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## NEWS RELEASE

### United Electric Controls Introduces First HART Enabled Transmitters with Integrated Switching for On-Off Control

Combining reliable temperature or pressure monitoring with digital switching reduces costs and improves safety

**WATERTOWN, MASS. — Oct. 1, 2015** — United Electric Controls has introduced a unique new family of HART capable transmitters that provides programmable switching functionality for industrial process monitoring applications. The new One Series 1XTXSW transmitter line is the first to integrate HART 7 compatible 4-20 mA output and two solid-state programmable relays for monitoring temperature or pressure in safety, alarm and emergency shutdown applications.

End users deploying a HART communication networks can finally add switches to the list of field assets in their predictive maintenance strategy and reduce routine inspections and unplanned shutdowns. Typical electromechanical switches are blind and can't alert workers that something is amiss with the device. Combining HART and smart diagnostics in the device, workers can manage all their instrumentation assets – including switches – using a centralized asset management solution. And by focusing on only the devices with issues, time is not wasted on healthy devices, which saves a huge amount of labor.

“There are many benefits to integrating sensing and high current switching, but trying to achieve them with a traditional process control transmitter is impossible, given the space constraints of the devices. We provide industrial monitoring and electronic switching at about the half the cost of a conventional process transmitter and now provide HART communications for access, control, and health assessment of all aspects of this hybrid transmitter-switch. We know of no other HART-capable pressure or temperature transmitter with integrated, remotely configurable switching,” said Wil Chin, Vice President for Marketing and Business Development at United Electric Controls.

These smart transmitters also include United Electric's “I am Working” (IAW™) discrete diagnostic output for remote monitoring from a PLC or DCS. A large back-lit display provides process values, set point programming, and health and switch status notifications, all at about half the cost of a traditional process control transmitter.

Industrial sensors monitor temperature or pressure abnormalities by comparing the process conditions with pre-programmed set points in a PLC or DCS controller. The



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controller actuates external relays, which accordingly switch devices on or off for safety, alarm and shutdown functions. Using a United Electric Controls transmitter, which embeds the sensor, transmitter and two solid state relays, however, can combine all of these functions and improve reliability while reducing lifecycle costs.

The One Series 1XTXSW hybrid transmitter-switch effectively replaces a gauge, a switch and a transmitter requiring only one connection to the process. This reduces costs and potential media leaks while increasing reliability.

### **Ideal for harsh environments**

The One Series has no moving parts, which provides a highly repeatable and fully adjustable deadband switch that is ideal for applications with high cycle rates. Instrument response time is <100 milliseconds.

The new One Series 1XTXSW transmitters are especially valuable in hazardous and harsh monitoring conditions that involve temperature extremes and high pressures that rapidly change, exhibiting pulsations, water hammer and thermal cycling and other wear inducing conditions. Mechanical switches, which have more moving parts, are more susceptible to such trauma, which impacts reliability and requires more maintenance. Integrating sensors and solid state relays in an explosion-proof transmitter enclosure, protects them against environmental stress and the HART programming capability makes it easier to configure and maintain both the sensor and the switch, remotely, avoiding the need to open the enclosure in Division 1 areas.

The new One Series 1X line also has worldwide hazardous location approvals for Class I, Divisions 1 & 2 (Zones 0, 1 & 2).

### **Dual Seal Certification**

The 1XTXSW line also provides Dual Seal Certification, meeting the requirements of ANSI/ISA 12.27.01 and NEC 501.17 for hazardous location hydrocarbon pressure monitoring. The Dual Seal option provides a secondary process seal which prevents the migration of process media into the instrument enclosure and conduit system in the event that the sensor diaphragm (primary seal) is breached. The Dual Seal offers all 316L stainless steel construction for excellent process compatibility. A threaded collection port articulates 360 degrees, making installation easy and providing primary seal rupture annunciation. The burst pressure rating of this secondary seal far exceeds all One Series pressure sensors, preventing media migration and providing maximum safety.

### **Cost-effective upgrades**

The new One Series hybrid transmitter-switch line also enables cost effective plant upgrades. The 2-Wire switch-only models 1XSWLL utilize existing plant wiring and control schemes. The loop-powered HART transmitter-only models 1TX00 provide a

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NAMUR standard 4-20 mA output and eliminate the switching function for cost-effective transmitter upgrades.

### **A low cost transmitter-only option**

For those who need only a low cost transmitter, United Electric controls makes this new product available without solid state relays or the “I am Working Health Status” switch output. This would be ideal for applications in which high reliability is essential, but where there is no need to switch external devices on and off. Health status is provided by a NAMUR NE 43 standard 4-20 mA output.

For more information, visit the United Electric Controls website at <http://www.ueonline.com/st> or call 1-617-926-1000.

### **About United Electric Controls**

United Electric Controls (UE,) a privately held corporation founded in 1931 and headquartered in Watertown, Massachusetts, USA, is a global supplier of pressure and temperature switches, transmitters, sensors and controls for the process, discrete, semiconductor, aerospace and defense industries. Focused on protecting equipment, processes, personnel and the environment, our products are critical for safety, alarm and shutdown functions with uncompromising quality produced from innovative design and superior lean manufacturing. Visit the UE website at [www.ueonline.com](http://www.ueonline.com).

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