Pharmaceutical and biotech valve communication networks

StoneL®

Reduce costs

Fast & easy set up

Improve safety

Ease of assembly and use, lower construction costs, and improved safety

We provide solutions that help reduce installation costs through easy set up, faster commissioning, and enhanced valve identification. Bright electronic indication combined with optional remote wireless access provide enhanced risk management and improved safety.

Pharmaceutical and biotech companies are facing increasing competition and need increased efficiency, reduced costs, and agility. StoneL is working with global industry leaders to address those needs.

Reducing cost at your plant

Combining StoneL's Prism or Axiom platforms with a DeviceNet™ or AS-Interface protocol system to interconnect your automated valves will lower your construction costs and install faster than conventional systems. These systems require less space in your process

because the input/output (I/O) points reside within the valve communication terminal (VCT) so minimal I/O racks are utilized.

The reduced installation footprint also means less cabling. And because our products have a reduced size envelope, maintenance is faster and easier and you don't have to remove the cover. Now you can stroke your valve, read the device tag and diagnostics, and set the valve to open or closed… ALL from a safe convenient location. That will save you maintenance time!

Installation cost comparison

	Conventional	DeviceNet™
Valve monitor; VCT and Solenoid	$510	$720
Conduit and wiring ($8/ft)	$1,200	$160
I/O cards; DeviceNet™ scanner	$30	$100
Power supply	$20	$30
Total installed cost	$1,760	$1,010

per discrete automated valve

→ **$750** Savings

New technologies and enhanced capabilities: overcoming new challenges

The increase in product purity and quality standards in your industry, along with increased competition, is spurring investments in new technologies and enhanced capabilities that deliver improved quality and competitive agility.

Compact size

Both the Prism and the Axiom are feature rich and designed to meet the increasing need for smaller, lighter and more durable products to conform to the needs of moveable process skids and flexible manufacturing. The integral solenoid allows for smaller overall envelope size on the skid because there is less tubing and cable connected to the complete valve assembly.

Precise monitoring

StoneL's Axiom and 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 maintenance costs over the valve's life cycle.

Predictive maintenance

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 sensor temperature and cycle counts. This data can help maintenance circumvent a problem before it causes danger or downtime and allows you to extend the life of critical valves.
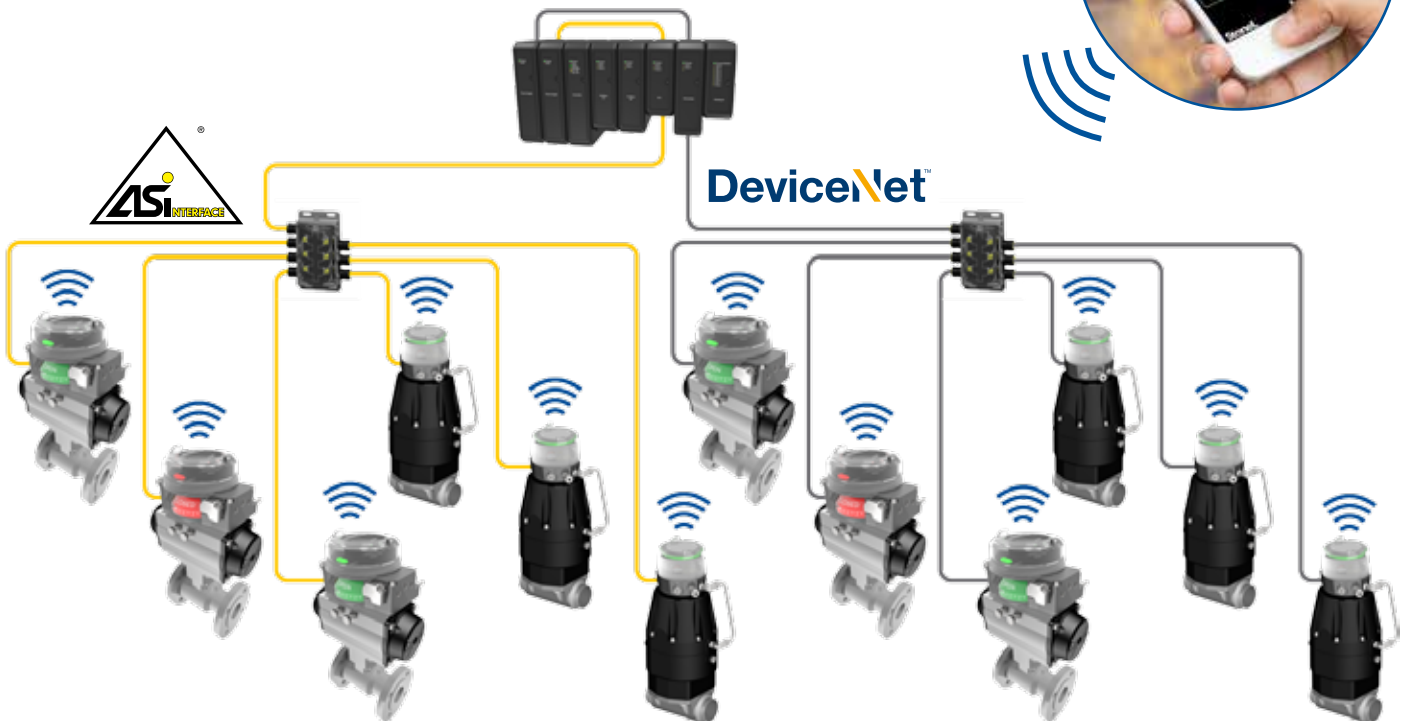
Improved safety with StoneL Wireless Link

