Product Digest

this month's topic Instrumentation

Optical Dissolved-Oxygen Sensor Features Expanded Communication Capabilities

The Signet 2610-41 sensor uses optical technology to measure dissolved oxygen with high reliability in a wide variety of applications. The sensor has a measurement range of 0–20 mg/L with accuracies of ±0.1 mg/L at 0–8 mg/L and ±0.2 mg/L at 8–20 mg/L. The new sensor model incorporates the Signet Sensor System Link for digital communication, which allows direct connection to the Signet 9900 Smart-Pro (Generation III) transmitter and the Signet 8900 multiparameter controller for enhanced system control and versatility. The Signet 9900 transmitter supports the new sensor with a dedicated dissolved oxygen (DO) instrument that allows for selection of measurement type — ppm, percent saturation, or partial pressure of oxygen.

GF Piping Systems
www.gfpiping.com

Electromechanical Actuators Feature Piezo Technology

The ViVa Series solid-state electromechanical actuators employ efficient piezoceramics to amplify piezo displacement. They require only low levels of power to function and produce little to no heat. The voltage-controlled actuators contain no frictional parts and are vibration resistant. They have low magnetic signatures and are a good alternative to solenoids.

Viking AT
www.vikingat.com

Ammonia Analyzer Uses Coulometric Titration Technology

The AT-2000 ammonia analyzer measures ammonium-nitrogen (NH_4-N) with a short measurement time of approximately one minute. It is easy to use, does not require specific operator training, and does not need to be calibrated prior to the sample run. It can measure small sample volumes of 0.1 mL, 1 mL, or 10 mL. The electrode is stain resistant and is not impacted by temperature changes.

JM Science, Inc.
www.jmscience.com

Adapter Enables Wired Instruments to Function as Wireless Devices

This multiprotocol wireless adapter permits field devices to communicate wirelessly with host-level monitoring systems in a plant. This allows the placement of field instruments in difficult-to-wire locations, which eliminates the need for cables and connectors. The adapter can be used with any type of wired field instrument, including temperature, pressure, and level sensors, enabling the instrument on which it is mounted to function as an ISA100 wireless device. A lithium-ion battery in the wireless adapter can power the field device, and an indicator on the host system displays the estimated remaining battery life. The first two models of the wireless adapter support communications based on the HART and RS485 Modbus standards, and the company plans to release more models that are compliant with Foundation Fieldbus and Profibus standards.

Yokogawa
www.yokogawa.com

Direct Insertion Density Meter Handles Aggressive Applications

The Micro Motion fork density meter monitors density and concentration with fast response times in challenging conditions. Constructed with a rugged and reliable tuning fork design, the density meter is built to tackle the most demanding process applications, such as pipeline interface detection, mineral slurry solids monitoring, and corrosive acid concentration control. The meter incorporates a hazardous-area head-mounted transmitter that has the flexibility to digitally connect to distributed control systems (DCSs) and output raw sensor signals to signal converters and flow computers. It supports 4–20 mA, HART, WirelessHART, sensor time period, Foundation Fieldbus, and RS485 Modbus communications. With the implementation of HART and RS485 Modbus digital I/O communications, the meter has the capability to accept external signals from other field instrumentation, such as temperature, pressure, and volumetric flowrate sensors. The input of external measurements

enables the fork density meter to calculate and output enhanced process measurements, such as mass flowrate and net solids flowrate.
Emerson Process Management
www.emersonprocess.com

Moisture Analyzers Feature Enhanced Connectivity and Performance-Verification Tools

The latest models of Professional moisture analyzers have USB, Ethernet, and WLAN connectivity for easy data transfer. They can send measurement reports in A4 or letter format directly to a networked printer, as well as transfer reports to a file server in PDF, .csv, or .xls format for onscreen viewing and electronic archiving. Professional moisture analyzers feature built-in, easy-to-perform instrument tests that ensure accurate results. The certified reference substance SmartCal can be used to qualify the instrument's performance.
Mettler Toledo
www.mt.com

System Ensures a Failsafe Supply of High-Pressure Gases

The 544 Series IntelliSwitch IIv is an advanced gas distribution and management system that automatically switches between two high-pressure, high-flow gases to provide interchangeable service and continuous supply. The system is suitable for automated applications that involve gaseous withdrawal from any source, including cryogenic liquid cylinders, high-pressure cylinder banks, tube trailers, generators, and compressors. Proprietary economization software reduces liquid cylinder vent loss and residual return. A web server allows for remote monitoring and email notification of events to users. The system is compatible with all inert, nonflammable gases at pressures up to 4,500 psig.
Concoa
www.concoa.com

Radar Level Transmitter Measures Level or Volume of Solids and Liquids

The Micropilot FMR5X free-space radar level transmitter provides accuracy up to 0.078 in. for level measurement of liquids and bulk solids products. The standard model can measure liquid in metal or plastic tanks, stilling wells, bypass chambers, or other vessels up to 131 ft tall; an enhanced dynamics option allows the transmitter to work in vessels up to 197 ft tall. The instrument can also be used to detect minimum or maximum levels to prevent overfilling or total emptying of tanks, in addition to continuous monitoring of the level. The FMR5X has software with multi-echo tracking algorithms to ensure that interference echoes — echoes from edges, weld seams, other instruments, baffles, agitators, heating coils, etc. — are not interpreted as level echoes. A linearization table of up to 32 points can be entered either manually or semi-automatically. This function provides a linear 4–20-mA output signal for spherical tanks, horizontal cylindrical tanks, and vessels with a conical outlet. Communications options for the transmitter include HART, Profibus, and Foundation Fieldbus.
Endress+Hauser
www.us.endress.com

Intelligent Sensor System Simplifies Machinery Alignment

SensALIGN is an intelligent sensor system that achieves alignment in three easy steps: the user enters dimensions, measures, and views the results. It combines patented intelligent sensor technology into the Rotalign Ultra iS platform, which provides instantaneous acquisition of thousands of data points and displays real-time results. The system automatically considers the effects of ambient vibration, speed of rotation, and other factors in determining the quality factor (QF) of alignment readings. This makes it ideal for long-term stand-alone monitoring of machine positional change, as well as routine shaft alignment. An improved user-friendly interface makes operating the Rotalign Ultra iS faster than ever.
Ludeca
www.ludeca.com