VG7000 Series Stainless Steel Trim Globe Valves with V-3000 Pneumatic Actuators Catalog Page

2020-10-13 LIT-1900087

Description

VG7000 Series Stainless Steel Trim Globe Valves with V-3000 Pneumatic Actuators control hot or chilled water, or 100 psig saturated steam.

Refer to the *VG7000 Series Bronze Control Valves Product Bulletin (LIT-977140)* for important product application information.

Features

- Rugged actuator die-cast enclosure fits VG7000 valves 1/2 through 1-1/4 in.
- Effective diaphragm area: 8 sq. in.
- Controls: hot or chilled water, 100 psig saturated steam
- Valve trim: stainless steel
- Packing: spring-loaded PTFE and elastomer V-rings
- Maximum supply air pressure: 25 psig (172 kPa)
- Fluid temperature: 35°F to 338°F (2°C to 170°C)
- Valve body static pressure rating: ANSI Class 250
- Factory or field assembly
- For optional V-9502-90 Positioner, add a P to the end of the code number (not available with enclosed spring actuator)

Johnson Controls

Repair information

If the VG7000 Series Globe Valve fails to operate within its specifications, replace the valve body, actuator, or entire assembly. For replacement parts, contact the nearest Johnson Controls® representative.

Selection charts

Table 1: VG7000 Stainless Steel Trim Globe Valve with V-3000-8012 Exposed Pneumatic Actuator

Actuator Code Number			V-3000-8012					
Mounting Kit	1/2 in. and 3/4 in.		VG7000-1001		VG7000-1002		VG7000-1003	
	1 in. and 1-1/4 in.		VG7000-1004		VG7000-1005		VG7000-1006	
	1-1/2 in. and 2 in.		VG7000-1007		VG7000-1008		VG7000-1009	
Spring Range			3 psig to 6 psig		4 psig to 8 psig		9 psig to 13 psig	
Valve Code Number	Size, in.	Cv	Closeoff psig	Code Number	Closeoff psig	Code Number	Closeoff psig	Code Number
Two-Way Normally Open — NPT End Connections (To specify a factory-mounted pneumatic positioner, add P to the end of the code number.)								
VG7243CT	1/2	0.73	299	VG7243CT+3008B	255	VG7243CT+3008D	143	VG7243CT+3008E
VG7243ET	1/2	1.8	299	VG7243ET+3008B	255	VG7243ET+3008D	143	VG7243ET+3008E
VG7243GT	1/2	4.6	169	VG7243GT+3008B	144	VG7243GT+3008D	81	VG7243GT+3008E
VG7243LT	3/4	7.3	108	VG7243LT+3008B	92	VG7243LT+3008D	52	VG7243LT+3008E
VG7243NT	1	11.6	67	VG7243NT+3008B	57	VG7243NT+3008D	32	VG7243NT+3008E
VG7243PT	1-1/4	18.5	41	VG7243PT+3008B	35	VG7243PT+3008D	19	VG7243PT+3008E
Two-Way Normally Closed — NPT End Connections (To specify a factory-mounted pneumatic positioner, add P to the end of the code number.)								
VG7443CT	1/2	0.73	75	VG7443CT+3008B	106	VG7443CT+3008D	261	VG7443CT+3008E
VG7443ET	1/2	1.8	75	VG7443ET+3008B	106	VG7443ET+3008D	261	VG7443ET+3008E
VG7443GT	1/2	4.6	36	VG7443GT+3008B	51	VG7443GT+3008D	126	VG7443GT+3008E
VG7443LT	3/4	7.3	22	VG7443LT+3008B	31	VG7443LT+3008D	75	VG7443LT+3008E
VG7443NT	1	11.6	13	VG7443NT+3008B	19	VG7443NT+3008D	49	VG7443NT+3008E
VG7443PT	1-1/4	18.5	7	VG7443PT+3008B	11	VG7443PT+3008D	28	VG7443PT+3008E
Three-Way Mixing — NPT End Connections (To specify a factory-mounted pneumatic positioner, add P to the end of the code number.)								
VG7844CT	1/2	0.73	299 / 75	VG7844CT+3008B	255 / 106	VG7844CT+3008D	143 / 261	VG7844CT+3008E
VG7844ET	1/2	1.8	299 / 75	VG7844ET+3008B	255 / 106	VG7844ET+3008D	143 / 261	VG7844ET+3008E
VG7844GT	1/2	4.6	169 / 36	VG7844GT+3008B	144 / 51	VG7844GT+3008D	81 / 126	VG7844GT+3008E
VG7844LT	3/4	7.3	108 / 22	VG7844LT+3008B	92 / 31	VG7844LT+3008D	52 / 75	VG7844LT+3008E
VG7844NT	1	11.6	67 / 13	VG7844NT+3008B	57 / 19	VG7844NT+3008D	32 / 49	VG7844NT+3008E
VG7844PT	1-1/4	18.5	41 / 7	VG7844PT+3008B	35 / 11	VG7844PT+3008D	19 / 28	VG7844PT+3008E