Safely, securely and conveniently access difficult to reach communication and control modules. Using standard iPads or iPhones with the StoneL app, further cost savings may be realized. Security is assured with operational/lockout privileges. You will no longer schedule maintenance based on calendar days. With access to cycle count data, you can perform valve maintenance when it is truly needed and replace parts prior to wearing out.

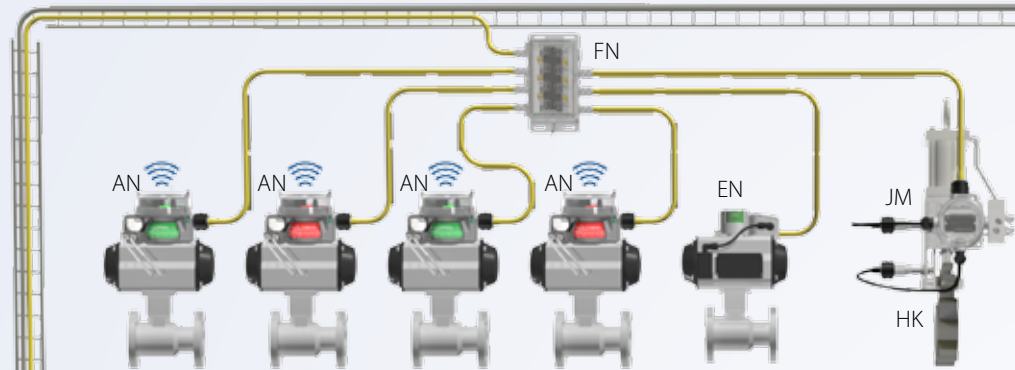**Remote access with optional StoneL Wireless Link**

- Access devices up to 50 meters, depending on obstructions
- Monitor on or off line and set open and closed switch positions
- Monitor and set the network address
- Operate solenoid valve(s) (if network- or power supply-enabled)
- Identify model and serial number (preset from factory)
- Identify valve automation components (entered by valve supplier)
- Log maintenance information

- Monitor diagnostics (valve cycle count, electronics temperature, and more)
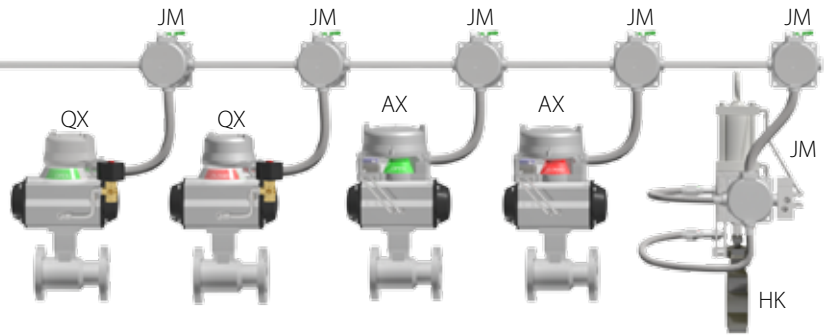- Lockout of settings automatically when in operation.

