## What's New



#### **HEAT TRANSFER**

Heat-Tracing Cables Have an Extended Temperature Range



Raychem industrial heat-tracing cables are now suitable for maximum intermittent exposure to temperatures up to 250°C (previous models could only be used for temperatures up to 215°C). As a result, these selfregulating cables can now be used in applications with higher worst-case maximum pipe temperatures within the same temperature classification. This simplifies the design and installation on projects, in particular for applications with temperature class T3 (200°C) classification. **Pentair** 

www.pentair.com

#### Heat-Transfer Systems Have Advanced Controllers

The MOS and MWS electric heattransfer systems contain electric heating cores and controls that assure responsive and precise temperatures. The MOS unit can operate up to 300°F (150°C) with water or water/glycol heat-transfer fluids. The MWS unit uses most heat-transfer oils, and is able to operate up to 600°F (315°C), with an option for up to 650°F (343°C) at atmospheric pressure. Both models are equipped with the 4080 advanced temperature and process controller as a standard feature, which offers profiling and data-logging options, as well as a graphic/text LCD display. Their more-efficient design helps to reduce startup time, simplify operation, and minimize downtime. The chemicals, petrochemicals, and plastics industries will benefit from this technology in

applications such as reactors, evaporators, dryers, platen presses, roll heaters, and jacketed vessels. Chromalox www.chromalox.com

#### **INSTRUMENTATION**

Data Logger Transmits Wirelessly to Mobile Devices



HOBO MX1101 is a Bluetoothenabled data logger that measures and transmits temperature and humidity data wirelessly to mobile devices. The self-contained system works with the free HOBOmobile app to allow users to manage data over a 100-ft range. Unlike a USB logger, it does not require dedicated equipment beyond an iOS mobile device to configure the logger or read data. Without the need for cables, computer software, or Internet access, installation and operation are faster and less expensive. This system is suited for applications with limited access or in hard-to-reach places. The device is equipped with both audible and visual alarms. Onset

www.onsetcomp.com

#### Controller Shuts Down Equipment Remotely

Equipment in challenging environments, such as in oil fields, can be difficult or inconvenient to access, and often requires remote shutdown. This unit, dubbed the Remote Shutdown System (RSDS), can be installed to shut down assets remotely with the fail-safe logic necessary for wireless operation of critical systems. The long-



range (approximately 3 miles) wireless telemetry system eliminates the need for costly conduit runs. The RSDS is compatible with a range of sensors to enable monitoring and control of tank levels. The system can be used in upstream oil and gas applications, and is suitable for water-tank control in industrial settings where tank monitoring and pump control are necessary. **SignalFire** 

www.signal-fire.com

ENVIRONMENTAL, HEALTH, AND SAFETY Safety Eyewear Is Designed for Women



Two safety eyewear styles specifically tailored to female users are available as part of the GirlzGear line of protective products. Both styles utilize the Temple Technology safety eyewear design, but are sized and styled to fit

### What's New

women. One model has a pink temple with a clear lens, and the other option has a pink mirrored lens for light deflection. Generically sized eyewear often fits poorly, which presents a safety hazard. A tailored fit provides enhanced comfort and encourages compliance. Colored designs differentiate these models. **Gateway Safety, Inc.** <u>www.gatewaysafety.com</u>

Sample Bag Requires No Additional Equipment



In an emergency response situation, responders may need to collect an atmospheric air sample for testing. The VeriAir Flex manual inflating sample bag allows users to collect a grab sample without the need for a calibrated sampling pump or other equipment. It is made of durable, analytical-grade, multi-layer foil, and its built-in volumetric pump allows users to easily inflate and expel air from the bag prior to sample collection. It is suitable for use with lightsensitive compounds. The bag's label includes a unique identifying number for chain-of-custody or sampleretention recordkeeping. New Star Environmental www.newstarenvironmental.com

#### Ultrasonic Detector Distinguishes between Background Noise and Gas Leaks

Designed with artificial neural network (ANN) intelligence and realtime broadband acoustic-processing technology, the Observer-i ultrasonic



leak detector operates reliably and effectively suppresses false alarms. Because ultrasonic detectors recognize gas leaks by airborne ultrasound rather than physical contact between the gas and the sensor element, they enable a faster response to dangerous gas leaks. Incorporation of the ANN algorithm allows the sensor to analyze the full spectrum of sound, down to 12 kHz, and to distinguish between acoustic background noise and gas leaks. The sensor does not need to be recalibrated if background noise levels change. A self-test function checks the device's electrical integrity every 15 min to ensure that the system is operational at all times. Gasonic

www.gasonic.com

#### Key Interlock System Withstands Harsh Environments



These medium-duty (MD) and heavyduty (HD) trapped key interlock systems ensure that personnel follow a presribed safety sequence each time they access or operate equipment in a hazardous environment. They are constructed of durable Type 316 stainless steel to withstand exposure to extreme temperature, weather, dirt, and corrosive elements. Passivating electropolishing protects the HD model from chemical activity, which makes it well-suited for chemical process industries (CPI) applications. The shaft design prevents dirt and debris from clogging the mechanism, and gasketed keys and dust covers on the interlocks protect the cylinders from debris. The key design is stronger than typical pin tumbler keys to resist breakage and damage. The distinctive shape is less likely to be misplaced or slip through standard floor gratings. Kirk

www.kirkkey.com

# OPERATION AND MAINTENANCE

Thermoelectric Generator Reduces Costs for Heavy Industry



The E1 thermoelectric generator attaches to an engine's exhaust stack and uses thermoelectric materials to convert waste heat into useful energy. When attached to a 1,000 kWe engine, it is able to generate up to 25 kWe of energy. This scheme helps to reduce overall energy needs, thereby lowering operating costs. The solid-state technology has no moving parts or working fluids, and requires minimal maintenance. This equipment is appropriate for industrial-scale applications in remote areas where system support is limited, such as in the oil and gas industry.

Alphabet Energy www.alphabetenergy.com