

Terminal Unit Valves

V5000

DN10...20, PN16

These valves are primarily designed to regulate the flow of water and steam in response to the demand of a controller in zone and terminal unit applications.

Following actuators are available:

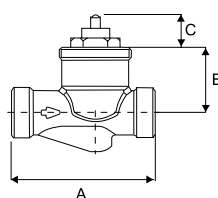
VA-7047 and VA-7048 thermal ON/OFF actuators

VA-7067 thermal 0...10 VDC actuators

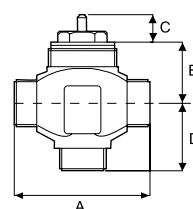
VA-747x floating and proportional actuators.

Features

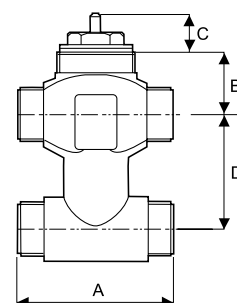
- Forged brass body, stainless steel stem and spring
- Kvs 0.16...5
- 2-way PDTTC (normally open), 3-way mixing and 3-way diverting and 3-way mixing and 3-way diverting with built-in bypass configurations
- Fluid temperature 2...120 °C
- BSPP and compression fitting body connections
- Inherent flow characteristic: equal percentage
- Rangeability 50:1



2-way valve



3-way valve



3-way bypass valve

Dimensions in mm

Body Size	Connection Size	A	B	C	D
2-way (Normally Open) Configuration					
DN10	1/2"	60	27.5	15.5	---
DN15	3/4"	65	33.7		
DN20	1"				
3-way Mixing/Diverting Configuration					
DN10	1/2"	60	27	15.2	30
DN15	3/4"				
DN20	1"				
3-way Mixing/Diverting with built-in bypass Configuration					
DN10	1/2"	60	27	15.2	40
DN15	3/4"				
DN20	1"				50

Terminal Unit Valves

V5000

Ordering Codes*	Compression fitting kit**	Body Size	Kvs (Control port)	Kvs (By-pass port)	Close-off Pressure (kPa)
2-way configuration					
V52x0ZC	---	DN10	0.16	---	400
V52x0BC			0.4		
V52x0CC			0.63		
V52x0DC			1		
V52x0EC			1.6		
V5210JC	•	DN15	2.5	110	
V5210KC			3.5		
V5210MC		DN20	4.5		
3-way Mixing/Diverting Configuration					
V5810BC	---	DN10	0.4	0.3	120
V5810CC			0.63	0.4	
V5810DC			1	0.63	
V5810EC			1.6	1	
V5810JC		DN15	2.5	1.6	150
V5810KC			4	2.5	
V5810MC		DN20	5	3.5	110
3-way Mixing/Diverting with built-in bypass Configuration					
V55x0BC	---	DN10	0.4	0.3	180
V55x0CC			0.63	0.4	
V55x0DC			1	0.63	
V55x0EC			1.6	1	
V5510JC	•	DN15	2.5	1.6	150
V5510KC			4	2.5	
V5510MC		DN20	5	3.5	110

Notes

- * **x = 1:** BSPP
x = 9: Compression fitting

** Compression fitting kit available for DN15 and DN20

DN15: 0378145015

DN20: 0378145020

Terminal Unit Valves

VG4000

DN15...20, PN16

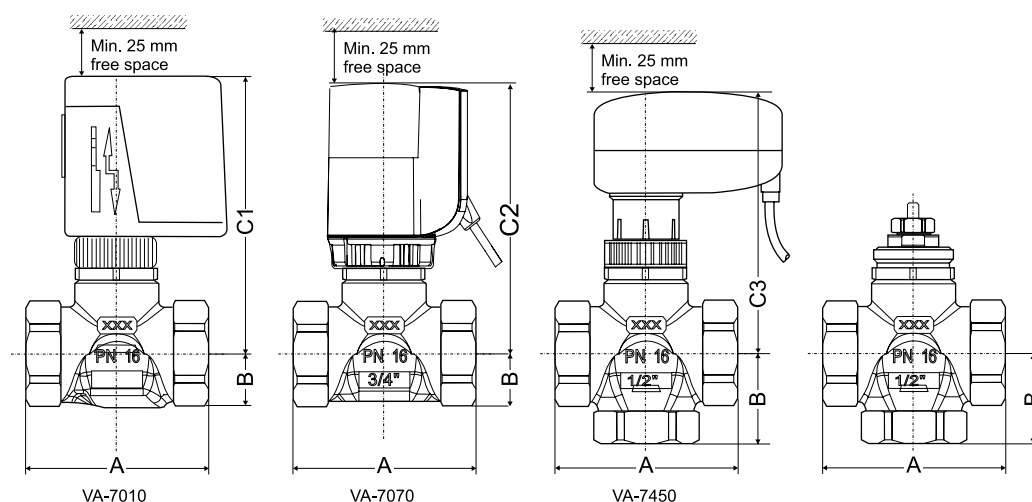
VG4000 Series High Capacity / High Close-off Zone Valves are primarily designed to control the flow of water in response to the demand of a controller in zone and fan coil applications.

The valves can be used in combination with VA-7010 electric ON/OFF actuators, VA-7070 thermal actuators and VA-7450 incremental or proportional actuators.

VG4000 Series Valves are available in 2-way Normally Closed (N.C.), or 3-way mixing configurations.

Features

- Cast Bronze Body and Stainless Steel Stem and Spring
- EPT Rubber Plug for Bubble-Tight Shutoff
- Easy, Field-Replaceable Packing
- Actuator Can Be Field Installed After Piping
- Built-In Return Spring for VA-7010 and VA-707x Actuators
- Selectable flow characteristic in combination with VA-7452 actuators



Ordering Code	Body Type	Body Size	Connection Size	Kv _s	Close-Off Pressure (kPa)	Dimensions in mm				
						A	B	C1 (VA-7010)	C2 (VA-7070)	C3 (VA-7450)
VG44y0FC	2-way PDTO (NC)	DN15	½"	2.5	340	66	19	111	110	105
VG44y0GC		DN20	¾"	3.0						
VG4800FC	3-way Mixing	DN15	½"	2.5	340		32			
VG4800GC		DN20	¾"	3.0	(200 kPa in NO Port)					

Terminal Unit Valves

VG5000

DN15...25, PN16

These valves are primarily designed to regulate the flow of water and steam in response to the demand of a controller in zone and terminal unit applications.

Following actuators are available:

VA-7010 ON/OFF actuators

VA-7040 thermal ON/OFF actuators

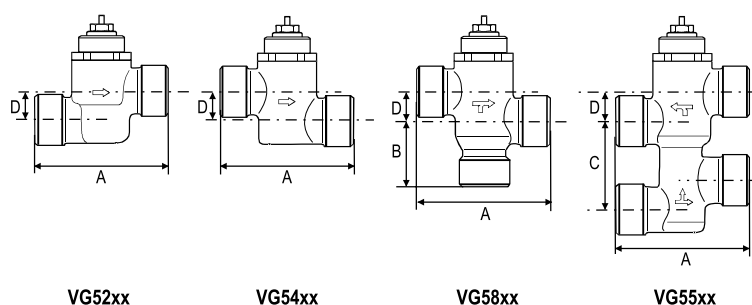
VA-7060 thermal proportional actuators

VA-745x floating and proportional actuators.



