



Product **Digest**

this month's topic **Measurement Equipment**

Thermal Mass Flowmeter Takes the Heat

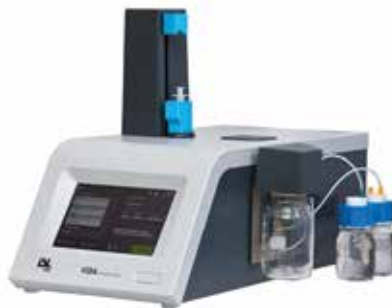


Industries with high-temperature operations that emit hot, dirty gases via large ducts or stacks require accurate flow measurement for regulatory compliance. These applications are challenging for single-point air/gas flow sensors because of their multi-gas composition, swirling air currents, and extreme temperatures and humidity. The MT91-Series flowmeter handles these challenges and provides precise, repeatable measurements to meet continuous emission monitoring system (CEMS) requirements. The rugged Type 316L stainless steel enclosure is suitable for harsh environments in which temperature, vibration, abrasion, and corrosion pose difficulties. Automated daily operation and integrity checks report findings to plant operators.

Fluid Components International
www.fluidcomponents.com

Density Meter Automates Test Sequences

VIDA 80H is a fully automated density meter that employs oscillating stainless steel U-tube technology. Because it is user-friendly and automated, operators do not need to be highly trained. Smart software automates every step of the test sequence — from sample injection to data reporting — minimizing the need



for human intervention. It has a push-button design and is equipped with patented auto-injection and bubble-detection technology that delivers accurate and repeatable density measurements for a wide range of fluids. The enhanced cleaning system reduces cleaning time by as much as 10%.

PAC
www.paclp.com

Analyzer Measures Five Process Components



Most analyzers are capable of measuring one or two process components. LaserGas iQ², however, can measure five components — four gases (O₂, CO, CH₄, H₂O) and temperature. With only one unit to install and maintain, users can benefit from reduced installation costs and maintenance requirements. Additionally, the double-path-length design increases absorption signals so low concentrations can be measured. The system can effectively replace zirconia-style probes or extractive-type point analyzers, which

can pose explosion risks and require extensive maintenance. The system is suitable for use with fluid catalytic cracking (FCC) units, packaged boilers, process heaters, electrostatic precipitators, etc., at temperatures up to 1,200°C.

NEO Monitors
www.neomonitors.com

Balance Features a Roomy Yet Space-Saving Design



The ML-T compact, battery-operated balance combines larger-than-average weighing pans with a small footprint to enable weighing where space is limited. It is suitable for day-to-day weighing in nearly any analytical or manufacturing environment. Built-in applications and a straightforward user interface make the ML-T easy to use. Once a weigh-in is complete, results can be sent to a printer or transmitted wirelessly to a computer, eliminating the need for transcription by hand and the associated potential for error. Passcode protection ensures balance settings are not changed accidentally or by unauthorized personnel.

Mettler Toledo
www.mt.com

Flowmeters Can Now Transmit HART Signals

The manufacturer's variable-area flowmeters are now offered with a highway-addressable remote trans-



ducer (HART) protocol — popular in the oil refining and chemical process industries. In addition to the transmitted signal, users can select a mechanical switch as a backup. The HART digital communication signal is superimposed on top of the 4–20-mA standard analog signal, which also provides digital information to the controller. The HART-enabled flowmeters come in vane and piston styles and in 11 sizes that handle pressures up to 300 psi and flows up to 60 gpm. They can be mounted inline and in any orientation, with no straight pipe runs required.

Universal Flow Monitors, Inc.

www.flowmeter.com

Pressure Transducer Determines Liquid Levels



The PT-500 submersible pressure transducer measures levels based on the amount of pressure exerted on the sensor from the liquid above. It is suitable for use with a wide range of

liquids, including water, wastewater, and a variety of chemicals. The intrinsically safe design can be deployed in hazardous environments, as well as in remote locations. The sensor is made of Type 316L stainless steel, and it is offered with various rugged housings and cables to ensure reliable operation. Built-in lightning protection eliminates the need for a separate surge protector, reducing overall equipment investment. Installation is as simple as dropping the sensor into a vessel.

