

V2FA Series

Characterized Control Valves, 2-way

Description

Suitable for closed and open warm-and cold-water HVAC systems.

Used in water side modulating control of air handling and heating HVAC systems.

Air bubble-tight control.



Order Code	Size/Thread	Kvs Value	Order Code	Size/Thread	Kvs Value
● V2FA.15_1	DN15 / R1/2"	1m ³ /h	● V2FA.25_10	DN25 / R1"	10m ³ /h
● V2FA.15_1.6	DN15 / R1/2"	1.6m ³ /h	● V2FA.25_16	DN25 / R1"	16m ³ /h
● V2FA.15_2.5	DN15 / R1/2"	2.5m ³ /h	● V2FA.32_16	DN32 / R1-1/4"	16m ³ /h
● V2FA.15_4	DN15 / R1/2"	4m ³ /h	● V2FA.32_25	DN32 / R1-1/4"	25m ³ /h
● V2FA.15_6.3	DN15 / R1/2"	6.3m ³ /h	● V2FA.40_25	DN40 / R1-1/2"	25m ³ /h
● V2FA.20_4	DN20 / R3/4"	4m ³ /h	● V2FA.40_40	DN40 / R1-1/2"	40m ³ /h
● V2FA.20_6.3	DN20 / R3/4"	6.3m ³ /h	● V2FA.50_40	DN50 / R2"	40m ³ /h
● V2FA.20_10	DN20 / R3/4"	10m ³ /h	● V2FA.50_63	DN50 / R2"	63m ³ /h

General data

Technical data

Fluid	Cold and hot water with up to 50% vol. glycol
Fluid temperature	5...90°
Close-Off differential pressure	1,600 kPa
Differential pressure rating	350 kPa
Operational Pressure rating	PN20
Flow characteristic	Equal percentage
Leakage rate	Air-bubble-tight
Angle of rotation	90°
Pipe connection	Internal Thread (ISO 7-1)
Installation position	Upright (stem on top)
Service	Maintenance free

Material

Body	Brass
Closing / characterizing elements	Chrome Plated brass (DN15...DN20) / Stainless Steel (DN25...DN50)
Stem	Stainless Steel
Stem seal	EPDM O-ring
Seat	PTFE + Graphite

Functional data

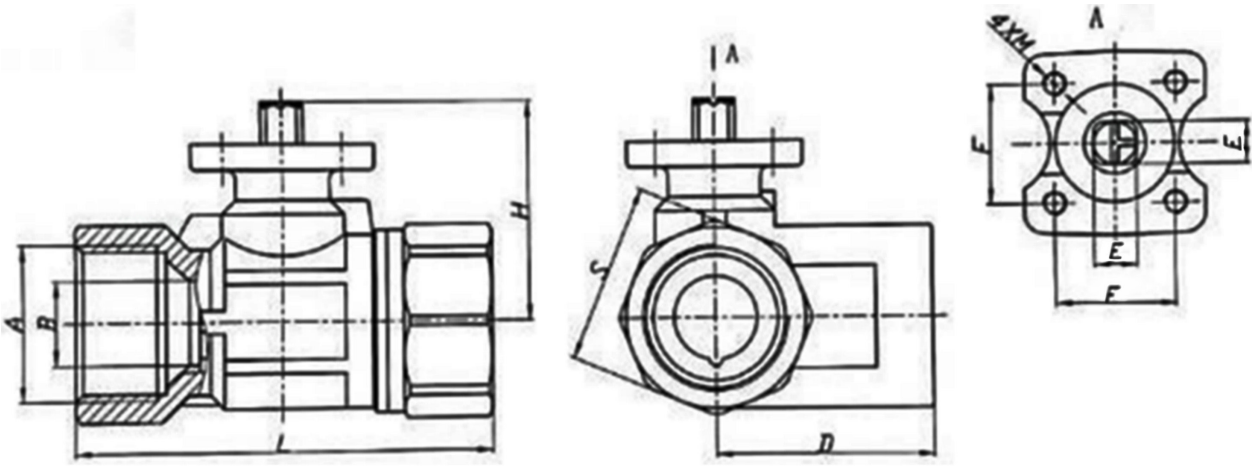
Warranty	5 Year
Application	Water
Installation places	Plant Rooms of Spaces

Security Notes / Disposal Notes

The valve has been designed for use in heating, ventilation and air conditioning systems. The device is not allowed to be used outside the specified field of application, especially in airplanes.