Features

- Forged brass body
- Kvs 0.25...5.5
- 2-way PDTO (normally open), 2-way PDTC (normally closed), 3-way mixing and 3-way mixing with built-in (normally open) bypass configurations
- Fluid temperature 2...95 °C
- Built-in return spring
- BSPP male, female and compression fitting body connections
- Inherent flow characteristic: quick opening



Male Thread Connection (1/2)

Ordering Codes*	Body Size	Connection Size	Kvs (Control Port)	Kvs (By-pass port)	Close-off Pressure (kPa)	Dimensions in mm			
						A	B	C	D
2-way PDTO (Normally Open) Configuration									
VG52z0AC	DN15	½"	0.25	---	200	68	---	---	11
VG52z0BC			0.4	---			---	---	
VG52z0CC			0.63	---			---	---	
VG52z0DC			1	---			---	---	
VG52z0EC			1.6	---			100	72	
VG5210JC	DN20	¾"	2.5	---	140	74	---	---	15
VG5210KC			3.5	---	100		---	---	
2-way PDTC (Normally Closed) Configuration									
VG54z0AC	DN15	½"	0.25	---	200	68	---	---	11
VG54z0BC			0.4	---			---	---	
VG54z0CC			0.63	---			---	---	
VG54z0DC			1	---			---	---	
VG54z0EC			1.6	---			100	72	
VG5410JC	DN20	¾"	2.5	---	100	74	---	---	15
VG5410KC			3.5	---			---	---	

Note

* z = 1: BSP parallel

z = 9: Compression fitting (only for DN15 valves)

Terminal Unit Valves

VG5000

Male Thread Connection (2/2)

Ordering Codes*	Body Size	Kvs (Control Port)	Kvs (By-pass port)	Close-off Pressure (kPa)	Dimensions in mm			
					A	B	C	D
3-way Mixing Configuration								
VG58z0AC	DN15	<u>0.25</u>	<u>0.25</u>	200	68	26.5	---	11
VG58z0BC		<u>0.4</u>	<u>0.4</u>			26.5	---	11
VG58z0CC		<u>0.63</u>	<u>0.63</u>			26.5	---	11
VG58z0DC		<u>1</u>	<u>1</u>			26.5	---	11
VG58z0EC		<u>1.6</u>	<u>1.6</u>			100	72	34.5
VG5810JC	DN20	<u>2.5</u>	<u>2.5</u>	74	36		---	15
VG5810KC		<u>3.5</u>	<u>3.5</u>		36		---	15
3-way + built-in (Normally Open) bypass Configuration								
VG55z0AC	DN15	<u>0.25</u>	0.25	200	68	---	40	11
VG55z0PC		<u>0.4</u>	0.25					
VG55z0BC		<u>0.4</u>	0.4					
VG55z0QC		<u>0.63</u>	0.4					
VG55z0CC		<u>0.63</u>	0.63					
VG55z0RC		<u>1.0</u>	0.63					
VG55z0DC		<u>1.0</u>	1.0					
VG55z0SC		<u>1.6</u>	1.0					
VG55z0EC	DN20	<u>1.6</u>	1.6	100	72	---	40	13.5
VG5510TC		<u>2.5</u>	1.6		74			
VG5510JC		<u>2.5</u>	2.5					
VG5510UC		<u>3.0</u>	2.5					
VG5510KC		<u>3.0</u>	3.0					

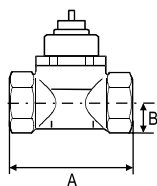
Note

* **z = 1:** BSP parallel

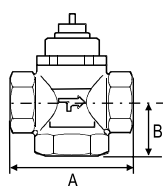
z = 9: Compression fitting (only for DN15 valves)

Terminal Unit Valves

VG5000



VG52x
VG540x



VG580x

Female Thread Connection

Ordering Codes	Body Size	Kvs (Control Port)	Kvs (By-pass port)	Close-Off Pressure (kPa)	Dimensions in mm	
					A	B
2-way PDTO (Normally Open) Configuration						
VG5200AC	DN15	<u>0.25</u>	---	200	55	15
VG5200BC		<u>0.4</u>	---			
VG5200CC		<u>0.63</u>	---			
VG5200DC		<u>1</u>	---			
VG5200EC		<u>1.6</u>	---			
VG5200JC	DN20	<u>2.5</u>	---	140	66	19
VG5200KC		<u>3.5</u>	---	100		
VG5200MC	DN25	<u>5.5</u>	---	62	90	24
2-way PDTC (Normally Closed) Configuration						
VG5400AC	DN15	<u>0.25</u>	---	200	55	15
VG5400BC		<u>0.4</u>	---			
VG5400CC		<u>0.63</u>	---			
VG5400DC		<u>1</u>	---			
VG5400EC		<u>1.6</u>	---			
VG5400JC	DN20	<u>2.5</u>	---	100	66	19
VG5400KC		<u>3.5</u>	---			
VG5400MC	DN25	<u>5.5</u>	---	62	90	24
3-way Mixing						
VG5800CC	DN15	<u>0.63</u>	0.63	200	55	29
VG5800DC		<u>1</u>	1			
VG5800EC		<u>1.6</u>	1.6			
VG5800JC	DN20	<u>2.5</u>	2.5	100	66	33.5
VG5800KC		<u>3.5</u>	3.5			
VG5800MC	DN25	<u>5.5</u>	5.5	62	90	37.5

Terminal Unit Valves

VG6000

DN15...25, PN16

These valves are primarily designed to regulate the flow of water in response to the demand of a controller in zone and terminal unit applications.

Following actuators are available:

VA-7030 ON/OFF actuators

VA-747x electric actuators.



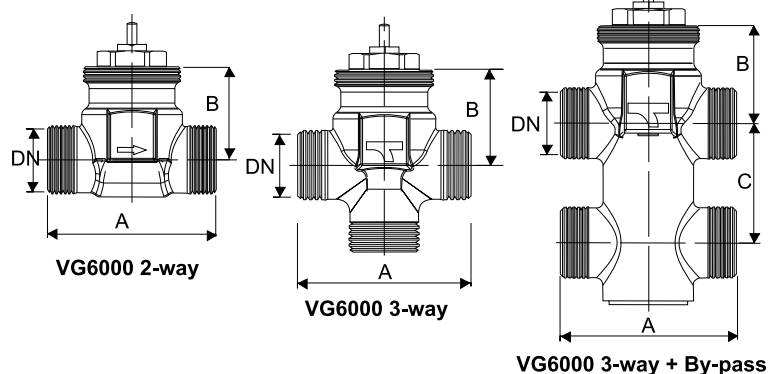
VG6000 2-way

VG6000 3-way

VG6000 3-way
+ Bypass

Features

- Forged brass body
- Kvs 1.7...4.5
- 2-way PDTC (normally open),
3-way mixing and diverting,
3-way mixing and diverting
with built-in bypass configurations
- Fluid temperature 2...110 °C
- BSPP threaded body connection
- Inherent flow characteristic: quick opening



