GRUNER
SWITCH TO INNOVATIONS

Technical data

V2FA Series

Characterized Control Valve, 2-way

Description

Suitable for closed and open warm-and cold-water HVAC systems.
Used in waterside 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”	1m³/h	• V2FA.25_10	DN25 / R1”	10m³/h
• V2FA.15_1.6	DN15 / R1/2”	1.6m³/h	• V2FA.25_16	DN25 / R1	16m³/h
• V2FA.15_2.5	DN15 / R1/2”	2.5m³/h	• V2FA.32_16	DN32 / R1-1/4”	16m³/h
• V2FA.15_4	DN15 / R1/2”	4m³/h	• V2FA.32_25	DN32 / R1-1/4”	25m³/h
• V2FA.15_6.3	DN15 / R1/2”	6.3m³/h	• V2FA.40_25	DN40 / R1-1/2”	25m³/h
• V2FA.20_4	DN20 / R3/4”	4m³/h	• V2FA.40_40	DN40 / R1-1/2	40m³/h
• V2FA.20_6.3	DN20 / R3/4”	6.3m³/h	• V2FA.50_40	DN50 / R2”	40m³/h
• V2FA.20_10	DN20 / R3/4”	10m³/h	• V2FA.50_63	DN50 / R2”	63m³/h

Technical Data

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Fluid	Cold and warm water with up to 50% vol. glycol
Fluid temperature	-5...120°C
Close-Off differential pressure	1.600 kPa
Differential pressure, max.	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
Materials	
Body	Brass
Closing / Characterizing element	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	Rooms or Spaces

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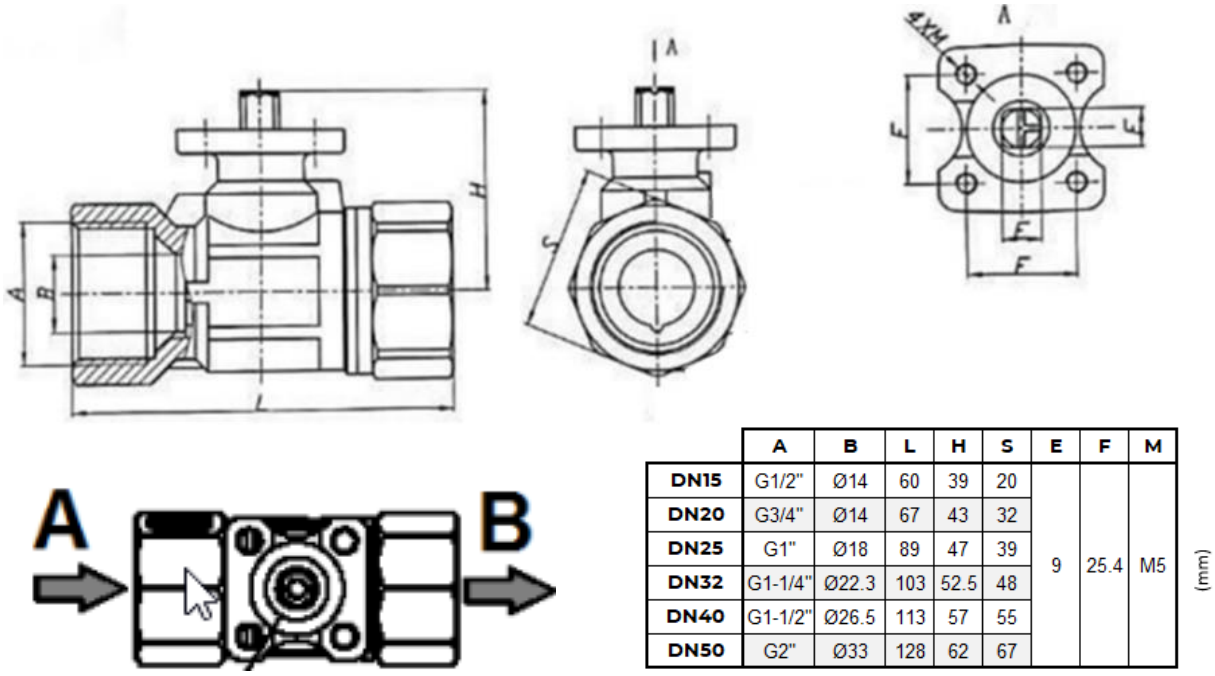
Security Notes / Disposal Notes

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"	Ø14	60	39	20	9	25.4	M5
DN20	G3/4"	Ø14	67	43	32			
DN25	G1"	Ø18	89	47	39			
DN32	G1-1/4"	Ø22.3	103	52.5	48			
DN40	G1-1/2"	Ø26.5	113	57	55			
DN50	G2"	Ø33	128	62	67			

(mm)

Commonly used Valve / Actuator Combinations

Power Supply	Torque	Control	Running Time	Order Code Actuators	Order Codes Valves					
					V2FA.15	V2FA.20	V2FA.25	V2FA.32	V2FA.40	V2FA.50
24V	8Nm	2- / 3- Point	100s	227-024-08	recommended					
		0(2)..10V		227C-024-08						
	16Nm	2- / 3- Point		227-024-16			recommended			
		0(2)..10V		227C-024-16						
230V	8Nm	2- / 3- Point		227-230-08	recommended					
		0(2)..10V		227C-230-08						
	16Nm	2- / 3- Point		227-230-16			recommended			
		0(2)..10V		227C-230-16						

Adapter to the 227- actuators 227-SHT-VA

For other valve and actuator combination, please see the Gruner AP Valve/Actuator Guide

