

Integrating your automated valves for Improved process performance



StoneL®

Valve Communication Solutions

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Integrated valves

Improved process performance

You can increase performance by more effectively integrating discrete automated and manually operated valves with your plant control system. StoneL's valve communication and control products, along with our networking components, enable you to take advantage of proven, field-based digital communication technologies to minimize total life cycle cost.

Integrating your automated valves will result in:

- optimized valve performance
- increased process reliability
- improved safety
- reduced resource requirements.

Complete discrete valve integration

Along with integrating to the control system, StoneL offers the capabilities to pneumatically control and fully monitor your discrete automated valves. Whether your process utilizes quarter-turn, linear, or specialty discrete valves, StoneL has a solution for your application. We use state-of-the-art

position sensing and robust pneumatic pilot valves combined with digital electronics in durable, hazardous-qualified enclosures to withstand process environment extremes. By melding these technologies together, we create greater controllability, convenience, and reliability for your valve systems.

Industry leadership

Since our founding in 1989 StoneL has become a leading supplier of valve communication solutions to integrate discrete automated and manually operated valves into process control architectures.

StoneL's core focus is to contribute to customer success based on four fundamentals.

Reliability

StoneL products have demonstrated consistent, successful performance over time in thousands of applications. And, we offer the best warranties in the business.

Technology

Innovative products and solutions with user-focused engineering and proven field-based communication technologies provide exceptional performance.

Customer support

Application/networking assistance, on-site and off-site training, installation and trouble-shooting support and local channel supply make it easy for you to install and use StoneL products.

Value

StoneL valve communication solutions offer dramatic reductions in installation and maintenance costs, greater flexibility, and improved operating performance, translating into increased value over the life of your project.

Enhanced financial performance

StoneL's customers have experienced dramatic cost reductions in design, installation, commissioning, and ongoing maintenance in thousands of applications globally. And, with digital communications, diagnostic information enables you to quickly identify and correct automated valve problems before a process interruption.

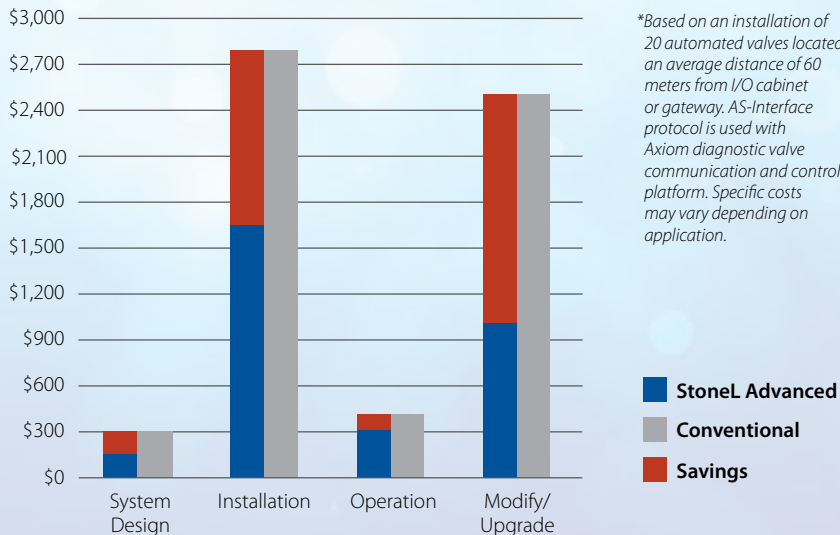
Additional savings are realized by:

- reduced plant infrastructure
- simplified wiring
- increased process flexibility.

Valve communication solutions for effective automated valve integration

- ▶ Valve monitoring
- ▶ Discrete pneumatic control
- ▶ Communication networking
- ▶ Valve diagnostics
- ▶ Integration support
- ▶ Specialty capabilities
 - intermediate control
 - bus protection
 - and more

Life Cycle Cost Savings*



Reliability

“Create constancy of purpose toward improvement of product and service.”

W. Edwards Deming
management author



Reliable products

Consistent performance

Proven reliability in the process industries

- Chemical
- Oil and gas
- Pharmaceutical
- Food and beverage
- Pulp and paper
- Biotech
- Shipping
- Biofuels
- And more . . .