Ordering Codes	Body Size	Connection Size	Kvs (Control port)	Kvs (By-pass port)	Close-off pressure (kPa)	Dimensions in mm		
						A	B	C
2-way PDTC Configuration								
VG6210EC	DN15	½"	1.7	---	250	52	29	---
VG6210JC	DN20	¾"	2.6	---	150	56	28	---
VG6210LC	DN25	1"	4.5	---	70	82	30.5	---
3-way Mixing and Diverting Configuration								
VG6810EC	DN15	½"	1.7 (Mixing)	1.2 (Mixing)	250	52	29	---
			1.7 (Diverting)	1.3 (Diverting)				
VG6810JC	DN20	¾"	2.5 (Mixing)	1.6 (Mixing)	150	56	28	---
			2.6 (Diverting)	1.8 (Diverting)				
VG6810LC	DN25	1"	4.5 (Mixing)	3.1 (Mixing)	70	82	30.5	---
			4.5 (Diverting)	4.5 (Diverting)				
3-way Mixing and Diverting with built-in bypass								
VG6510EC	DN15	½"	1.7 (Mixing)	1.2 (Mixing)	250	52	29	40
			1.7 (Diverting)	1.3 (Diverting)				
VG6510JC	DN20	¾"	2.5 (Mixing)	1.6 (Mixing)	150	56	28	40
			2.6 (Diverting)	1.8 (Diverting)				
VG6510LC	DN25	1"	4.5 (Mixing)	3.1 (Mixing)	70	82	30.5	74
			4.5 (Diverting)	4.5 (Diverting)				

Threaded Control Valves

VG1000

DN15...50, PN40

These ball valves are primarily designed to regulate the flow of hot or chilled water and low-pressure steam in response to the demand of a controller in heating, ventilating and air conditioning systems.

Following ON/OFF, floating or proportional control electric actuators are available:

VA9104 direct mounted Non Spring Return actuators

M9108 Non Spring Return actuators

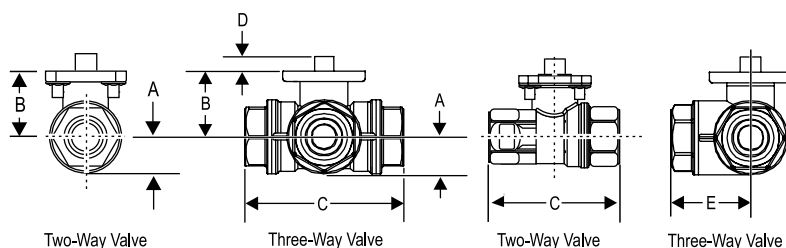
M9206 and M9216 Spring Return actuators.

All valves and actuators available as factory mounted assemblies.



Features

- Forged brass body
- Kvs 0.63...63
- 2-way, 3-way mixing and diverting configurations
- Stainless steel ball and stem
Fluid temperature -30...140 °C
(-30 to 100 °C with VA9104)
- Inherent Equal Percentage Flow Characteristic in the in-line port of all valves
- BSPP female threaded body connections
- M9000-520-5 linkage kit available for field mounting to M9206 series electric actuators
- M9000-510-5 linkage kit available for field mounting to M9216 series electric actuators
- M9000-525-5 linkage kit available for field mounting to M9108 series electric actuators



Dimensions in mm

Body size	A	B	C	D	E
DN15	17	31	67	9	33
DN20			75		38
DN25	19	33	92		46
DN32	26	44	109		54
DN40	29	48	119		59
DN50	37	53	139		74

Threaded Control Valves VG1000

Factory-mounted assemblies of valves with PROPORTIONAL actuators

Spring Return Function	---			●			
Supply Voltage	24 VAC						
Torque	4 Nm	8 Nm		6 Nm		16 Nm	
Running Time	72 s	30 s		25 – 40 s		90 – 120 s	
Spring Return Time Power Off	---			35 s (max 70 s)		10 s	
Control Signal	VDC	0 – 10 / 2 – 10					
	mA	0 – 20 / 4 – 20				---	
Switches	---		2 x SPDT	---	1 x SPDT	---	2 x SPDT
Feedback	VDC	0 – 10 / 2 – 10				0 – 10	
Close-off Pressure	1380 kPa						
Actuator Codes	VA9104-GGA-1S	M9108-GGA-5	M9108-GGC-5	M9206-GGA-5S	M9206-GGB-5S	M9216-HGA-1	M9216-HGC-1
Linkage Codes	---	M9000-525-5		M9000-520-5		M9000-510-5	
Ordering Code Suffix for Assemblies	+5A4GGA	+5A8GGA	+5A8GGC	+536GGA (Spring Opens)	+536GGB (Spring Opens)	+526HGA (Spring Opens)	+526HGC (Spring Opens)
				+556GGA (Spring Closes)	+556GGB (Spring Closes)	+546HGA (Spring Closes)	+546HGC (Spring Closes)

Valve Codes*	Body Size	Kvs (Control Port)	Kvs (Bypass Port)**	Disc							
VG1x05AD	DN15	1.0	0.63	•	•	---	•	•	•	---	---
VG1x05AE		1.6	1.0		•	---	•	•	•	---	---
VG1x05AF		2.5	1.6		•	---	•	•	•	---	---
VG1x05AG		4.0	2.5		•	---	•	•	•	---	---
VG1x05AL		6.3	4.0		•	---	•	•	•	---	---
VG1x05AN		10	5.0	---	•	---	•	•	•	---	---
VG1x05BL	DN20	6.3	4.0	•	•	---	•	•	•	---	---
VG1x05BN		10	5.0	---	•	---	•	•	•	---	---
VG1x05CN	DN25	10	6.3	•	•	---	•	•	•	---	---
VG1x05CP		16	8.0	---	•	---	•	•	•	---	---
VG1x05DP	DN32	16	10.0	•	---	•	•	•	•	---	---
VG1x05DR		25	12.5	---	---	•	•	•	•	---	---
VG1x05ER	DN40	25	16	•	---	•	•	•	•	---	---
VG1x05ES		40	20	---	---	•	•	•	•	---	---
VG1x05FS	DN50	40	25.0	•	---	•	•	---	---	•	•
VG1x05FT		63	31.5	---	---	•	•	---	---	•	•

Notes

* x = 2: 2-way

** only 3-way valves

x = 8: 3-way

Threaded Control Valves

VG1000

Factory-mounted assemblies of valves with FLOATING and ON/OFF actuators

Spring Return Function	---						•			
Supply Voltage	24 VAC				230 VAC		24 VAC			
Torque	4 Nm		8 Nm				6 Nm		16 Nm	
Running Time	72 s		30 s				60 – 90 s		90 – 120 s	
Spring Return Time Power Off	---						35 s (max 70 s)		10 s	
Control Signal	Floating	Floating with time-out and ON/OFF					Floating			
Switches	---			2 x SPDT	---	2 x SPDT	---	1 x SPDT	---	2 x SPDT
Feedback	---									
Close-off Pressure	1380 kPa									
Actuator Code	VA9104-AGA-1S	VA9104-IGA-1S	M9108-AGA-5	M9108-AGC-5	M9108-ADA-5	M9108-ADC-5	M9206-AGA-5S	M9206-AGB-5S	M9216-AGA-1	M9216-AGC-1
Linkage Code	---		M9000-510-5				M9000-520-5		M9000-510-5	
Ordering Code Suffix for Assemblies	+5A4AGA	+5A4IGA	+5A8AGA	+5A8AGC	+5A8ADA	+5A8ADC	+536AGA (Spring Opens)	+536AGB (Spring Opens)	+526AGA (Spring Opens)	+526AGC (Spring Opens)
							+556AGA (Spring Closes)	+556AGB (Spring Closes)	+546AGA (Spring Closes)	+546AGC (Spring Closes)

