Logix 500+ Series Digital Positioner

Redefining total cost of ownership for your enterprise

Experience In Motion

Flowserve® – Solutions to keep you flowing

Flowserve is one of the world's leading providers of fluid motion and control products and services. Globally, we produce engineered and industrial pumps, valves, seals, systems, and automation equipment, and provide a range of related flow management services. Our solutions move even the most volatile and corrosive fluids safely and securely through some of the most extreme temperatures, terrain, and challenging operating environments on the planet.

Flowserve products and services are specified for use in a vast range of industries, including oil and gas, chemical, power generation, and various general industries.

Logix 500+ Series Digital Positioner

*In what continues to be an increasingly competitive economic environment, commercial and municipal plants are being asked to establish and maintain high quality processes while **maximizing uptime,** and **minimizing production costs**. Any unplanned shutdown can significantly affect the economic outlook of the plant and its employees and the downsizing of trained maintenance staff has impacted the ability of plants to meet these control system challenges.*
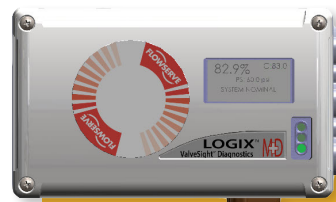
*The resulting business climate has become a driving force behind a new and rapidly evolving approach to equipment purchases: **total cost of ownership.***

Equipment requiring long commissioning times, unreliable control, or frequent repairs could drive up the actual cost of ownership dramatically. Alternatively, a product that is easy to set up provides years of reliable service and has its own diagnostic warnings may significantly reduce the overall cost of ownership over the life of the product.

Fast commissioning, accurate production, powerful diagnostics

To minimize your total cost of ownership and maximize productivity, Flowserve developed the Logix 500+ digital positioner. The Logix 500+ digital positioner allows for fast, simple commissioning, extremely accurate and reliable control, and onboard diagnostic features that provide powerful and easy ways to determine when maintenance is required. The Logix 520 MD+ models connected to the Flowserve ValveSight® DTM offer unparalleled functionality for configuring, calibrating, maintaining and diagnosing control valve operation.

To protect your company assets to the fullest, talk to your local Flowserve sales representative to learn more about true total cost of ownership.

The Logix 500+ allows for fast commissioning, accurate and reliable control, and powerful diagnostic features that provide easy ways to determine when maintenance is required.

The Logix 500+ Series Total Cost Advantage

Simple Installation

New mounting options for the Logix 500+ continue to expand the array of control valves that can be managed.

Mounting Options

Mounting holes, pneumatic ports and electronic ports are offered in Metric and English threads. Reliable linkages are easy to install. A FlowTop direct mounting kit, VDI/VDE 3847 mounting kit, and gage blocks are all available.

Valve and Actuator Options

Configurable for rotary or linear valves, double or single acting actuators, air to open or air to close, very large to very small actuators, split range, custom characterization, precision linearization and more.

Configuration and Cloning Tools

Clone configuration, alarm settings, alarm history, and/or historical trend data. ValveSight™ allows easy uploading of any Logix 520MD+ configuration. Newly installed Logix 520MD+ positioners can be configured exactly as the previous positioner, or edited as desired, with the simple click of a mouse.

Powerful Features

- **Calibration:** *Fast, accurate one button Quick-Cal*

- **Mounting:** *Versatile, including NAMUR options*

- **Commissioning:** *No software required*

- **Interface:** *Easy buttons with LCD option and high visibility LED's for operational status*

- **Performance:** *Superior control, high air capacity, low air consumption*

- **Auxiliary Cards:** *Up to 2 at a time with Analog Out, Discrete Out, or Discrete Input*

Additional Logix 500+ Features

- **DTM:** *Highly advanced with Dashboard giving instant status visibility*

- **Diagnostics:** *Extensive coverage, historical data, all events logged with time-stamps*

- **Signatures:** *Detailed reports, easy comparisons, exportable*

Fast, Easy Commissioning

Commissioning with the Logix 500+ Series positioners is fast and easy. Basic set-up, calibration, and tuning do not require software or PID expertise and can be accomplished very quickly.