DeviceNet™

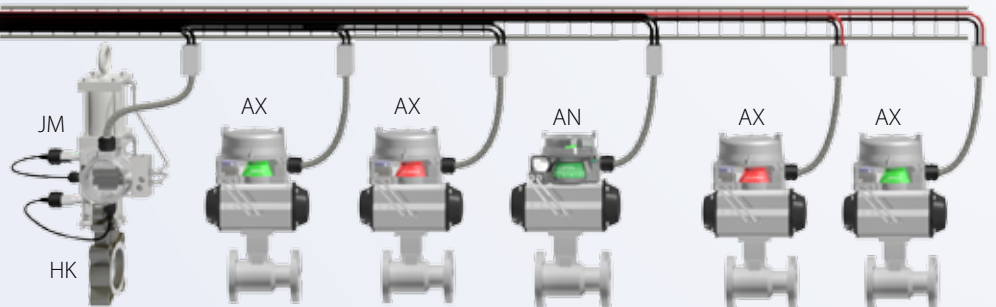# Improved process performance and reduced total life cycle costs

Division 2/Zone 2

FN

AN AN AN AN EN JM

HK

FR

PS GW

JM

Division 1/Zone 1
Explosionproof

ASI INTERFACE

JM JM JM JM JM

QX QX AX AX JM

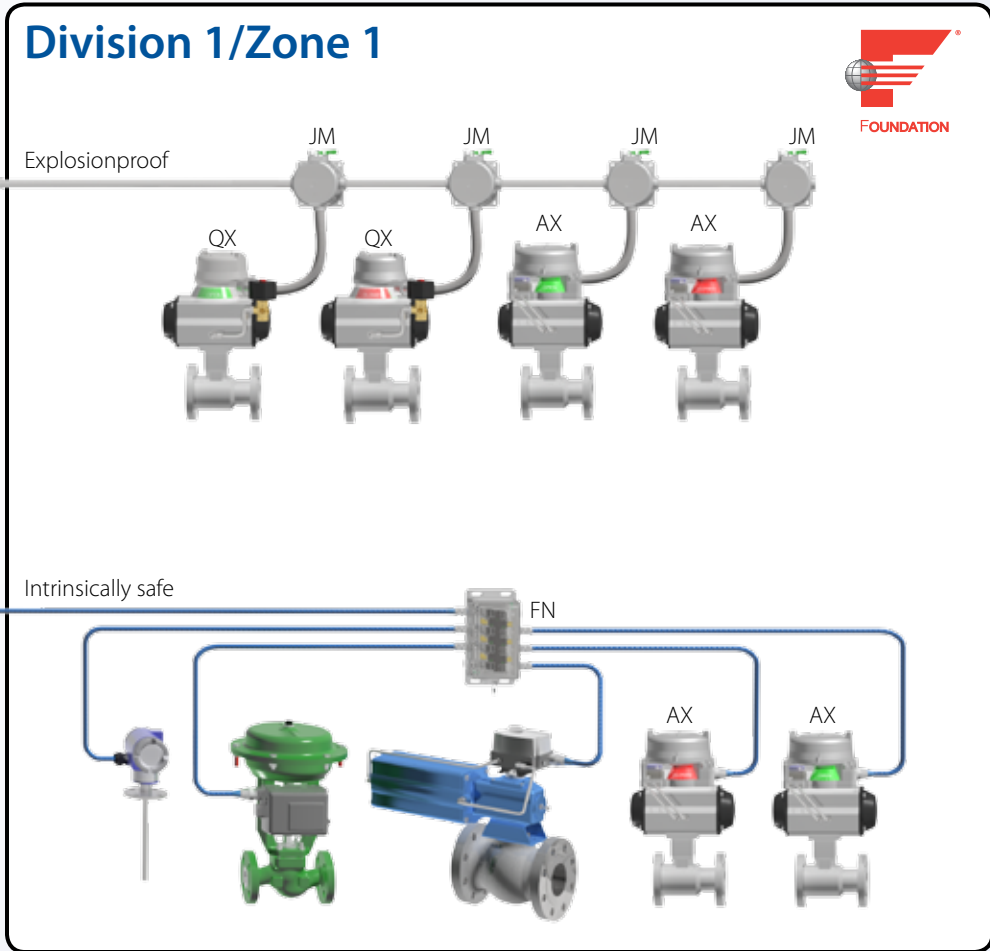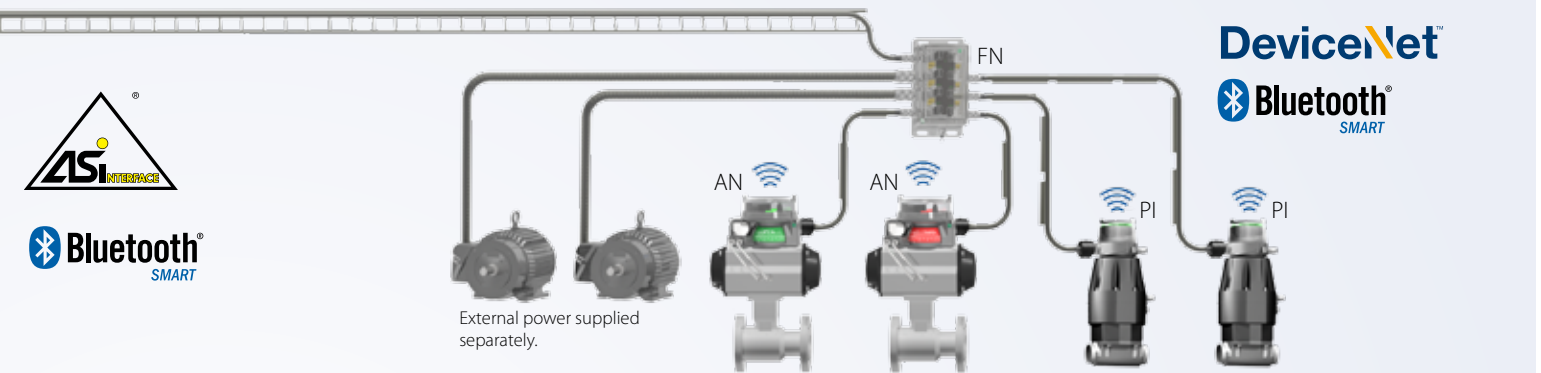HK