Valve Code *	Body Size	Kvs (Control Port)	Kvs (Bypass Port) **	Disc										
VG1x05AD	DN15	1.0	0.63	•	•	•	---	•	•	•	•	•	---	---
VG1x05AE		1.6	1.0		•	•	---	•	•	•	•	•	---	---
VG1x05AF		2.5	1.6		•	•	---	•	•	•	•	•	---	---
VG1x05AG		4.0	2.5		•	•	---	•	•	•	•	•	---	---
VG1x05AL		6.3	4.0		•	•	---	•	•	•	•	•	---	---
VG1x05AN		10	5.0		•	•	---	•	•	•	•	•	---	---
VG1x05BL	DN20	6.3	4.0	•	•	•	---	•	•	•	•	•	---	---
VG1x05BN		10	5.0	---	•	•	---	•	•	•	•	•	---	---
VG1x05CN	DN25	10	6.3	•	•	•	---	•	•	•	•	•	---	---
VG1x05CP		16	8.0	---	•	•	---	•	•	•	•	•	---	---
VG1x05DP	DN32	16	10.0	•	---	---	•	•	•	•	•	•	---	---
VG1x05DR		25	12.5	---	---	---	•	•	•	•	•	•	---	---
VG1x05ER	DN40	25	16	•	---	---	•	•	•	•	•	•	---	---
VG1x05ES		40	20	---	---	---	•	•	•	•	•	•	---	---
VG1x05FS	DN50	40	25.0	•	---	---	•	•	•	•	---	---	•	•
VG1x05FT		63	31.5	---	---	---	•	•	•	•	---	---	•	•

Notes

* x = 2: 2-way
x = 8: 3-way

** only 3-way valves

Threaded Control Valves VG1000

Factory-mounted Assemblies of Valves with ON/OFF Actuators

Spring Return Function	•							
Supply Voltage	24 VAC				230 VAC			
Torque Nm	6		16		6		16	
Running Time	10 – 40 s		90 – 120 s		10 – 40 s		90 – 120 s	
Spring Return Time Power-off	30 s ±20%		10 s		30 s ±20%		10 s	
Control Signal	ON/OFF							
Switches	---	1 x SPDT	---	2 x SPDT	---	1 x SPDT	---	2 x SPDT
Feedback	---							
Close-off Pressure	1380 kPa							
Actuator Codes	M9206-BGA-5S	M9206-BGB-5S	M9216-BGA-1	M9216-BGC-1	M9206-BDA-5S	M9206-BDB-5S	M9216-BDA-1	M9216-BDC-1
Linkage Codes	M9000-520-5		M9000-510-5		M9000-520-5		M9000-510-5	
Ordering Codes Suffix for Assemblies	+536BGA (Spring Opens)	+536BGB (Spring Opens)	+526BGA (Spring Opens)	+526BGC (Spring Opens)	+536BDA (Spring Opens)	+536BDB (Spring Opens)	+526BDA (Spring Opens)	+526BDC (Spring Opens)
	+556BGA (Spring Closes)	+556BGB (Spring Closes)	+546BGA (Spring Closes)	+526BGC (Spring Closes)	+556BDA (Spring Closes)	+556BDB (Spring Closes)	+546BDA (Spring Closes)	+546BDC (Spring Closes)

Valve Codes*	Body Size	Kvs (Control port)	Kvs (Bypass port)**	Disc	Valid combinations of valves, linkages and actuators							
VG1x05AD	DN15	1.0	0.63	•	•	•	---	---	•	•	---	---
VG1x05AE		1.6	1.0		•	•	---	---	•	•	---	---
VG1x05AF		2.5	1.6		•	•	---	---	•	•	---	---
VG1x05AG		4.0	2.5		•	•	---	---	•	•	---	---
VG1x05AL		6.3	4.0		•	•	---	---	•	•	---	---
VG1x05AN		10	5.0		•	•	---	---	•	•	---	---
VG1x05BL	DN20	6.3	4.0	•	•	•	---	---	•	•	---	---
VG1x05BN		10	5.0	---	•	•	---	---	•	•	---	---
VG1x05CN	DN25	10	6.3	•	•	•	---	---	•	•	---	---
VG1x05CP		16	8.0	---	•	•	---	---	•	•	---	---
VG1x05DP	DN32	16	10.0	•	•	•	---	---	•	•	---	---
VG1x05DR		25	12.5	---	•	•	---	---	•	•	---	---
VG1x05ER	DN40	25	16	•	•	•	---	---	•	•	---	---
VG1x05ES		40	20	---	•	•	---	---	•	•	---	---
VG1x05FS	DN50	40	25.0	•	---	---	•	•	---	---	•	•
VG1x05FT		63	31.5	---	---	---	•	•	---	---	•	•

Note

* x = 2: 2-way
x = 8: 3-way

** only 3-way valves

Threaded Control Valves

VG7000

DN15...50, PN16

These electrically and pneumatically actuated globe valves are primarily designed to regulate the flow of water and steam in response to the demand of a controller in heating, ventilating and air conditioning systems.

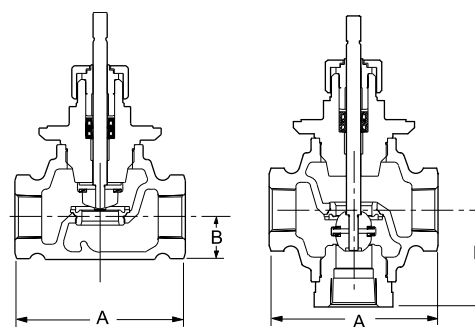
Features

- Cast bronze body
- Kvs 0.25...40
- 2-way PDTO (normally close),
2-way PDTC (normally open),
3-way mixing configurations
- Fluid temperature:
Brass trim models 2...140 °C,
Stainless steel trim models 2...170 °C
- BSPP male and female threaded body connections



Dimensions in mm

Body Size	A	B		
		2-way PDTC	2-way PDTO	3-way
DN15	76	21	39	46
DN20	81	24	41	54
DN25	104	29	44	65
DN32	119	34	51	70
DN40	130	55	70	85
DN50	150	53	72	95