Johnson Controls

Table 2: VG7000 Stainless Steel Trim Globe Valve with V-3000-8003 Enclosed Pneumatic Actuators

Actuator Code Number			V-3000-8003					
Mounting Kit	1/2 in. and 3/4 in.		VG7000-1001		VG7000-1002		VG7000-1003	
	1 in. and 1-1/4 in.		VG7000-1004		VG7000-1005		VG7000-1006	
	1-1/2 in. and 2 in.		VG7000-1007		VG7000-1008		VG7000-1009	
Spring Range			3 psig to 6 psig		4 psig to 8 psig		9 psig to 13 psig	
Valve Code Number	Size, in.	Cv	Closeoff psig	Code Number	Closeoff psig	Code Number	Closeoff psig	Code Number
Two-Way Normally Open — NPT End Connections								
VG7243CT	1/2	0.73	299	VG7243CT+3003B	255	VG7243CT+3003D	143	VG7243CT+3003E
VG7243ET	1/2	1.8	299	VG7243ET+3003B	255	VG7243ET+3003D	143	VG7243ET+3003E
VG7243GT	1/2	4.6	169	VG7243GT+3003B	144	VG7243GT+3003D	81	VG7243GT+3003E
VG7243LT	3/4	7.3	108	VG7243LT+3003B	92	VG7243LT+3003D	52	VG7243LT+3003E
VG7243NT	1	11.6	67	VG7243NT+3003B	57	VG7243NT+3003D	32	VG7243NT+3003E
VG7243PT	1-1/4	18.5	41	VG7243PT+3003B	35	VG7243PT+3003D	19	VG7243PT+3003E
Two-Way Normally Closed — NPT End Connections								
VG7443CT	1/2	0.73	75	VG7443CT+3003B	106	VG7443CT+3003D	261	VG7443CT+3003E
VG7443ET	1/2	1.8	75	VG7443ET+3003B	106	VG7443ET+3003D	261	VG7443ET+3003E
VG7443GT	1/2	4.6	36	VG7443GT+3003B	51	VG7443GT+3003D	126	VG7443GT+3003E
VG7443LT	3/4	7.3	22	VG7443LT+3003B	31	VG7443LT+3003D	75	VG7443LT+3003E
VG7443NT	1	11.6	13	VG7443NT+3003B	19	VG7443NT+3003D	49	VG7443NT+3003E
VG7443PT	1-1/4	18.5	7	VG7443PT+3003B	11	VG7443PT+3003D	28	VG7443PT+3003E
Three-Way Mixing — NPT End Connections								
VG7844CT	1/2	0.73	299 / 75	VG7844CT+3003B	255 / 106	VG7844CT+3003D	143 / 261	VG7844CT+3003E
VG7844ET	1/2	1.8	299 / 75	VG7844ET+3003B	255 / 106	VG7844ET+3003D	143 / 261	VG7844ET+3003E
VG7844GT	1/2	4.6	169 / 36	VG7844GT+3003B	144 / 51	VG7844GT+3003D	81 / 126	VG7844GT+3003E
VG7844LT	3/4	7.3	108 / 22	VG7844LT+3003B	92 / 31	VG7844LT+3003D	52 / 75	VG7844LT+3003E
VG7844NT	1	11.6	67 / 13	VG7844NT+3003B	57 / 19	VG7844NT+3003D	32 / 49	VG7844NT+3003E
VG7844PT	1-1/4	18.5	41 / 7	VG7844PT+3003B	35 / 11	VG7844PT+3003D	19 / 28	VG7844PT+3003E