StoneL is committed to delivering products that offer consistent reliable performance. That's why we back up our promise with the best warranties in the business – **five years** for electronic modules and **two years** for mechanical parts.

Proven performance in hazardous areas

The ability to operate reliably in corrosive, hazardous process environments while minimizing installation and maintenance costs is a cornerstone of StoneL's commitment to you. Whether your installation requires explosionproofing, intrinsic safety, or nonincendive protection concepts, StoneL is able to offer the installation support and international component certifications to meet your requirements. In addition, we will provide recommendations on appropriate communication protocols, related protection concepts, and asset management software.

As a result, you will experience

- improved reliability
- lower costs
- increased safety
- greater maintenance flexibility.

Building in the capability to withstand process extremes

StoneL utilizes state-of-the-art design, testing, and manufacturing processes to assure products are built to exact specifications and are pre-tested to perform effectively in process extremes. Electronic circuits are stress-tested at the factory under operating temperature extremes and final modules are performance tested throughout the assembly process. Products are also endurance-tested for resistance to water, dirt, high and low temperatures, caustics, chemicals, shock and vibration, and physical abuse.



Technology



“Innovation distinguishes between a leader and a follower.”

Steve Jobs
CEO, Apple Computers

Innovative products

Proven functionality

StoneL is dedicated to delivering innovative products using proven new technologies that make your automated valves more cost effective. Our objective is to enhance your automated valve performance as part of your process control system.

User-focused engineering

StoneL's engineers take pride in designing products that delight our customers by translating proven state-of-the-art technology into user-friendly application. And these technologies must demonstrate their suitability for use by our Reliability Engineering (RE) group. Only after these technologies are embedded in our products and pass the RE team's rigorous "crucible" testing, is the design finalized and approved for production.

Migrating forward

Our new generation of products is setting the standard for valve communication and control in hazardous process environments. One of our newest products, the Axiom,

demonstrates that leadership with its solid state continuous position-sensing system, remote or local push button monitoring settings, integrated, space-efficient pneumatic pilot control, and the capability to include intermediate control, as well as diagnostics. StoneL's product engineering will continue to build on that leadership by incorporating new technologies, including wireless, and other communication protocols as they evolve and have been proven for mission-critical process applications.

- Why our solutions work for your automated process**
- user-focused engineering
 - technological competence
 - industrial process knowledge
 - rigorous testing
 - hazardous approvals
 - rugged enclosures
 - exceptional performance



Customer support

“Our business is about technology, yes. But it’s also about operations and customer relationships.”

Michael Dell
Founder of Dell, Inc.



Contributing to customer success

Integrating your system

To help you use StoneL's technology in your process we provide

- application/networking assistance
- on-site and off-site training
- installation, trouble-shooting, and commissioning support
- local channel supply, and assistance.

From sales to installation to operational use, we are here to partner with you to contribute to your success. Integrity in all our relationships is fundamental to our customer service.

Application/networking assistance

Whether through StoneL's certified integrators or our direct factory staff we can help you create the optimal valve communication solution. Our sales and technical solutions groups are well versed in applying the best valve communication and control platform and networking configuration for your specific process. We will partner with your control system suppliers to develop a complementary solution with the right components, protocols, and wiring topologies, to optimize your process.

On-site and off-site training

StoneL offers comprehensive training to facilitate your network design, installation, and commissioning. Training sessions may be held at the factory, at your site, or at FieldLink integrator/channel distributor locations worldwide.

