

**imt**excontrols  
COMMUNICATING WITH VALVES



**Wireless Monitoring  
of Industrial Valves**

# Wireless Monitoring of Industrial Valves



Valvescan is a wireless, end-to-end solution for sensor networks used to monitor various types of valves, operating in process plants. Valvescan provides engineers in both the control room and field with a comprehensive overview of valve performance and status in a real time environment.

Traditionally, the installed cost of standard valve monitoring systems has been expensive and cumbersome. In contrast, Valvescan is a wireless solution utilising equipment that offers fast installation, easy operation and effective diagnostics for preventative maintenance with significant cost savings. It is also compatible with current conventional instrumentation, allowing for the development of new functionality in control and better plant accountability.

The Valvescan wireless monitoring system is a unique and pioneering solution that will revolutionise plant operations.

## Enhanced Process Control

Industrial valves are a key component in any process plant. Reduced manpower, increased legislation and continuing efforts to drive down costs has seen a need to increase the levels of monitoring on actuated and manual valves in order to enhance production control, eliminate errors in the process and improve the safety of the process line.

With thousands of new industrial valves being installed yearly, Valvescan is a cost effective system for getting new plant up to full capacity quickly. In addition, Valvescan is ideal for retrofitting to existing valves where traditional network solution would be too costly or complex to install.





### System Description

The Valvescan wireless monitoring system consists of:

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

A network of **Valve Device Routers (VDR)** - 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 the Gateway. Several TVDRs can be connected via TCP/IP to the Gateway.

**Gateway** - an industrial computer that manages the Valvescan system.

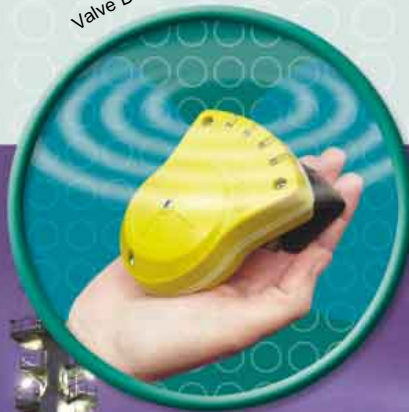
**Management System (EMS)** - software management tool that monitors and reports about the valves' position and health status. The EMS provides data in common industrial standard connections to the HMI, DCS and PLCs on site.

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

Valve Device Router (VDR)



Valve Device (VD)



Operator Device (OD)