Dimensions

Threaded Control Valves VG7000

2-way Configuration

Body Size	Kvs	Valve stroke (mm)	Brass Trim Valves				Stainless Steel Trim Valves		
			Ordering Codes	Close-off Pressure (kPa)			Ordering Codes	Close-off Pressure (kPa)	
				VA-731x * 150 N	VA-77xx 500 N	VA78xx 1000 N		VA-77xx 500 N	VA78xx 1000 N
2-way PDTTC (Normally Open)									
DN15	0.25	8	VG7201AS VG7201AT	1600	1600	---	VG7203AT	1600	1600
	0.4		VG7201BS VG7201BT				VG7203BS VG7203BT		
	0.63		VG7201CS VG7201CT	VG7203CT					
	1.0		VG7201DS VG7201DT	VG7203DT					
	1.6		VG7201ES VG7201ET	VG7203ET					
	2.5		VG7201FS VG7201FT	VG7203FT			930		
	4.0		VG7201GS VG7201GT	VG7203GT					
DN20	6.3	VG7201LT	250	950	---	VG7203LT	595	1220	
DN25	10	13	VG7201NT	---	595	1235	VG7203NT	370	770
DN32	16		VG7201PT		360	750	VG7203PT	230	470
DN40	25	19	VG7201RT		235	480	VG7203RT	145	300
DN50	40		VG7201ST		145	310	VG7203ST	90	190
2-way PDTTO (Normally Closed)									
DN15	0.25	8 mm	VG7401AT	1600	1600	---	VG7403AT	1600	1600
	0.4		VG7401BS VG7401BT				VG7403BT		
	0.63		VG7401CS VG7401CT	VG7403CT					
	1.0		VG7401DS VG7401DT	VG7403DT					
	1.6		VG7401ES VG7401ET	VG7403ET					
	2.5		VG7401FS VG7401FT	VG7403FT			930		
	4.0		VG7401GS VG7401GT	VG7403GT					
DN20	6.3	VG7401LS VG7401LT	250	950	---	VG7403LS VG7403LT	595	1220	
DN25	10	13 mm	VG7401NT	---	595	1235	VG7403NT	370	770
DN32	16		VG7401PT		360	750	VG7403PT	230	470
DN40	25	19 mm	VG7401RT		235	480	VG7403RT	145	300
DN50	40		VG7401ST		145	310	VG7403ST	90	190

Note

* : When using VA-7310 series actuators a valve with a slotted stern (VG7xxxxS) is required.
Fluid temperature limit in conjunction with VA-7310 = 120 °C.

Ordering of factory mounted valves and electric actuators.

The valves and actuators can be ordered separately or factory mounted.

When factory mounted, please add "+M" to the order code for the actuator.

Threaded Control Valves

VG7000

3-way mixing configuration

Body Size	Kvs	Valve Stroke (mm)	Brass Trim Valves				Stainless Steel Trim Valves		
			Ordering Codes	Close-off Pressure kPa			Ordering Codes	Close-off Pressure kPa	
				VA-731x * 150 N	VA-77xx 500 N	VA78xx 1000 N		VA-77xx 500 N	VA78xx 1000 N
DN15	0.25	8	VG7802AS VG7802AT	1600	1600	---	VG7804AT	1600	1600
	0.4		VG7802BS VG7802BT				VG7804BT		
	0.63		VG7802CS VG7802CT	VG7804CT					
	1.0		VG7802DS VG7802DT	VG7804DT					
	1.6		VG7802ES VG7802ET	VG7804ET					
	2.5		VG7802FS VG7802FT	VG7804FT			930		
	4.0		VG7802GS VG7802GT						
	DN20		6.3	VG7802LS VG7802LT	250		950	VG7804LS VG7804LT	
DN25	10	13	VG7802NT	---	595	1235	VG7804NT	370	770
DN32	16		VG7802PT		360	750	VG7804PT	230	470
DN40	25	19	VG7802RT		235	480	VG7804RT	145	300
DN50	40		VG7802ST		145	310	VG7804ST	90	190

Note

- * When using VA-7310 series actuators a valve with a slotted stem (VG7xxxS) is required.
Fluid temperature limit in conjunction with VA-7310 = 120 °C.

Ordering of factory mounted valves and electric actuators.
The valves and actuators can be ordered separately or factory mounted.
When factory mounted, please add "+M" to the order code for the actuator.

Threaded Control Valves

VGS800W1N

DN15...50, PN16

These valves are primarily designed to regulate the flow of water in response to the demand of a controller in zone and terminal unit applications.

Following electric actuators are available:

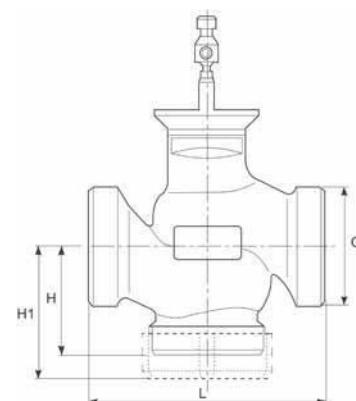
VA-77xx and VA78xx electric valve actuators.

Features

- Cast bronze body
- Kvs 0.63...40
- 2-way PDTO (normally closed) using 3-way mixing valve with modkit, 3-way mixing configuration
- Fluid temperature 2...130 °C
- BSPP male threaded body connections

Dimensions in mm

Body Size	G	L	H	H1
DN15	1 1/4	80	55	65
DN20	1 1/4	90	55	65
DN25	1 1/2	110	55	66
DN32	2	120	55	67
DN40	2 1/4	130	60	72
DN50	2 3/4	150	65	77



3-way mixing configuration

Ordering Codes	Body Size	Kvs	Nominal Stroke (mm)	Close-off Pressure kPa	
				VA-77x820x 500 N	VA-78xx-xxx-12 1000 N
VGS8A5W1N	DN15	0.63	13	958	1600
VGS8A4W1N		1.0			
VGS8A3W1N		1.6			
VGS8A2W1N		2.5			
VGS8A1W1N		4.0			
VGS8B1W1N	DN20	6.3		605	1600
VGS8C1W1N	DN25	10		280	1046
VGS8D1W1N	DN32	16		176	744
VGS8E1W1N	DN40	25		54	369
VGS8F1W1N	DN50	40		---	208

Note

Ordering of factory mounted valves and electric actuators.
The valves and actuators can be ordered separately or factory mounted.
When factory mounted, please add "+M" to the order code for the actuator.

Pipe muffles

Ordering Codes	Muffles
121 4935 151	DN15 / Rp 1/2
121 4935 201	DN20 / Rp 3/4
121 4935 251	DN25 / Rp 1
121 4935 321	DN32 / Rp 1 1/4
121 4935 401	DN40 / Rp 1 1/2
121 4935 501	DN50 / Rp 2

Note

3 pipe muffles are needed for the mixing valves

Modkit for transformation of 2-way into 3-way valves

Ordering Codes	Mod kit for:
121 4930 151	DN15 / Rp 1/2
121 4930 201	DN20 / Rp 3/4
121 4930 251	DN25 / Rp 1
121 4930 321	DN32 / Rp 1 1/4
121 4930 401	DN40 / Rp 1 1/2
121 4930 501	DN50 / Rp 2

Note

2 pipe muffles and 1 modkit are required to alter a 3-way valve into a 2-way valve

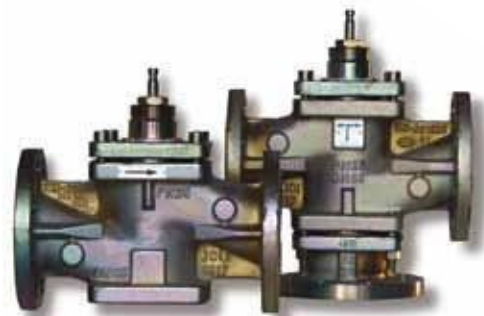
Flanged Control Valves

VG8000H

DN15...150, PN25

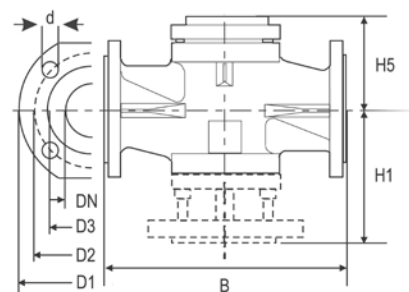
These flanged valves are primarily designed to regulate the flow of water and steam in response to the demand of a controller, in heating, ventilating and air conditioning systems.

