Improved process performance in rotary and linear valve applications

Valve communication and network solutions for food and beverage

Proven performance for sanitary process applications

Meeting increasing demand while maintaining safety is a key factor in the food and beverage industry. This pressure is driving technologies that help meet regulatory requirements while delivering a competitive edge in terms of efficient and economical performance. Proven technologies and enhanced capabilities are helping overcome new challenges.

Food and beverage companies are facing increasing competition and need increased efficiency, reduced costs and agility. We are working with many global industry leaders to address these needs and requirements with our valve controllers and monitors. All our products are supported by a comprehensive service offering and service network.

Monitoring precision

The Stonel™ Axiom™ and Stonel Prism™ platforms use solid state continuous sensors that have increased reliability and precise position measurement, compared to mechanical or proximity-reed technology. These sensors enable more sophisticated valve diagnostics, leading to reduced life cycle maintenance costs.

Compact size

The Axiom™, Prism™ and Stonel™ Eclipse™ products are all rich with features and designed to meet the industry's increasing need for smaller, lighter and more durable products to conform to the needs of modular process skids and flexible manufacturing. The integral solenoid of the Axiom for example allows for a smaller overall envelope size on the skid thanks to less connected tubing and cabling needed to complete the valve assembly.

Predictive maintenance

You can avoid downtime due to valve failure by having easy access to information about critical parameters. Using Wireless Link you can remotely monitor valve function, including travel position, time to open/close, and cycle count of your valve. This data can help maintenance quickly identify and address a problem before it causes danger or downtime, at the same time allowing you to extend the life of critical valves.

Improving safety with Wireless Link

The Wireless Link can help you access difficult to reach communication and control modules safely and conveniently. Using our secure app on your iOS mobile device may help you achieve further cost savings while keeping you at a safe distance, up to 50 meters away. With access to cycle count data, you can perform valve maintenance when it is truly needed and replace parts prior to wearing out. You can finally forget scheduling maintenance based on calendar days instead of service needs.
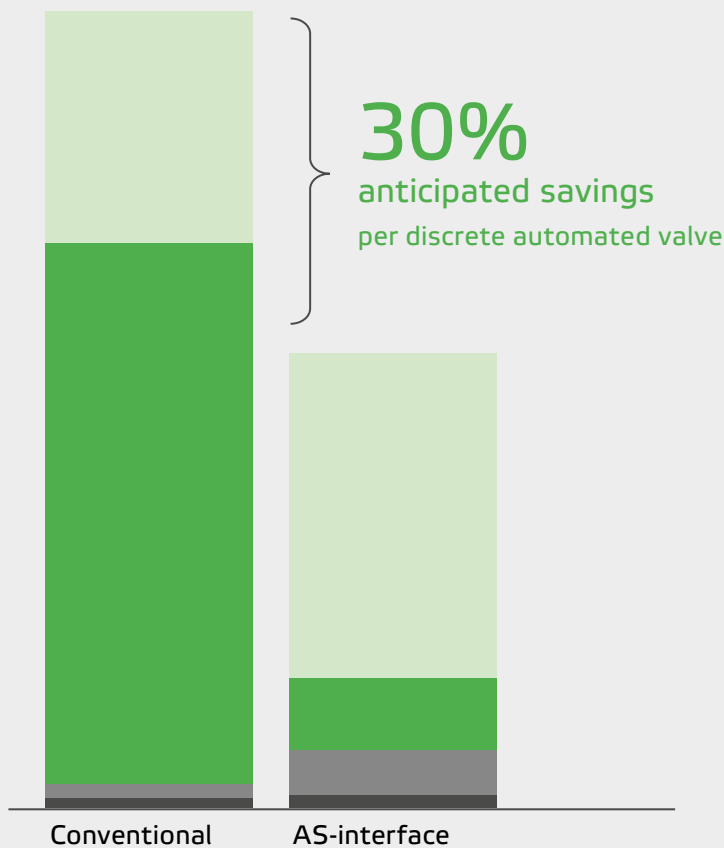
Food and beverage industry

Beverages • Cereal/snacks • Pet food • Juice/coffee • Dairy • Sugar

Reducing costs through smart design

Valmet provides solutions that help customers in the food and beverage industry achieve savings by reducing installation, service and spare parts costs through smart design. We enable easy setup, fast commissioning and efficient service and maintenance.

Installation cost comparison

30%
anticipated savings
per discrete automated valve

Conventional   AS-interface

Breakdown of total cost

- ◻ Valve monitor; VCT & Solenoid
- ◻ Conduit & wiring
- ◻ I/O cards; Gateway
- ◻ Power supply

Lower construction costs and faster installation

The use of space and time are typically the most expensive parts of constructing a new production plant. Combining our products with a DeviceNet™ or AS-interface protocol system to interconnect your automated valves will lower your construction costs and enable faster installation than with conventional systems. Our low profile linkages allow you to reduce the physical footprint.