It may only be installed by suitably trained personnel. Any legal regulations or regulations issued by authorities must be observed during assembly. When determining the flow characteristic, the accepted directives must be observed. The device is not allowed to be disposed of as household refuse. All locally valid regulations and requirements must be observed.

Dimensions



	A	B	L	H	S	E	F	M
DN15	G1/2"	014	60	39	20	9	25.4	MS
DN20	G3/4"	014	67	43	32			
DN25	G1"	018	89	47	39			
DN32	G1-1/4"	022.3	103	52.5	48			
DN40	G1-1/2"	026.5	113	57	55			
DN50	G2"	033	128	62	67			

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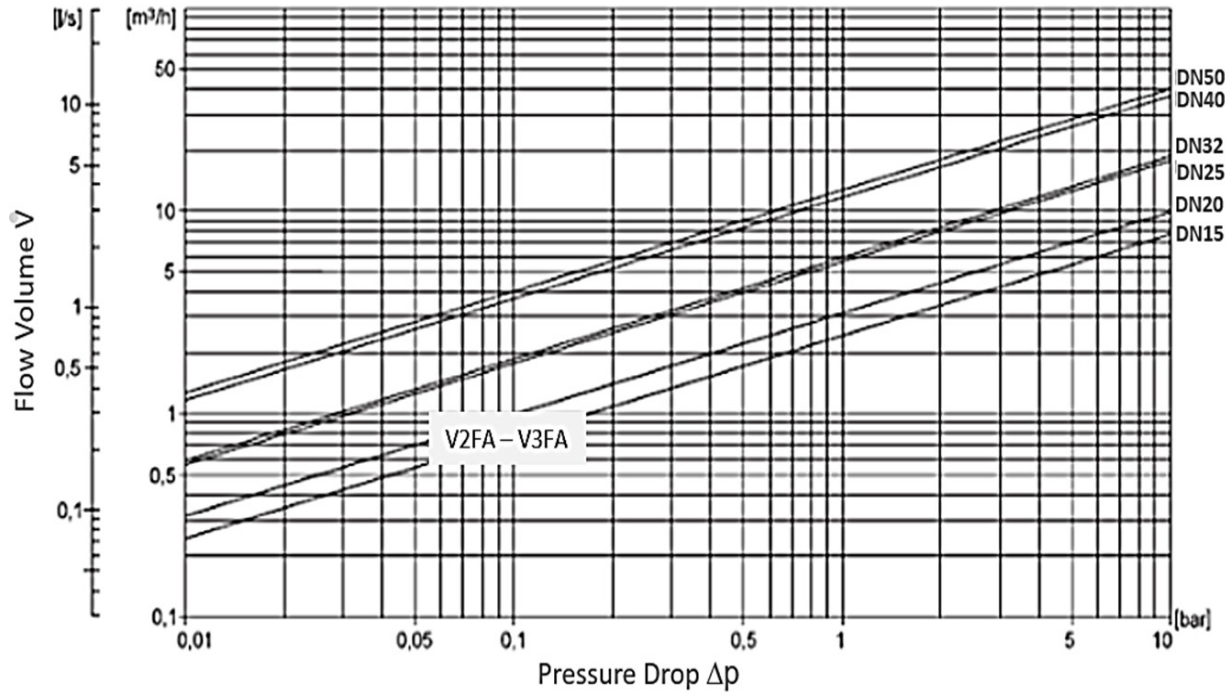
Commonly used valve / Actuator Combination