Technical specifications

Table 3: Technical specifications

VG7000 Series Stainless Steel Trim Globe Valves with V-3000 Pneumatic Actuators		
Service[1]		Hot water, chilled water, 50/50 glycol solutions, and steam for HVAC systems
Fluid temperature limits	Water	35°F to 338°F (2°C to 170°C) for V-3000-8012
	Steam	100 psig (690 kPa) saturated steam
Maximum allowable pressure/temperature	Water	400 psig (2,756 kPa) up to 150°F (66°C) decreasing to 308 psig (2,122 kPa) at 338°F (170°C)
	Steam	100 psig (690 kPa) saturated steam
Valve body pressure/temperature rating		Meets requirements of ANSI B16.15, Class 250
Maximum recommended operating pressure drop	Water	35 psig (241 kPa) for 1/2 in. through 1-1/4 in. valves; 30 psig (207 kPa) for 1-1/2 in. and 2 in. valves
	Steam	100 psig (690 kPa)
Flow characteristics	Two-way valves	Equal percentage
	Three-way valves	Linear flow characteristics
Rangeability[2]		> 25:1 according to EN60534-2-4 for the 1/2 in. Size, Cv 0.73, valve bodies > 100:1 according to EN60534-2-4 for all other valves

Johnson Controls

Table 3: Technical specifications

VG7000 Series Stainless Steel Trim Globe Valves with V-3000 Pneumatic Actuators		
Leakage		0.05% of maximum flow
Actuator ambient operating temperature limits		-20°F to 150°F (-29°C to 66°C)
Maximum actuator supply pressure		25 psig (172 kPa) maximum
Materials	Body	Cast bronze
	Bonnet	brass
	Stem	Stainless steel
	Plug	Stainless steel
	Seat	Stainless steel
	Packing	Self-adjusting Ethylene Propylene Rubber (EPR) ring pack U-cups
Compliance	Canada	CRN: 0C22556.5

1 Refer to the VDI 2035 Guideline for recommended proper water treatment.
2 Rangeability is defined as the ratio of maximum controllable flow to minimum controllable flow.

⚠ WARNING

This product is made of copper alloy, which contains lead. The product is therefore not to be used on drinking water.

⚠ WARNING

This product can expose you to chemicals including lead, which is known to the State of California to cause cancer, birth defects, or other reproductive harm. For more information, go to www.P65Warnings.ca.gov.

⚠ WARNING

WARNING: BRASS MAY CONTAIN LEAD

To fulfill our obligations towards Article 33, in accordance to the European REACH Regulation No 1907/2006 EC, we hereby inform you that this article contains the following Substances of Very High Concern mentioned on the Candidate list: Lead

Product warranty

This product is covered by a limited warranty, details of which can be found at www.johnsoncontrols.com/buildingswarranty.

Single point of contact

APAC	Europe	NA/SA
JOHNSON CONTROLS	JOHNSON CONTROLS	JOHNSON CONTROLS
C/O CONTROLS PRODUCT MANAGEMENT	WESTENDHOF 3	507 E MICHIGAN ST
NO. 32 CHANGJIJANG RD NEW DISTRICT	45143 ESSEN	MILWAUKEE WI 53202
WUXI JIANGSU PROVINCE 214028	GERMANY	USA
CHINA		

© 2020 Johnson Controls. All rights reserved. All specifications and other information shown were current as of document revision and are subject to change without notice.
www.johnsoncontrols.com

Johnson Controls