

Light
Cost effective
Space efficient





Less space and weight, lower construction costs, and faster installation

Modern ships are highly automated, self-contained chemical plants that operate for several weeks at sea without resupply. That's why StoneL is working with shipbuilders around the globe to overcome difficulties. By finding better solutions to integrate vessel's automated valve systems, space constraints, weight limitations, construction cost caps, and installation deadlines are minimized.

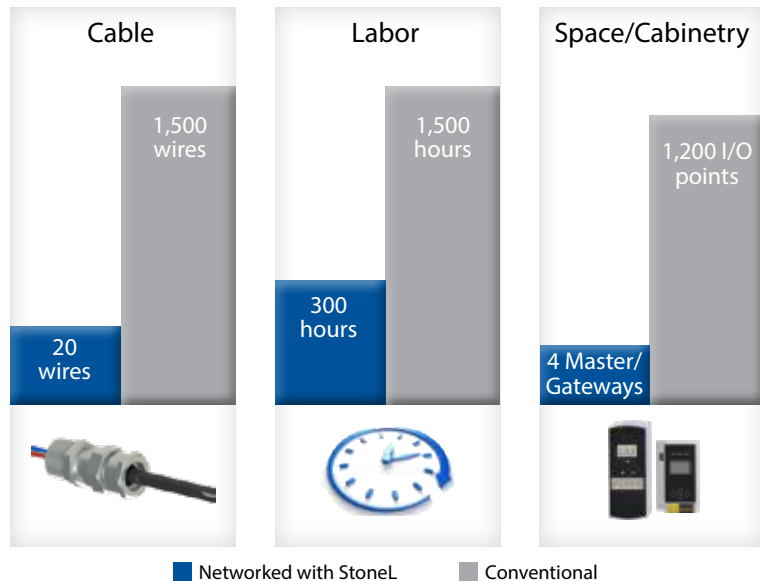
Only two wires

Conventional control systems require miles of cables and considerable input/output (I/O) points. Each process control device has to be individually wired with up to five or more connections. For example, a ship with 300 automated on/off valves would require 1,500 wires and 1,200 I/O points to operate. An AS-Interface network of 300 automated on/off valves, however, requires only 20 (two-wire) cables, making it considerably less expensive, lighter, and reducing the need for I/O cabinets and infrastructure.

In some cases automated valves are located in remote areas, resulting in difficult local status indication, calibration, and troubleshooting if the valve system malfunctions. This makes routine maintenance and system review difficult, time consuming, as well as jeopardizes personnel safety.

300 automated on/off valves

Installation requirements **\$€¥£**



By reducing the number of wires required per valve the AS-Interface networking solution reduces the wiring burden by over 40 percent.

Easy access with StoneL wireless link

Safely, securely and conveniently access difficult to reach communication and control modules. Using standard iPhone or iPad with the StoneL app, further cost savings may be realized. Security is assured with operational/lockout privileges.



New technologies and increasing demand: overcoming new challenges

Over the previous decade new technologies, as well as an increasing demand for oil and gas, have spurred new investment in off shore drilling and production activities. With new regulations and a greater emphasis on safety, marine support vessels are being called on in greater numbers to supply platforms with necessary materials for drilling, production, and emergency support.

Improve vessel reliability

Platform and Offshore Support Vessels (PSV, OSV) are instrumental in bringing necessary supplies and materials to offshore drilling platforms. These vessels need to be versatile, configurable, and reliable to remain at sea for weeks at a time.

Well stimulation vessels are in high demand and need to be built quickly, within budget constraints, and be extremely reliable. These vessels have many valves above deck, and many are in hazardous locations where explosive gases are present.

Increased safety

Overcoming the loss of command signals with process control valves is one of the many challenges Stonel anticipates with shipbuilding clients. As a result, we offer manually or remotely activated pneumatic overrides that can drive the main pilot valve spool to a predetermined safe condition.

Salt water resistant

Our Axiom valve communication and control monitor can include both of these pneumatic and manual overrides, as well as a stainless steel enclosure option for salt-water resistance above deck.