Quick-Cal One-Button Calibration

Simply set the configuration DIP switches and press the *Quick-Cal* button. In seconds* the Logix 500+ is ready for control. The advanced tuning process optimizes the tuning parameters quickly and automatically.

Easy User Interface

The Logix 500+ local user interface lets you configure the basic operation, calibrate, and tune the response of the positioner with no additional tools or configurators. Blinking, high visibility LEDs allow you to see status from a distance.

LCD Screen

With the optional LCD screen, quickly use advanced functions and view the system status in 8 languages. The main LCD view shows command and position and other important information using icons and scrolling status lines – all visible without removing the cover. Directional buttons allow you to navigate the menu to locate detailed information and perform commonly used functions.
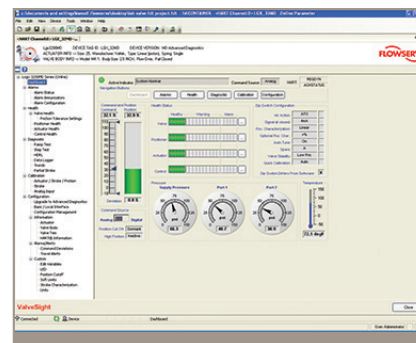
ValveSight™ DTM Software

Advance DTM software provides an intuitive, powerful user interface for all positioner commissioning, monitoring and diagnostic functions and custom settings.

*Typical calibration time for actuators 25 square inches or smaller is less than 45 seconds. Calibration time depends on total stroke time.

The Logix 500+ User Interface

ValveSight DTM Software

The advanced features of the Logix 500+ give you the flexibility to work in a wide range of applications.

Auxiliary Card Being Installed

Fully Featured Design

The Logix 500+ Series positioners integrate advanced features in a simple package. They give you the flexibility to work in a wide range of applications and the simplicity to allow you to get up and running.

Powerful Processor

A fast CPU with a real-time clock and plenty of memory enables the processor to store signatures and time-stamped event histories, calculate diagnostic functions, and maintain precise position control.

Environmental Sensors

Supply pressure, actuator pressure, temperature and humidity sensors detect developing issues and prevent failures.

Powerful Diagnostics

Over 130 independent diagnostic evaluations during calibration and normal operation provide you with a fast and accurate way to troubleshoot any issue.

Signatures

A variety of signatures record snap-shots of valve behavior for future comparisons and easy maintenance analysis.

Auxiliary Cards

Auxiliary cards expand the possibilities of communication and control. Up to 2 cards can be used at one time.

The Logix 500+ Multifunction Card (MFC) can be configured to act as an analog output (AO), discrete output (DO), or discrete input (DI). As an AO, the card reports the position of the valve with a mA current. As a DO, the card can be configured to limit output current when any of the diagnostic alarms are triggered. As a DI, setting a high voltage across the terminals can trigger the valve to move to a defined set point, or to begin a Partial Stroke Test. The LCD option must be selected when the Multifunction Card option is selected.

Limit switches

A variety of Logix 500+ limit switch kits are available to provide you with an independent verification of the position of the feedback shaft.

