

SIEMENS

Ingenuity for life



Two-, Three-, and Six-Way Ball Valves

The Siemens 599 Series Ball Valve Portfolio simplifies installations and maximizes control

[siemens.tld/keyw](https://www.siemens.com/td/keyw) **Siemens Sans Bold 9pt**

Ready for the Challenge

With higher close-offs, a wider Cv range, and two trim finishes to choose from, Siemens 599 Series Ball Valves provide exact control in all types of applications — from four-pipe systems to harsh environments.

Creating comfortable and efficient environments begins with the consistently precise performance of HVAC systems featuring Siemens ball valves.

A 200 psi close-off gives two- and three-way valves the ability to close-off against very high differential pressure, enabling them to meet specifications for more applications. With chrome or stainless steel trim choices, you'll find a complete range of valves that deliver cost-effective, reliable control.

A Winning Combination

Siemens 599 Series Ball Valves and valve actuators deliver comprehensive control solutions in schools, universities, medical facilities, office buildings and commercial properties. Available in spring return, non-spring return, 2-position, floating, and proportional control to suit a wide variety of control specifications and strategies, Siemens OpenAir™ Electronic Actuators are known for their reliability. They require no special programming or tools, saving on installation time and delivering immediate results.

- Actuators with choices of control signals
- Universal actuator mounting bracket
- Actuator and bracket can be rotated (90 degree increments)
- Operating handle for manual operation
- Quickly and easily installs in the field
- Direct-coupled connection

Low Profile Bracket

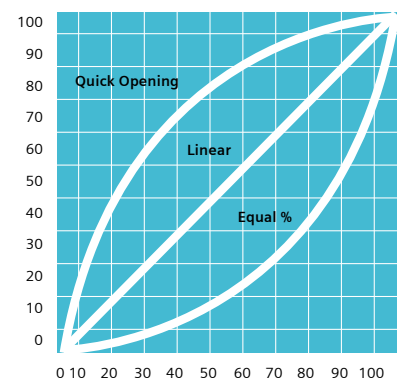
Installs are easier and faster in tight spaces with a low profile mounting bracket that holds OpenAir® GDE and GLB Series Non-Spring Return Actuators and GQD Series Spring Return actuators to a 1/2- or 3/4-inch Two-Way Ball Valve.

Your Best Choice for Easy Retrofits

Siemens Ball Valve Actuator and Bracket Kits, including low-profile bracket options, are the best and easiest choice for replacing Griswold and Honeywell Ball Valves and PICV Actuators.

Better Flow Control

The integrated flow characterizer provides an equal percentage flow characteristic. Equal movements of the valve stem at any point of the flow range changes the existing flow an equal percentage regardless of the existing flow. The ball valve equal percentage flow curve mirrors the coil heat output curve, resulting in linear heat transfer.





