

## Two-way Flanged Iron Globe Valves

2-1/2 to 6-inch

Normally Open or Normally Closed



Flowrite Two-Way Flanged Iron Valve.

### Description

Designed to work with either pneumatic or electronic actuators, the Flowrite Two-way Valves are available in both ANSI Class 125 and 250 for normally closed or normally open action.

### Features

- Valve flange face-to-face dimensions meet ANSI/ISA S75.03 standards
- Direct-coupled, universal bonnet
- Bronze or stainless steel trim
- Standard- or high-temperature packing
- Close-off up to 250 psi
- Fully serviceable
- Greater than 100:1 rangeability
- Equal percentage or linear flow characteristics
- 2-1/2 and 3-inch sizes available with 3/4-inch stroke only
- 4-, 5-, 6-inch are available with a 1-1/2-inch stroke
- ANSI Leakage Class IV (0.01% of Cv)
- Cartridge-type packing for easy service
- Orderable as a valve only or as a complete valve/actuator assembly

### Applications

The Flowrite Two-way valves are recommended for water, steam, and glycol solutions up to 50 percent. Additional specifications include the following:

- Water inlet pressures up to ANSI 125 and ANSI 250 cast iron body rating
- Water modulating differential pressure up to 25 psi (172 kPa) for bronze trim and 50 psi (345 kPa) for stainless steel trim
- Steam inlet to 100 psi with modulating differential pressure up to 50 psi (345 kPa)

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## Two-way Flanged Iron Globe Valve Specifications

**Valve Size** .....2-1/2 to 6" (65 to 150 mm)  
**Body Style** .....Flanged  
**Seat Style** .....Single seat  
**Action** .....Normally Closed (NC); Normally Open (NO)  
**Valve Body Rating** .....ANSI Class 125 or 250  
**Stem Travel (Stroke)**  
 2-1/2 and 3" ..... 3/4" (20 mm)  
 4, 5 and 6" ..... 1-1/2" (40 mm)  
**Materials**  
 Body .....Cast Iron ASTM A126 Class B  
 Trim .....Bronze or Stainless Steel  
 Stem .....Stainless Steel ASTM A582 Type 303  
**Packing**  
 Normal Duty Packing..... EPDM O-rings  
 Steam Packing.....PTFE V-rings and EPDM O-ring  
**Operating**  
 Controlled Medium ..... Saturated Steam, Water,  
 Glycol Solutions up to 50%  
**Medium Temperature Range**  
 Normal Duty Packing..... 20 to 250°F (-7 to 120°C)  
 Steam Packing.....337°F (170°C) max.

**Max. Inlet Pressure**  
 Water.....Refer to Flowrite Reference Section.  
 Steam..... 100 psig (690 kPa)  
**Max. Recommended Differential Pressure for Modulating Service**  
 Bronze Trim  
 Liquid ..... 25 psi (173 kPa)  
 Steam ..... 15 psi (103 kPa)  
 Stainless Steel Trim  
 Liquid ..... 50 psi (345 kPa)  
 Steam ..... 50 psi (345 kPa)  
**Rangeability** ..... >100:1  
**Close-off Ratings** ..... According to ANSI/FCI 70-2  
**Close-off Pressure** .....Refer to the Flowrite Reference Section.  
**Leakage Rate** ..... Class IV (0.01% of Cv)  
**Flow Characteristics** .....Equal Percentage or Linear  
**Dimensions**  
 Face-to-face ..... ANSI/ISA S75.03

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## Two-way Flanged Iron Globe Valve Body Product Ordering