Vented Option
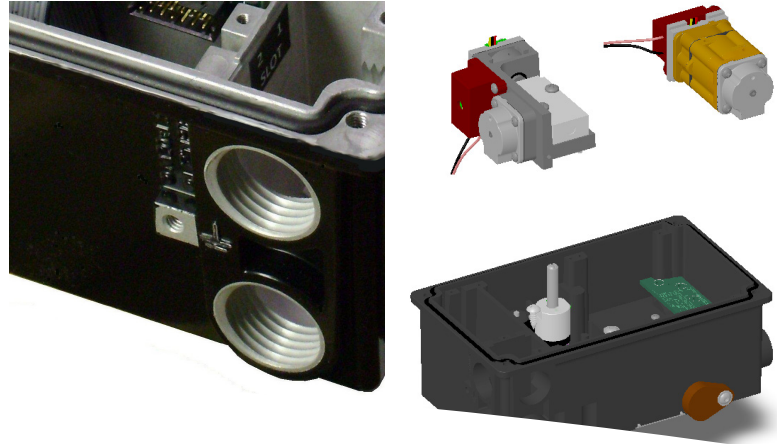
When using sweet natural gas, use threaded exhaust ports to exhaust gas to a safe environment.

Remote Mount Option

Use the remote mount feedback option for extreme environments.

Accurate and Reliable Service

High quality processes rely on accurate and reliable positioners. The Logix 500+ series positioners are designed with the latest technology to support precise control and keep the positioner in service for years.
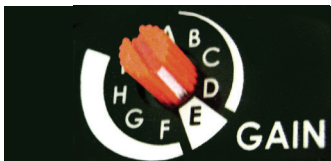
Superior Control

Precision components, inner loop control and advanced control algorithms provide Logix 500+ digital positioners with the accuracy and reliability demanded by the most critical applications.

Independent PID Gains

Independent gains for opening and closing directions are automatically set during the *Quick-Cal* and allow for optimal performance with actuators with heavy springs or process loads.

Selectable Gain Switch

A rotary switch allows you to instantly boost the responsiveness or stability of the valve without dealing directly with PID values.

Two Relay Styles

Two relay options are available to optimize your valve system performance. The high capacity spool relay will quickly move large actuators with ease and are ideal for small actuators that need the fastest response. The low air-consumption poppet relay offers great performance on single acting valves when air consumption is critical.

Heavy Duty Housing

Rated at IP65/IP66 (see table on page 14 for complete details), the housing provides tough protection from dust, liquids and impact in the most demanding environments. Anodized aluminum and epoxy powder paint minimize corrosion in wet, salt-water environments.

Purge Option

Configure the positioner to purge the spring area with instrument air to avoid corrosion in single acting low bleed actuators.
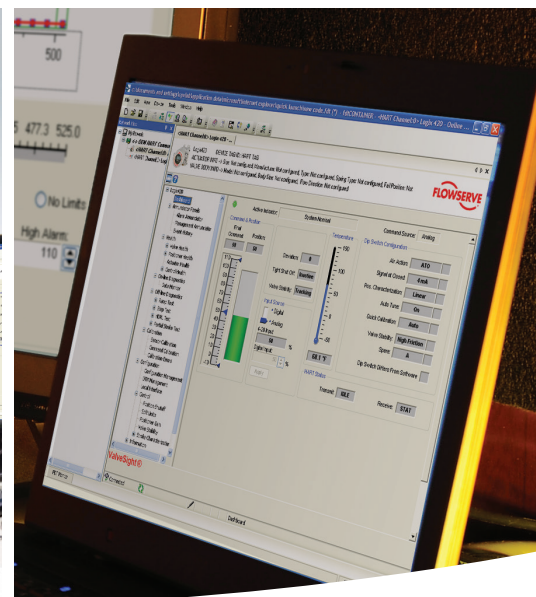
Certified for Hazardous Areas

Intrinsically safe electronics meet ATEX, IECEx and North America (cFMus).

Designed for Safe Shut-Down

Engineered with quality and reliability built in. Designed to move to the fail-safe position when current drops below 3.6 mA per IEC 61508 Safety Integrity Level 3 (SIL3) requirements.

Easy to Maintain

Logix 500+ positioners come with numerous diagnostic tools that allow the positioner to **automatically pinpoint the root cause of an issue.**

Comprehensive On-Line Diagnostics

The Logix 500+ positioner has over 130 helpful warnings alarms that roll up into intuitive health values. These onboard diagnostics evaluate key valve, actuator, positioner, and control parameters against potential failures, Logix 500+ Series digital positioners deliver real-time data to alert you of existing and potential risks, reduce the number and frequency of unplanned shutdowns, and help minimize exposure to loss. Powerful online monitoring capabilities include friction, pneumatic leak, and actuation ratio.