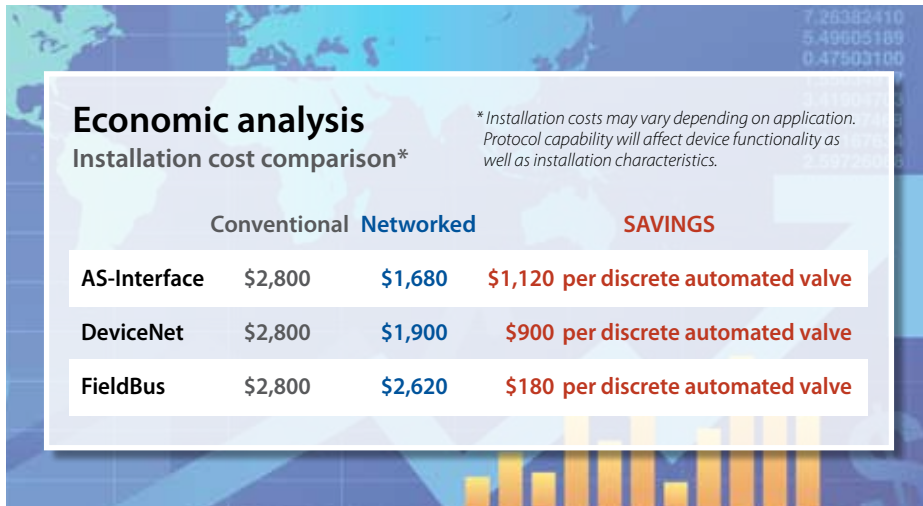
Worldwide distribution; support channels

StoneL's global network of channel partners offers you local application, installation, and ongoing maintenance support. Channel partners include:

- Valve automation distributors and OEMs: StoneL has developed close relationships with key valve automators/suppliers in industrial world markets to effectively fit and apply valve communication and control terminals to their assemblies.
- FieldLink certified integrators: Each of StoneL's certified integration partners have the capability to interface field devices with your control architecture. Whether you're installing a new network or plugging in diagnostics to your control system, StoneL can arrange a local installer to assist you.



Value



“Price is what you pay. Value is what you get”

Warren Buffet
American Investor

Optimum value for you Best in class solutions

When your valves are integrated effectively with your control architecture, your life cycle costs are minimized, your operational efficiency is maximized, and you receive the best value.

Easy to install and use products

StoneL products may be technologically advanced but are designed to be simple to install, operate, and maintain. Some of the many benefits include:

- non-contact position sensors that eliminate shaft seizures and wear points
- simple networking, making installation quick and maintenance easy
- more compact, robust enclosures which take up less space reducing infrastructure costs
- pneumatic pilot valves that tolerate standard plant air without special conditioning
- intermediate control on standard, discrete (on/off) applications
- reduced assembly clutter thru integration of discrete pneumatic control and monitoring
- adaptability to more applications without requiring specialized model variations
- convenient set up and use instructions on the product itself.

Listening to and understanding you

As part of our management system we build our quality measures around your priorities. Only by understanding the process parameters that translate into total life cycle cost reduction and improved operating performance can we build products that translate into optimum value for you. That’s why you’ll find members of the StoneL staff and channel asking questions and physically examining your applications.

We want to know more about your requirements and opportunities. If you have feedback or suggestions please email them to us at ideas@StoneL.com

