 range, and modules with cutoffs as low as 1Hz and as high as 255kHz are available.

Up to 15 slave cards can be linked to a master card to provide a system with up to 128 channels, with independent control of the cut-off frequency and gain of each channel being carried out from the master card. The cards can be set up for single ended or differential inputs, and ICP supply for transducers is available. AC/DC coupling is computer controlled. The master interface is through and RS232 connection and Kemo’s FICL control language with Windows driver. No programming over the VME Bus is necessary, which saves on system overhead and eases integration of the cards into existing systems.

For further information please contact: Kemo Ltd., Tel: 020 8658 3838 Fax: 020 8658 4084 www.kemo.com
New model added to blast and acoustic pressure transducer range

The 165 series of high performance piezoelectric pressure transducers from PCB Piezotronics, available in the UK from Techni Measure, has been specifically designed to retrofit popular existing mounting ports for high dynamic pressure measurement in the fields of ballistics, acoustics, hydraulics, compressors, engine test, cavitation, blast, explosion, turbulence and shock waves. The 165 has been specifically designed to retrofit popular existing mounting ports for ballistic pressure measurements but with the wide choice of other models, applications in the study of acoustics, hydraulics, compressors, engine test, cavitation, blast, explosion, turbulence and shock waves can also be covered. With a welded, hermetically sealed, stainless steel construction, the dynamic pressure sensors offer extremely fast rise times up to 500kHz due to their inherent stiffness and are suited for measuring small fluctuations in the presence of high static pressures. A variety of sizes, pressure ranges from 0.007 kPa to 69,000 kPa and mounting configurations are available with probe, adaptor and clamp nut alternatives. Many of the models can be supplied with or without integral hybrid electronic circuitry offering a choice of output interfaces and can also come with optional acceleration compensation.

Blast and acoustic pressure sensors

Quality doesn't have to cost a fortune

The PC20 potentiometer is available with a Cermet element for hand adjustment or with a conductive plastic element for use in positional feedback systems. In either case the rugged design makes the PC20 suitable for use in extreme conditions. The fully sealed housing ensures that a reliable, good quality signal will be achieved even under conditions of extreme vibration. The PC20 will tolerate 20 g vibration over the frequency range 30-2000 Hz (this assumes a maximum movement of 0.75mm). Nominal resistance values are 1k.ohm to 1MW depending upon the element material. It can have an electrical function angle of between 50 and 320 degrees and a linearity of better than 5% which is outstanding for this class of potentiometer. The plastic housing measures 16mm high, 20mm wide and 20mm deep; electrical connections are made via integral cables or solder pins. The life expectancy is 2 million operations for the conductive plastic version and 50,000 cycles for the Cermet. Customer specified options include different shaft materials such as plastic, brass or stainless steel. The standard shaft is 6mm diameter with a 5mm flat on it but other designs can be accommodated. For high vibration applications a special high torque option is available in order to prevent accidental operation.

PC20 potentiometer

For further information contact: Variohm Components, Tel: 01327 351004 Fax: 01327 353564 Email: sales@variohm.com

Variohm is a corporate member of BSSM