Modular Design

The Logix 500+ positioners are designed to withstand severe environments. Should a problem arise, service is easy with a modular design that requires simple tools. Replacement kits are available for most components.

Easy Return Policy

Logix 500+ positioners are warranted for 1 year from the time of shipment. See Flowserve *Worldwide Terms and Conditions of Sale* for restrictions and details.

Logix 520MD+ Diagnostic Features

The Logix 520MD+ model is provided with HART Protocol. When utilized with the ValveSightTM DTM software the following diagnostic tools are available to quickly diagnose problems and potential issues.

Intuitive Health Display

All alarms and warnings in the Logix 520MD+ are summarized in simple health values displayed on the ValveSight DTM dashboard. One glance shows any issues and severity. A click of the mouse shows detailed information and possible solutions to quickly pinpoint the root cause of the issue. Or, quickly adjust the alarm settings to more helpful limits.

Meaningful Alarm Limits

When the positioner first comes on line, Training Mode tracks key parameters such as position, supply pressure, and friction. Histograms provide a quick, easy visual display to help you set meaningful alarm and warming limits. Training begins automatically or can be configured to run at any time.

Overview of Current Alarms

View all current alarms, warnings and other states using the annunciator panels in the ValveSight DTM or scrolling status feature on the LCD. All alarms can be masked to allow easy management.

Logix 520MD+ Diagnostic Features Continued

Extensive Alarm History

A 200-event on-board history of all alarms, warnings and calibrations make it easy to see a progression of events. All events are time-stamped with the on-board real-time clock.

Possible Solutions

Every alarm includes a concise statement of its meaning along with list of possible solutions. This can be found quickly in the Instruction Manual* or with a few clicks in the ValveSight DTM.

Continuous Testing

With valves that typically stay in one position, the optional continuous stroke test (CST) allows the positioner to continuously monitor and diagnose the system by stroking the valve very slightly.

Long-Term Trends

Logix 500+ positioners track 14 parameters over 15 years to help determine changes in processes or performance.

Real-Time Data Monitor

The data monitor is a real-time log for many positioner parameters and is displayed on the ValveSight DTM. It logs data over HART communications and is used to view and track the current state of the valve system.

Off-Line Analysis

Detailed off-line signatures help you determine which valves need repairs and prevent expensive unnecessary equipment maintenance and replacement costs. Viewed with an intuitive, easy to use user interface, valve signatures are filled with detailed performance information.

This allows maintenance engineers to pinpoint valves with potential issues during shut-down.

- **Ramp Tests** evaluate thrust and friction values over a length of stroke.

- **Step Tests** shows immediate responsiveness of the valve.

- **Partial Stroke Tests** evaluates the responsiveness with pass/fail criteria. The positioner stores settings and results of the last 20 tests.

- **HDRL Tests** determines hysteresis, deadband, repeatability, and linearity with the click of a button.

Using ValveSight, print test reports, compare signatures, and export data.

*See Flowserve document number LGENIM0105

Logix 500+ Specifications and Certification

Product Range	
Resolution	≤ 0.25%
Linearity	+/-1.25%
Repeatability	≤ 0.25%
Hysteresis	≤ 1.0%
Deadband	≤ 0.3%
Sensitivity	≤ 0.25%
Stability	≤ 0.4%
Long Term Drift	≤ 0.5%
Supply Pressure Effect	≤ 0.2%

Output Air Capacity	
Single Acting Relay	20.8 Nm•/h @ 4.1 bar (12.2 SCFM @ 60 PSI)
Double Acting Relay	30.6 Nm•/h @ 4.1 bar (18.0 SCFM @ 60 PSI)