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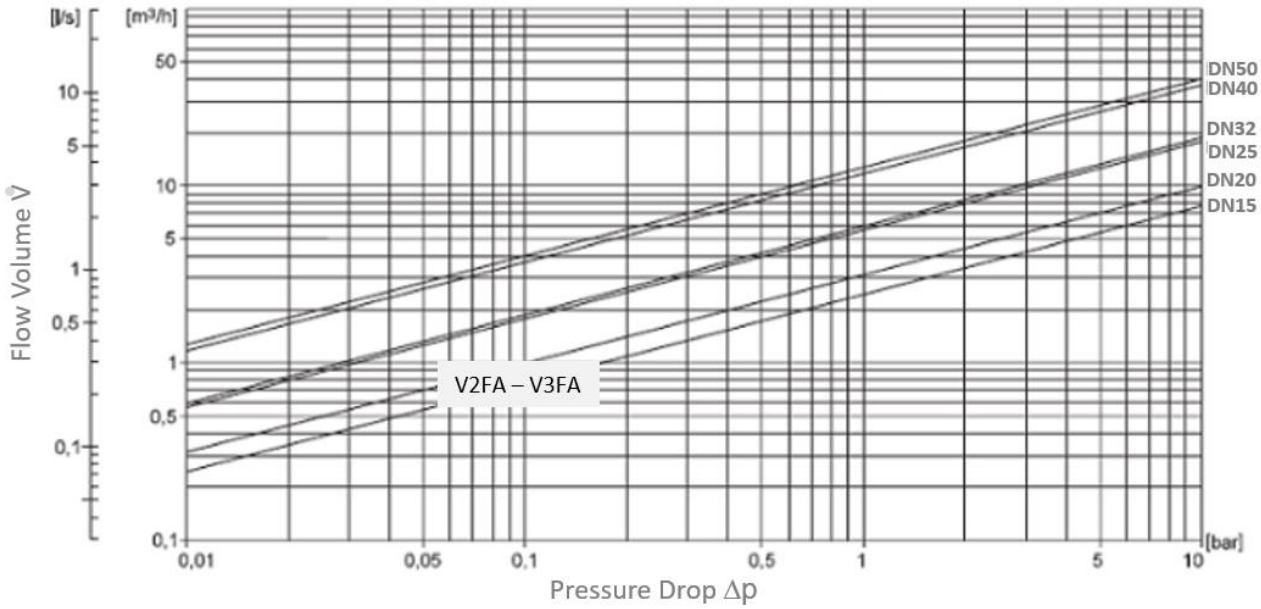
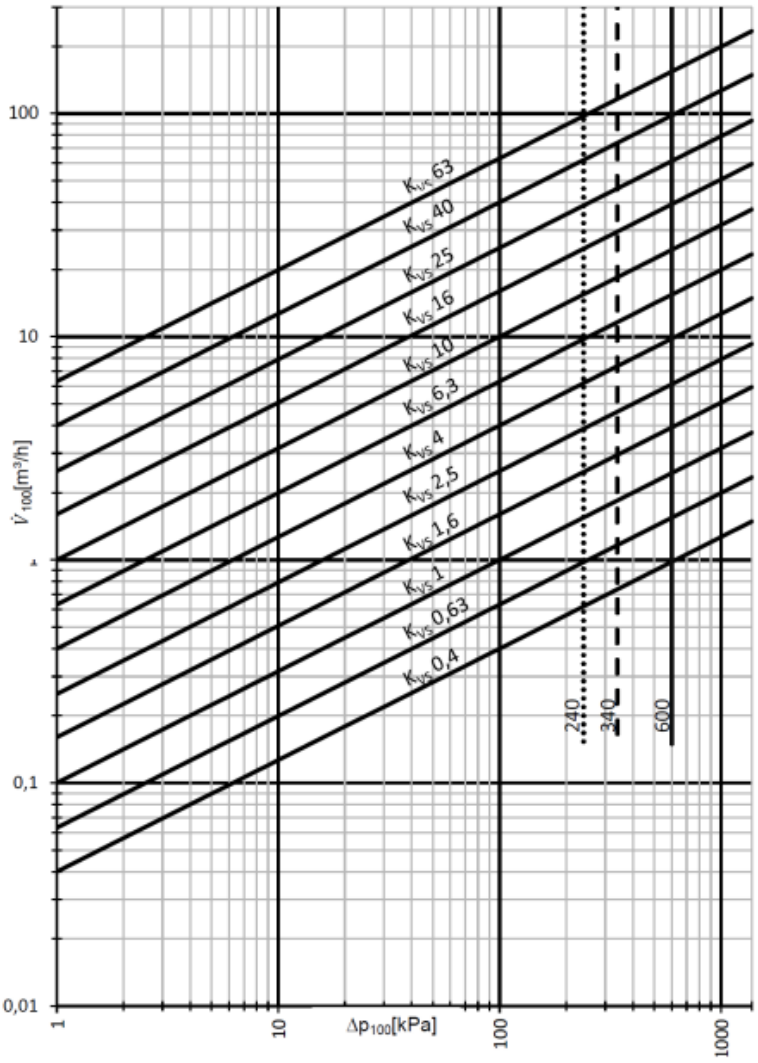
Pressure drop over characteristic



KVs diagram



Note:

DN10 Valves with KVs values 0.4 and 0.63 are available as OEM version

Calculation:

Formula Kvs for water

Kvs	[m³/h]	$Kvs = \sqrt{\frac{\dot{V}100}{\frac{\Delta pv100}{100}}}$
V̇100	[m³/h]	
Δpv100	[kPa]	

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