HART
COMMUNICATION PROTOCOL

Conventional

JM AX AX AN AX AX

HK

Integrating your automated valves

To operate at optimum performance all components of your process need to be effectively integrated with your control system. We work with your design team and control systems suppliers to define and create the right communication and control interfaces for your discrete valves. Then we recommend the right StoneL components to fit your system and make it work together effectively.

DeviceNet

Bluetooth SMART

FN

AN   AN   PI   PI

External power supplied separately.

ASi INTERFACE

Bluetooth SMART

Division 1/Zone 1

FOUNDATION

Explosionproof

JM   JM   JM   JM

QX   QX   AX   AX

Intrinsically safe

FN

AX   AX

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

Valve communication and control

Linear applications

Prism PI – intelligent valve communication and control

The Prism PI 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; you won't need written instructions and can be completed in only seconds. And, if you are utilizing bus-networked communications, you can set the sensors on an iPhone or iPad from a remote location without ever opening the cover. The Prism PI also offers:

- Highly accurate sensor position measurement over a wide temperature range
- Deadband flexibility to eliminate spurious alarms resulting from varying stroke lengths during normal operation
- Consistent position indication using automatic tuning of the open and closed deadband
- Extremely flexible mounting, which can be completed in just minutes
- Minimal space envelope requirements
- Convenient access to conduit and pneumatic connections because the entire assembly can rotate every 45 degrees
- Mounting kits for many actuator brands, allowing flexibility in a variety of valve applications.

The intelligent sensing system offers precise feedback with automatic tuning of open and closed deadband. (Trigger shown in open position.)