Air Consumption	
Single Acting Relay	0.082 Nm•/h @ 4.1 bar (0.048 SCFM @ 60 PSI)
Double Acting Relay	0.637 Nm•/h @ 4.1 bar (0.375 SCFM @ 60 PSI)

Temperature Range*	
Operating, Storage	-52 to 85°C (-61.6 to 185°F)

* Reduced performance at low temperatures

Hazardous Area Certifications
ATEX, IECEx, North America (cFMus)

Safety Certifications
Meets Safety Integrity Level 3 (SIL 3) per IEC 61508

Communications Certifications
DD and DTM certification by the HART Communications Foundation

For more information See Flowserve document number LGENIM0105

Communications

ValveSight™ FDT/DTM Technology

ValveSight™ DTM software utilizes FDT/DTM technology and HART protocol to give you 24/7 access to monitor any Logix 520MD+ positioner on your network – all from a single workstation or DCS.*

ValveSight streamlines and simplifies your ability to quickly and accurately assess the health of any attached Logix device, allowing you to deal with existing problems directly and better understand the magnitude of any developing issues. View friction, response time and other important system metrics. Store configuration and calibration histories and view event logs for each digital positioner on your network. Even create reports for configuration, calibration, and event data.
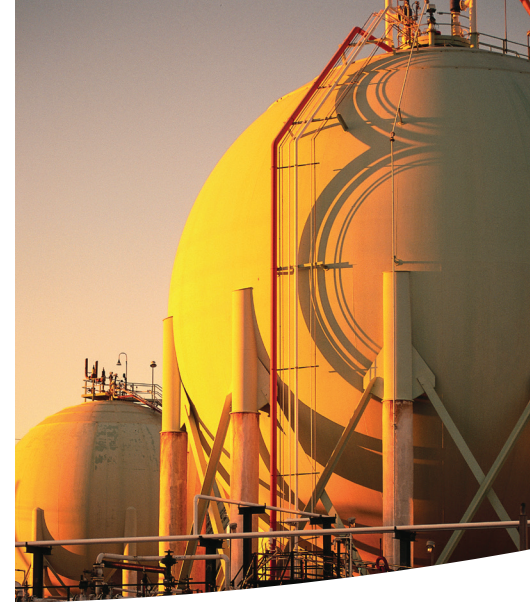
Common Interfaces

Logix 520MD+ positioners are supported by a fully functional DD. They work with handheld communicators and all major Distributed Control Systems (DCS).
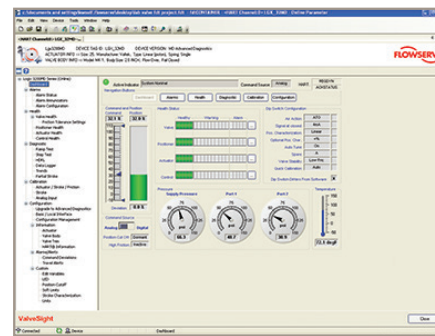
* AMS Snap-On™ also available.

The Logix 520MD+ provides accurate and reliable control and diagnostic features for any control valve on the market.

The ValveSight Dashboard

Open the Dashboard window to gain real-time feedback on the status of your valve including valve stem position, control signal, health indications and active alarms, basic positioner configuration, actuator and supply pressures, supply air humidity, and positioner temperature.

- **ValveSight™ DTM Annunciator panels** show the current status of all alarms.

- **ValveSight™ DTM Health pages** show detailed alarm status, list implications and possible solutions and allow you to configure the alarm limits.

- **ValveSight™ DTM On-Line Diagnostics pages** allow you to monitor and log the positioner sensors, see long term trends and configure the continuous stroke test.

- **ValveSight™ DTM Off-Line Diagnostics pages** allow you to run Ramp, Step, HDRL and Partial Stroke Tests.

- **ValveSight™ DTM calibration and configuration screens** fully support Logix 520MD+ functionality.

