A single instrument solution across your facility.



# Fisher<sup>™</sup> FIELDVUE<sup>™</sup> DVC6200 Series

**Digital Valve Controllers** Meet your process reliability and performance goals by bringing intelligence to your entire valve assembly.



## You need to increase reliability, safety, and performance while reducing maintenance time and cost.

You're constantly under pressure to stretch the limits of your processes. You must increase efficiency while improving control in varying plant conditions. Your current maintenance strategy is reactive and you don't have time to take advantage of planning expertise and support. To make an impact on your bottom line, you need to improve overall valve assembly performance and production.

"ARC (Advisory Group) estimates the global process industries lose \$20 billion, or 5 percent of annual production as the result of unscheduled downtime." –ARC Advisory Group



"Processes can expose instrumentation to extreme temperatures, vibration, and high pressure. If your products can't withstand these conditions, your production and personnel may be at risk." –Lorin Miller, Director of Marketing, Fisher Instrumentation

"One study by the Gartner Group found that, in process plants, 50% of maintenance work was not necessary and 20% was actually harmful. You simply cannot afford to spend 50% of your time working on the wrong things." –Valve Magazine



"The ability to prevent unexpected shutdowns and maintain control valve performance is directly linked to profitability." –Valve Magazine





Instead of worrying about how poor reliability and performance are undermining your process operations, what if you could focus on making your plant more effective and efficient?

# Fisher FIELDVUE DVC6200 digital valve controllers help you improve performance and productivity.



Fisher FIELDVUE DVC6200 instruments are valve-mounted, digital valve controllers from Emerson that bring intelligence to the entire control valve assembly. Keep your process in control using vital, real-time information that can be accessed anywhere along the loop. With the ability to detect issues before they become a problem, you can reduce maintenance time and cost, and improve facility operational performance. This versatile instrument can be used in a broad range of applications with any host and any valve—significantly reducing inventory and personnel training.

#### FISHER



– Instrument and Electrical Technician, Gas Processing Plant

# Increase productivity, uptime, and efficiency.

"The FIELDVUE DVC6200f instrument continues to perform with good accuracy and reliability. It has paid for itself many times since it was installed." – Maintenance Engineer, Shanghai Ethylene Cracker Complex

Productivity ▶ p5

#### Rely on trusted support throughout your plant's lifecycle.

"Our local Emerson sales and services personnel came through. Their data-driven results enabled us to avoid valve replacement costs and trip penalties. They saved us up to a million dollars on the warranty alone." – Operations Manager, Midwest Power Plant

Support ▶ p9

# Handle the majority of your critical applications.

"The device was easy to install, program, and set up. Operating trouble-free, the device enables critical, hazardous-service valves to provide accurate and repeatable response throughout its range of travel." – Richard Felding, Instrument Technician, Orica

Versatility ► p7

# Detect issues before they become problems.

"In some cases, diagnostics data prompts us to take immediate action. But more often, we can plan valve repairs for the next scheduled shutdown—enabling us to make sure parts are staged and technicians are equipped to safely and efficiently correct any problems." – Tactical Reliability Engineer, Herbicide Production Plant

Diagnostics > p11



## Increase PRODUCTIVITY and extend uptime.

You have tight process goals to meet. With varying applications and areas in your plant, you need a simpler solution to maintain and extend uptime. You need your assets to maintain and improve plant production. Keep your process in control using vital, real-time information about your valve assemblies. You need to test all valves in all applications—make it easier with one instrument.



#### What's your challenge?

"ARC (Advisory Group) estimates the global process industries lose \$20 billion, or 5 percent of annual production as the result of unscheduled downtime." –ARC advisory Group



#### What's your opportunity?

Don't let unscheduled downtime impact your bottom line. Test and analyze your equipment performance to keep your plant up and running.

#### Run the necessary in-service tests to optimize production



Online Scheduler allows you to specify a time and date to automatically run tasks on a regular basis. In-service diagnostics can be scheduled on a recurring daily, weekly, monthly, or yearly basis. A summary of the outcome of scheduled tasks is available from within the scheduler and for complete details, you can view the resulting diagnostic graphs and analyses.



Performance Diagnostics Tests enable insight to condition and performance of the entire valve assembly while the valve is actively controlling the process. Valves are notorious for causing problems that add variability—catch issues before they cost you money.



Online Friction Test and Friction Trend give you the ability to monitor friction or torque and deadband while your production is in-service. This information can then be trended over time to see changes in valve health.

#### Access data regardless of location or application



 $\sim$ 



Wireless Access to diagnostics is possible in any location with the Smart Wireless THUM adapter. It can retrofit to any HART<sup>®</sup> communicating digital valve controller and enables wireless transmission of measurement and diagnostic information.

Visit Fisher.com to view videos, proven results, and additional information.



## Broad VERSATILITY for almost every application.

Reducing process variability is key to improving product quality, especially in harsh or dangerous applications. The performance of the FIELDVUE instrument allows your operation to run closer to setpoint, improving quality with more accurate control. Any host, any valve, any actuator, any application—the FIELDVUE instrument can be used in nearly all valve applications, so you can safely and confidently meet your production goals.

