

## 171 Series 2-Way Tri-Clamp Stainless Steel Ball Valves

### Description

Siemens tri-clamp ISO 2852 stainless-steel ball valves are purpose-built for liquid cooling applications in data centers. Designed for reliable and efficient flow control, these valves help meet demanding cooling requirements while preserving medium purity to ensure safe, stable, and high-performance operation of liquid cooling systems.


### Product Numbers

Use the product numbers in Table 1 to order a valve and actuator assembly. The assembly product number consists of a 4-character actuator prefix code, a hyphen, and a 5-digit valve body suffix code. The "S" suffix denotes that the trim is Stainless steel.

### Features

- PN16 pressure class with ISO 2852 end connection
- Stainless steel wetted parts ensuring purity of media
- All valve bodies have reinforcing ribs to ensure robust performance at high pressure
- 87 psi close-off with ANSI Class IV leakage for all line sizes and actuators
- Actuator mounts directly to valve for easy and quick installation
- Valves are paired with fail-in-place actuator with quick 30 sec runtime
- Operating handle for manual operation
- Suitable for use with modulating controllers (DC 0/2...10 V)
- Compact assembly design allows for installation in tight spaces

**Table 1. Fail-in-Place Assemblies: 304 Stainless Steel Ball and Stem (DN15 to DN50)**

2-way valve Body Product Number	Valve Size Inches (DN)	Flow Rate Cv (Kvs)	Close-Off ΔP in psi (kPa)	Fail-in-Place
				
				0/2 to 10 Vdc
				S55499-D992 (GLD161.9Y/101)
				Actuator Prefix Code
				171X
S55232-V117	1/2 (15)	4.6 (4)	87 (600)	171X-10700S
S55232-V118	3/4 (20)	6.4 (5.5)		171X-10701S
S55232-V119	1 (25)	17.3 (15)		171X-10702S
S55232-V120	1-1/4 (32)	29 (25)		171X-10703S
S55232-V121	1-1/2 (40)	46 (40)		171X-10704S
S55232-V122	2 (50)	73 (63)		171X-10705S

## Typical Specifications

Ball valves shall have ISO 2852 tri-clamp type end connections and shall be ½-inch to 2-inch (DN15 to DN 50) line and ball sizes. The valves shall have a stainless steel 304 body with the ball and stem also made of 304 stainless steel. Valves shall contain PTFE valve seat and sealing gland and 304 stainless steel flow characterizer to provide an equal percentage control characteristic. Ball valves shall utilize a 90-degree rotation for control. They shall provide automated flow control of hot or chilled water and up to 50% water-glycol solution for data center liquid cooling applications.

## Technical Data

<b>Pressure Rating</b>	PN 16	<b>Ball Seals</b>	PTFE
<b>Media Temperature</b>	-4°F to 176°F (-20°C to 80°C)	<b>End Connections</b>	ISO 2852 tri-clamp
<b>Controlled Medium</b>	Water, 50% water-glycol solution	<b>Stem</b>	304 stainless steel
<b>Body</b>	304 stainless steel	<b>Stem Seals</b>	EPDM O-rings
<b>Ball</b>	304 stainless steel	<b>Angle of Rotation</b>	0° to 90°
<b>Flow Characterizer</b>	304 stainless steel		

## Dimensions

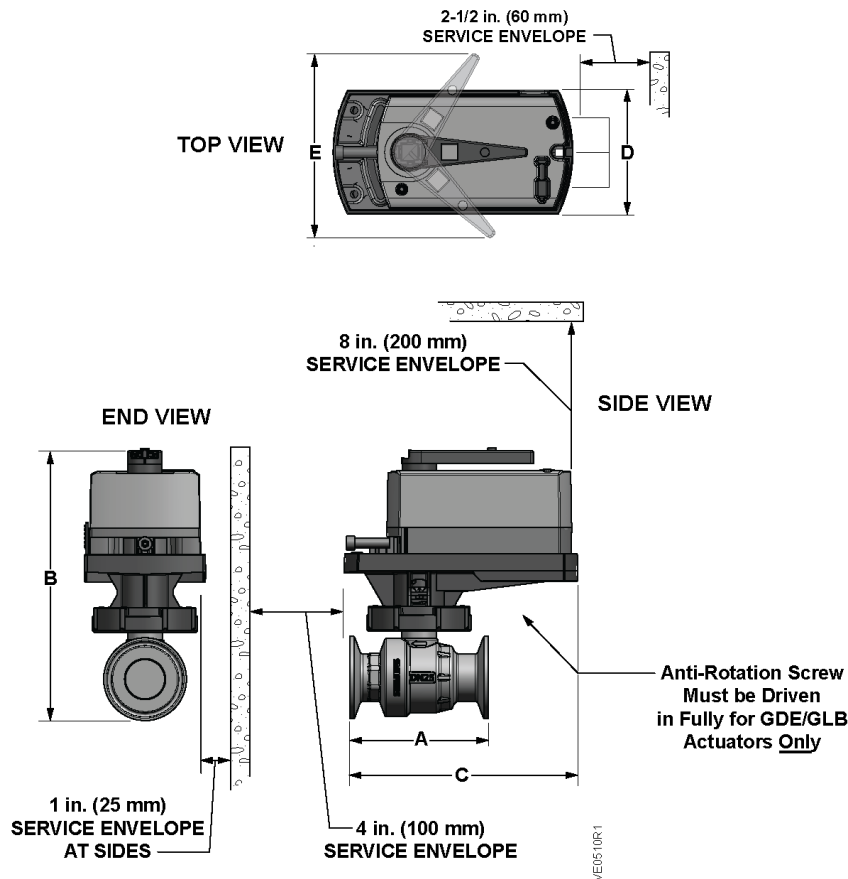


Figure 1. Two-Way Ball Valve and Actuator Dimensions in Inches (Millimeters)

**Table 2. Two-Way Ball Valve and Actuator Dimensions**

Line Size Inches (DN)	Flow Rate Cv (Kvs)	A Length in Inches (mm)	B Height in Inches (mm)	C Length in Inches (mm)	D Width in Inches (mm)	E Width in Inches (mm)
1/2 (15)	4.6 (4)	3.3 (84)	5.82 (147.9)	5.64 (143.2)	2.9 (73.8)	4.0 (101.2)
3/4 (20)	6.4 (5.5)	3.3 (84)	5.87 (149.2)	5.64 (143.2)	2.9 (73.8)	4.0 (101.2)
1 (25)	17.3 (15)	3.3 (84)	6.54 (166.2)	5.64 (143.2)	2.9 (73.8)	4.0 (101.2)
1-1/4 (32)	29 (25)	3.3 (84)	6.67 (169.4)	5.64 (143.2)	2.9 (73.8)	4.0 (101.2)
1-1/2 (40)	46 (40)	3.7 (93.5)	7.30 (185.4)	5.80 (147.3)	2.9 (73.8)	4.0 (101.2)
2 (50)	73 (63)	3.8 (97)	7.65 (194.4)	5.84 (148.3)	2.9 (73.8)	4.0 (101.2)

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