A variety of electric and pneumatic actuators are available.



Features

- Nodular cast iron body
- Kvs 0.4...350
- 2-way PDTTC (normally open),
3-way mixing and 3-way diverting configurations
- Fluid temperature 2...200 °C,
with glycerin cup: -20...200 °C
with cooling fins: up to 280 °C
- DIN Flanged



Dimensions in mm

Body Size	B	D1	D2	D3	d	H1	H5	Bolts	Holes
DN15	130	95	65	45	13.5	100	76	M12 x 45	4
DN20	150	105	75	58	13.5	106	76	M12 x 50	4
DN25	160	115	85	68	13.5	106	76	M12 x 50	4
DN32	180	140	100	78	17.5	123	81	M16 x 55	4
DN40	200	150	110	88	17.5	140	78	M16 x 55	4
DN50	230	165	125	102	17.5	145	101	M16 x 60	4
DN65	290	185	145	122	17.5	156	102	M16 x 60	8
DN80	310	200	160	138	17.5	180	108	M16 x 65	8
DN100	350	235	190	162	22	225	136	M20 x 70	8
DN125	400	270	220	188	26	255	155	M24 x 75	8
DN150	480	300	250	218	26	290	175	M24 x 80	8

Flanged Control Valves

VG8000H

2-way PDTC (Normally Open) Configuration

Ordering Codes*	Body Size	Kvs	Close-off Pressure kPa							
			FA-2000-741x 2200 N	FA-2000-751x 2400 N	FA-3300-741x 6000 N	RA-3000-732x 3000 N	RA-3100-8226 1700 N	VA1x20** 2000 N	VA1125** 500 N	VA78xx 1000 N
VG82A4S1H	DN15	1.0	---	---	---	---	---	2500	2500	2500
VG82A3S1H		1.6								
VG82A2S1H		2.5								
VG82A1S1H		4.0								
VG82B1S1H	DN20	6.3								2030
VG82C1S1H	DN25	10								1360
VG82D1S1H	DN32	16								660
VG82E1S1H	DN40	25						1550	2000	370
VG82F1S1H	DN50	40		920		1300	600	750	1020	---
VG82G1S1H	DN65	63		710		1010	450	580	750	
VG82H1S1H	DN80	100		330		480	200	260	370	
VG82J1S1H	DN100	160	180	---	720	290	100	140	210	
VG82K1S1H	DN125	250	100		450	170	---	80	120	
VG82L1S1H	DN150	350	50		270	100		40	70	

Notes

- * For factory mounted valve actuators just add "+M" to the type model number
 For ordering a valve with Cooling fin, add suffix "10" to the ordering code: i.e. VG8xxxS1H10
 For ordering a valve with Glycerine cup packing, add suffix "20" to the ordering code: i.e. VG8xxxS1H20.
 Reduced kvs coefficients are available on request.

- ** For fluid temperature >140 °C the extension kit VA1000-EP must be mounted. Max-Fluid temperature must not exceed 200 °C.

Flanged Control Valves

VG8000H

3-way Mixing Configuration

Ordering Codes*	Body Size	Kvs	Close-off Pressure kPa							
			FA-2000-741x 2200 N	FA-2000-751x 2400 N	FA-3300-741x 6000 N	RA-3000-732x 3000 N	RA-3100-8226 1700 N	VA1x20** 2000 N	VA1125** 500 N	VA78xx 1000 N
VG88A4S1H	DN15	1.0	---	---	---	---	---	2500	2500	2500
VG88A3S1H		1.6								
VG88A2S1H		2.5								
VG88A1S1H		4.0								
VG88B1S1H	DN20	6.3								2030
VG88C1S1H	DN25	10								1360
VG88D1S1H	DN32	16								660
VG88E1S1H	DN40	25						1550	2000	370
VG88F1S1H	DN50	40		920		1300	600	750	1020	---
VG88G1S1H	DN65	63		710		1010	450	580	750	
VG88H1S1H	DN80	100		330		480	200	260	370	
VG88J1S1H	DN100	160	180	---	720	290	100	140	210	
VG88K1S1H	DN125	250	100		450	170	---	80	120	
VG88L1S1H	DN150	350	50		270	100		40	70	

Notes

- * For factory mounted valve actuators just add "+M" to the type model number
For ordering a valve with Cooling fin, add suffix "10" to the ordering code: i.e. VG8xxxS1H10
For ordering a valve with Glycerine cup packing, add suffix "20" to the ordering code: i.e. VG8xxxS1H20.
Reduced kvs coefficients are available on request.
- ** For fluid temperature >140 °C the extension kit VA1000-EP must be mounted. Max-Fluid temperature must not exceed 200 °C.

Flanged Control Valves

VG8000H

3-way Diverting Configuration

Ordering Codes*	Body Size	Kvs	Close-off Pressure kPa							
			FA-2000-741x 2200 N	FA-2000-751x 2400 N	FA-3300-741x 6000 N	RA-3000-732x 3000 N	RA-3100-8226 1700 N	VA1x20** 2000 N	VA1125** 500 N	VA78xx 1000 N
VG89A4S1H	DN15	1.0	---	---	---	---	---	2500	2500	2500
VG89A3S1H		1.6								
VG89A2S1H		2.5								
VG89A1S1H		4.0								
VG89B1S1H	DN20	6.3								2030
VG89C1S1H	DN25	10								1360
VG89D1S1H	DN32	16								660
VG89E1S1H	DN40	25						1550	2000	370
VG89F1S1H	DN50	40		920		1300	600	750	1020	---
VG89G1S1H	DN65	63		710		1010	450	580	750	
VG89H1S1H	DN80	100		330		480	200	260	370	
VG89J1S1H	DN100	160	180	---	720	290	100	140	210	
VG89K1S1H	DN125	250	100		450	170	---	80	120	
VG89L1S1H	DN150	350	50		270	100		40	70	

Notes

- * For factory mounted valve actuators just add "+M" to the type model number
For ordering a valve with Cooling fin, add suffix "10" to the ordering code: i.e. VG8xxxS1H10
For ordering a valve with Glycerine cup packing, add suffix "20" to the ordering code: i.e. VG8xxxS1H20.
Reduced kvs coefficients are available on request.
- ** For fluid temperature >140 °C the extension kit VA1000-EP must be mounted. Max-Fluid temperature must not exceed 200 °C.

