

Fisher® GX Control Valves



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Innovation. Technology. Reliability.

Emerson engineers started with a clean slate in developing Fisher® GX control valves. Their goal was to bring unmatched innovation, technology and reliability to control valve ownership. GX control valves are the result. They provide reliable operation over a wide range of applications and come in a variety of sizes and materials.



Designed to meet your needs, digital GX control valves with integrated FIELDVUE™ DVC2000 instruments feature non-contact, linkage-less technology. DVC2000 instruments give local indication of valve travel

position and pressure status in one of 7 languages. No other control valves offer the innovation, technology and reliability of digital Fisher GX valves.

Wide Range of Application

The GX product line lets you meet a wide range of flow and pipeline sizing requirements. A 3-Way construction is available, which is perfectly suited for accurate temperature control.

The engineered passages within the GX valve body provide optimal capacity and create a stable flow pattern for smooth operation in every valve size.

Actuator sizing and selection is determined automatically by the valve body configuration. No extra engineering is required.

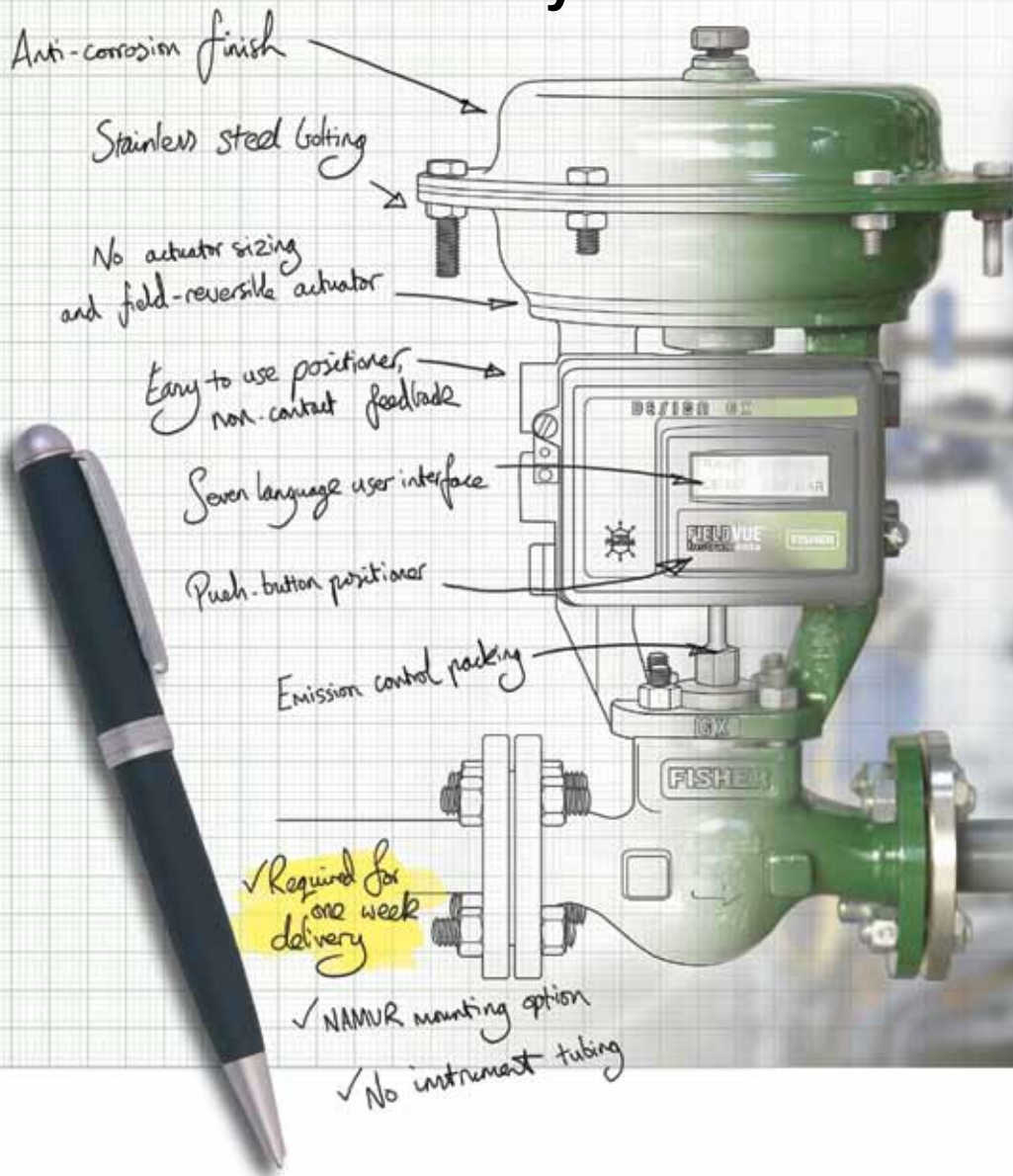
The GX actuator controls up to a 51.7 bar (750 psig) pressure drop. Its multi-spring design is field-reversible from spring-open to spring-close action.