From initial design to operation, our focus is on creating value, through

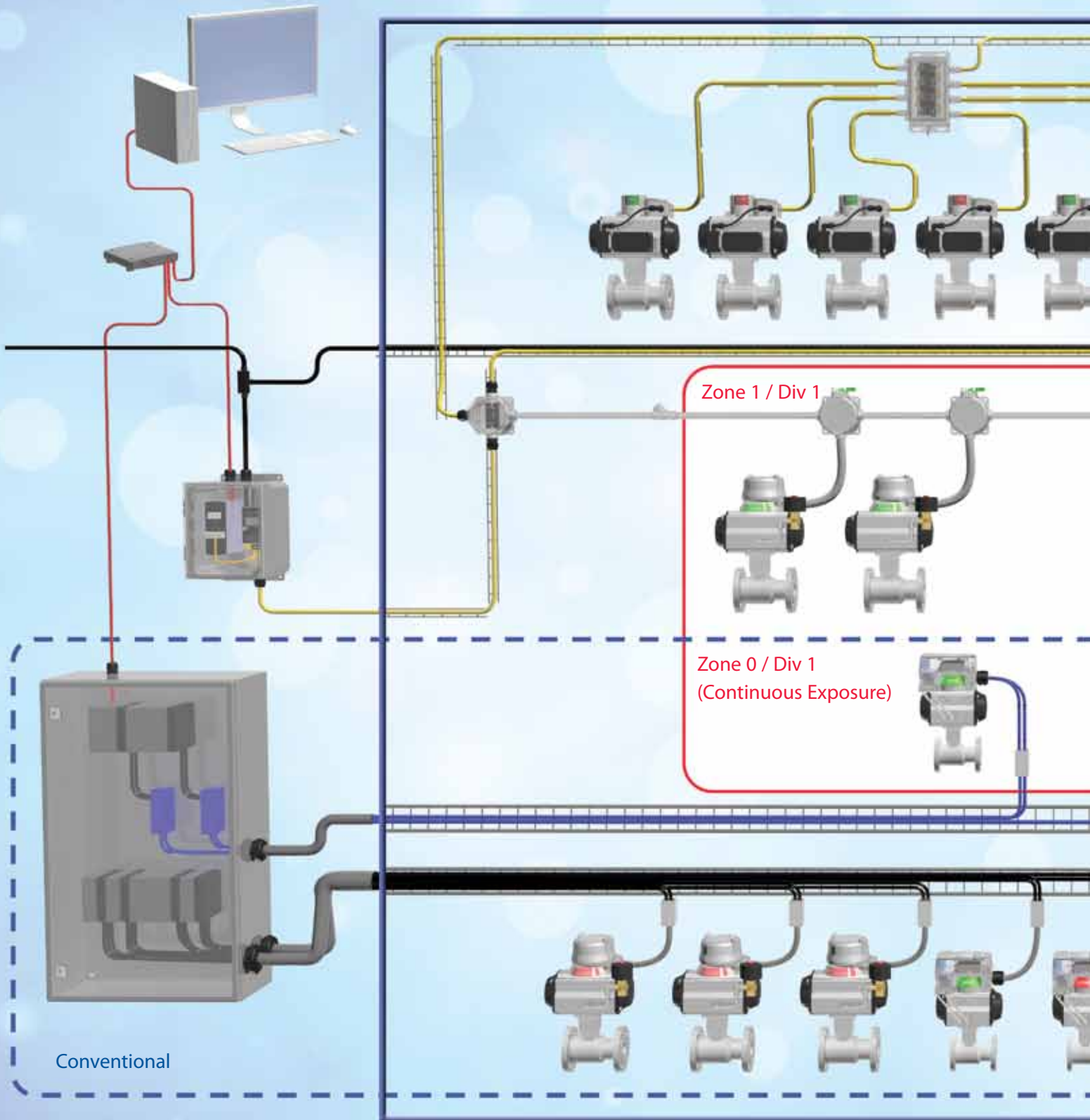
- solutions-based application support
- dependable, consistent performance over time
- features that offer real benefits
- strong warranty commitments.

StoneL invests significant resources to better understand you, our customers. Our focus is to anticipate your needs and develop product functionality that translates into real financial benefits for you.