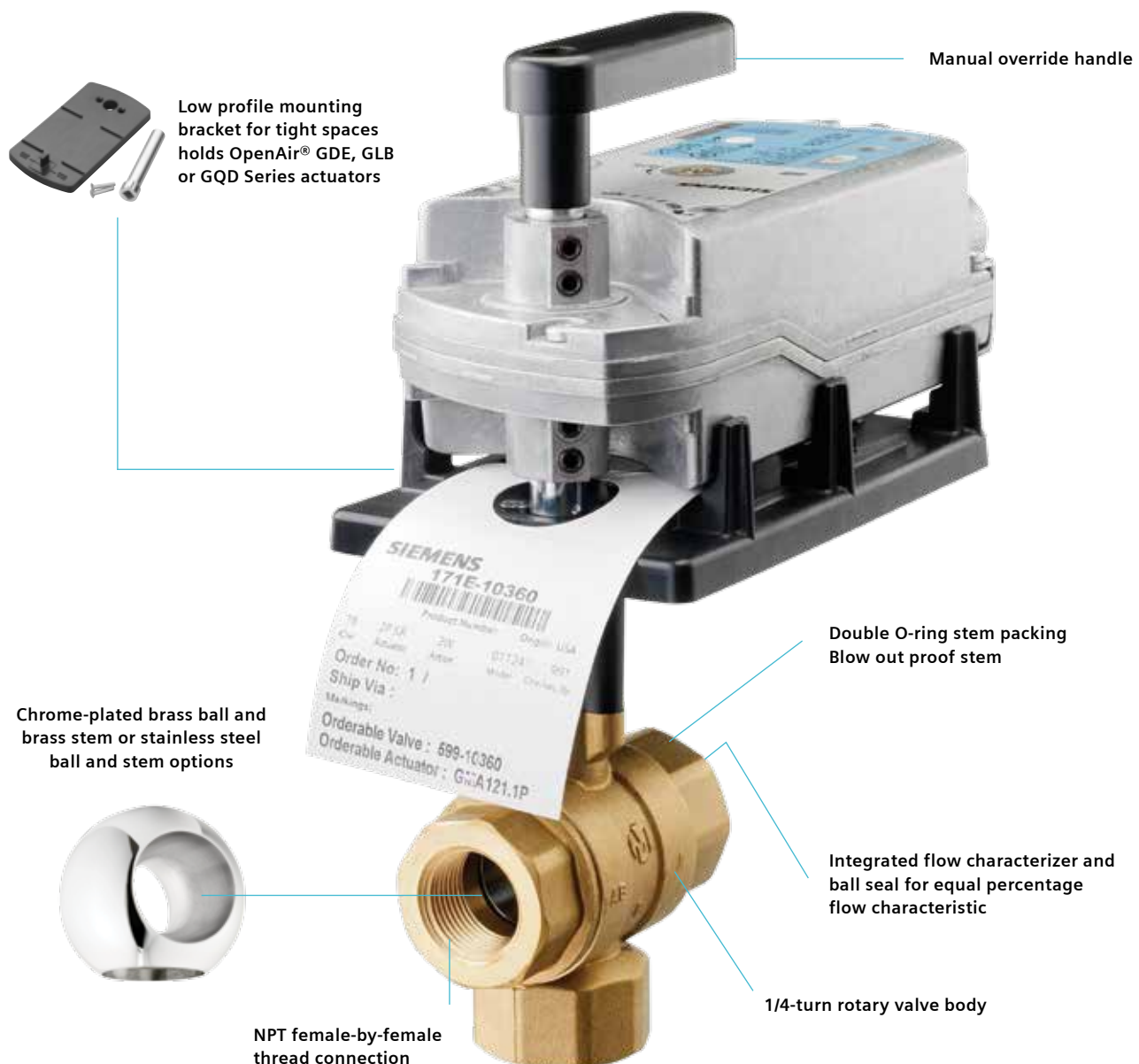
Creating comfortable and efficient environments begins with the consistently precise performance of HVAC systems featuring Siemens ball valves.

Two- & Three-Way Valve Body Features

Siemens Two- and Three-Way Ball Valves provide excellent equal percentage flow control and so much more:

- Available with chrome-plated brass ball and brass stem or stainless steel ball and stem to withstand harsh conditions
- 0.4 to 160 Cv range enables better sizing of valves to the job requirements
- Variety of ball sizes and flow coefficients minimizes the need for downsizing pipes and accurately controls fluid through coils
- 200 psi close-off

- Low ANSI Class IV leakage (0.01% of Cv) at rated close-off pressure reduces energy consumption
- 600 WOG/ANSI 250 pressure rating meets the specifications of more applications
- Blow-out proof stem withstands high pressure
- Double o-ring stem packing prevents leaking and ensures long-lasting performance
- Universal actuator mounting bracket with standoffs provide a thermal barrier between the actuator and the mounting plate
- Three-way valves can be used for mixing or diverting
- All three-way valves have positive close-off on bypass port



Two- & Three-Way Valve Body Selection Guide

Our selection provides a complete Cv range for all types of applications. Siemens Ball Valves are excellent for automated flow control of hot or chilled water and up to 50% water-glycol solution for HVAC control applications.

Two-Way Ball Valves			
Valve Size in.	Flow Rate Cv	Chrome-Plated Brass Ball & Stem Part No.	Stainless Steel Ball & Stem Part No.
1/2	0.4	599-10300	599-10300S
	0.63	599-10301	599-10301S
	1.0	599-10302	599-10302S
	1.6	599-10303	599-10303S
	2.5	599-10304	599-10304S
	4	599-10305	599-10305S
	6.3	599-10306	599-10306S
	10	599-10307*	599-10307S*
3/4	6.3	599-10308	599-10308S
	10	599-10309	599-10309S
	16	599-10310	599-10310S
	25	599-10311*	599-10311S*
1	10	599-10312	599-10312S
	16	599-10313	599-10313S
	25	599-10314	599-10314S
	40	599-10315	599-10315S
	63	599-10316*	599-10316S*
1-1/4	16	599-10317	599-10317S
	25	599-10318	599-10318S
	40	599-10319	599-10319S
	63	599-10320	599-10320S
	100	599-10321*	599-10321S*
1-1/2	25	599-10322	599-10322S
	40	599-10323	599-10323S
	63	599-10324	599-10324S
	100	599-10325	599-10325S
	160	599-10326*	599-10326S*
2	40	599-10327	599-10327S
	63	599-10328	599-10328S
	100	599-10329*	599-10329S*
	160	599-10330*	599-10330S*