A carefully selected lineup of valve body and trim materials means you can apply the GX to a wide range of service situations. Carbon and stainless steels are GX standards along with a choice of several alloys for more corrosive applications.

Metal-to-metal seating is standard, with options including PTFE soft seating for Class VI shutoff and hardened trim with a Stellite overlay for erosive applications.

You can use the GX for either throttling or on-off control, with or without a positioner. Digital and analog positioners can be specified, as well as auxiliary solenoids, limit switches and other accessories. The GX is compatible with the NAMUR (IEC 60534-6-1) mounting standard.

You told us what you wanted



Integrated Digital Technology

A typical GX configuration features the FIELDVUE DVC2000 digital valve controller. The industry-leading FIELDVUE digital valve controller brings easier control, enhanced performance and unduplicated maintenance advantages to control valve applications.



In fact, FIELDVUE instruments provide much more than traditional valve positioning. They are core components of Emerson's PlantWeb™ digital plant architecture.

As such, they present critical operating information about themselves and the process to enable plant personnel to make better-informed decisions.

The PlantWeb digital plant architecture offers proven improvements in system availability, reduced variability, increased throughput and enhanced product quality.

Easy to Maintain

The GX is robust and compact. Its design architecture features common parts across all sizes, which reduces spare parts inventory requirements and associated costs.

Actuator removal is quick and easy. The actuator can be easily field reversed to a fail-open or fail-closed configuration.

The digital GX with integrated DVC2000 features linkage-less, non-contact position feedback, which eliminates mechanical wear between the valve and instrument. The digital GX features an integral interface to eliminate tubing for most applications, further simplifying maintenance issues found in most control valve assemblies today.

The one-piece packing follower threads into the bonnet to simplify installation and adjustment of the packing system. The system employs live-loading to compensate for normal wear.

Certified Emission Control Packing System

The GX, with its live-loaded emission control packing system, gives you a single valve that you can use effectively in a wide variety of applications. It meets elevated temperature requirements, up to 371°C (700°F), and can handle rigorous mechanical and thermal cycles.



Live-loaded emission control packing is standard in the GX. Choose either PTFE V-ring or graphite ULF (ultra low friction).

The GX with live-loaded graphite ULF packing is available for all sizes and is standard on the HT (high temperature) construction. It is compliant with both the TA-Luft and ISO (DIS) 15848-1 class B emission control packing standards. Compliance to these standards was tested and certified by TÜV (TA-Luft) and Cetim (ISO 15848-1) third party agencies. Contact your local sales office for copies of your GX emission control packing system third party certifications.

The GX emission control packing system provides low friction and precise guiding for optimized control valve performance throughout the life cycle of the control valve. It maintains superior stem seals to reduce fugitive emissions.

The innovative stem connection technology within the GX valve ensures stem and packing alignment for superior sealing and extended service life.