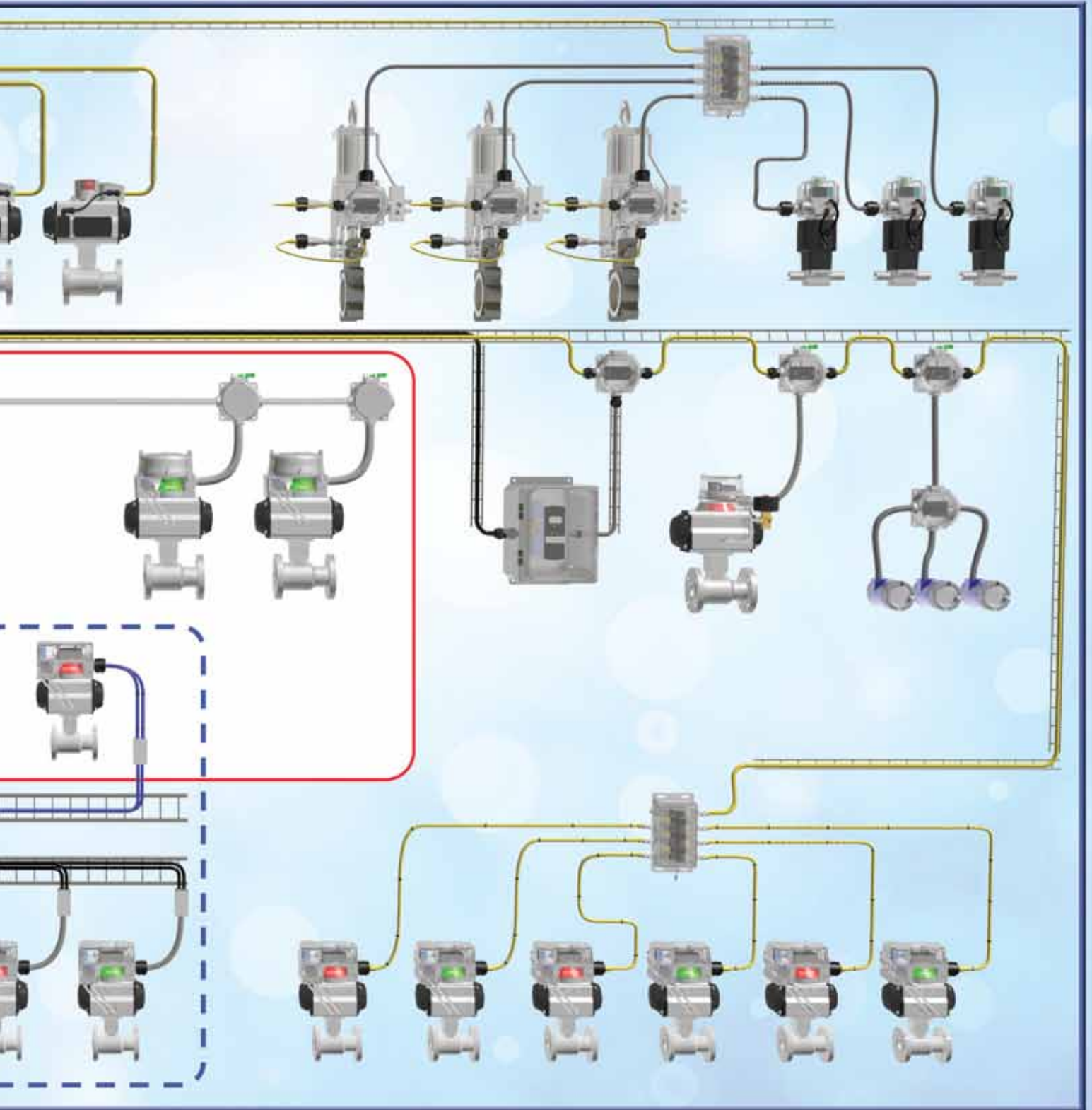


Improved process performance and reduced total life cycle costs

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.



Valve communication and control

StoneL offers a full range of monitoring, communication, and control platforms ideally suited for quarter-turn and linear discrete valve applications in extreme process environments.



Quarter-turn valve and actuator applications

Axiom AX



Explosionproof monitoring with integral pneumatic control

The AX series is suited for hazardous explosionproof applications with either a stainless steel or epoxy-coated anodized aluminum enclosure. This robust platform may be used in a broad array of extreme, corrosive process environments.

- Solid state continuous position-sensing
- Push button settings
- Integral pneumatic control
- Special pneumatic control features
- Low profile, space-efficient design

Axiom AMI



Nonincendive monitoring with integral pneumatic control

Featuring the same electronic and pneumatic control capabilities as the explosionproof version, the AMI offers a compact design with high visibility position and control status. It is ideally suited for nonincendive, intrinsically safe and general purpose applications.

- Same drive system as the AX
- Valve diagnostics available
- Intermediate control available

Quartz



Explosionproof valve monitor

The Quartz epoxy-coated anodized aluminum enclosure is ideally suited for virtually any valve monitoring application in explosionproof areas (QX models).

- Wide variety of conventional and solid state switching
- Position transmitter, and communication options
- Intrinsically safe, nonincendive, and general-purpose models (QN & QG) are also available.



Also available from StoneL

FieldCare

Providing a real-time window into your valves' performance



For more information visit our website at StoneL.com

Linear valve and actuator applications

Eclipse



Compact, modular, solid state valve monitor

The Eclipse monitor features two integral solid state position sensors and directly attaches to VDI/VDE 3845 (NAMUR) actuator mounting configurations.