#### What's your challenge?



"Processes can expose instrumentation to high or low temperatures, vibration, and high pressure. If your products can't withstand extreme conditions, your production and your personnel may be subject to danger." – Lorin Miller, Director of Marketing, Fisher Instrumentation



#### What's your opportunity?

Installed in a wide range of process applications all over the world, FIELDVUE digital valve controllers have logged billions of operating hours and have sold over 2 million products.

### Handle your critical and specialty applications



INCREASING FLOW  $\longrightarrow$ 

Antisurge Valves paired with optimized digital valve (ODV) tier DVC6200 instruments give you a highly reliable solution. Achieve setpoint with rapid response and minimal overshoot.



Turbine Bypass applications are no challenge for the DVC6200 instrument. The ODV tier DVC6200 is a key component of the ODV package for turbine bypass. Ensure quick startup, tight shutoff, and accurate performance with the diagnostic information provided by the FIELDVUE instrument.



Safety Instrumented System Tests include solenoid valve and partial stroke tests. Verify that the solenoid used with the instrument is operational and prove that the valve will respond on demand.

#### Designed to withstand hazardous environments



A Magnet Array and Hall Effect Sensor result in no sliding parts to wear, loosen, corrode, or vibrate in harsh or nonstop cycling environments. This gives the instrument a longer working life.



**Remote Mount** solutions decouple the base unit from the process environment for extended temperature and extreme vibration applications.



Encapsulated Electronics are isolated from the terminal box, conduit, and plant environment, ensuring continued diagnostics without compromise.



Stainless Steel Housing is an option that provides extended service life in hostile and corrosive environments.



# **Complete SUPPORT throughout the lifecycle of your plant.**

Unplanned shutdowns or turnarounds can cost you thousands—if not millions—in lost production. You need a proactive plan to consistently and economically retain the reliability of your assets. With Emerson's certified technicians, valve connected services, perceptive technology, original equipment manufacturer (OEM) parts and replacements, and convenient training options, you can improve your operational efficiency.

#### What's your challenge?

50%

"One study by the Gartner Group found that, in process plants, 50% of maintenance work was not necessary and 20% was actually harmful. You simply cannot afford to spend 50% of your time working on the wrong things." – Valve Magazine



#### What's your opportunity?

Reduce risk and ensure consistent, timely support by certified technicians with OEM knowledge, application expertise, repeatable processes, and perceptive technology solutions vital to safe operations.

#### Your trusted advisor in instrument and valve reliability



Worldwide Support Network of sales offices and service centers are available where you need them and when you need them. With 24/7/365 afterhours service coverage and factory trained and certified technicians, Emerson is equipped to provide maintenance, reliability, and performance services to keep your plant up and running.



Shutdown, Turnaround, and Outage Planning performed by certified technicians help you optimize and extend your plant's lifecycle. Plus, we're available to you 24 hours a day, seven days a week during the course of an outage.



Original Equipment Manufacturer Parts help you maintain plant safety and integrity. Our genuine parts are commissioned and verified to give you the confidence that your repairs will last.

#### PLANT WEB



Valve Connected Services are a part of the Plantweb<sup>™</sup> digital ecosystem and provide the ability to gather and aggregate diagnostic data across a single site and multiple sites across the globe. Emerson's certified analysts will interpret positioner data to look for patterns of systemic degradation and provide recommended actions to minimize downtime.

#### The right training, where and when you need it



classroom, traditional classroom, or through a blended learning

method combining any or all of these options.

ACCREDITED ACCREDITED ACCREDITED PROVIDER

International Association for Continuing Education and Training Certification means our instructors comply with the standards of excellence for instructional practices and Emerson is an authorized and accredited provider.

Visit Fisher.com to view videos, proven results, and additional information.



# Ongoing DIAGNOSTICS help you uncover potential issues and maintain production.

Pulling your assets out of service for inspection can extend your maintenance period and cost you money. Hard-to-understand data leaves you less confident about what's happening inside your facility. Using diagnostic services as part of your preventive maintenance plan provides early identification of performance issues. In-service diagnostics help uncover valve performance degradation and maintenance issues before it affects your process—all from a single location. Valves no longer need to be pulled from service just to be inspected for potential issues. The FIELDVUE instrument provides easy-to-understand, actionable information that can be used to improve maintenance planning and reduce process downtime.

### What's your challenge?

"The ability to prevent unexpected shutdowns and maintain control valve performance is directly linked to profitability." – Valve Magazine



#### What's your opportunity?

Even those without technical training are able to gather and interpret the easy-to-use diagnostic data and take action to prevent production loss or downtime.

#### Get the health information you need to optimize performance



Factory Data Sets are collected so that good condition is documented and can be used for comparison of valve health in the future.