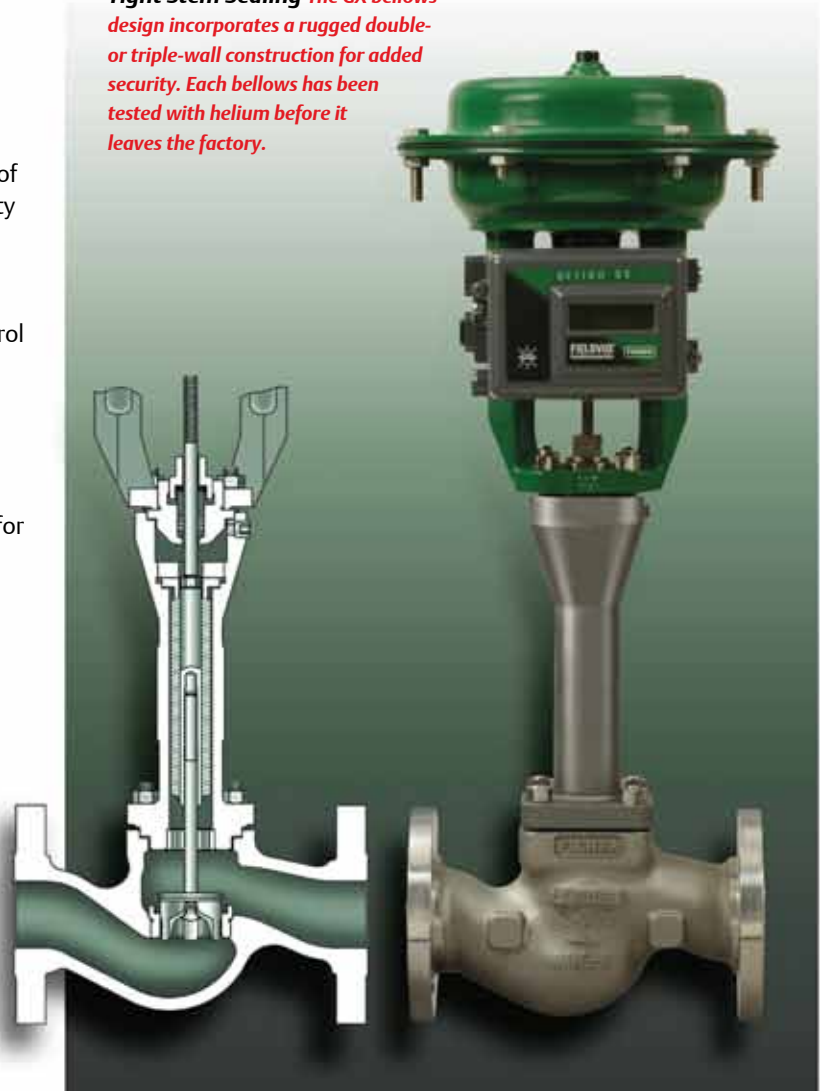
Bellows Extension Bonnet

The GX bellows extension bonnet provides reliable and tight stem sealing for those applications where emissions escaping to the environment cannot be tolerated. The GX bellows is available in SST (1.4571 / 316Ti) or N10276 and covers a full range of valve sizes from DN 15 through DN 100 (NPS ½ through 4).

The GX bellows system has been designed for 100,000 full-travel cycles at maximum allowable pressure and ambient temperature (20°C [68°F]).

The mechanically-formed metal bellows provides high operating reliability and extended cycle life.

Tight Stem Sealing *The GX bellows design incorporates a rugged double- or triple-wall construction for added security. Each bellows has been tested with helium before it leaves the factory.*



Dramatic Improvement in Temperature Controllability: GX 3-Way

With its unique flow cavity and integrated FIELDVUE digital valve controller technology, the GX 3-Way valve provides consistent temperature control for a wide range of operations, including heat exchangers and lubricating skids. Its high capacity design and precise linear characteristics allow for accurate temperature control.

The GX 3-Way valve is multi-faceted in its ability to cover both flow mixing (converging) and flow splitting (diverging) applications with no extra parts needed. Unlike other 3-way valves, it features both side-port and bottom-port common trim.

The high-temperature, side-port common trim utilizes an unbalanced plug design, a stem extension, a yoke extension, and includes live-loaded ULF graphite packing and a hard-faced seat ring.

The GX 3-Way's compact size matches easily to your piping. The integrated FIELDVUE digital valve controller mounting as well as GX parts commonality contribute to a lower parts count for reduced inventory and maintenance costs. The seat ring and one-piece plug and stem provide easy maintenance. As with the GX, the GX 3-Way requires no actuator sizing once the valve body construction is selected. The GX actuator platform is common across all GX valves, both 2-Way and 3-Way.