HART 5, 6 or 7 Protocols

- ValveSight and Logix 520MD+ positioners support HART 5, 6 and 7 protocols.

- Logix 520MD+ positioners are shipped standard with HART 6.

- Easily change protocols with the flip of a switch.

New Dongle Licensing Option

- License any DTM – just plug in the dongle.
- Transfer positioner upgrades to any computer.

License Levels

ValveSight™ FDT/DTM

ValveSight™ DTM software provides a powerful, yet easy to use interface to the Logix 520MD+ digital positioners. Two license levels are available Basic and Advanced.

- Basic DTM license level provides all of the functionality you need to configure and monitor your Logix 520MD+ positioners.

- Advanced DTM license level adds an upgraded Dashboard with the intuitive Health bar display, additional health pages to monitor Friction, Pneumatic Leak, Actuation Ratio, Command and Position Frequency and Amplitude, and Training. Also included are pages to view trends, continuous stroke test, HDRL comparisons, PST comparisons and a PST scheduler.

Logix 520MD+ Positioner

Logix 520MD+ digital positioners offer HART communication and three levels of diagnostics – Standard, Advanced, and Pro.

- Standard diagnostics provide complete safety and position-related diagnostics and data.

- Advanced diagnostics provide additional pressure data.

- Pro diagnostics provide powerful on-line monitoring capabilities and enhance off-line tests with additional force data.

Logix 510+ digital positioners offer a low cost option with no digital communication.

Feature List
ValveSight™ DTM
Logix® 520MD+
Logix® 510+

		ValveSight™ DTM		Logix® 500+ Series Positioner			
		Basic	Advanced	510+	520MD+ (Standard)	521MD+ (Advanced)	522MD+ (Pro)
Overview	HART Communication	✓	✓		✓[1,2]	✓[1]	✓
	Dashboard	✓[1]	✓		✓[1,2]	✓[1]	✓
	All-Alarm Annunciator	✓[1]	✓		✓[1,2]	✓[1]	✓
	Alarm and Calibration History	✓	✓		✓[1,2]	✓[1]	✓
Hardware	Quick-Cal Button	N/A	N/A	✓	✓	✓	✓
	3 Menu Select Buttons	N/A	N/A	✓	✓	✓	✓
	3 LEDs (Red, Yellow, Green)	N/A	N/A	✓	✓	✓	✓
	Configuration DIP Switches	N/A	N/A	8	8	8	8
	Live Gain Adjust Settings	N/A	N/A	10	10	10	10
	LCD Option	N/A	N/A	✓	✓	✓	✓
	Multi-Function Cards (Optional) (Configurable Analog Output, Discrete Output, or Discrete Input)	N/A	N/A	1[3]	2	2	2
	Limit Switch Option	N/A	N/A	✓	✓	✓	✓
	Remote Mount Option	N/A	N/A	✓	✓	✓	✓
	Terminal Voltage	N/A	N/A	<6.0 V	<10.0 V	<10.0 V	<10.0 V
	SIL 3 Certified	N/A	N/A		✓	✓	✓
Configuration	Configuration Management (save to file)	✓	✓		✓	✓	✓
	Eight Standard Flow Characterization Curves	✓	✓	✓	✓	✓	✓
	Custom Stroke Characterization	✓	✓		✓	✓	✓
	Local Interface Valve Control	✓	✓	✓	✓	✓	✓
	Custom Units of Measure	✓	✓	✓	✓	✓	✓
	All-Variable Editor	✓	✓	✓	✓	✓	✓
	Tight Shutoff	✓	✓	✓	✓	✓	✓
	Soft Limits	✓	✓	✓	✓	✓	✓
Calibration	Stroke Calibration	✓	✓	✓	✓	✓	✓
	Analog Input Calibration	✓	✓	✓	✓	✓	✓
	Analog Output Calibration	✓	✓	✓	✓	✓	✓
	Pressure and Friction Calibration		✓			✓[1]	✓
Off-Line Diagnostics	Ramp Test	✓	✓		✓[1,2]	✓[1]	✓
	Step Test	✓	✓		✓[1,2]	✓	✓
	HDRL Test	✓	✓		✓	✓	✓
	Partial Stroke Test	✓[1]	✓		✓[1,2]	✓[1]	✓
	Partial Stroke Test Scheduling and Comparing		✓				✓
	Test Comparisons	✓	✓		✓[1]	✓[1]	✓
	Test Reports and Printing	✓	✓		✓	✓	✓
	Test Data Exporting	✓	✓		✓	✓	✓
On-Line Diagnostics	Time Stamped Alarms	✓	✓		✓	✓	✓
	Deviation	✓	✓	✓	✓	✓	✓
	Position Alerts	✓	✓	✓	✓	✓	✓
	Valve Cycles and Travel	✓	✓		✓	✓	✓
	Bellows Cycles and Travel	✓	✓		✓	✓	✓
	Actuator Cycles and Travel	✓	✓		✓	✓	✓
	Data Monitor	✓	✓		✓	✓	✓
	Temperature and Humidity	✓	✓		✓	✓	✓
	Pilot Relay	✓	✓	✓	✓	✓	✓
	Piezo Voltage	✓	✓	✓	✓	✓	✓
	Pressures - Supply, Port A, Port B	✓	✓			✓	✓
	Friction		✓				✓
	Training (Finding Typical Behavior)		✓				✓
	Trends (Recording Long-Term Data)		✓				✓
	Event Capture (Record High Speed Event Data)		✓				✓
	Continuous Stroke Test		✓				✓
	Actuator Pneumatic Leak		✓				✓
	Actuation Ratio (Ability to Actuate)		✓				✓
	Command Frequency and Amplitude		✓				✓
	Position Frequency and Amplitude		✓				✓

