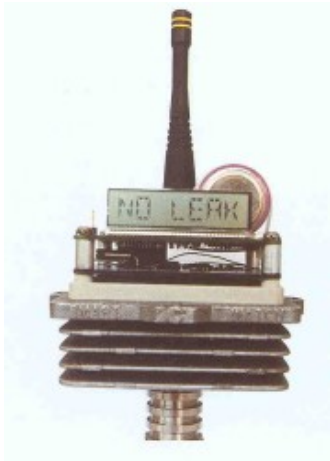


Description

This field device transmits data via RF, using a safe digital protocol within free frequency bands for industrial use, in order to eliminate the use of licences. Each device has its own identification and communicates with a base station. Its reliability is assured through transmission techniques at multiple frequencies, similar to the ones used for military purposes. The basic version includes temperature and ultrasound sensors. It is certified for intrinsic safety requirements (Ex ia IIC T4).

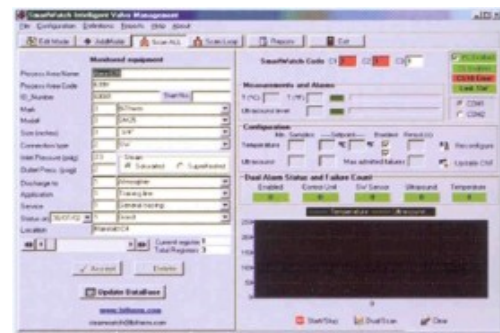


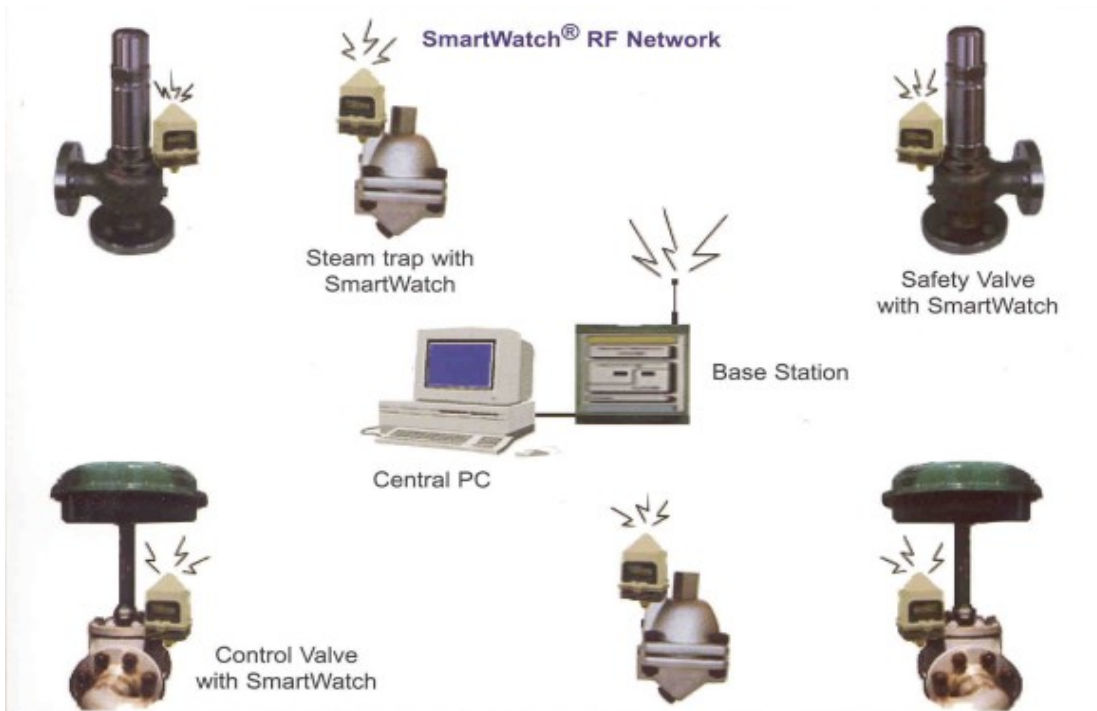
Technical Specifications

- Frequencies: 868 MHz and 902-928MHz.
- Transmission: Frequency-Hopping Spread Spectrum.
- Distance range: Omnidirectional 150 / 1600 mt
- Battery duration: Average 5 years.
- Outputs: RS-485, RS-232, Ethernet or USB (optional 4 -20 mA)
- Self - diagnosis of internal system failures and automatic management of failure in the equipment.
- Reconfiguration of sensors from the PC.
- Diagnostic display in the device: Optional.

Typical Applications

- Monitoring of remote equipment or difficult access locations, without the need to install cable.
- Continuous gas leak detection in safety valves, on-off control valves, etc.
- Increased safety with continuous detection of dangerous process gases.
- Pollution prevention and environmental protection due to hydrocarbon discharge detection.
- Continuous detection of hydrocarbons in water
- Continuous steam leak detection in steam traps. Applied on BiTherm steam traps, enables the basis of the modern intelligent steam trap.





Smartwatch™ RF Network Structure

Suitable system:

The Base Station supplies different outputs (RS-232, RS-485, S Ethernet, USS and optional analog 4 - 20 mA/Hart or digital I/O), increasing the number of different applications available in a range of systems.

Multi-functional:

The SmartWatch™ network can manage multiple sensors and parameters, integrated in a common wireless network, becoming a universal alarm system, which can be used for the simultaneous monitoring of different equipment.

Expandable:

The SmartWatch™ network allows easy expansion with the ability to install new previously configured devices. The new sensors, powered with an internal 3.6 VDC battery, are recognised as soon as they are enabled in the system.

Removable.

A sensor can be removed from one element to another, provided it remains within the distance range of the base station. The sensor is mounted externally with no need to interrupt the monitored equipment operation.

Transmission:

The SmartWatch™ network uses an RF communication and Frequency Hopping Spread Spectrum techniques, in order to ensure its reliability, allowing reception of information from the sensors and reconfiguration of all operational parameters from the central PC.

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