Quarter-turn applications

Axiom – hazardous location rated with integral pneumatic control

Our Axiom platform was designed to address quarter-turn process valve applications using advanced, proven technologies. The Axiom discrete valve controller can be ordered with multiple options to fulfill your preferences. Our standard solid state devices, our advanced network-enabled diagnostic devices and our Wireless Link capabilities share most of the same components and functions:

- Low profile
- VDI/VDE 3845 (NAMUR) actuator mounting
- Integral solenoid valve(s)
- Non-contact position sensing with push button limit switch setting
- Wiring terminations or quick connector
- Visual mechanical and electronic LED position indicators
- Network capable options: AS-Interface, Foundation Fieldbus, or DeviceNet™
- Internal and optional external manual pneumatic overrides
- Advanced valve diagnostics versions available
- Third party certified for use in hazardous locations and heavy wash-down environments
- Secure, convenient remote access with Wireless Link option.

FieldLink
Reliable networking components

StoneL's FieldLink products and services enable automated valves and instruments to interconnect with your plant's control system using standardized, proven, field-based communication protocols such as AS-Interface, DeviceNet™, Profibus, Foundation Fieldbus, and more.
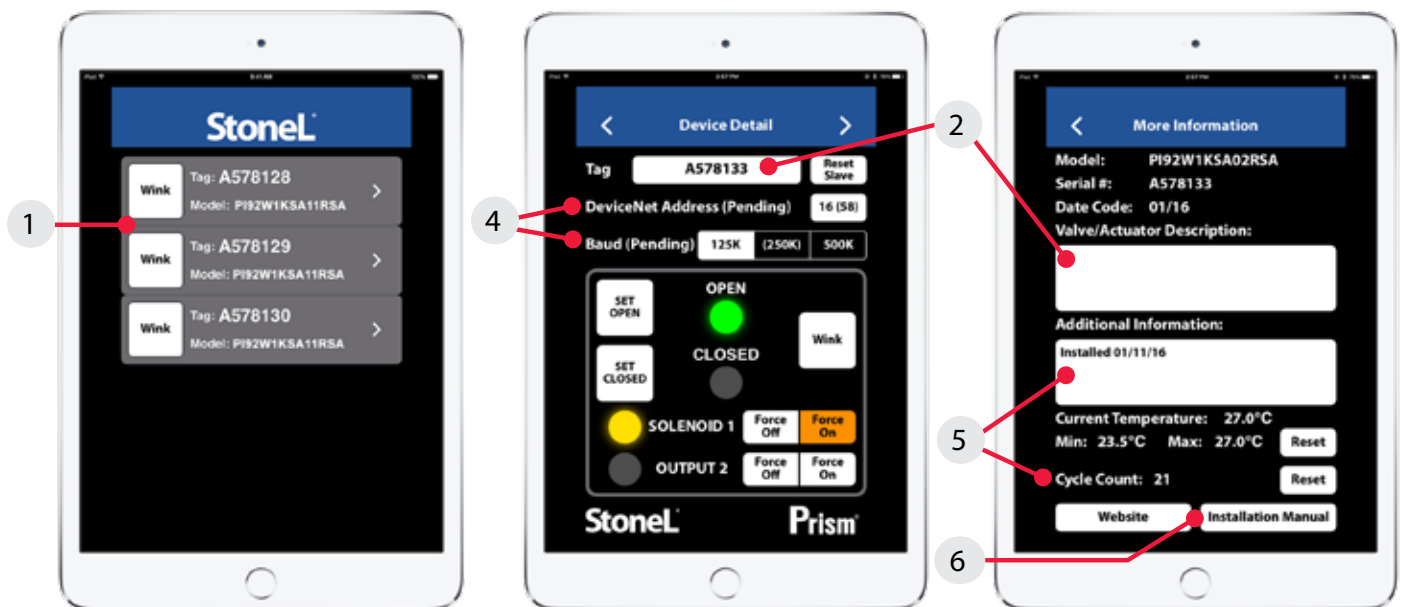
StoneL offers a full array of components to cost effectively and reliably complete the valve communication network. That includes power supplies, control system interfacing gateways/masters, robust protected drop connector systems and connectivity accessories.

Drop connectors are available independently for your own stainless steel enclosure.

Easy, safe and secure access with optional StoneL Wireless Link

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** and StoneL website when connected to internet.

StoneL®

Valve Communication Solutions