1 No advanced diagnostic information   2 No pressure monitoring or information   3 Limited Function

How to Order

500+ Positioner Configurations			
Selection	**Description**	**Code**	**Example**
Base Model	Logix 500+ Series	5	5
Communications and Diagnostics	Analog Only; 8DIP-Set-Up with LCD Option; Limited Diagnostics	10+	22MD+
	HART; 8-DIP Set-Up with LCD Option; Standard (Basic Functionality)[1,2]	20MD+	
	HART; 8-DIP Set-Up with LCD Option; Advanced (With Pressure Sensing)[1,2]	21MD+	
	HART; 8-DIP Set-Up with LCD Option; Pro (With Full ValveSight Diagnostics)[1]	22MD+	
Certifications	General Purpose	14	37
	North America (cFMus) Intrinsically Safe, Non-Incendive, Dust Ignition, ATEX & IECEx Ex ia, Ex nA, Ex tb	37	
	North America (cFMus) Intrinsically Safe, Non-Incendive, Dust Ignition, ATEX Ex ia, Ex nA, Ex tb[8]	42	
	TR CU (Russian) Ex ia	44	
Positioner Configuration		**-**	
Housing	Aluminum - Black Base with White Cover	W	W
	Aluminum - Black Base with Yellow Cover	Y	
	Aluminum - Black Base with Black Cover (Automax)	B	
	Aluminum - Black Base with Black Cover (Accord)	A	
Threaded Connections	Mounting: 5/16" 18 UNC, Pneumatics: 1/4" NPTF, Conduit: 1/2" NPTF, Vents 1/4" NPTF	1	1
	Mounting: M8 x 1.25, Pneumatics: 1/4" NPTF, Conduit: M20 x1.5, Vents 1/4" NPTF	2	
	Mounting: M8 x 1.25, Pneumatics: G1/4", Conduit: M20 x1.5, Vents G1/4"	3	
Feedback Shaft	D - 316 Stainless Shaft (Valtek Standard)	D	D
	NAMUR - 316 Stainless Steel Shaft (VDI/VDE 3845)	R	
Action	Three-way (Single-Acting), Poppet Style Relay	1	1
	Three-way (Single-Acting), Spool Style Relay	2	
	Four-way (Double-Acting), Spool Style Relay	3	
Position Indicator	No Indicator	0	F
	Flat Indicator	F	
	Domed Indicator	D	
Special Options	No special options	0	0
Optional Mechanical Add-Ins		**-**	
Manifold	No Manifold	0	GM
	Gauge Manifold - Aluminum (required for gauges)	GM	
Pressure Gauges	No Gauges	0	1
	Nickel Plated with Brass Internals, psi (bar/kPa)	1	
	Nickel Plated with Brass Internals, psi (kg/cm2)	2	
	SS with SS Internals, psi (bar/kPa)	3	
	SS with SS Internals, psi (kg/cm2)	4	
	UCC Press Test Plug, 1/8" NPT	A	
	Valve, Tank, Schrader 645A	B	
Optional Electronic Add-Ins		**-**	
Display	No LCD	0	1
	LCD	1	
Auxiliary Card Slot 1	Slot 1 - No Card	0	1
	Slot 1 - Multi-Function Card[3,7]	1	
	Slot 1 - V to I[6]	2	
Auxiliary Card Slot 2	Slot 2 - No Card	0	0
	Slot 2 - Multi-Function Card[3,7]	1	
Limit Switches or Remote Mount	No Switches	0	3
	Mechanical Limit Switch[4]	1	
	Reed Switch	2	
	NAMUR V3 type proximity switch, P+F NJ2-V3-N[8]	3	
	Slot Type NAMUR Sensor, P+F SJ2 S1N[8]	4	
	Slot Type NAMUR Sensor, P+F SJ2 SN[8]	5	
	NAMUR V3 type proximity switch, P+F NBB2-V3-E2[4]	6	
	Remote Mount Feedback[5]	7	