Characterized Control Valve (CCV) / Small HVAC Equipment		Actuators																	
		Open Close Actuators								Modulating Actuators				Open Close Actuators		Modulating Actuators			
Valve Size	Order Code	Non Spring Return Actuators												Spring Return Actuators					
		Running Time (s)		100		100		100		100		100		75/20		100/20			
Auxiliary switch		n.a.	x2	n.a.	x1	n.a.	x1	n.a.	x1	n.a.	x1	n.a.	x1	n.a.	x1	n.a.	x2	n.a.	x2
IP Rating		IP52	IP52	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54	IP54
Power Supply		AC/DC 24V				AC 230V				AC/DC 24V				AC/DC 24V					
Order Code		225-024T-05_VNB	225-024T-05-S2_VNB	227-024-081_VNB	227-024-081-S1_VNB	227-024-161_VNB	227-024-161-S1_VNB	227-230-081_VNB	227-230-081-S1_VNB	227-230-161_VNB	227-230-161-S1_VNB	227C-024-081_VNB	227C-024-081-S1_VNB	227C-024-161_VNB	227C-024-161-S1_VNB	341-024-05_VNB	341-024-05-S2F_VNB	341C-024-05_VNB	341C-024-05-S2F_VNB
Picture																			
		Close-Off pressure, max (KPa)																	
DN15	V2FA.15_1	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
	V2FA.15_1.6	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
	V2FA.15_2.5	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
	V2FA.15_4	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
	V2FA.15_6.3	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
DN20	V2FA.20_4	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
	V2FA.20_6.3	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
	V2FA.20_10	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
DN25	V2FA.25_10	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
	V2FA.25_16	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
DN32	V2FA.32_16	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
	V2FA.32_25	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600	1600
DN40	V2FA.40_25					1600	1600	1600	1600	1600	1600	1600	1600	1600	1600				
	V2FA.40_40					1600	1600	1600	1600	1600	1600	1600	1600	1600	1600				
DN50	V2FA.50_40					1600	1600	1600	1600	1600	1600	1600	1600	1600	1600				
	V2FA.50_63					1600	1600	1600	1600	1600	1600	1600	1600	1600	1600				

Adapter to the 227 / 225 - actuators: 227-SHT-VA For other valve and actuator combination, please see the Gruner AP Valve / Actuator Guide.

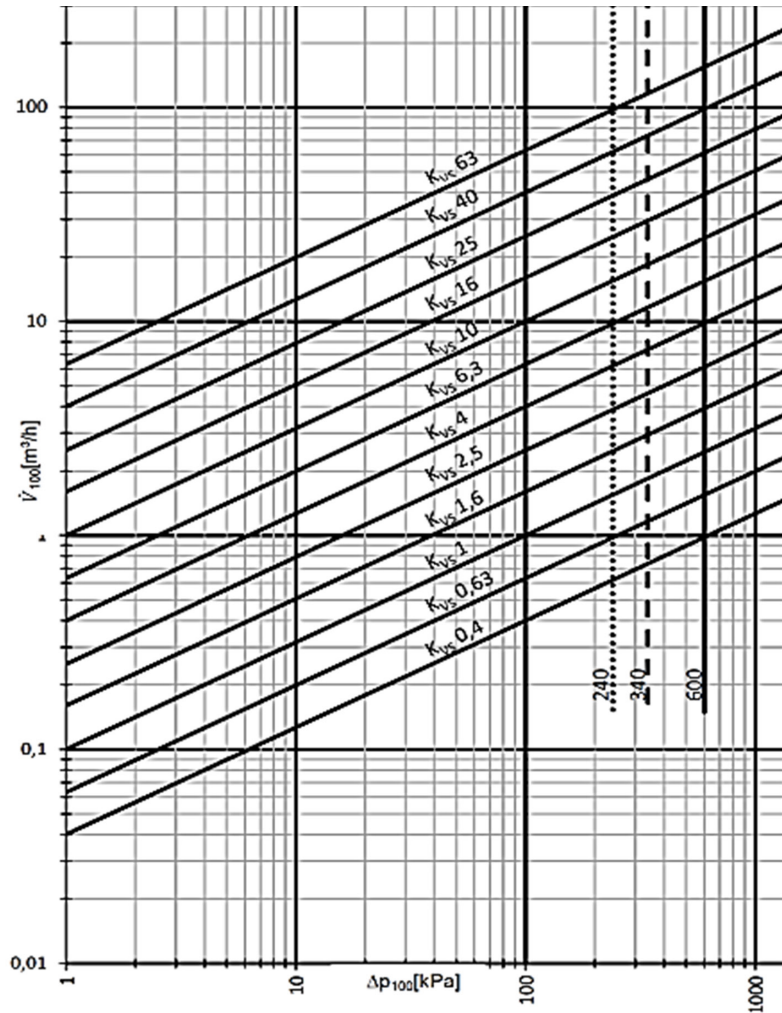
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Pressure drop over characteristic



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KVs diagram



Note:

DN10 Valves with KVs values 0.4 and 0.63 are

Available as OEM version

Calculation :

Formula Kvs for water

Kvs	[m ³ /h]	$Kvs = \sqrt{\frac{\dot{V}100}{\frac{\Delta p_{v100}}{100}}}$
$\dot{V}100$	[m ³ /h]	
Δp_{v100}	[kPa]	