Normally Open/Normally Closed, Equal Percentage



Valve Size in. (mm)	Flow Rate Cv (Kvs)	Stroke (in.)	ANSI Class 125		ANSI Class 250	
			Normally Open Part No.	Normally Closed Part No.	Normally Open Part No.	Normally Closed Part No.
<b>Standard-Temperature Packing — 20 to 250°F (-7 to 120°C)</b>						
<b>Bronze</b>						
2-1/2 (65)	63 (54)	3/4	599-05980	599-05990	599-05940	599-05950
3 (80)	100 (86)	3/4	599-05981	599-05991	599-05941	599-05951
4 (100)	160 (140)	1-1/2	599-05982	599-05992	599-05942	599-05952
5 (125)	250 (215)	1-1/2	599-05983	599-05993	599-05943	599-05953
6 (150)	400 (340)	1-1/2	599-05984	599-05994	599-05944	599-05954
<b>Stainless Steel</b>						
2-1/2 (65)	63 (54)	3/4	599-05960	599-05970	599-05920	599-05930
3 (80)	100 (86)	3/4	599-05961	599-05971	599-05921	599-05931
4 (100)	160 (140)	1-1/2	599-05962	599-05972	599-05922	599-05932
5 (125)	250 (215)	1-1/2	599-05963	599-05973	599-05923	599-05933
6 (150)	400 (340)	1-1/2	599-05964	599-05974	599-05924	599-05934

Accessories & Service Kits

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# Two-way Flanged Iron Globe Valve Body Product Ordering

## Normally Open/Normally Closed, Linear, Stainless Steel



Valve Size in. (mm)	Flow Rate Cv (Kvs)	Stroke (in.)	ANSI Class 125		ANSI Class 250		
			Normally Open Part No.	Normally Closed Part No.	Normally Open Part No.	Normally Closed Part No.	
<b>Standard-Temperature Packing — 20 to 250°F (-7 to 120°C)</b>							
2-1/2 (65)	63 (54)	3/4	<b>599-06060</b>	<b>599-06070</b>	<b>599-06140</b>	<b>599-06150</b>	
3 (80)	100 (86)	3/4	<b>599-06061</b>	<b>599-06071</b>	<b>599-06141</b>	<b>599-06151</b>	
4 (100)	160 (140)	1-1/2	<b>599-06062</b>	<b>599-06072</b>	<b>599-06142</b>	<b>599-06152</b>	
5 (125)	250 (215)	1-1/2	<b>599-06063</b>	<b>599-06073</b>	<b>599-06143</b>	<b>599-06153</b>	
6 (150)	400 (340)	1-1/2	<b>599-06064</b>	<b>599-06074</b>	<b>599-06144</b>	<b>599-06154</b>	
<b>High-Temperature Packing — 337°F (170°C)</b>							
2-1/2 (65)	63 (54)	3/4	<b>599-06040</b>	<b>599-06050</b>	<b>599-06120</b>	<b>599-06130</b>	
3 (80)	100 (86)	3/4	<b>599-06041</b>	<b>599-06051</b>	<b>599-06121</b>	<b>599-06131</b>	
4 (100)	160 (140)	1-1/2	<b>599-06042</b>	<b>599-06052</b>	<b>599-06122</b>	<b>599-06132</b>	
5 (125)	250 (215)	1-1/2	<b>599-06043</b>	<b>599-06053</b>	<b>599-06123</b>	<b>599-06133</b>	
6 (150)	400 (340)	1-1/2	<b>599-06044</b>	<b>599-06054</b>	<b>599-06124</b>	<b>599-06134</b>	

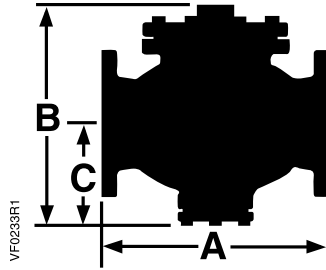
## Flowrite Valve Actuator Product Ordering

