



### Two-Wire Magmeters Meet Stringent Safety Requirements



The Proline Promag 200 electromagnetic flowmeter is offered in two models. The Promag H200 is available in line sizes of 1/12 to 1 in., and the Promag P200 is available in line sizes of 1/2 to 8 in. Both models measure the flowrate of conductive fluids with an accuracy of  $\pm 0.5\%$  of range and a repeatability of  $\pm 0.2\%$  of range, and operate at process temperatures from  $-40^{\circ}\text{F}$  to  $304^{\circ}\text{F}$ . Connections can be welded, threaded, hygienic, or flanged. The Promag 200 has ATEX, IECEx, and cCSAus approvals for use in Class I, Div. 1 and 2 areas, and Zones 1 and 2. It also meets IEC 61508 SIL, ANSI, and NAMUR safety requirements. The output of the Promag 200 is a two-wire, 4–20 mA signal with HART communication protocol, or a pulse/frequency/switch output.

**Endress+Hauser**  
[www.us.endress.com](http://www.us.endress.com)

### Thermal Mass Flowmeters Have Low-Flow Accuracy

The MTI10 insertion and MTL10 inline thermal mass flowmeters provide accurate measurement of clean, dry gases and air with constant temperature sensing. They provide a fast response, are accurate at low flows, and measure mass flowrate without the need for additional transmitters or

flow computers. Both flowmeters are calibrated to ensure accuracy over the entire flow range. The MTI10/MTL10 View software allows for quick setup, monitoring, and data logging using a PC. A recalibration verification function allows users to perform *in situ* testing of the meter's accuracy by testing the functionality of the sensor and processing circuitry.

**Spirax Sarco, Inc.**  
[www.spiraxsarco.com/us](http://www.spiraxsarco.com/us)

### Multivariable Transmitters Feature Dynamic Flow Compensation



The 266-Series multivariable transmitters directly calculate mass flowrate or volumetric flowrate of gases, vapors, and liquids. They use dynamic flow compensation based on three process variables: differential pressure, absolute pressure, and temperature. The transmitters enhance differential-pressure flow measurements of DP primary elements such as orifice plates, pitot tubes, venturis, and wedge meters. They correct for discharge coefficient, thermal expansion of the pipeline, and Reynolds number, and can measure the level of liquid-filled tanks and boiler drums with temperature- and/or pressure-dependent density changes of the process medium. Configuration can be performed through the glass of the housing cover via four buttons on the transmitter display. The transmitters contain a standard HART diagnostic

called plugged impulse line diagnostics (PILD) detection. PILD monitors the impulse lines for clogging, which helps identify a possible fault before the measuring point fails, and signals this fault in a status message both locally and via HART.

**ABB Measurement Products**  
[www.abb.com/measurement](http://www.abb.com/measurement)

### Flowmeter Complies with European Pressure Equipment Directive



This high-accuracy wafer-cone flowmeter now meets the requirements of the European Pressure Equipment Directive (PED) 97/23/EC. This provides third-party assurance that the flowmeter meets safety-related design, manufacturing, and testing requirements and is safe for use in pressurized environments found in industrial processes and plants. The flowmeter is suitable for liquid, gas, or steam service in line sizes from 1 to 6 in. Installation is simplified by the meter's flangeless design, while the interchangeable cone accommodates varying flow conditions without recalibration. Because the flowmeter employs differential sensing technology with built-in flow conditioning, it requires a smaller straight pipe run than such technologies as orifice plates and venturi meters — only 1–3 pipe diameters upstream and 0–1 pipe diameters downstream. It achieves accuracies of  $\pm 1.0\%$  with a repeatability of  $\pm 0.1\%$  and has a turndown range of 10:1.

**McCrometer**  
[www.mccrometer.com](http://www.mccrometer.com)

## Predictive Maintenance Technology Reduces Sensor Replacement Time



The Model T80 universal transmitter and S80 intelligent sensor now feature Sentinel predictive maintenance technology, which minimizes the cost and technician labor required to replace sensor electrodes. Sentinel technology alerts maintenance technicians to electrode deterioration, so that the electrodes are replaced only when necessary. A triangular gage icon on an easy-to-read graphical display decreases in proportion to the degradation of the reference electrode; a filled gage indicates a new electrode, while an empty gage indicates an electrode that is near the end of its useful life. The Sentinel information is transmitted remotely by various user-selected outputs.

**Electro-Chemical Devices (ECD)**  
[www.ecdi.com](http://www.ecdi.com)

## Leak Detector Has a Short Cycle Time and High Throughput

The ASM 340 leak detector can be used for both qualitative localization of leaks and quantitative integral or local inspection. It has a short cycle time and high throughput due to its efficient vacuum system and high helium pumping speed. It can be used in serial production as well as for maintenance tasks, and is available in a conventional or an oil-free version. A large selection of interfaces enables easy integration into production lines.

Measured data can be recorded and evaluated with a secure digital (SD) card, and wireless remote control enables operation from a distance of 100 m. The ASM 340 can be adapted to specific applications with a multitude of available accessories.

