Fisher[®] EZR Series with Topworx 4310 Wireless help create safer working environment

BENEFITS

- Ease of implementation due to wireless
- Measures number of completed cycles to develop maintenance plan
- Long-life power module
- Operators can monitor processes remotely

APPLICATION

A speciality chemical plant uses nitrogen as a backup to maintain a minimum pressure for their instrument and plant air supply. Safety can be a concern when using nitrogen as a backup if operations does not know it is in use. Instruments and pneumatic tools powered by air supply have some leakage and run a risk of depleting oxygen within a closed space.

CHALLENGE

The chemical plant wanted a seamless technology that would alert operations should a regulator open and add nitrogen into the instrument air system. It was important the information be transmitted quickly and accurately as nitrogen can pose a safety threat to workers in closed areas by depleting the room of oxygen.

Not only was safety a top priority for the plant but gathering data at a reasonable cost and integrate it into the DCS was also a challenge to concur.

SOLUTION

The plant installed three Fisher Type EZR pilot-operated regulators with Topworx Type 4310 Wireless HART limit switches and connected it through a 1420 gateway to the DCS. The gateway gathers the data and converts it to Modbus for reading by a DCS module.



The Emerson solution lowered the facility upgrade an estimated \$60k by eliminating the need to run over 2,000 feet of conduit and wire.



Fisher Type EZR with Topworx Type 4310 Wireless Position Monitor





The installation of EZR regulators with the 4300 Series Wireless Position Monitor substantially lowered the facility upgrade an estimated \$60k by eliminating the need to run over 2,000 feet of conduit and wire to reach the field installation points from the DCS rack room.

This innovative solution enables nitrogen to be added into the instrument air system by any of several make-

up regulators that are outside of the normal unit boundary limits and remote from any DCS connection points. Operations can either test the confined space remotely that are purged with instrument air or require SCBA for personnel entering those areas.

The multi-brand Emerson solution was able to meet the safety requirements as well as provide a cost savings for the chemical plant.



Emerson Process Management Regulator Technologies, Inc. Americas - Worldwide Headquarters Europe 310 East University Drive McKinney, Texas 75069-1872 USA T: +1 800 558 5853

T: +1 972 548 3574 F: +1 972 542 6433

www.emersonprocess.com/regulators

T: +39 051 4190606

Asia Pacific T: +65 6770 8337

Middle East T: +971 4811 8100

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