*Denotes a full-port valve with no flow optimizer insert

Three-Way Ball Valves			
Valve Size in.	Flow Rate Cv	Chrome-Plated Brass Ball & Stem Part No.	Stainless Steel Ball & Stem Part No.
1/2	0.4	599-10350	599-10350S
	0.63	599-10351	599-10351S
	1.0	599-10352	599-10352S
	1.6	599-10353	599-10353S
	2.5	599-10354	599-10354S
	4.0	599-10355	599-10355S
	6.3	599-10356	599-10356S
	10	599-10357*	599-10357S*
	3/4	6.3	599-10358
3/4	10	599-10359	599-10359S
	16	599-10360*	599-10360S*
	10	599-10361	599-10361S
1"	16	599-10362	599-10362S
	25	599-10363*	599-10363S*
	16	599-10364	599-10364S
1-1/4	25	599-10365	599-10365S
	40	599-10366	599-10366S
	25	599-10367	599-10367S
1-1/2	40	599-10368	599-10368S
	63	599-10369	599-10369S
	40	599-10370	599-10370S
2	63	599-10371	599-10371S
	100	599-10372*	599-10372S*

*Denotes a full-port valve with no flow optimizer insert

VALVE ASSEMBLIES SELECTION GUIDE

SPRING RETURN ACTUATORS

Replace 599 in the valve part number with an Actuator Prefix Code listed below.

Actuator Prefix Code	Control Signal
171E, 171H	On/off, Normally Open, 24V
171F, 171J	Floating, Normally Open
171G, 171K	0-10V, 2-10V, Normally Open
171L, 171M	On/off, Normally Open, 120V
171N, 171P	On/off, Aux. Switches, Normally Open, 24V
172E, 172H	On/off, Normally Closed, 24V
172J	Floating, Normally Closed
172G, 172K	0-10V, 2-10V, Normally Closed
172L, 172M	On/off, Normally Open, 120V
172N, 172P	On/off, Aux. Switches, Normally Closed, 24V

Note: H, J, K, L, N for 1/2 & 3/4 inch valve;
E, G, M, P for 1 - 2 inch 2-way valve and all 3-way; F for all 3-way

NON-SPRING RETURN ACTUATORS

Replace 599 in the valve part number with an Actuator Prefix Code listed below.

Actuator Prefix Code	Control Signal
171A, 171B, 173A, 173B	Floating, normally open
171C, 171D, 173C, 173D	0-10V, normally open

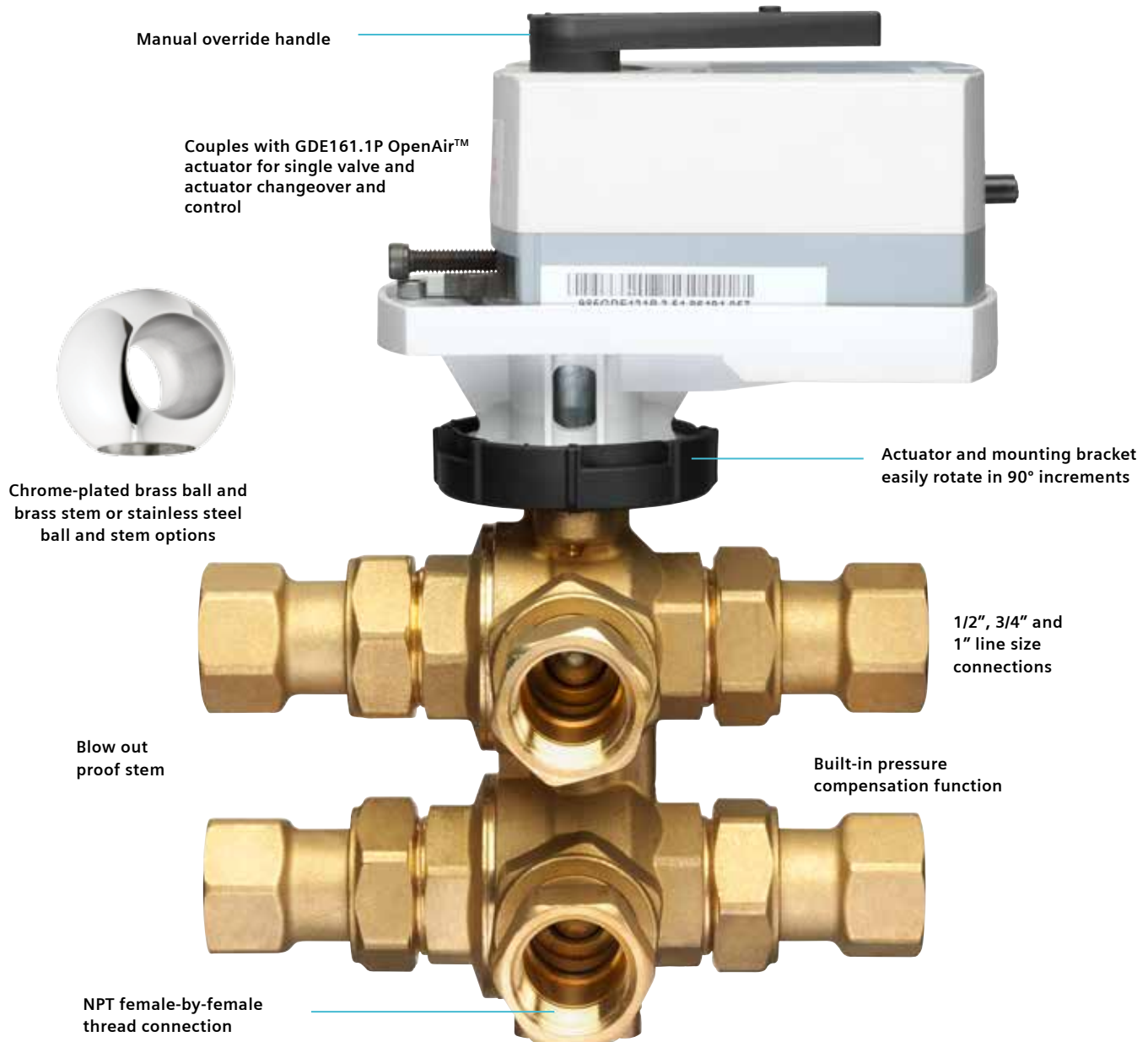
Note: A & C for 1/2 - 1 1/4 inch valve; B & D for 1 1/2 - 2 inch valve
173 includes conduit adapter and 6' cable