Lower inventory costs with universal adaptability

The same device, Axiom or Eclipse, mounts directly onto either a spring return or double acting actuator with ease. And thanks to Axiom's universal solenoid feature our customers also have added flexibility in terms of using any power from any source ranging in voltage from 24VDC to 250VAC.

Less moving parts improve reliability

The inherent simplicity of our products helps make them durable, long-lasting and high-performing. The solid state module is moisture, vibration and corrosion resistant. The non-contact sensor has been tested and is guaranteed to 1 million cycles, eliminating costly replacements and unplanned outages. Also, our proximity sensors utilize push button setting for open and closed position set points. This makes it easier to commission than mechanical or proximity switches that require cam adjustments. It also eliminates the need to adjust cams to compensate for cam wear.

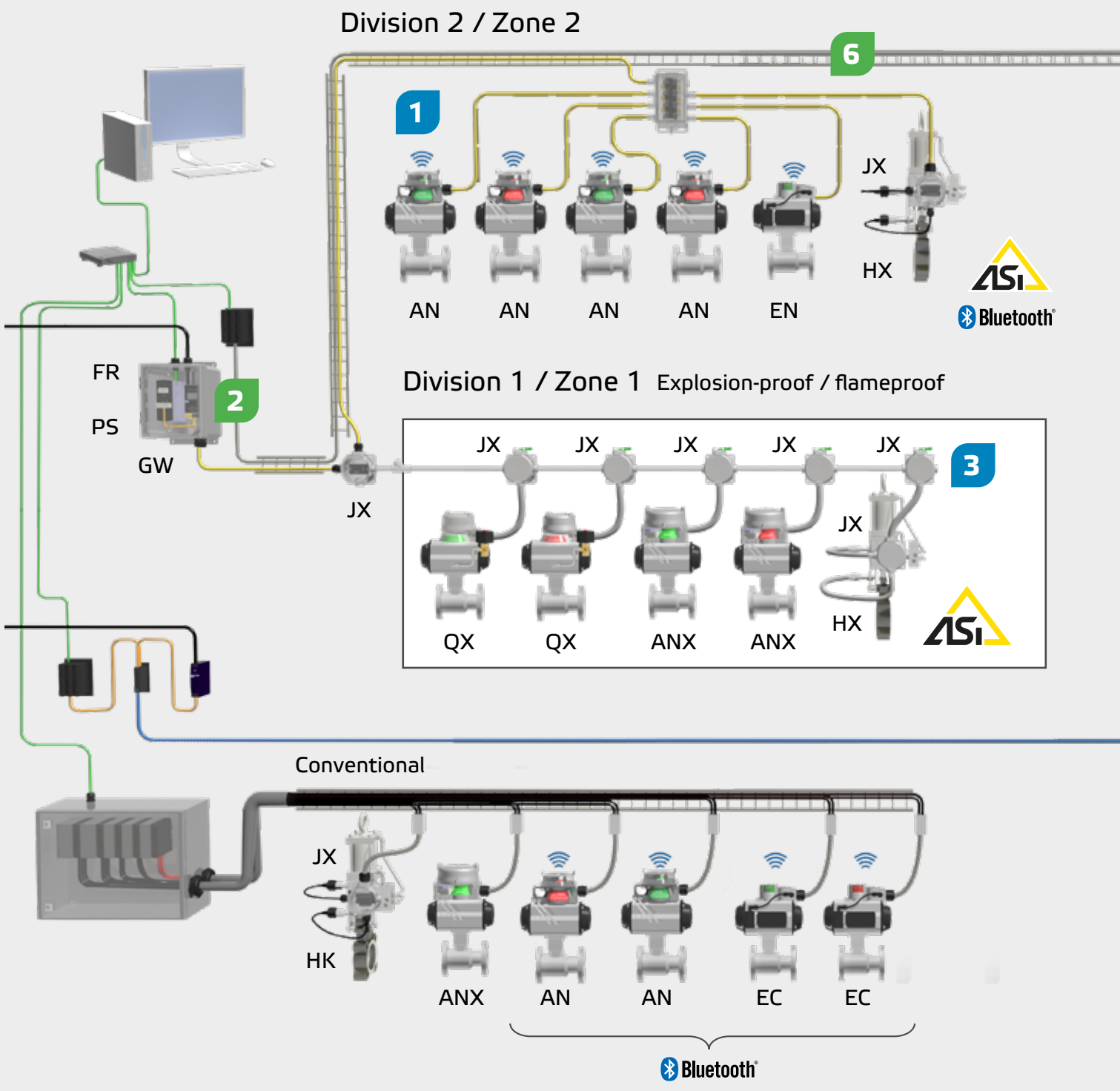### Extending actuator life by preventing corrosion