Flanged Control Valves

VG8000N

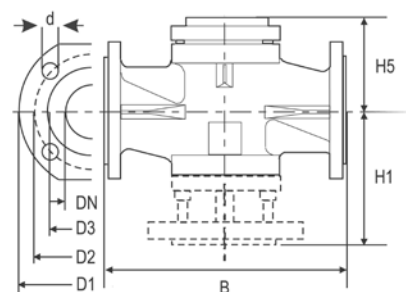
DN15...150, PN16

These electrically and pneumatically operated flanged valves are primarily designed to regulate the flow of water and steam in response to the demand of a controller, in heating, ventilating and air conditioning systems.

A variety of electric and pneumatic actuators are available.

Features

- Nodular cast iron body
- Kvs 0.1...350
- 2-way PDTC (normally open), 3-way mixing and 3-way diverting configurations
- Fluid temperature 0...180 °C with Glycerine cup -10...180 °C
- DIN flanged



Dimensions in mm

Body Size	B	D1	D2	D3	d	H1	H5	Bolts	Holes
DN15	130	95	65	45	13.5	100	76	M12 x 45	4
DN20	150	105	75	58	13.5	106	76	M12 x 50	4
DN25	160	115	85	68	13.5	106	76	M12 x 50	4
DN32	180	140	100	78	17.5	123	81	M16 x 55	4
DN40	200	150	110	88	17.5	140	78	M16 x 55	4
DN50	230	165	125	102	17.5	145	101	M16 x 60	4
DN65	290	185	145	122	17.5	156	102	M16 x 60	4
DN80	310	200	160	138	17.5	180	108	M16 x 65	8
DN100	350	220	180	158	17.5	225	136	M16 x 70	8
DN125	400	250	210	188	17.5	255	155	M16 x 75	8
DN150	480	285	240	212	22	290	175	M20 x 75	8

Flanged Control Valves

VG8000N

2-way PDTC (Normally Open) Configuration

Ordering Codes*	Body Size	Kvs	Close-off Pressure kPa						
			FA-2000-741x 2400 N	FA-2000-751x 2200 N	FA-3300 6000 N	RA-3100-8226 2700 N	VA1x20** 2000 N	VA1125** 2500 N	VA78xx 1000 N
VG82A4S1N	DN15	1.0	---	---	---	---	1600	1600	1600
VG82A3S1N		1.6							
VG82A2S1N		2.5							
VG82A1S1N		4.0							
VG82B1S1N	DN20	6.3							1570
VG82C1S1N	DN25	10							
VG82D1S1N	DN32	16							
VG82E1S1N	DN40	25							
VG82F1S1N	DN50	40		1030		650	800	1080	---
VG82G1S1N	DN65	63		790		500	630	830	
VG82H1S1N	DN80	100		370		220	380	390	
VG82J1S1N	DN100	160	190	---	740	120	160	230	
VG82K1S1N	DN125	250	110		460	---	90	140	
VG82L1S1N	DN150	350	50		280		40	75	

Notes

- * For factory mounted valve actuators just add "+M" to the actuator ordering code
For ordering a valve with Glycerine cup packing, add suffix "20" to the ordering code: i.e. VG8xxxS1H20.
Teflon free model are available on request.
- ** For fluid temperature >140 °C the extension kit VA1000-EP must be mounted.

Flanged Control Valves

VG8000N

3-way Mixing Configuration

Ordering Codes*	Body Size	Kvs	Close-off Pressure kPa						
			FA-2000-741x 2400 N	FA-2000-751x 2200 N	FA-3300 6000 N	RA-3100-8226 2700 N	VA1x20** 2000 N	VA1125** 2500 N	VA78xx 1000 N
VG88A4S1N	DN15	1.0	---	---	---	---	1600	1600	1600
VG88A3S1N		1.6							
VG88A2S1N		2.5							
VG88A1S1N		4.0							
VG88B1S1N	DN20	6.3							---
VG88C1S1N	DN25	10							
VG88D1S1N	DN32	16							
VG88E1S1N	DN40	25							
VG88F1S1N	DN50	40		1030		650	800	1080	
VG88G1S1N	DN65	63		790		500	630	830	
VG88H1S1N	DN80	100		370		220	380	390	
VG88J1S1N	DN100	160	190	---	740	120	160	230	---
VG88K1S1N	DN125	250	110		460	---	90	140	
VG88L1S1N	DN150	350	50		280		40	75	

Notes

- * For factory mounted valve actuators just add "+M" to the actuator ordering code
For ordering a valve with Glycerine cup packing, add suffix "20" to the ordering code: i.e. VG8xxxS1H20.
Teflon free model are available on request.
- ** For fluid temperature >140 °C the extension kit VA1000-EP must be mounted.

Flanged Control Valves

VG8000N

3-way Diverting Configuration

Ordering Codes*	Body Size	Kvs	Close-off Pressure kPa						
			FA-2000-741x 2400 N	FA-2000-751x 2200 N	FA-3300 6000 N	RA-3100-8226 2700 N	VA1x20** 2000 N	VA1125** 2500 N	VA78xx 1000 N
VG89A4S1N	DN15	1.0	---	---	---	---	1600	1600	1600
VG89A3S1N		1.6							
VG89A2S1N		2.5							
VG89A1S1N		4.0							
VG89B1S1N	DN20	6.3	---	---	---	---	1600	1600	1600
VG89C1S1N	DN25	10							
VG89D1S1N	DN32	16							
VG89E1S1N	DN40	25							
VG89F1S1N	DN50	40	---	1030	---	650	800	1080	---
VG89G1S1N	DN65	63		790		500	630	830	
VG89H1S1N	DN80	100		370		220	380	390	
VG89J1S1N	DN100	160	190	---	740	120	160	230	
VG89K1S1N	DN125	250	110		460	---	90	140	
VG89L1S1N	DN150	350	50		280		40	75	

Notes

- * For factory mounted valve actuators just add "+M" to the actuator ordering code
For ordering a valve with Glycerine cup packing, add suffix "20" to the ordering code: i.e. VG8xxxS1H20.
Teflon free model are available on request.
- ** For fluid temperature >140 °C the extension kit VA1000-EP must be mounted.

Flanged Control Valves

VG8300N

DN40...150, PN16

These pressure balanced flanged valves are primarily designed to regulate the flow of water and steam in response to the demand of a controller, in heating, ventilating and air conditioning systems.

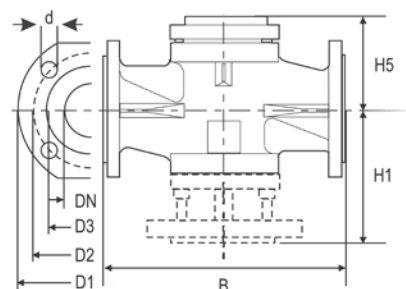
These valves have a specially designed plug, which through specific balancing of pressures allows higher close-off pressures with standard actuator combinations.

A variety of electric and pneumatic actuators are available.