Compact GX 3-Way Valve *The Fisher GX 3-Way is a state-of-the-art control valve and actuator system, designed to accurately control water, oils, steam, and other industrial fluids. The robust GX 3-Way valve package is perfectly suited to address the space limitations of the OEM industry.*

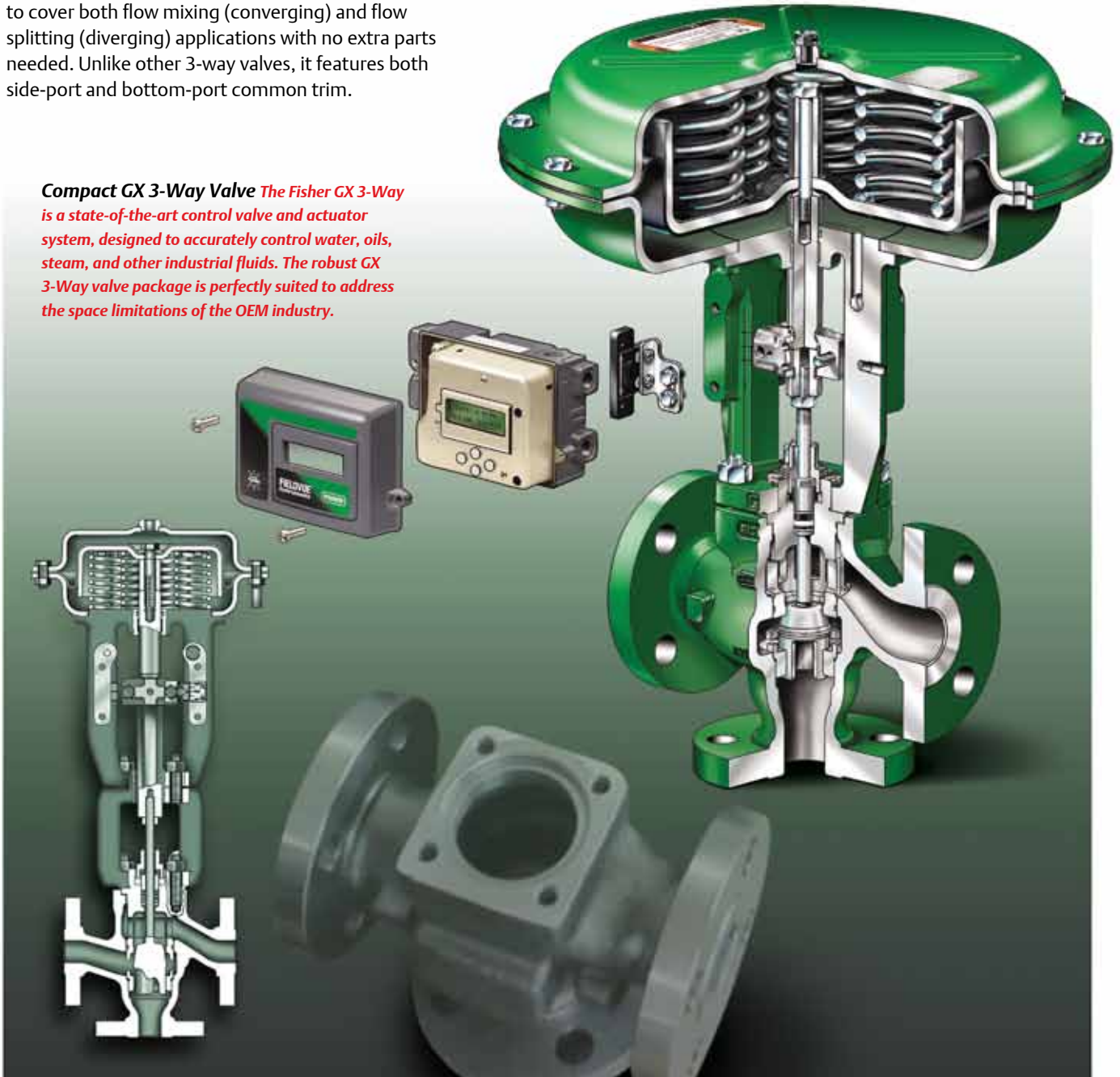
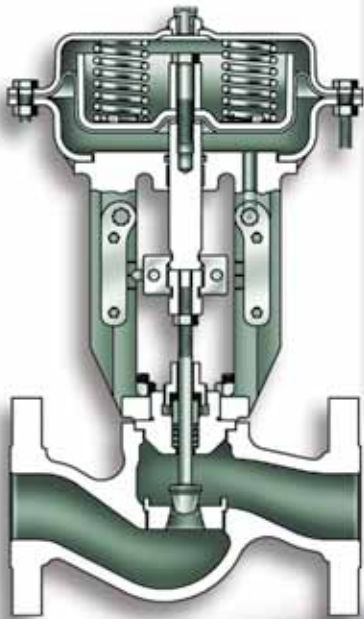


