

Temperature and humidity probes

Rotronic has developed its industrial range of probes to provide even higher performance.

Included is an industrial probe for Rotronic's continuous environmental monitoring system (RMS).

Applications include manufacturing, pharmaceutical, food, process monitoring, paper, brick & tile industry, dryers, and climate test chambers.

Probes are available in 100 and 250mm lengths with factory fitted cable.

Enhancements include the latest Rotronic HYGROMER HT1 state of the art sensor which measures temperature and humidity and calculates dew point values; measurement accuracy $\pm 0.8\%rh$,

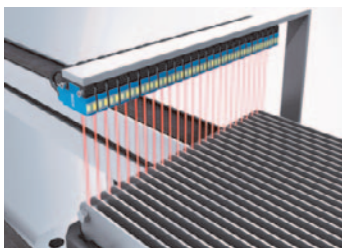
$\pm 0.1^\circ C$ (10 to $30^\circ C$), fast and stable response; and measurement to $200^\circ C$, $100\%rh$, $93^\circ Cdp$. Connector housing electronics are potted; the sensor head is steam tight.

Due to the digital interface with all current Rotronic devices probes can be exchanged in seconds when calibration or service work is due.

Tel: 01293 571000



High performance in miniature



With the launch of its G2 Flat family of photoelectric sensors, **SICK** has shrunk high performance into a miniature format. The ultra-thin sensors are designed to integrate snugly into small machinery and conveyors, or for tight fits in robotic arms and grippers.

Starting at just 3.5mm thick, the

G2 Flat family of proximity and through-beam sensors achieve highly-reliable detection of objects of almost any size, due to the precision of SICK's PinPoint visible laser light spot technology, even for jet-black, transparent, mirrored or shiny surfaces.

The photoelectric proximity sensor is said to have unrivalled background suppression capability to detect objects down to 0.1mm in size at distances as small as 8mm. The SICK G2 Flat through-beam sensors present versatile options for machine integration with no risk of cross-talk, when sensors are arranged closely in arrays.

Tel: 01727 831121

Clamp-on ultrasonic flow and energy meters

Bell Flow Systems has introduced the Dynasonics TFX-5000 ultrasonic clamp-on flow and energy meters made in the United States by Badger Meter.

Designed for non-invasive, ultrasonic transit time flow measurement of liquids, these flow meters are suitable for water and wastewater treatment, HVAC, and oil and gas applications.

They measure volumetric flow and heating/cooling rates in clean liquids as well as those with small amounts of suspended solids or aeration, such as surface water or

raw sewage. Applications include water mains, reclaimed water, lift stations and booster pump stations in water and wastewater or the energy transfer of chilled water (cooling) and glycol/hot water (heating) in HVAC systems as well as produced water in oil and gas applications.

The TFX-5000 meter is available in two versions.

Tel: 01280 817304



Monitors temperature and voltage

The multichannel MCR-4 series from **T&D Corporation** allows a wide range of measurements and is said to simplify monitoring of industrial plants, production areas and environmental measurements.

Up to four units monitoring voltage (MCR-4V) or temperature (MCR-4TC) can be coupled to measure and record up to 16 channels simultaneously.

The MCR-4TC enables temperature measurements from -270 to $1760^\circ C$, with the shortest

recording interval being just 100ms. The MCR-4V measures from 300mV to $24V$ or auto mode. Precision measurements can be made at a minimum resolution of $10 \mu V$, with the shortest interval of 2ms.

While the MCR-4TC is compatible with thermocouple types K, J, T, S, R, the MCR-4V proves its versatility with a wide input voltage range, which allows it to receive signals from a wide range of sensors and analysers.

Tel: +49 6034 93 09 70

High speed capability

Launching its digital ORT 230/240 series, **Sensor Technology** reports new benchmark performance standards for optical rotary torque transducers.

These are suitable where demand is for low torque and/or high bandwidth, providing precise, dynamic measurement of rotary and static torque of less than 100Nm and for bandwidths of up to 50kHz.

ORT 230/240 devices replace E200 ORT units and benefit from new electronics that deliver gains in resolution, frequency response, reduced sensor current consumption and faster digital data throughput.

TorqSense ORT 230 provides fixed voltage or current analogue outputs - one for torque, one for either speed or power. ORT 240 provides two user-selectable voltage or current analogue outputs - one for torque, one for speed, power or peak torque - plus digital outputs including RS232, CANbus and USB for interfacing with instrumentation and laptops.

Tel: 01869 238400



Ultrasonic sensors with IO-Link

M30 ultrasonic position sensors from ifm electronic are designed for applications where continuous level measurement and object detection for bulk materials or liquids applications are required.

The UIT501, for example, can cover a sensing distance of up to 8m. Features include the ability to adjust the width of sound beam via IO-Link which helps users prepare for Industry 4.0.

These sensors are

suitable for level measurement applications where space is limited and where unwanted reflections on the inside of the tank results in faulty measurements. Due to IO-Link, the sound beam can be set individually depending on application. Features include vibrating sound transducer that reduces the risk of dirt deposit, stainless steel housing and IP67 protection.

Control is via pushbutton or IO-Link, with M12 connection: output is PNP+4/20mA.

Tel: 0208 213 0000