Description		Part No.	Actuator Prefix Code	
 8"	Pneumatic	20 mm Stroke/Normal Temp.	<b>599-01050</b>	<b>277</b>
		20 mm Stroke/Hi-Temp.	<b>599-01051</b>	<b>278</b>
 12"	Pneumatic	20 mm Stroke	<b>599-01010</b>	<b>279</b>
		40 mm Stroke	<b>599-01000</b>	<b>281</b>
 8"	Pneumatic w/ Positioner	20 mm Stroke/Normal Temp.	<b>599-01050 + 599-00426</b>	<b>283</b>
		20 mm Stroke/Hi-Temp.	<b>599-01051 + 599-00426</b>	<b>284</b>
 12"	Pneumatic w/ Positioner	20 mm Stroke	<b>599-01010 + 599-00423</b>	<b>285</b>
		40 mm Stroke	<b>599-01000 + 599-00423</b>	<b>287</b>
	Electro-Hydraulic	<b>20 mm Stroke</b>		
		24 V, Floating 3P, Spring Return	<b>SKD82.51U</b>	<b>276</b>
		24 V, Floating 3P, Spring Return	<b>SKB82.51U</b>	<b>289</b>
		24 V, Floating 3P, Non-Spring Return	<b>SKD82.50U</b>	<b>275</b>
		24 V, Floating 3P, Non-Spring Return	<b>SKB82.50U</b>	<b>290</b>
		24 V, 0-10 V, 4-20 mA, Non-Spring Return	<b>SKD60U</b>	<b>267</b>
		24 V, 0-10 V, 4-20 mA, Spring Return	<b>SKD62U</b>	<b>274</b>
		24 V, 0-10 V, 4-20 mA, Spring Return	<b>SKB62U</b>	<b>291</b>
		<b>40 mm Stroke</b>		
		24 V, Floating 3P, Spring Return	<b>SKC82.61U</b>	<b>292</b>
		24 V, Floating 3P, Non-Spring Return	<b>SKC82.60U</b>	<b>293</b>
24 V, 0-10 V, 4-20 mA, Spring Return	<b>SKC62U</b>	<b>294</b>		

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## Two-way Flanged Iron Globe Valve Body Dimensions and Weights



Valve Size	ANSI Class 125				ANSI Class 250			
	Dimensions			Weight	Dimensions			Weight
	A	B	C		A	B	C	
<b>Normally Open</b>								
2-1/2" (65 mm)	10-7/8" (276 mm)	11" (281 mm)	4-7/8" (123 mm)	60 lb. (27 kg)	11-1/2" (292 mm)	11" (281 mm)	4-7/8" (123 mm)	76 lb. (34 kg)
3" (80 mm)	11-3/4" (299 mm)	12-1/4" (312 mm)	5-5/16" (135 mm)	76 lb. (34 kg)	12-1/2" (318 mm)	12-1/4" (312 mm)	5-5/16" (135 mm)	99 lb. (45 kg)
4" (100 mm)	13-7/8" (352 mm)	13-9/16" (345 mm)	6-5/16" (160 mm)	124 lb. (56 kg)	14-1/2" (368 mm)	13-5/8" (344.7 mm)	6-5/16" (160 mm)	160 lb. (73 kg)
5" (125 mm)	15-3/4" (400 mm)	15-3/16" (385 mm)	7" (177 mm)	155 lb. (70 kg)	16-5/8" (422 mm)	15-3/16" (385 mm)	7" (177 mm)	208 lb. (94 kg)
6" (150 mm)	17-3/4" (451 mm)	16-3/4" (426 mm)	7-7/8" (200 mm)	212 lb. (96 kg)	18-5/8" (473 mm)	16-3/4" (426 mm)	7-7/8" (200 mm)	302 lb. (137 kg)
<b>Normally Closed</b>								
2-1/2" (65 mm)	10-7/8" (276 mm)	10-5/8" (269 mm)	4-7/8" (125 mm)	58 lb. (26 kg)	11-1/2" (292 mm)	11" (279 mm)	5-3/8" (135 mm)	74 lb. (34 kg)
3" (80 mm)	11-3/4" (299 mm)	11-15/16" (303 mm)	5-5/8" (142 mm)	75 lb. (34 kg)	12-1/2" (318 mm)	12-7/16" (315 mm)	6" (154 mm)	98 lb. (44 kg)
4" (100 mm)	13-7/8" (352 mm)	13-15/16" (354 mm)	6-5/8" (168 mm)	123 lb. (56 kg)	14-1/2" (368 mm)	14-3/8" (364 mm)	7" (178 mm)	159 lb. (72 kg)
5" (125 mm)	15-3/4" (400 mm)	15-1/4" (338 mm)	7-1/2" (185 mm)	153 lb. (69 kg)	16-5/8" (422 mm)	15-3/4" (399 mm)	7-3/4" (196 mm)	207 lb. (94 kg)
6" (150 mm)	17-3/4" (451 mm)	17-1/16" (433 mm)	8-3/16" (207 mm)	209 lb. (95 kg)	18-5/8" (473 mm)	17-1/2" (444 mm)	8-5/8" (218 mm)	299 lb. (136 kg)

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