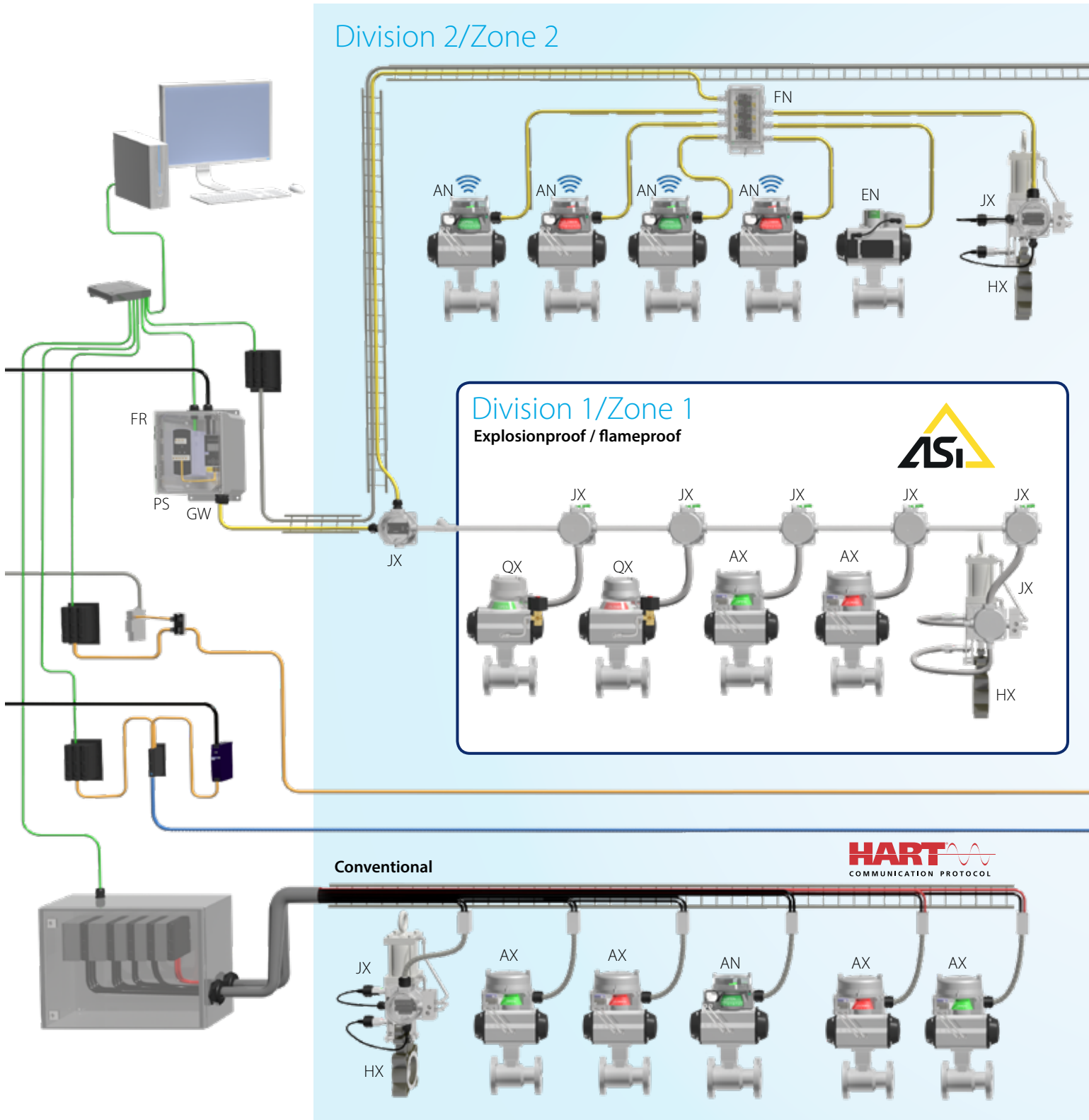


Benefits

- Axiom AX installation below deck is uncluttered.
- Easier routine maintenance and review, faster installation and safer for personnel.



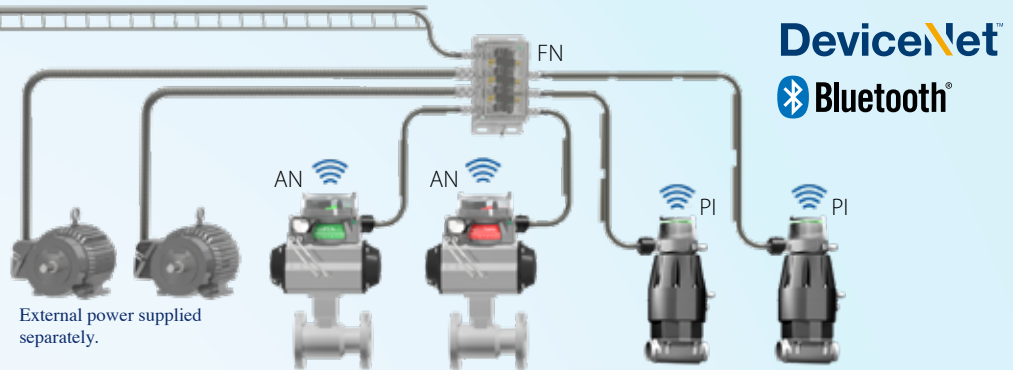
Improved process performance and reduced total life cycle costs