Concurrent Batch gives you the ability to test valves simultaneously, diagnose, and correct problems sooner by gathering maximum data in a minimum amount of time. Zero Ranged Travel at: 3.94 mA Full Ranged Travel at: 20.02 mA Average Dynamic Error: 3.84 % Maximum Dynamic Error: 5.50 % Dynamic Linearity: 0.56 % Average Torque: 18 lbf.in Maximum Torque: 26 lbf.in Minimum Torque: 9 lbf.in

Spring Rate: 32.57 N/mm Bench Set: 3.03 - 12.16 psi

Offline Diagnostics provide a stream of actionable information to help pinpoint problems that could lead to performance degradation or loss of availability.

#### Configure, calibrate, and diagnose from one location



ValveLink<sup>™</sup> Software gives you the ability to set up and calibrate your valve assembly, monitor status and alerts, stroke the valve, perform a step test, run a valve signature, and view and save previous diagnostic tests. Options include: ValveLink SOLO, ValveLink DTM, ValveLink SNAP-ON<sup>™</sup> to AMS device manager, and ValveLink PLUG-IN for PRM.

 $\sim$ 



ValveLink Mobile Software provides an intuitive user interface that is easy to understand and use. The large touchscreen on the Trex communicator makes it easier than ever to see all valve diagnostic details. Enhanc e productivity and improve asset management with the seamless integration of your field diagnostics into ValveLink SOLO, ValveLink DTM, ValveLink SNAP-ON to AMS device manager, and ValveLink PLUG-IN for PRM.

## FIELDVUE DVC6200 Series Digital Valve Controller



#### **Product Overview**

The FIELDVUE DVC6200 Series digital valve controller is a valve-mounted, microprocessorbased instrument that brings intelligence to the entire valve assembly. The FIELDVUE instrument is available with either the HART® 5 or 7, WirelessHART®, FOUNDATION<sup>™</sup> fieldbus, or PROFIBUS communication protocol.

#### **Key Applications**

Can be used in all control and isolation valve applications.

### **Key Specifications**

- Certifications include: CSA, FM, ATEX, IECEx, CUTR, Lloyds Register, PESO, KGS, INMETRO, NEPSI, TIIS, Natural Gas Certified, Single Seal Device.
- Air or natural gas supply.
- Can easily be retrofitted in place of existing analog positioners on Fisher and non-Fisher pneumatic actuators.
- Can be mounted on any actuator or valve assembly.
- Commonality of parts across the FIELDVUE instrument helps you reduce spare parts inventory.
- Maintain superior performance, even as the control valve ages with minor loop feedback and the proprietary control algorithm.



#### **DVC6200f Digital Valve Controller**



The FIELDVUE DVC6200 digital valve controller is a HART communicating instrument that converts a two-wire 4-20mA control signal into a pneumatic output to an actuator. It provides a simple way to achieve digital communications in existing analog installations. **Emerson.com/FisherDVC6200** 



The FIELDVUE DVC6200f digital valve controller is a FOUNDATION fieldbus communicating instrument. FOUNDATION fieldbus communication allows you to quickly commission loops with a variety of tools, either locally or remotely. **Emerson.com/FisherDVC6200f** 

#### DVC6200p Digital Valve Controller

#### DVC6200 SIS Digital Valve Controller



The FIELDVUE DVC6200p digital valve controller is a PROFIBUS PA communicating instrument that converts a digital control signal into a pneumatic output to an actuator. PROFIBUS communication allows you to quickly commission loops remotely. Emerson.com/FisherDVC6200p



The FIELDVUE DVC6200 SIS digital valve controller is a HART communicating instrument for use in valve applications such as emergency shutdown, emergency blow down, emergency venting, and emergency isolation. The DVC6200 SIS instrument monitors the health and controls the safety shutdown function of the valve. **Emerson.com/FisherDVC6200SIS** 

# Control closer to setpoint with one instrument, in every application.



#### FISHER

Emerson Automation Solutions Flow Controls Marshalltown, Iowa, 50158 USA Sorocaba, 18087 Brazil

Cernay, 68700 France Dubai, United Arab Emirates Singapore 128461 Singapore



F

in

Facebook.com/FisherValves

LinkedIn.com/groups/Fisher-3941826

Twitter.com/FisherValves

© 2017, 2019 Fisher Controls International LLC. All rights reserved. Fisher, FIELDVUE, Plantweb, ValveLink, and ValveLink SNAP-ON are marks owned by one of the companies in the Emerson Automation Solutions business unit of Emerson Electric Co. Emerson Automation Solutions, Emerson, and the Emerson logo are trademarks and service marks of Emerson Electric Co. All other marks are the property of their respective owners. The contents of this publication are presented for informational purposes only, and while every effort has been made to ensure their accuracy, nothing herein is to be construed as a warranty or guarantee, express or implied, regarding the products or services described herein or their use, performance, merchantability or fitness for a particular purpose. Individual results may vary. All sales are governed by our terms and conditions, which are available upon request. We reserve the right to modify or improve the designs or specifications of our products at any time without notice. Responsibility for proper selection, use and maintenance of any product or service remains solely with the purchaser and end user. D351908X012 / MDD21 / May2019



### EMERSON. CONSIDER IT SOLVED.