The rebreather function is often an added extra feature on an external solenoid, and carries with it a price tag. We offer the rebreather function as standard on the Axiom. This is a feature that allows for low pressure instrument air to be exchanged on the spring side of the actuator, keeping water and added chemicals from accumulating inside the actuator during washdowns. This feature reduces internal corrosion and extends the life cycle of the actuator.
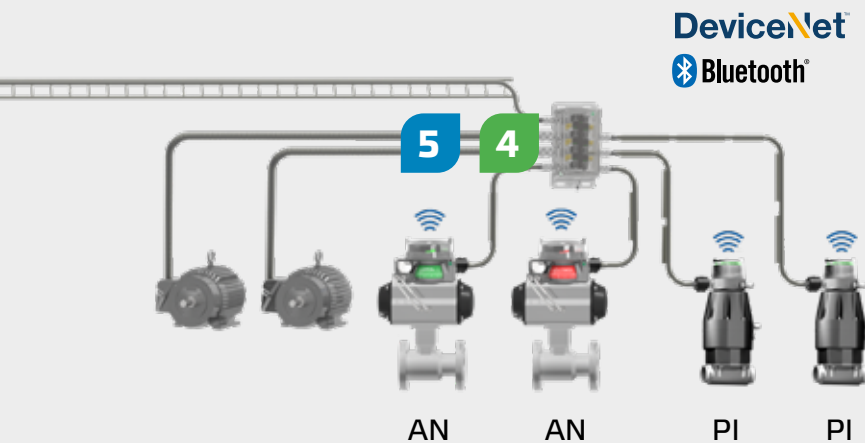
Rapid identification of location and status

The intense LEDs we use for position indication display valve status from a distance with the highest degree of clarity, visibility and reliability, even in cases where the beacon becomes covered with dust or grime. Activate the "wink" feature, using Bluetooth® technology, to quickly locate and identify the field device needing service even while it remains online.

Improved process performance and reduced total life cycle costs

Division 2 / Zone 2

1

6

JX

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AN AN AN AN EN

ASi

Bluetooth®

Division 1 / Zone 1 Explosion-proof / flameproof

JX JX JX JX JX

3

JX

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ASi

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PS

GW

2

JX

Conventional

JX

HK

ANX AN AN EC EC

Bluetooth®

We provide the solutions you need for integrating your automated valves. Optimum performance means that all components of your process need to be efficiently integrated with your control system. We cooperate with your design team and third party vendors to create the communication and control interfaces you need, recommending the right components for the optimal efficiency of your entire system.

DeviceNet™

Bluetooth®

5 **4**

AN   AN   PI   PI

Division 1 / Zone 1   Intrinsically safe

FN

AN   AN

Protection concepts shown are for illustration purposes.
Final acceptance of installation including wiring practices
is subject to the authority having jurisdiction.