BinMaster

www.binmaster.com

Ultrasonic Sensor Is Compatible with Most Liquids



The 2260 ultrasonic level transmitter and the 2270 ultrasonic level sensor provide reliable and maintenance-free measurement and detection for nearly all liquids and types of vessels, including closed-tank systems and open basins. They are suitable for use in a variety of water treatment, chemical processing, and ultrapure-water applications. With the ability to recognize and disregard foreign matter, these sensors can differentiate substances to provide accurate level measurements, even in tanks with heavy vapors, condensation, or turbulence. A menu

with pre-programmed tank shapes for setting up volume calculations makes instrument startup fast and easy.

GF Piping Systems

www.gfps.com

Volume Corrector Monitors Gas Custody Transfers



The EC 350 PTZ gas-volume corrector effectively monitors and documents natural gas custody transfers and usage in an easy-to-maintain and reliable design. It employs pressure, temperature, and compressibility factors to measure gas volumes. Integrated cellular communications facilitate remote installation. Long-term stability and extended battery life minimize the need for maintenance and site visits, as well as simplify field repairs. Users of legacy high-performance electronic volume correctors (EVCs) will find it easy to migrate to this new EVC, without having to retrain operators or risk performance loss.

Honeywell

www.honeywell.com

Pressure Transmitters Streamline Calibration

The S-Series pressure transmitters (IDP10S, IGP10S, IAP10S) provide precise differential, gage, and abso-



lute pressure measurements. Each intelligent, two-wire sensor includes multiple capabilities to service various applications, helping to simplify sensor selection. They feature patented FoxCal multiple-calibration technology, which eliminates the need for a traditional single-span calibration at application-specific pressure ranges. Eleven calibration ranges can be stored in the onboard memory. For remote configuration and monitoring, the instrument transmits a 4–20-mA digital signal. Similar to a car odometer tracking mileage, the time-in-service meter tracks the total number of days the transmitter has been powered up since the last reset, which enables reliability tracking.

Foxboro Field Devices
www.fielddevices.foxboro.com

Corrosion Transmitter Boasts High Resolution

Suitable for installation inside pipelines, the Model 4020LT-A two-wire transmitter provides enhanced-resolution measurements of metal loss due to corrosion. It is designed for operation in plant locations with



widely separated monitoring points and an existing control system. Similar products provide resolutions of only 0.4%, while this transmitter features a measurement resolution of 0.1%, enabling a timely response to corrosion-rate spikes. The unit provides isolation between the probe and the 4–20-mA circuits required to power the loop, making it intrinsically safe. It is appropriate for operation in harsh environments.

Rohrback Cosasco Systems, Inc.
www.cosasco.com

Spectrometer Performs At-Line Analyses



Laboratory-quality elemental-composition monitoring and quality-control (QC) testing are possible on the manufacturing floor with the

SPECTROSCOUT X-ray fluorescence spectrometer. The durable, compact, and portable at-line analyzer enhances QC productivity by eliminating time spent transporting samples from the plant floor to the lab. It quickly delivers audit-traceable results over a wide range of concentrations — from high-percentage concentrations to trace levels. Additionally, this spectrometer is more affordable than larger lab instruments, and it can be operated with minimal training. A light weight (26.46 lb/12 kg) contributes to the portable design.

SPECTRO
www.spectro.com

Mass Flowmeter Supports Six Gases



The ZFM mass flowmeter offers reliable performance and convenience. It is designed for multi-gas (up to six gases) and multi-range functionality (up to 8 bar). Its software enables users to quickly select different gas types and flow ranges without removing the instrument from its installation. Extensive self-diagnostics and status indicators reduce maintenance requirements and increase reliability. The flowmeter handles nitrogen, air, oxygen, argon, helium, and carbon dioxide gases.

Aalborg Instruments
www.aalborg.com