

Load sensor gets smart

A smart load sensor developed in the UK by Sensor Technology provides all the information needed to optimise efficiency and increase profitability of a wide range of industrial operations

A new development from Sensor Technology allows weighing processes to be fully integrated with handling operations. All live data is captured in real time and can be transferred to a database, stored, totalised and analysed. For instance, you may need to know how much material you have transported, or you could be handling two or more materials simultaneously which need to be accounted individually; or if working for multiple customers at the same time you can bill each appropriately.

The development, called LoadSense, is an intelligent load sensor that can be integrated with a crane hook, fork lift or other handling device. It has an on-board single-chip computer for recording, analysing and archiving readings, and wireless communications capability which can transfer data in real time to a host computer. Designed and manufactured by Banbury-based Sensor Technology, internal batteries make LoadSense's operation completely autonomous. As such it can be deployed with minimal disruption to operations, and will

automatically begin transmitting data. No special training is required to install or operate the unit.

LoadSense is built around an intelligent load sensor, a hand-held display and a receiver. The load sensor is based on proven strain gauge technology, and is calibrated as standard in the range 1-5 tonnes, with other ranges available on request. The transmitter (operating on an unrestricted 2.4GHz waveband), enables accurate load data to be sent to the display, a full colour, TFT touchscreen computer, running the familiar Windows XP and LabVIEW. The display provides real time measure of the load, while the computer records and processes real-time values.

Wide ranging applications

Sensor Technology's Tony Ingham explains: "Our main markets are materials handling and warehouse operations, where the intelligence will convert raw data into instant stock counts. We have already had enquiries about raising nuclear fuels rods, monitoring window cleaners' cradles on high rise buildings



and winching and weighing building materials."

Theatre stage hands could lift and lower scenery from the wings rather than from a remote control room. Using LoadSense with a tractor-mounted winch, you could assess roadside trees' susceptibility to wind speed. For applications involving liquid discharge, a system could be configured to monitor and control flow."

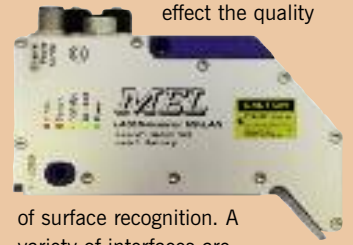
LoadSense could be wirelessly integrated into a SCADA or Manufacturing Enterprise Systems control system, producing instant operating reports and e-mailable customer bills. It also improves operating safety because operators are free to remove themselves from dangerous locations.

www.sensors.co.uk

Laser scanner for welding at up to 500°C

Sensors UK Ltd are pleased to announce the new M2-iLAN laser scanner for use in welding, motion control and inspection applications with an operating temperature of 500°C.

The M2-iLAN has a 100Hz scan rate while surface reflections and variations in colour do not effect the quality



of surface recognition. A variety of interfaces are available including LAN, PLC, Serial, etc, which allows for easy set up and control of the application.

The MelTrax software gives various algorithms to provide control outputs for motion control of automated equipment. Applications include seam tracking, height, width, angle, and slope while also checking the seam for shape, holes, pores, stability etc.

www.sensorsuk.com

Versatile and high quality load cells

ZEMIC, one of the largest sensor and transducer manufacturers in the world, offers a complete range of load cells through Variohm EuroSensor

As one of the largest sensor and transducer manufacturers in the world, ZEMIC load cells are characterised by high quality, versatility and competitive pricing. The Asian based manufacturer produces its own wide range and also supplies branded products for the European and American load cell market. As its exclusive UK distributor, and with over thirty years experience in weighing systems, Variohm EuroSensor provides

complete technical and full service support across the comprehensive ZEMIC range; with stock delivery and professional consultancy available for standard load cells and customised designs alike.

The ZEMIC load cell range covers single point or platform cells, compression cells, S-type, shear beam and dual shear beam as well as spoke type designs with complete weighing assemblies, junction boxes and transmitters available for installation convenience. Load capacities from a few hundred grams to over 500 Tons are available for applications as wide ranging as pricing scales to weighbridge platforms and from in-vehicle weighing systems to hopper scales.



complete technical and full service support across the comprehensive ZEMIC range; with stock delivery and professional consultancy available for standard load cells and customised designs alike.

Construction materials include stainless steel, plated alloy steel and anodised aluminium with protection classes from IP65 to full IP68, and with accuracy up to 4000 divisions. OIML approved load cells with R60 'legal-for-trade' versions are fully available.

For extreme application areas such as wash down and hazardous environments, ZEMIC's new BM6G series single point load cell has all-stainless construction with IP69K rating, OIML-R60 approval and C3 class accuracy. With corner correction to fit platform sizes up to 800 x 800mm and for off-centre loads from 100 to 500kg, the BM6G is aimed at food industry weighing applications where cleaning by high pressure water jet is essential. Other approvals available include EMC and ATEX.

www.variohm.com

Thermostats sealed against condensation

For anti-condensation applications and accurate temperature control, nothing competes commercially or technically with the Matsuo range of thermostats from ATC Semitec. Their unique twin-bimetal system creates a control that is capable of switching over a million cycles with minimal drift.

They are totally sealed from the outside environment with an IP64 rated PBT housing and are easily incorporated into trace-heating systems. Available down to -10°C with accuracies to ±1.5K and differentials down to 3±1K, very accurate, long-term control can be guaranteed using a Matsuo thermostat, suiting them to use in isolated areas where maintenance costs would be high.

www.atcsemitec.co.uk