1. Wireless Link
Enables safe, easy local access to valve status and diagnostics

2. Gateways
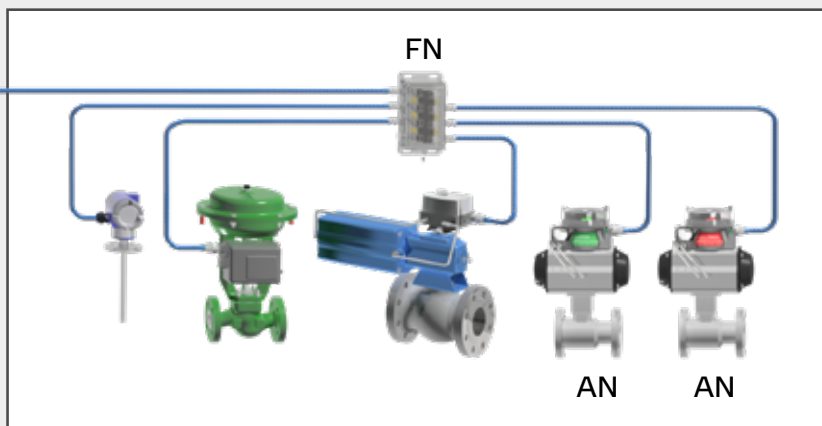EtherNet/IP and other networks for easy network integration

3. Disconnect switches
Enable easy maintenance in XP/Exd applications

4. Drop connectors
Make wiring networks easy and cost effective

5. Multidrop wiring
Saves space and installation costs

6. Bus networks
Most support XP/Exd wiring (some support Exi wiring)
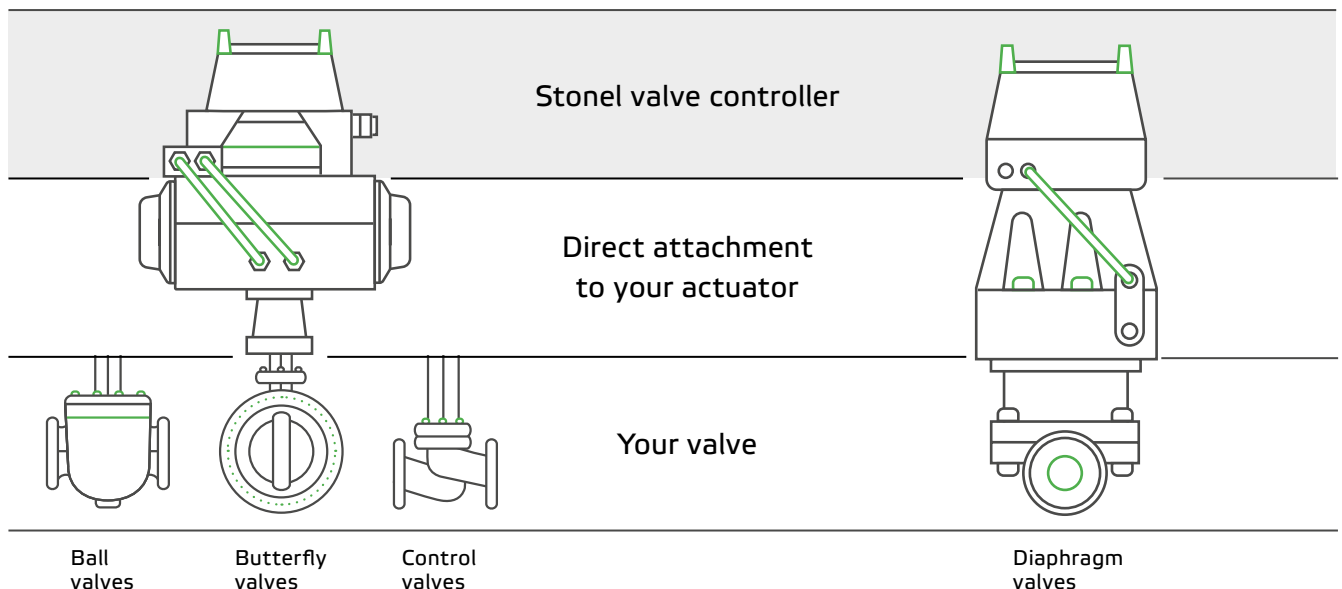
Valve communication and control offering

Minimize total life cycle cost when implementing proven, field-based digital communication technologies available in the Axiom, Eclipse and Prism.

Common features allow easy commissioning and configuration

→ Convenient push button settings accurately lock in open and closed positions and will safely remain in placewhen power is removed and reapplied

→ Bright LED and mechanical visual indication

→ Certified for use in hazardous and washdown environments

→ Withstands typical process environment corrosives

→ Rapid enclosure entry

→ Network capable and secure, convenient remote access with Wireless Link option

→ Advanced valve diagnostics available

→ Mounting kits for many actuator brands

Rotary (Axiom/Eclipse)

Linear (Prism)

Stonel valve controller

Direct attachment to your actuator

Your valve

Ball valves

Butterfly valves

Control valves

Diaphragm valves

Rotary applications:
Axiom

The Axiom discrete valve controller can be ordered with multiple options to fulfill your requirements; standard solid state, network-enabled, and Stonel's Wireless Link diagnostics and advanced capabilities. Each share most of the same components and functions.

Features:

- Integral, high flow rate solenoid valve in single or dual pilot configurations
- Internal and optional external manual pneumatic overrides
- Wiring terminations or quick connector
- Advanced valve diagnostics versions available
- Universal voltage
- Rebreather
- Full 5 year warranty
- **Bulletin reference:** 7AN21

Rotary applications:
Eclipse

The Eclipse delivers many of the same features and benefits as the Axiom, with some exceptions. The Eclipse is your solution of choice in applications and processes that require the solenoid to be mounted externally.

