



INSTRUMENTATION

Flare Monitor Prevents Soot Formation



The Model FM smokeless flare monitor measures the ratio of carbon to oxygen within the flame. When the signal indicates that oxygen is becoming scarce, a control valve is activated, and air or steam is added in order to prevent the formation of soot. The Model FM has through-the-lens sighting and an adjustable swivel bracket. It can be mounted at ground level, with an optimal working distance of 1,200 ft or 1,800 ft maximum; the strength of the measured signal decreases with the square of the distance.

Williamson Corp.

www.williamsonir.com

Dissolved Oxygen Sensor Reduces Maintenance Requirements



The 2610 optical dissolved oxygen sensor was designed primarily for wastewater treatment applications. It has low maintenance costs because it does not use reference solutions or

membranes. The optical sensor cap has a one-year lifetime and is factory calibrated, and the sensor has built-in Modbus RS-485 and 4–20-mA current outputs. It has a measurement range of 0–20 mg/L, and accuracies of ± 0.1 mg/L for 0–8 mg/L and ± 0.2 mg/L for 8–20 mg/L.

GF Piping Systems

www.gfpiping.com

Flow Transmitter Is Approved for Hazardous Areas



The Proline Promass 100 transmitter measures mass flowrate, volumetric flowrate, density, viscosity, concentration, and temperature with an accuracy of $\pm 0.05\%$. Seamless system integration is possible via EtherNet/IP and Modbus RS-485 digital communication. The transmitter is approved for operation in Zone 2 and Class 1, Div. 2 hazardous areas. A wide variety of fittings, finishes, and certificate options are available.

Endress+Hauser

www.us.endress.com

Level Gages Incorporate Wireless Technology

The Intrinsically Safe (I-Safe) Prophet 7000 Series tank level gages allow operators to wirelessly access tank inventory data. Both the I-Safe 7420 for chemicals and the 7450 delta pressure system for gasoline are approved for use in Class 1, Div. 2, Group D hazardous locations. The gages are easy to install, and have long battery life and GPS capabilities. Rugged



NEMA 4X enclosures make these units suitable for use in harsh industrial environments.

TankLink

www.TankLink.com

Universal Transmitter Features Additional Input Board



The redesigned Type 8619 multiCELL transmitter/controller unit manages signals from a variety of sensors. It includes a suite of data management and process control software modules that allow easy management of sensor signals and process data. It has a large backlit display, user-friendly soft-key controls, two digital and frequency inputs, direct connections for various sensors, and two digital and two analog outputs. It has an additional input board that provides an easy direct connection to sensors with a 4–20 mA output. It is suitable for monitoring and controlling water treatment, pharmaceutical, and food industry processes.

Burkert

www.burkert.com

What's New

Transmitters Are Enclosed in Stainless Steel Housings

The Micro Motion 1700 and 2700 field- and integral-mounted transmitters are now being offered with Type 316L stainless steel housings. The new housing material is suitable for hazardous areas and provides increased durability for harsh environments. Multivariable digital (MVD) processing technology provides enhanced accuracy, stability, and versatility. The transmitters are approved for use in Class 1, Div. 1 hazardous areas. They are compatible with a wide range of this company's sensors.

Emerson Process Management
www.emersonprocess.com



FLUIDS AND SOLIDS HANDLING

High-Efficiency Fan Handles Hot Air Streams



The Design 70 plug fan is suitable for high-temperature vessels, such as ovens, kilns, and dryers. It is able to withstand temperatures up to 1,000°F, and an optional robust construction can handle up to 1,300°F. The fan comes in sizes up to 60 in. and is capable of moving 156,000 cfm. The fan has solid, single-surface airfoil blades that provide high efficiencies with low power requirements. The motor base can accommodate mounted motors to 125 hp. Optional add-ons include insulated plug panels, housings to direct air flow, shaft seals and coolers, safety

guards, and Air Movement and Control Association (AMCA) Type B and Type C spark-resistant construction.

Chicago Blower Corp.
www.chicagoblower.com

Strainer May Be Cleaned while in Service



The Fig 18HP alloy steel Y-type strainer is designed to protect equipment from pipeline debris such as scale, rust, joint compound, weld metal, and other solids. It is rated to ASME Class 2500 standards, and has a large screen area that provides high C_v values and low pressure drop. The strainer is capped, drilled, and tapped to enable a blowdown valve to be fitted on the system, in order to drain and clean the screen while it is in service. Screen material options include stainless steel and Monel in perforation and mesh designs.

Spirax Sarco, Inc.
www.spiraxsarco.com/us

Gas Analysis Systems Monitor Wide Pressure Ranges



The SPM 220 sputter-process monitor and the HPA 220 high-pressure analyzer are gas-analysis systems that

use a mass spectrometer and a dry compressing pumping station to monitor vacuum processes. They are available with mass ranges of 1–100 amu and 1–200 amu, and the HPA 220 is also available with a 1–300-amu range. The SPM 220 monitors vacuum conditions of sputter processes without a time delay. The HPA 220 can analyze processes with pressures ranging from high vacuum to 50 mbar. Both systems are equipped with a variety of digital and analog inputs and outputs that enable easy connection to process control systems.

Pfeiffer Vacuum
www.pfeiffer-vacuum.com

Vane Pump Components Meet Custom Specifications



These custom vanes, rotors, and end plates may be used in vane pumps for liquid and gas transfer. The vanes are strong enough to withstand the friction generated by rubbing against the housing bore and rotor slots. The end plates are pressure-tight and dimensionally stable, and can be installed with close clearances between the plates and the rotor and vanes. The carbon-graphite components are able to withstand combustion products, gasoline vapors, and strong chemicals that corrode metals. The materials of construction are chemically resistant, and are compatible with the U.S. Food and Drug Administration's food and beverage regulations.

Metallized Carbon Corp.
www.metcar.com



ENVIRONMENTAL, HEALTH AND SAFETY

Storage Containers

Include Fork Safety Tubes

ShipShape bulk forklift containers now feature dual steel fork tubes running the entire length of the fork-entry channels that help to safely secure container loads during lift truck operation. Containers can be securely raised, rotated, and overturned for complete emptying, all without the use of wooden pallets. The risk of worker injury due to splintering pallets is eliminated, and wood-boring pest infestations are prevented. The containers are constructed of UV-resistant polyethylene, and are available in a variety of capacities with standard 44-in. by 44-in. footprints. They can be stacked when covered and nested

when empty, and come in a choice of 17 standard colors plus optional custom colors.

Meese Orbitron Dunne Co.

www.ShipShapeContainers.com

MATERIALS AND CHEMICALS

One-Component Epoxy Combines Thermal Conductivity and Stability

The EP36AO epoxy is formulated for electrical potting and encapsulation applications. It is serviceable over the temperature range of -80°F to $+500^{\circ}\text{F}$. Once cured, it has a dielectric strength of 400 V/mm, a volume resistivity of $2-3 \times 10^{12}$ ohm/cm, and a thermal conductivity of 9–10 Btu-in./ft²-h- $^{\circ}\text{F}$ at 25°C . The epoxy adheres well to both metallic and nonmetallic substrates,



and has a tensile strength of over 2,000 psi. As a one-component system, it does not require mixing. A typical gelling time is 30 min. at 180°F , with full cures attained in 2 h at 300°F . It is supplied as a solid and has a minimum shelf life of 3 months, although it often lasts as long as 6 months.

Master Bond

www.masterbond.com

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