Table 1. GX Valve Specifications

Specifications	EN	ASME
Valve Body Sizes	DN 15, 20, 25, 40, 50, 80, 100, 150	NPS ½, ¾, 1, 1-½, 2, 3, 4, and 6
Pressure Ratings	PN 10, 16, 25, 40 per EN 1092-1	CL150, 300 per ASME B16.34
End Connections	Flanged raise face per EN 1092-1, D and E	Flange raised face per ASME B16.5
Valve Body/Bonnet Materials	1.0619 steel	ASME SA216 WCC steel
	1.4409 stainless steel	ASME SA351 CF3M stainless steel
	CW2M (sizes DN 25 through DN 100 only)	CW2M (NPS 1 through 4 only)
	ASME SA352 LCC	ASME SA352 LCC
	CN7M Alloy 20 (sizes DN 25 through DN 100 only)	CN7M Alloy 20 (NPS 1 through 4 only)
	CDMN Duplex SST (sizes DN 25 through DN 100 only)	CDMN Duplex SST (NPS 1 through 4 only)
	CF3 304L SST (sizes DN 25 through DN 100 only)	CF3 304L SST (NPS 1 through 4 only)
		M35-2 (NPS 1 through 4 only)
		N7M Alloy B2 (NPS 1 through 4 only)
Face-to-Face Dimensions	Consistent with EN 558-1	Consistent with ANSI/ISA 75.08.01
Shutoff per IEC 60534-4 and ANSI/FCI 70-2		Metal seat - Class IV (standard)
		Metal seat - Class V (optional)
		PTFE seat - Class VI (optional)
Flow Direction		Flow-up (Cavitrol™ III trim, Flow down)
Flow Control Characteristics		Equal Percentage and Linear
Trim Style	Port Diameters	Trim Style Description
	4.8 mm	Micro-Flow trim (unbalanced)
	9.5, 14, 22 mm	Stem-Guided with Contoured Plug (unbalanced) or Port-Guided with Cavitrol III trim (unbalanced)
	36, 46 mm	Port-Guided Plug (unbalanced)
	70, 90, 136 mm	Balanced Trim with Contoured Plug or Unbalanced Port-Guided Plug

Table 2. GX 3-Way Valve Specifications

Specifications	EN	ASME
Valve Body Sizes	DN 25, 40, 50, 80, 100	NPS 1, 1-½, 2, 3, 4
Pressure Ratings	PN 10 / 16 / 25 / 40 per EN 1092-1	CL150 / 300 per ASME B16.34
End Connections	Flanged raised face per EN 1092-1	Flanged raised face per ASME B16.5 and screwed (NPS 1, 1-½, and 2)
Valve Body Materials	1.0619 steel	ASME SA216 WCC steel
	1.4409 stainless steel	ASME SA351 CF3M stainless steel
Bonnet Materials	1.4409 stainless steel / CoCr-A	SA351 CF3M SST / CoCr-A
Face-to-Face Dimensions		Consistent with ANSI/ISA 75.08.01
Shutoff per IEC 60534-4 and ANSI/FCI 70-2		Metal seat - Class IV (standard) Metal seat - Class IV for Bottom Port, Class II for Side Port (HT construction)
Flow Direction		Converging and Diverging
Trim Style	Type	Trim Style Description
	Side-Port Common	Unbalanced Port-guided
	Bottom-Port Common	Balanced Cage-guided



Fisher Specification Manager Software *This software contains complete product documentation, including technical specifications, pressure and temperature capabilities, dimensions, details on construction options, part numbers and recommended spares plus information on how to install, operate and maintain the various GX – actuator – controller combinations.*

Easy to Configure

Valve selection is made easy with Fisher Specification Manager software. Available to download from www.FisherSpecificationManager.com, the software offers a powerful set of tools for producing an ISA specification sheet faster.

The Next Step

To learn more about how Fisher GX control valves bring unmatched innovation, technology and reliability to control valve ownership, ask your Emerson sales contact for the free product bulletins 51.1:GX and 51.1:GX 3-Way. To acquire the knowledge to benefit from GX control valves, contact Emerson Educational Services. Visit www.Fisher.com for more information.



This mark indicates a core component of the PlantWeb digital plant architecture.

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