Wireless Monitoring of Industrial Valves is a Reality

Industrial Wireless Monitoring

Eltav's wireless system is an end-to-end solution of a sensors network used to monitor various types of valves, operating in the process plant. Eltav's system provides operators in both the control room as well as in the field, with a comprehensive picture of the valves' performance status in real time.

Traditionally, valve monitoring has been expensive and cumbersome. In contrast, Eltav's wireless solution utilizes low cost equipment, fast installation, easy operation, effective diagnostics and maintenance. It is also compatible with current conventional instrumentation. This allows for the development of new possibility in control and accountability.

Eltav's unique and pioneering solution will revolutionize plant operations.

The Market

Industrial valves are the key components of the process industry. There is a strong need in the market for monitoring actuated and manual valves in order to enhance production control, eliminate misprocess, enhance safety and reduce operational and maintenance costs of the process line.

Tens of millions of new industrial valves are installed yearly. Aside from being used on newly installed valves, the Eltav solution can retrofit existing valves as well, resulting in a significant market potential.

System Description

The ELTAV wireless monitoring system consists of:

- **Valve Devices (VD)** that are attached to an actuated or manual valve to monitor its status and report wirelessly.

- A network of **Valve Device Routers (VDR)** that transfers the monitoring data from the VDs on a wireless MESH network to the Tunneling VDR.

- **Tunneling VDR (TVDR)** – Last hop VDR that transfers collected data from the VDRs network to Eltav Gateway. Several TVDRs can be connected via TCP/IP to Eltav Gateway

- **ELTAV Gateway** which is an industrial computer that manages the ELTAV system.

- **Eltav Management System (EMS)** which is a software management tool that monitors and reports about the valves' position and health status. The EMS provides data in common industrial standard connections to the HMI, DCS and PLCs on site.

- **Operator Device (OD)** which is a handheld device that is used by the process line operator for setup and local data retrieval.
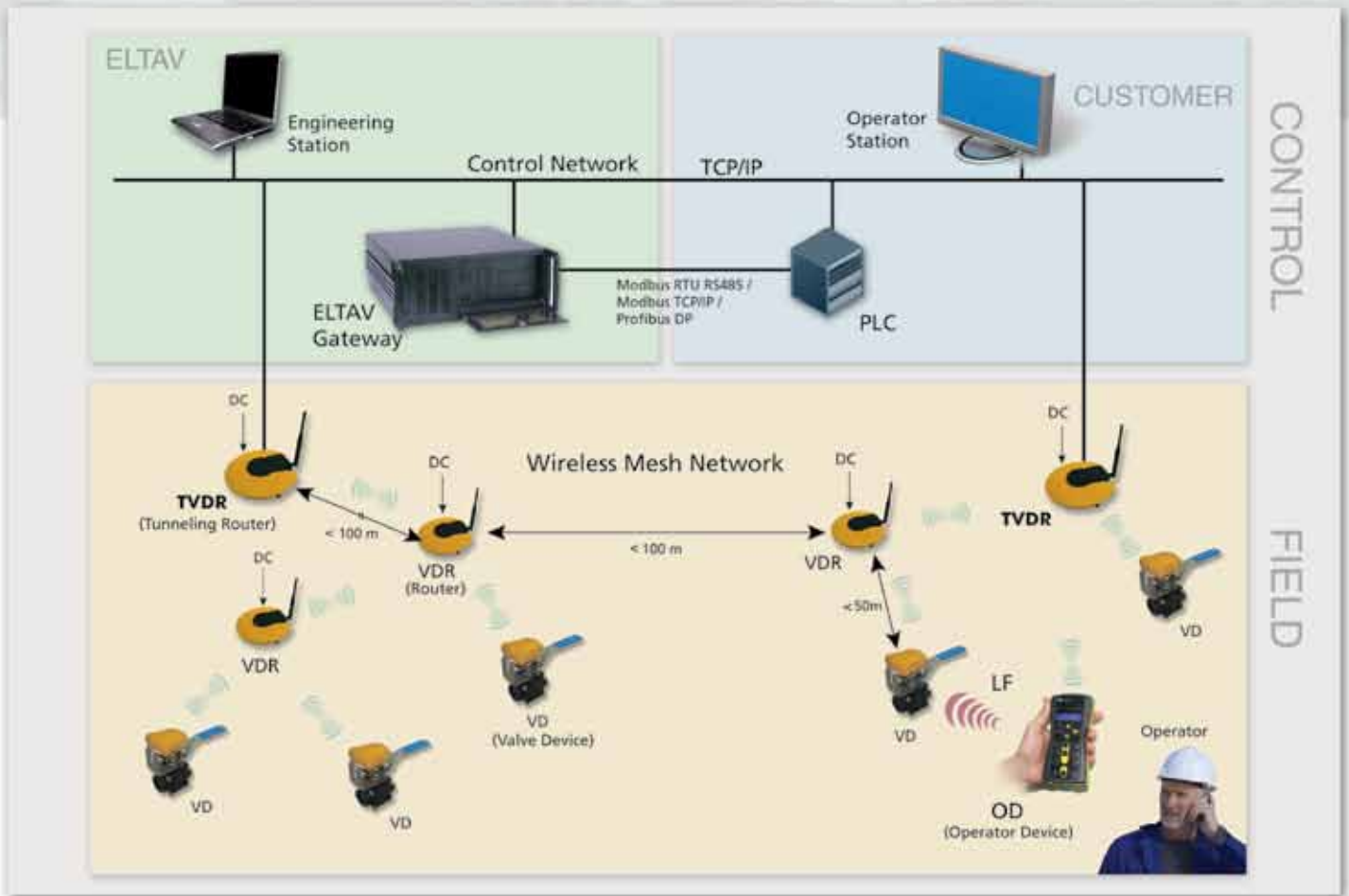
Breaking off the cables....

OD
Operator Device

VD
On Manual Ball Valve

VDR
Router

VD
On Butterfly Valve

Industrial Safety

The Eltav solution improves safety and security in your facility. Eltav's solution continuously checks compliance with company's safety and security policies. The system reports identified irregularities, in real time.

Standards and Classifications

The Eltav solution is based on the ZigBee standard protocol, and is designed to comply with the new industrial wireless standard ISA-100. 11.a, and will be adapted to Wireless-HART. The system complies with the requirements of **FCC, CE, ATEX, and HAZLOC (Zone 1)**.

Proactive Maintenance

Eltav's solution continuously monitors the performance quality of the valve and actuator. This critical function reduces down times and maintenance costs due to early detection of potential malfunctions in the process.

Future Features

Sensing and reporting of the position of additional types of valves is Eltav's plan for future models. In addition, Eltav will enhance the VD capabilities by adding more sensing features such as temperature, cavitations', vibration, flow, and more.

You have nothing to lose but your cables....

www.eltav.com

ELTAV Wireless Monitoring Ltd.