2-WAY CONTROL VALVE (GVS21 Series)

Description

"GVS21" series valves control Two positions or the proportion of cold/hot water, steam and air.

The body and the seat are made of bronze, and the valve's stem and body are of stainless steel.

The stuffing box prevents leakage by using an O-ring and Vition.

The feature curve of the valve is linear type controlling by the actuator closing or opening.

Technical Data

- Operating pressure : 16Kgf/cm²
- Operating temp : - 25 ~ 180℃, DIN 4747 / DIN 3158
- Valve curve : Linear
- Leakage rate : ≤0.01% of Kvs value Class Ⅳ(ANSI B 16.104)
- Connection : PT Screwed Type
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Application

- This model can be employed in a wide range of applications such as cooling, air Handing, steam and hot water systems for use with electric actuators.
- Hot water: Max 130℃
- Chilled water:
  - 25℃ Max. in closed circuit Only water with following additives.
  - Hydrazine, Phosphate, for frost protection
  - Glycol, max. 50%, for frost protection

※ Close-off pressure

Model	DN		유량계수		Stroke	Sv	ΔPv	Actuator ΔPmax(Kgf/cm²)	
	mm	Inch	Kvs	Cv	mm			GEA-10A(P)	GEA-20A(P)
GVS21·15	15	1/2″	4	4.7	20	30	16	16	16
GVS21·20	20	3/4″	6.3	7.4	20	30	16	16	16
GVS21·25	25	1″	12	14	20	30	16	15	16
GVS21·32	32	1 1/4″	16	18.7	20	30	16	9	16
GVS21·40	40	1 1/2″	25	29	20	30	16	-	12
GVS21·50	50	2″	37	43.2	20	30	12	-	7.8

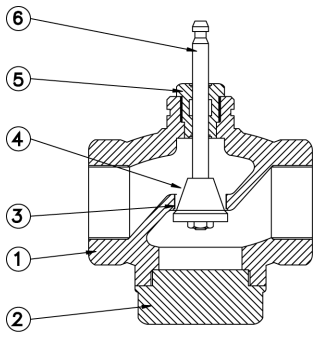
Sv : Range ability (VDI 2173) * Kv=Cv/1.167

ΔPv in kgf/cm² = difference pressure across fully open valve in installation with full load

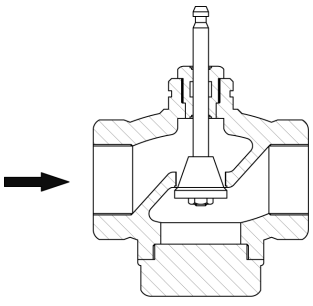
ΔPvmax in kgf/cm² = max, permissible differential pressure across closed valve

Material

NO	1	2	3	4	5
Part Name	Body	Cover	Plug	Packing Box	Stem
Material	Bronze BC6	Bronze BC6	SCS13	Viton	SUS304



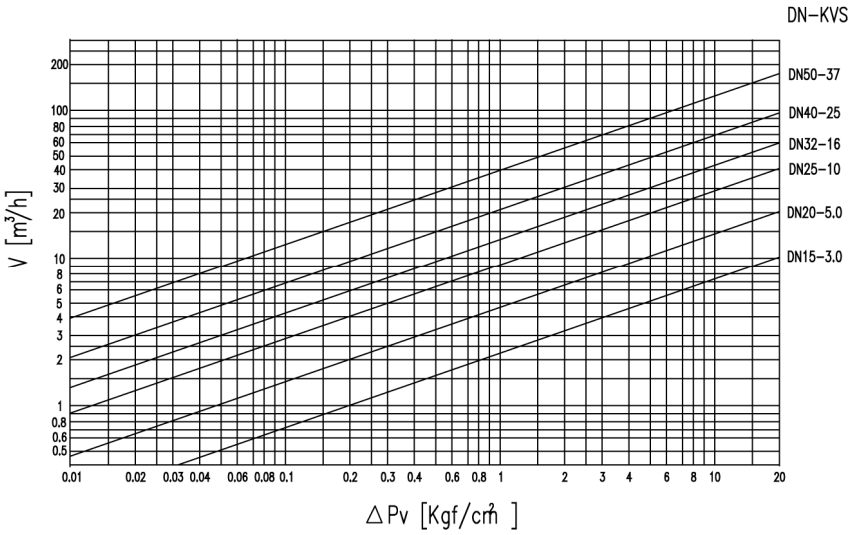
Mechanical Data



- Plug should be connected directly with valve stem.
- Specially materialized seat is fixed on the valve body

Valve Sizing Chart-Size 15A-50A

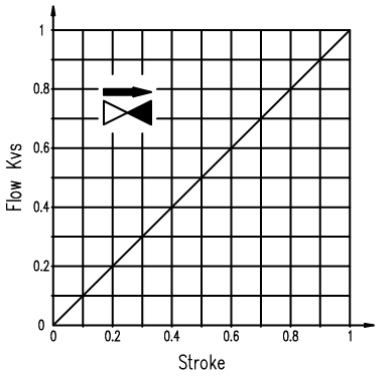
FLOW DAGRAM



V : WATER FLOW (㎥/h)