Features:

- Very low-profile design
- Convenient wiring compartment and pre-labeled terminal strip enables rapid installation
- Additional termination points and dual conduit entries eliminate junction boxes for solenoid valve termination
- M12 connectors with potted and sealed enclosure eliminate any threat of moisture contamination in wiring
- **Bulletin reference:** 7ECL21, 7EC20

Linear applications:
Prism

The Prism integrates an advanced position sensing system and integral pneumatic control for sanitary diaphragms and other linear applications. Its intuitive operation means set up is easy and can be completed in only seconds.

Features:

- Accurate sensor position measurement over a wide temperature range
- Repeatable position indication using automatic tuning of the open and closed deadband
- Extremely flexible mounting in just minutes
- Minimal space envelope requirements
- Convenient access to conduit and pneumatic connections as the entire assembly can rotate every 45°
- 4-20mA Expeditor feature (PI80 and PI81) for precise measurement of stroke position with strong control signal
- **Bulletin reference:** 7PI21

Reliable solutions for networking and control system integration

Valve automation and networked valve control devices improve the quality and availability of diagnostics data. At the same time they help reduce maintenance costs and safety risks at your plant.

Reliable networking components

Stonel FieldLink™ products and services enable automated valves and instruments to interconnect with your plant's control system using standardized, proven, field-based communication protocols.
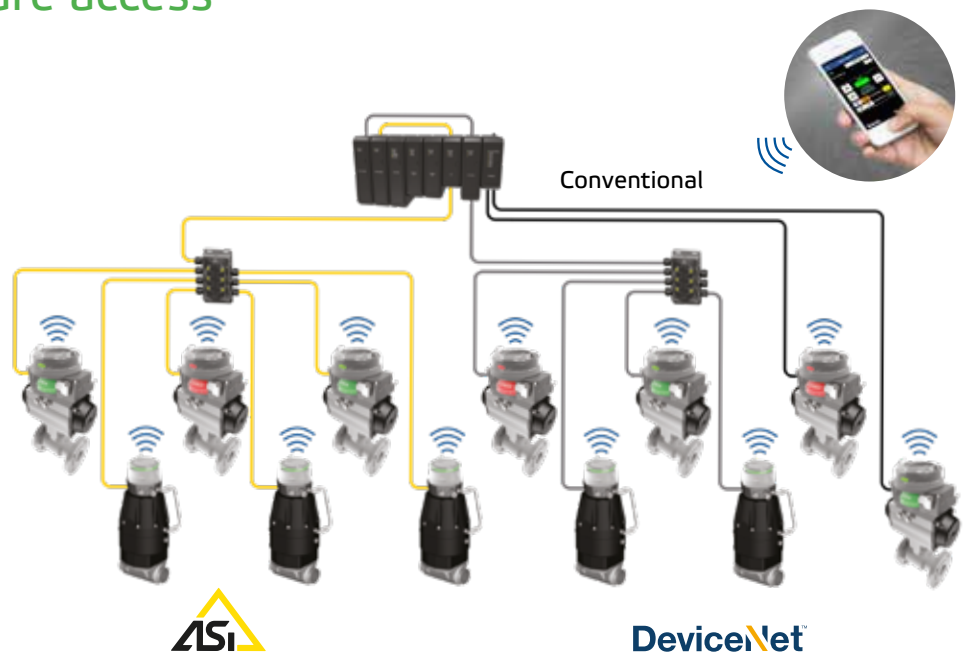
We offer a full array of components to cost effectively and reliably complete the valve communication network. That includes power supplies, control system interfacing gateways/masters, robust protected drop connector systems and connectivity accessories.

Easy, safe and secure access with Wireless Link

Optional remote mobile device access

You can set the sensors from a remote location using the Wireless Link app on an iPhone or iPad without ever opening the cover. This option is available in the Axiom, Eclipse and Prism platforms for AS-interface and DeviceNet bus networks and in the Axiom and Eclipse platforms for conventional applications.

Conventional

ASi

DeviceNet™

Benefits of Wireless Link

1 **Fast, convenient set-up for** valve automation suppliers without special equipment.

2 **Electronically enter and store** key automated valve system information including:

- End user tag number/information
- Valve and actuator identification, as well as model and serial number information (preset from factory)
- Maintenance log.

3 **Improve safety by easily accessing hard-to-reach automated valves** without putting plant personnel at risk.

4 **Reduce network commissioning time** by accessing the VCT address and baud rate for making changes if necessary.

5 **Reduce maintenance time** by monitoring valve cycle count, storing maintenance logs, and accessing multiple valves from one location.

6 **Conveniently retrieve installation manuals** from the website when connected to internet.

7 **Up-to-date diagnostics data** provides an accurate view into valve performance at a glance.

Valmet's professionals around the world work close to our customers and are committed to moving our customers' performance forward – every day.

Valmet Flow Control Oy

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Valmet ◆