Six-Way Valve Body Features

The special design of our Six-Way Ball Valves and Actuators allow changeover and control of hot and chilled water when a four-pipe system is used, reducing complexity in installation, commissioning and cabling and lowering costs.

- Available with chrome-plated brass ball and stainless steel stem to withstand harsh conditions
- Control two media sources (hot and chilled water) to a single coil with a one valve and actuator
- Large Cv range (0.3 to 4.7 Cv) for each media source

- 1/2", 3/4" and 1" line size connections
- Built-in pressure compensation function
- 0% leakage for no mixing of hot and chilled water
- 232 psi (16 bar) pressure rating
- 50 psi (3.5 bar) close-off
- Blow-out proof stem
- Actuator and mounting bracket can easily be rotated (90 degree increments)
- Operating handle for manual operation



Six-Way Valve Body Selection Guide

The 599 Series 6-Way Ball Valves couple with GDE161.1P OpenAir™ actuators to provide single valve and actuator changeover and control of hot and chilled water for heated/chilled beam applications or any four-pipe system.

Valve Size in.	Source A & B Cv Value Range	Valve Body Part No.
1/2	0.3 to 1.9	599-10600-0.3-0.3 – 599-10600-1.9-1.9
3/4	0.8 to 4.7	599-10601-0.8-0.8 – 599-10601-4.7-4.7

Valve Size in.	Source A & B Cv Value Range	Valve Body Part No.
1	1.9 to 4.7	599-10602-1.9-1.9 – 599-10602-4.7-4.7

GDE161.1P ELECTRONIC ROTARY NON-SPRING RETURN ACTUATOR

Replace 599 in the valve part number with the GDE161.1P Actuator Prefix Code to order as an assembly.

Actuator Prefix Code	Control Signal
171C	0-10V

Speed up your productivity with our FREE sizing & selecting tool and tagging services

Free sizing and selection tool, SimpleSelect™

Let SimpleSelect™, our Valve Sizing and Selection software tool, simplify time-consuming work by quickly and accurately sizing, selecting, and scheduling valves, actuators, and assemblies. The SimpleSelect tool searches our entire valve and actuator portfolio and speedily finds the products you need.

An intuitive, easy-to-use interface helps you quickly size the valve you need with menus that allow you to:

- Select type of valve from the range
- Choose the medium being controlled
- Determine the correct Cv
- Calculate pressure drop and quantity of steam

Put our FREE SimpleSelect sizing and selection software tool to work for you today. To download, visit usa.siemens.com/simpleselect



Free factory assembly and valve tagging

Valves and valve actuators are assembled and tagged for direct delivery to any job-site, free of charge. All you have to do is specify each valve's location when placing your initial order and we will tag them before shipping to save you installation time and expense.

Request this complimentary service when ordering by phone or online at usa.siemens.com/buildingtechnologiesonlineordering



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