- Extremely compact, durable unit
- Suitable for corrosive heavy washdown environments
- Versions are available in intrinsically safe and nonincendive (EN) for hazardous environments and for general purpose (EG) applications.

Prism



Monitoring and control for linear and diaphragm valves

The Prism offers self-adjusting solid state position sensing and integral pneumatic control.

- Made of durable Lexan
- Suitable for heavy washdown, corrosive environments
- Rated for use in nonincendive and intrinsically safe hazardous applications
- Electronic options include NAMUR (EN 60947-5-6), solid state switching, and communication.

Hawkeye



Point sensing applications

Hawkeye applications include end-of-travel indication for knife gates and globe valves, valve-actuator coupling sensing, and more.

- Made of 316 stainless steel and Lexan
- Fully solid state, will trigger off any conductive metal
- Electronic options include NAMUR (EN60947-5-6), solid state two-wire switching, and specialty outputs.

FieldLink: networking solutions

StoneL enables you to take advantage of field-based communication technologies to cut installation and maintenance costs and utilize valve diagnostics. In thousands of applications StoneL has demonstrated installation savings up to **40 percent**, improved flexibility, and reduced infrastructure requirements.



Explosionproof: JM

Junction Module



StoneL's explosionproof junction module is suitable for use in corrosive process environments with hard conduit or flexible wiring systems. It features external drop switching capability with explosionproof ratings for use in hazardous zone 1/Div 1 areas. In addition to drop connectors the JM also is available with I/O module, repeater, power conditioner, and many other functional capabilities.

Specialty applications

Integrated pneumatics, special sensor connectivity and other arrangements may also be configured with the JM.



Also available

Drop connectors, I/O modules and other accessories used in the JM and FN are also sold separately for DIN rail or conventional attachment in other field enclosures.



Drop connectors

Available to connect 1, 2, 4, or 6 devices into the network with switched protected, protected, and unprotected versions for most field-based protocols.



I/O modules

Interface conventional discrete and analog field devices into communication networks. Select from multiple configurations and protocols.



Repeater/power conditioners

These components are readily available to extend or enhance your network's performance.



Network Training

StoneL offers comprehensive training programs to facilitate your network design, installation, and operation. Courses provide an understanding of communication protocols, networking concepts, and hazardous area compliance. Training sessions are held at the factory or at selected FieldLink integrator locations throughout the world.

Nonincendive and intrinsically safe connectivity: FN

FieldBlock



The FieldBlock platform is designed to interconnect field devices to the communication network in nonincendive, intrinsically safe, and general purpose applications. It may be used for flexible and hard conduit wiring systems. With its rugged corrosion proof enclosure, variety of drop connector, and I/O module configurations it will prove invaluable in field networking applications.

Internal components available separately.

Drop connectors and I/O modules are also available for DIN attachment or direct mounting.

Other networking components

Select from an array of components to complete your network



Masters/gateways

- Control the network segment and may interface from one protocol to another.
- Many options are available with emphasis on AS-Interface to higher level networks.



Power supplies

- Specially designed for process applications.
- Ideally suited for communication applications.
- Units available for hazardous nonincendive applications in the field and are short circuit protected.



Other components

- Field enclosures
- Terminators and tuners
- Network cable
- And more.

Proven performance

In thousands of applications StoneL has demonstrated:

- Successful operation in severe hazardous areas
- Tolerance to heavy washdown and corrosive environments
- Dramatic cost savings with networking
- Improved process performance with intermediate discrete control
- Reduced maintenance with on-board diagnostics
- Universal adaptability to process valves