Multiple solutions for

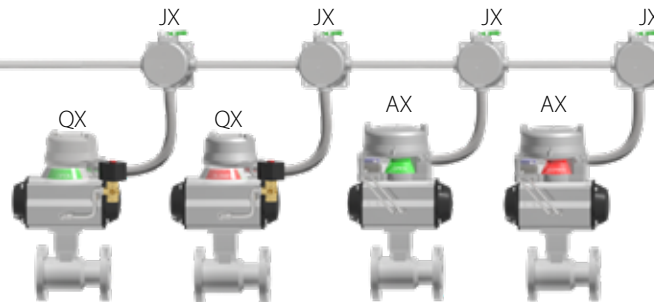
Integrating your automated valves

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.

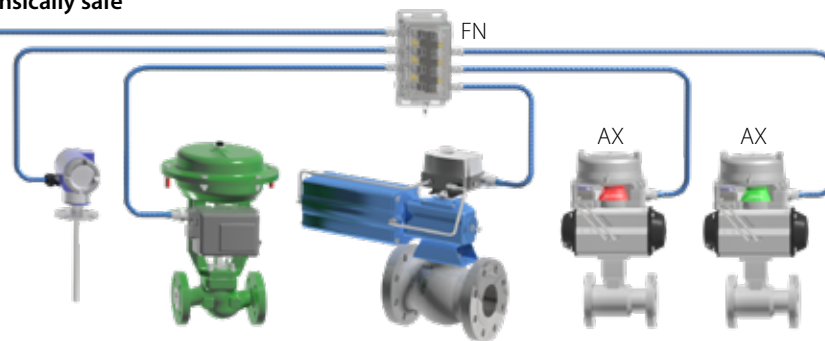


Division 1/Zone 1

Explosionproof /
flameproof



Intrinsically safe



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

StoneL

Setting the standard in valve communication networks for marine vessels

StoneL is one of the first manufacturers of valve communication and control devices to promote shipboard networks in the marine industry. We have been an innovator in creating robust networking components suitable for harsh process/shipboard applications. StoneL

has supplied thousands of conventional and networked valve monitors into marine vessels operating all over the world with a full array of safe, reliable, quality products.

Axiom valve communication terminal (VCT)

The Axiom was designed to address the challenges of the marine industry using advanced, proven technologies. The Axiom discrete valve controller is available in four unique configurations that 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
- Manual and pneumatic overrides available
- Advanced valve diagnostics versions available
- Rated and approved for use in hazardous locations
- Secure, convenient remote access with wireless link option