ΔPv : VALVE PRESSURE DROP(Kgf/㎠)

Valve Curve

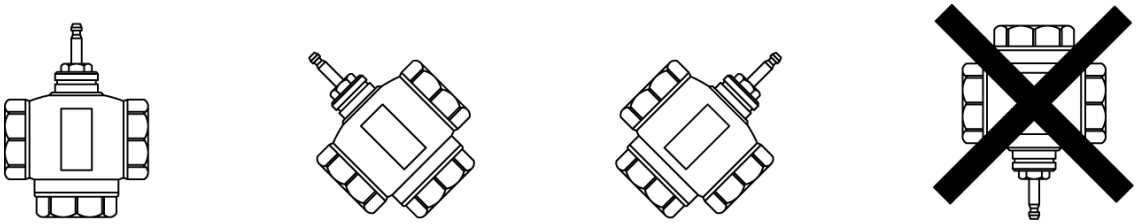


- Valve Curve Linear
- Rangeability - 30 : 1

Mounting and Installation Guide

- For Heating and Steam, it's Preferable able to install at low degree circulating water to make Packing More resistible

  - Use always strainer and install at fitting opening for better safety of operation
- Valve and Actuator can be supplied with assembled or separately.
- Mounting positions.



<permitted> **<minimum allowed condition>** **<not permitted>**

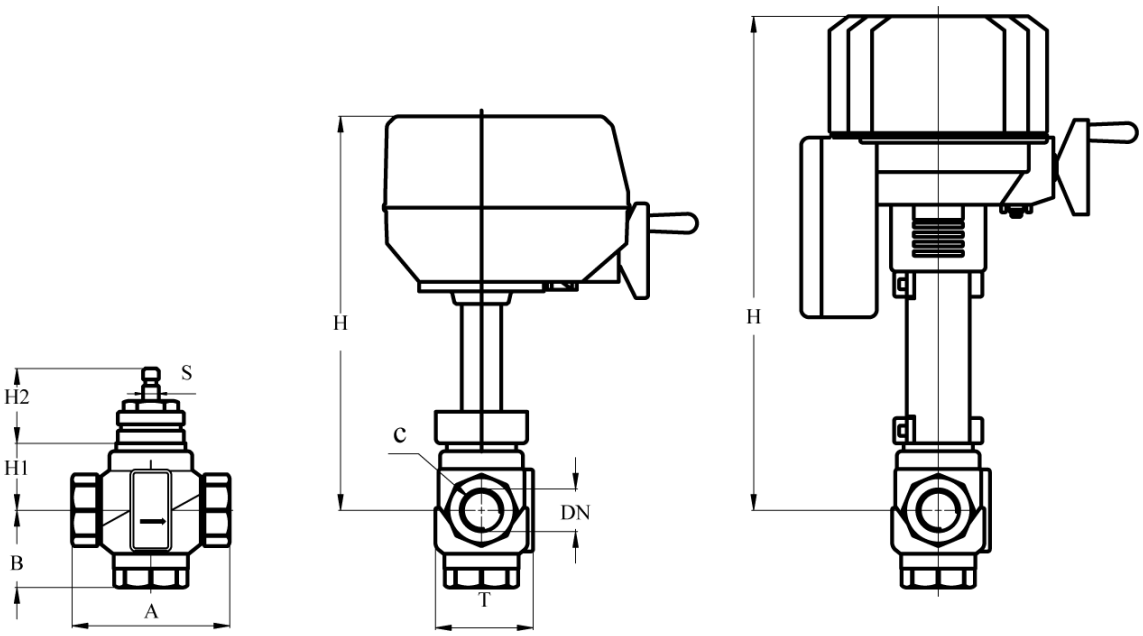
Commissioning Guide

a. Remove the protection cap of the valves by tearing off the finger tap.

b. Check the valve spindle whether it is bent or not to secure safe position

1. Downward of spindle: valve open
2. Upward of spindle: valve close

Dimension



GEA-10A[P] GEA-20A[P]

Model	DN		A	B	C	S	H1	H2	T	H		Weight Valve(Kg)
	mm	inch								GEA-10A(P)	GEA-20A(P)	
GVS 21.15	15	1/2"	100	50	PT 1/2"	10	44	67.5	63	299	360	1.7
GVS 21.20	20	3/4"	100	50	PT 3/4"	10	44	67.5	67	299	360	1.9
GVS 21.25	25	1"	105	55	PT 1"	10	50	67.5	70	312	374	2.4
GVS 21.32	32	1 1/4"	105	53	PT 1 1/4"	10	36	67.5	76	312	374	2.9
GVS 21.40	40	1 1/2"	130	65	PT 1 1/2"	10	63	67.5	86	335	396	4.3
GVS 21.50	50	2"	150	78	PT 2"	10	61	67.5	94	347	407	4.6