**Pfeiffer Vacuum, Inc.**  
[www.pfeiffer-vacuum.com](http://www.pfeiffer-vacuum.com)

## Connector Options for Pressure Transmitters Enable Use at Higher Pressures



High-pressure Type 316L stainless steel process connections extend the applicability of pressure sensors in hydrogen, natural gas, and water applications. The two new options — a 1/4-in. female NPT and a female F250C — are available on the company's explosionproof transmitters. They can also be special ordered on the AST20HA precision pressure transducer and the AST20SW solid-state pressure switch. Transmitters that can operate at pressures up to 15,000 psi are available.

**American Sensor Technologies, Inc.**  
[www.astensors.com](http://www.astensors.com)

## Thermal Mass Flow Controller Handles High Process Gas Flowrates

The GF81 thermal mass flow controller (MFC) can measure gas flowrates up to 300 standard liters per minute, which makes it suitable for high-flow applications. Its compact footprint and lower power draw allow users to design smaller, more-efficient systems. The GF81 features an all-metal-seal flow path for durability and high leak integrity, precise flow control, and 1%-of-reading accuracy to ensure reli-



able flow measurement and control in demanding applications. A wide range of digital and analog I/O options offers the broadest range of communication protocols, which makes the GF81 appropriate for upgrading existing MFCs. It is suitable for use in the thin film, solar, biotechnology, and fuel cell industries.

**Brooks Instrument LLC**  
[www.brooksinstrument.com](http://www.brooksinstrument.com)

## Temperature Controllers Offer Precision Control



The Pro Series temperature controllers have two proportional-integral-derivative (PID) sets that allow the user to tune for accurate control over a wide range of setpoints. The Pro Series includes the Pro-4, Pro-8, and Pro-16 models, all of which include six outputs and up to four digital inputs. The controllers have customizable menus, which speed up manual control by making frequently used functions available at a keystroke. The Blue-Control configuration and simulation software allows a test configuration to be carried out locally on a PC. The Pro Series is suitable for industrial ovens and furnaces, and chiller and

refrigeration systems, among other applications.

**West Control Solutions**  
[www.west-cs.com](http://www.west-cs.com)

**Weigh Module Boasts Unrivaled Accuracy and Safety**



The SWB505 MultiMount weigh module has several built-in safety features that ensure accurate weighing and trouble-free installation. The SafeLock feature protects the load cell from accidental overload during shipment and installation, and ensures proper mounting alignment for the best possible performance and reliability. Optionally, the MultiMount can be first installed without the load cell present, and then the load cell can be inserted later, before calibration. This eliminates any possibility of damage to the load cell or its cable. The weigh module is designed for reliable weighing in a variety of applications, including tank weighing and dynamic loading on conveyors, mixers, and blenders. It is stable and accurate in environments with heavy vibration, high torque, and in-motion weighing. It also has a standard lift-off screw that absorbs tipping forces while a vertical stop provides an added layer of safety.

**Mettler Toledo**  
[www.mt.com](http://www.mt.com)

**Transmitter Features Batch Controller Capabilities**

The second-generation Signet 9900 transmitter supports multiple measurements, including flow, pH/ORP, conductivity/resistivity, salinity, temperature, pressure, and level. Its



batch controller capabilities can be activated by plugging in the new batch and relay modules. Enhanced capabilities include: the ability to save up to 10 batch sizes, create customizable batch names, and enter different K-factors for each batch; a confirmation feature that prevents accidental batch startups; and a batch count indicator. The Signet 9900 features an auto-sensing backlit display with separate lines for units and measurements, and an intuitive menu for easy programming. Designed for complete flexibility, plug-in modules enable the unit to be easily adapted to meet changing needs.

**GF Piping Systems**  
[www.gfpiping.com](http://www.gfpiping.com)

**Portable Pressure Calibrator Stores Measurement Procedures**



The CA700 portable pressure calibrator can measure pressures with an accuracy of  $\pm 0.01\%$  of reading, and it can output and measure current and voltage within  $\pm 0.015\%$  of reading. It is able to store the calibration procedures for pressure transmitters and switches in its internal memory, and record data and error rates before and

after calibration. The stored data can be used to analyze device performance and determine maintenance frequency. The CA700 is available in three models with a wide variety of measurement ranges. All models are equipped with a silicon resonant sensor that uses the company's DPharp technology.

**Yokogawa**  
[www.yokogawa.com/us](http://www.yokogawa.com/us)

**Silica Analyzer Limits User Interaction with Reagents**



The 5500sc silica analyzer has a pressurized reagent-delivery system to eliminate the frequent maintenance associated with traditional pump systems. It can operate continuously for up to 90 days on only 2 L of the necessary reagents. This helps limit operator exposure and interaction with the reagents. The reagent-replacement process features color-coded caps that allow changeover with a simple twist of the cap — which reduces the chance of spills. Predictive diagnostic tools help reduce unplanned downtime by alerting operators before there is an issue and walking them through corrective steps.

**Hach Co.**  
[www.hach.com](http://www.hach.com)