VCT solutions

- Explosionproof Axiom AX
- Nonincendive Axiom AN

AX



AN



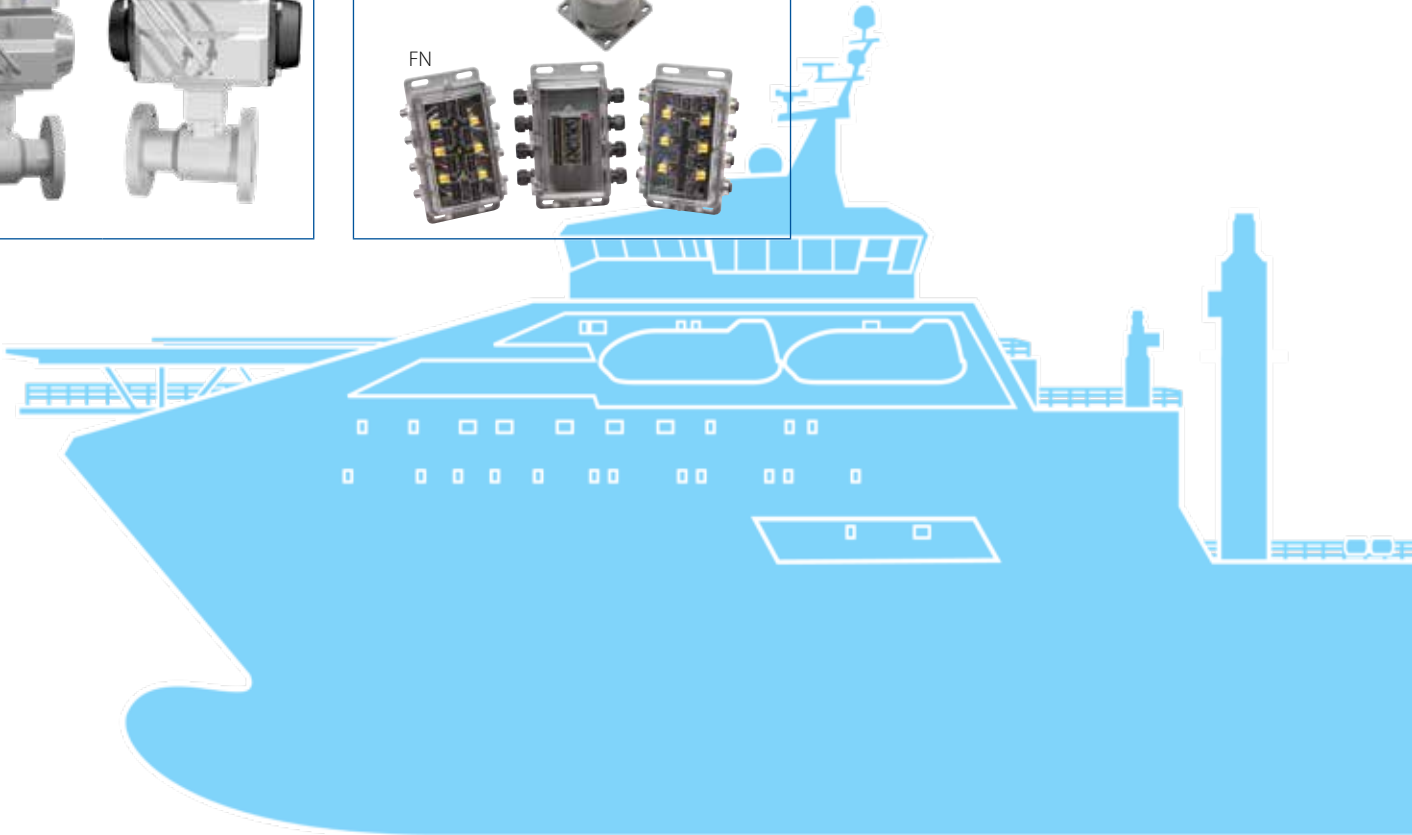
FieldLink solutions

- Explosionproof drop connector JX
- Nonincendive FieldBlock FN

JX



FN



Reliable networking components

StoneL's FieldLink products and services enable automated valves and instruments to interconnect with the ship's control system using standardized, proven, field-based communication protocols such as AS-Interface, DeviceNet, Modbus, Profibus, Foundation Fieldbus, and more.

Our BPM works with an AS-Interface network to identify and isolate a short circuit in the VCT or the main bus trunk. When a fault occurs in a field device or bus segment the device or segment is isolated, allowing the remaining devices and network to continue normal operation. When used in conjunction with the Axiom with dual coil shuttle piston solenoid, BPMs improve safety by helping to prevent loss of process control.

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 to tie the automated valve systems into shipboard control systems.

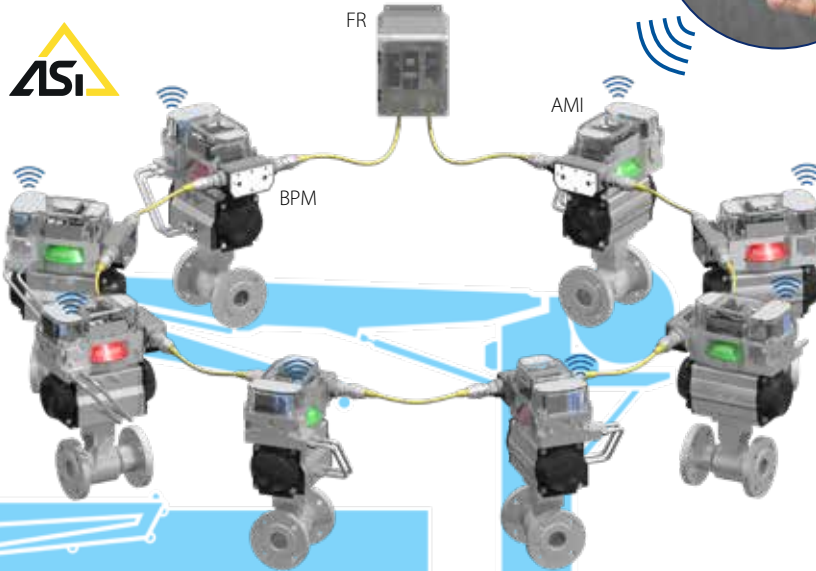


Axiom AMI with BPM module and electrical quick connectors.

AS-Interface loop configured network

Network components include

- FieldRack FR with power supply, gateway and master Bus Protection Module
- Axiom AMI VCT with optimal wireless link
- Integrated Bus Protection Module BPM with quick connectors



Easy, safe and secure access with StoneL wireless link. Remotely:

- Monitor 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)



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