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Technology developments

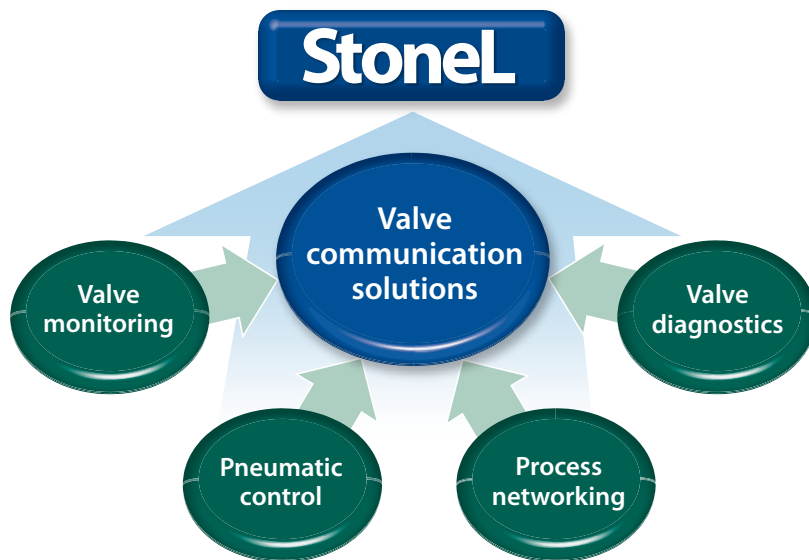
StoneL is certified to current ISO 9001 standards both in North America and internationally. And StoneL products are, as a routine practice, approved for use through internationally recognized test labs to IEC, NEC and CEC based standards for use in worldwide markets.



1990	Quartz explosionproof valve monitor
1992	Onyx Lexan enclosure with integral pneumatic valve
1995	Solid state AC/DC proximity sensors
1996	Hawkeye hazardous area solid state point sensors
1997	Eclipse modular solid state monitoring system
1998	AS-I valve communication terminal (VCT) and I/O modules
1998	FieldLink process networking solutions
1999	DeviceNet & Modbus VCT and I/O modules
2000	JM explosionproof drop connectors
2001	Hazardous rated communication power supplies
2002	Foundation Fieldbus VCT and I/O modules
2002	FieldBlock general purpose multi-drop connectors
2003	Prism valve communication & control for diaphragm valves
2006	Axiom advanced valve communication and control
2007	Axiom VCT diagnostic systems
2008	FieldBlock nonincendive switched multi-drop connectors
2009	Axiom HART diagnostic system
2009	Axiom Expeditor with intermediate control
2011	Axiom Explosionproof



Putting it together



Integrating your service and support to create real value

At StoneL we are driven by technology. However, we understand that only by making it user-friendly and rock-solid reliable will we translate that into real value for our customers. We must also constantly strive to deliver that value by building the best channel organization and service support if we are to fully contribute to our customer's success worldwide.

Connecting your automated valves into the control system

Integration process

StoneL effectively integrates your discrete (on/off) valves into your process control architecture. In order to do that, we optimize all the critical facets of the valve communication and control system.

Valve monitoring/communication

StoneL is a global leader in providing reliable, field-proven technologies into practical valve monitoring applications. We provide feedback through both point-to-point and bus networked technologies utilizing state-of-the-art, non-contact, and conventional sensing technologies. Our commitment is to build on these technologies and migrate into new standardized wired, as well as wireless technologies, as they become suitable for field applications.

Discrete (on/off) and intermediate pneumatic control

Tying pneumatic control into your valve communication system is the next logical step in fully integrating and optimizing discrete valve control. With integrated pneumatic control, electric pilots are easy to connect, space-efficient, and cost effective. And, with onboard "smart" capabilities, intermediate control, and more energy-efficient solutions may also be realized.

Process networking

All the links must be connected in the communication network to integrate your process valves effectively. That's why StoneL created the FieldLink program. We proactively design and manufacture the right networking components for protocols suitable for your process and plant environment. Our philosophy is to use best in class components to optimize your process valve network. And, in many cases we have introduced products to fill vital niches where optimal networking components were not readily available.

Valve diagnostics

The byproduct of valves that think and communicate is predictive diagnostics. Our aim is to utilize smart technologies and systems to give you a window into your automated valve's performance. Whether that's by using FieldCare on your maintenance PC or integrating another asset management program, our objective is to enhance your existing system to help you realize predictive maintenance and trouble-shooting programs.

Visit StoneL's website

StoneL.com



- Installation manuals
- Product information
- Model selection guides
- Customer service tools
- Data sheets
- Order status
- Approvals
- Mounting kits

StoneL[®]

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