Technical Note

SmartLine Transmitter Tamper Reporting

SmartLine Transmitters deliver a new level of efficiency and safety throughout the plant lifecycle either when operating stand-alone or when integrated with a process control system. For example, SmartLine's tamper reporting feature provides an additional layer of safety protection.

Tamper Reporting

Overview

Security is an important issue for all industrial facilities. The safeguarding of industrial facilities is closely related to their ability to control their individual processes within safe limits. Key to maintaining good process control is assuring that the individual instruments are maintained with the proper configurations and that these configurations are not purposely or inadvertently modified. The safety of the plant, the personnel and in many cases the surrounding community is dependent on these assurances.

SmartLine Tamper Reporting

In addition to a wide variety of diagnostic capabilities aimed at ensuring safe operations, Honeywell SmartLine instruments now offer an additional capability to help monitor instrument configuration changes or attempted changes. SmartLine Tamper Reporting actually monitors and provides warning on configuration changes or attempted changes.

Most instruments today have a write protect feature which disables the ability to make configuration changes on a field device. These methods are typically enabled via device software, hardware (jumper or switch) or in some cases a combination of both. SmartLine transmitters employ both a hardware jumper and software methods with the hardware (jumper) always taking precedence to provide the highest level of protection against inadvertent changes. Although these approaches are very good at protecting against inadvertent changes, they provide little or no protection against purposeful attempts at configuration changes. A software setting or jumper setting may not be inadvertently reset, but with little difficulty they can easily be purposely reset thus permitting potentially unauthorized configuration changes.

SmartLine Provides an Additional Protection Layer

SmartLine Tamper Reporting can provide an additional layer of protection in the way of an alert. With the tamper reporting feature enabled operators can be advised of attempted or successfully completed configuration changes as well as any changes made to the SmartLine write protection jumper or software setting. If a change is attempted or successfully completed to an instrument with the Tamper Reporting feature enabled, the operator will be alerted and take any necessary actions to insure the process, the plant, and personnel as well as the surrounding community are properly protected.

Tamper Reporting Logic

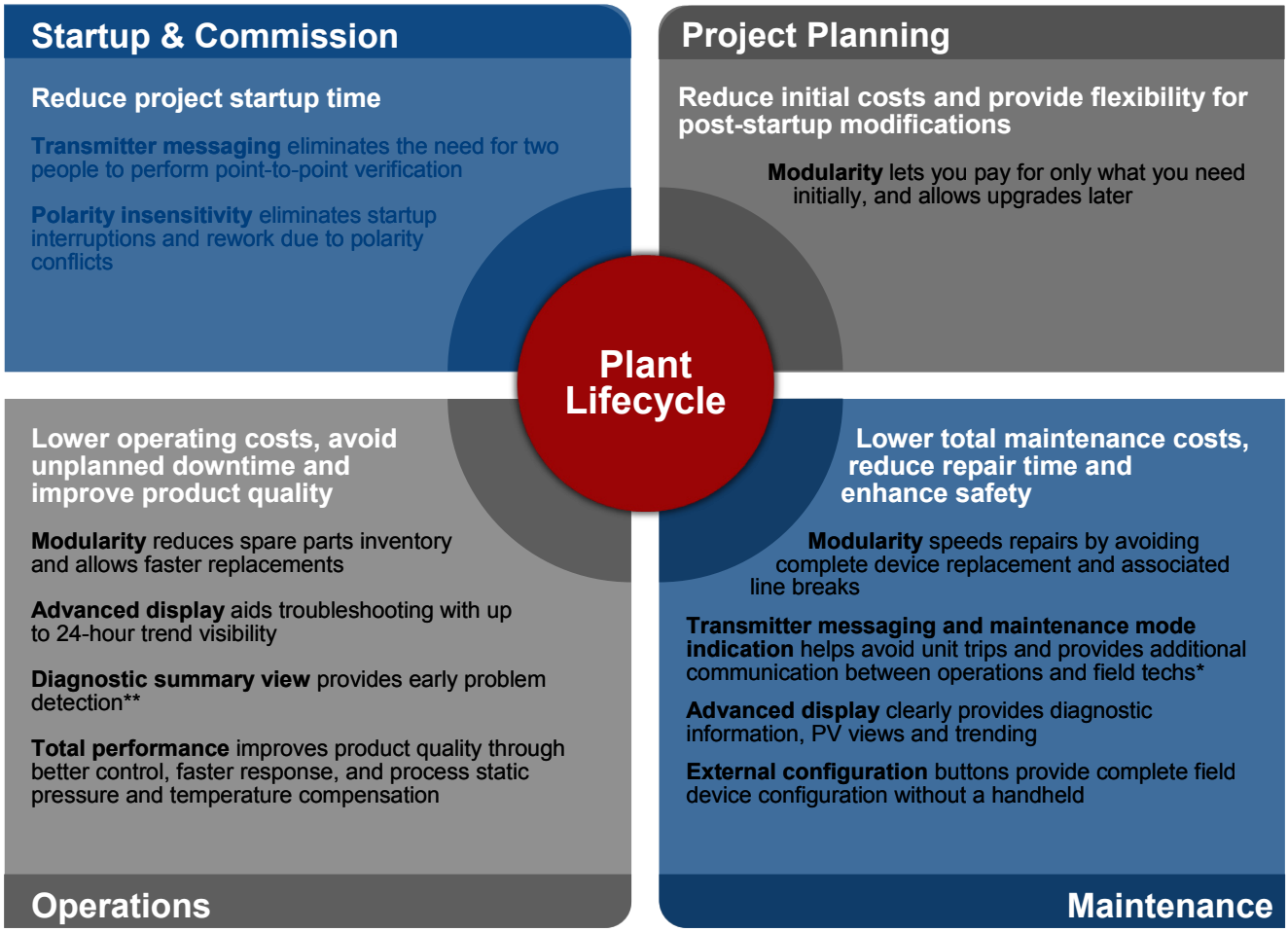
Figure 1 shows the logic via a truth table regarding how Tamper Reporting in combination with the traditional write protect feature is implemented and under what conditions an alert will be posted as well as whether or not the change will be allowed.

Write Protect Jumper Status	Write Protect Software Status	Tamper Reporting Status	Tamper Alert Posted?	Configuration Change Allowed?
ON	ON	ON	YES	NO
ON	OFF	ON	YES	NO
OFF	ON	ON	YES	NO
OFF	OFF	ON	YES	YES
ON	ON	OFF	NO	NO
ON	OFF	OFF	NO	NO
OFF	ON	OFF	NO	NO
OFF	OFF	OFF	NO	NO
Jumper Moved		ON	YES	NA
Jumper Moved		OFF	NO	NA

Figure 1: Tamper Reporting Logic

Review other SmartLine product and integration plant lifecycle savings opportunities, delivered through:

- Modular Design
- Advanced Display & HMI Technology
- Maintenance Mode Indication
- Transmitter Messaging



** Available through Honeywell's Field Device Manager

* Available when used with Experion

For More Information
Learn more about how Honeywell's SmartLine Pressure Transmitters deliver value across the entire plant lifecycle, visit our website www.honeywellprocess.com or contact your Honeywell distributor or account manager.

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