Features

- Nodular cast iron bodies
- Kvs 25...350
- 2-way PDTC (normally open) configuration
- PN16
Fluid temperature 2...180 °C
with Glycerin cup -10...180 °C
- Pressure balanced valve plug
- DIN flanged



Dimensions in mm

Body Size	B	D1	D2	D3	d	H1	H5	Bolts	Holes
DN40	200	150	110	88	17.5	140	78	M16 x 55	4
DN50	230	165	125	102	17.5	145	101	M16 x 60	4
DN65	290	185	145	122	17.5	156	102	M16 x 60	4
DN80	310	200	160	138	17.5	180	108	M16 x 65	8
DN100	350	220	180	158	17.5	225	136	M16 x 70	8
DN125	400	250	210	188	17.5	255	155	M16 x 75	8
DN150	480	285	240	212	22	290	175	M20 x 75	8

Ordering Codes*	Body Size	Kvs	Close-off Pressure kPa						
			Spring Return		Non Spring Return				
			FA-2000-741x 2200 N	VA1x20** 2000 N	RA-3100-8126 1200 N	RA-3100-8226 1700 N	VA1125** 2500 N	VA78xx 1000 N	
VG83E1S1N	DN40	25	---	1600	1600	---	1600	1600	
VG83F1S1N	DN50	40			---	1600		1600	---
VG83G1S1N	DN65	63							
VG83H1S1N	DN80	100							
VG83J1S1N	DN100	160	1600	1500	---	1600	---		
VG83K1S1N	DN125	250		1400					
VG83L1S1N	DN150	350		1000					

Notes

* For factory mounted valve actuators just add "+M" to the actuator ordering code.

** For fluid temperature >140 °C the extension kit VA1000-EP must be mounted.

Flanged Control Valves

VG9000

DN15...100, PN6 and PN10

These flanged valves are primarily designed to regulate the flow of water and low pressure steam in response to the demand of a controller, in heating, ventilating and air conditioning systems.

Following electric actuators are available:

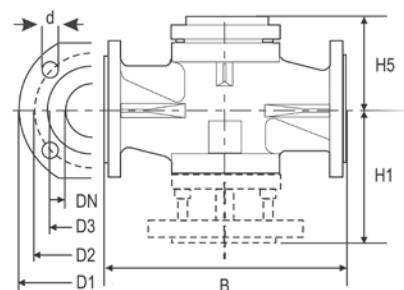
VA-7700 for DN15...50 valves

VA7810 for DN15...65 valves

VA1000 for DN65...100 valves.

Features

- Nodular cast iron body
- Kvs 0.63...160
- 2-way PDT0 (normally closed) and 3-way mixing configurations
- Fluid temperature 2...140 °C
- DIN flanged



Dimensions in mm

Body Size	PN6							PN10						
	B	D1	D2	D3	d	H1	Holes	B	D1	D2	D3	d	H1	Holes
DN15	130	80	55	38	11	65	4	130	95	65	46	14	65	4
DN20	140	90	65	48	11	70	4	150	105	75	56	14	75	4
DN25	150	100	75	58	11	75	4	160	115	85	65	14	80	4
DN32	180	120	90	69	14	90	4	180	140	100	76	19	90	4
DN40	180	130	100	78	14	90	4	200	150	110	84	19	100	4
DN50	200	140	110	88	14	100	4	230	165	125	99	19	115	4
DN65	240	160	130	108	14	120	4	290	185	145	118	19	145	4
DN80	260	190	150	124	19	130	4	310	200	160	132	19	155	8
DN100	300	210	170	144	19	150	4	350	220	180	156	19	175	8

Flanged Control Valves

VG9000

PN6 Series (VG9xxxS1K)

Ordering Codes*	Body Size	Kvs	Close-off Pressure kPa				
			RA-3000-732x 3000 N	VA-1x20-GGA-1** 2000 N	VA-1125-GGA-1** 2500 N	VA-77xx-820x 500 N	VA78xx-xxx-12 1000 N
2-way PDT0 (Normally Closed) Configuration							
VG94A5S1K	DN15	0.63	---	---	---	600	600
VG94A4S1K		1.0					
VG94A3S1K		1.6					
VG94A2S1K		2.5					
VG94A1S1K		4.0					
VG94B1S1K	DN20	6.3				590 360 190 100	600
VG94C1S1K	DN25	10					
VG94E2S1K	DN32	16					
VG94E1S1K	DN40	25					
VG94F1S1K	DN50	40					
VG94G1S1K	DN65	63				470	620
VG94H1S1K	DN80	100	510	300	400	---	
VG94J1S1K	DN100	160	320	180	240	---	
3-way Mixing Configuration							
VG98A5S1K	DN15	0.63	---	---	---	600	600
VG98A4S1K		1.0					
VG98A3S1K		1.6					
VG98A2S1K		2.5					
VG98A1S1K		4.0					
VG98B1S1K	DN20	6.3				490 280 130 60	600
VG98C1S1K	DN25	10					
VG98E2S1K	DN32	16					
VG98E1S1K	DN40	25					
VG98F1S1K	DN50	40					
VG98G1S1K	DN65	63				470	620
VG98H1S1K	DN80	100	510	300	400	---	
VG98J1S1K	DN100	160	320	180	240	---	

Notes

* For factory mounted valve actuators just add "+M" to the actuator ordering code.

** For fluid temperature >140 °C the extension kit VA1000-EP must be mounted.

Flanged Control Valves

VG9000

PN10 series (VG9xxxS1L)

Ordering Codes*	Body Size	Kvs	Close-off Pressure LPa				
			RA-3000-732x 3000 N	VA-1x20-GGA-1** 2000 N	VA-1125-GGA-1** 2500 N	VA-77xx-820x 500 N	VA78xx-xxx-12 1000 N
2-way PDT0 (Normally Closed) Configuration							
VG94A5S1L	DN15	0.63	---	---	---	1000	1000
VG94A4S1L		1.0					
VG94A3S1L		1.6					
VG94A2S1L		2.5					
VG94A1S1L		4.0					
VG94B1S1L	DN20	6.3				980	
VG94C1S1L	DN25	10				640	
VG94E2S1L	DN32	16				400	900
VG94E1S1L	DN40	25				210	510
VG94F1S1L	DN50	40				110	310
VG94G1S1L	DN65	63				470	620
VG94H1S1L	DN80	100	510	300	400	---	
VG94J1S1L	DN100	160	320	180	240		---
3-way Mixing Configuration							
VG98A5S1L	DN15	0.63	---	---	---	1000	1000
VG98A4S1L		1.0					
VG98A3S1L		1.6					
VG98A2S1L		2.5					
VG98A1S1L		4.0					
VG98B1S1L	DN20	6.3				880	
VG98C1S1L	DN25	10				430	
VG98E2S1L	DN32	16				240	790
VG98E1S1L	DN40	25				110	420
VG98F1S1L	DN50	40				40	240
VG98G1S1L	DN65	63				470	620
VG98H1S1L	DN80	100	510	300	400	---	
VG98J1S1L	DN100	160	320	180	240		---

Notes

* For factory mounted valve actuators just add "+M" to the actuator ordering code.

** For fluid temperature >140 °C the extension Lit VA1000-EP must be mounted.