1. HART 6 standard. Can be configured as HART 5 or HART 7 in the field.
2. Can be upgraded to 521MD+ or 522 MD+ in the field.
3. Can configured As Analog Output, Discrete Output or Discrete Input in the field. Slot 2 available only after slot 1 is filled.
4. Only available for general purpose (certification option 14).
5. Includes adapter board (installed in the positioner) and the low profile remote mount unit (which may be shipped separately).

6. Only available with the 520MD+ Model.
7. Only available with LCD option. MFC for 510+ in slot 1 only. This MFC may be configured as AO or DO with limited functionality.
8. When limit switch codes 3, 4 and 5 are selected, only certification codes 14 and 42 should be used

Optimal Control Valve – Logix MD+ Combinations

Mark One

The Mark One control valve is the industry choice for a simple, reliable, tough globe valve. This control valve handles a wide selection of process control applications for flow, pressure, and temperature, including corrosive fluids, cryogenics, steam, water, gases, multiphase, high temperatures, erosion, and high pressure drops.

For more information see document number VLENTB0001

Trunnion Mounted Control Ball Valve (TMCBV)

The TMCBV is an ideal solution for loading arms, gas storage, compressor anti-surge, natural gas regulation and fuel gas applications.

For more information see document number VBENTB0068

MaxFlo 3

The MaxFlo 3 high-performance general service control valve is designed for applications demanding higher rangeability, precision control, and higher flow capacity.

For more information see document number VLENBR0052

FlowTop

The FlowTop high-performance control valve is a proven performer in the chemical, refinery, power, HVAC, and food and beverage industries. Zero emissions application options are achieved through the bellows seal solution. FlowTop is TA-Luft certified for fugitive emission leakage class greater than 10-8 mbarl/s.

For more information see document number SAEEBRV740

FLOWSERVE

To find your local Flowserve representative:

For more information about Flowserve Corporation,
visit www.flowserve.com or call
USA 1 800 225 6989 or International +1 972 910 0774

flowserve.com