

2-WAY CONTROL VALVE

(GVF21 Series)



(15A-40A)



(50A-150A)

《Summary

“GVF21” series valve is used in wide field for control cold/hot water, steam and air. The body and the seat are made of cast iron.

This valve can be assembled with GEA series for Heating, Cooling, ventilating and controlling the BAS.

- Stroke
 - DN20~ DN80 : 20mm
 - DN100~ DN150 : 40mm

《Application

- Oxygen absorbed compound
- Glycol max. 50%(as antifreezing liquid)

《Technical Data

- Operating pressure : 10Kgf/cm²
- Operating temp : - 25 ~ 130℃, DIN 4747 / DIN 3158
- Valve curve : Linear
- Leakage rate : ≤0.01% of Kvs value Class IV(ANSI B 16.104)
- End Connection : JIS 10K RF Type

※ Close-off pressure

Model	DN		FLOW		Stroke mm	Sv	Actuator ΔPmax(Kgf/cm ²)			
	mm	Inch	Kvs	Cv			GEA-10A(P)	GEA-20A(P)	GEA-35A(P)	GEA-55A(P)
GVF21-15	15	1/2"	3	3.5	20	50	10	10	-	-
GVF21-20	20	3/4"	5	5.8	20	50	10	10		
GVF21-25	25	1"	10	11.7	20	50	10	10	-	-
GVF21-32	32	1 1/4"	16	18.7	20	50	10	10	-	-
GVF21-40	40	1 1/2"	25	29	20	50	7	10	-	-
GVF21-50	50	2"	39	45	20	50	5	7.8	-	-
GVF21-65	65	2 1/2"	65	75.8	20	50	-	4.5	-	-
GVF21-80	80	3"	91	106	20	50	-	3	-	-
GVF21-100	100	4"	130	152	40	50	-	-	3.4	-
GVF21-125	125	5"	188	219	40	50	-	-	2.0	3.4
GVF21-150	150	6"	283	330	40	50	-	-	1.7	2.3

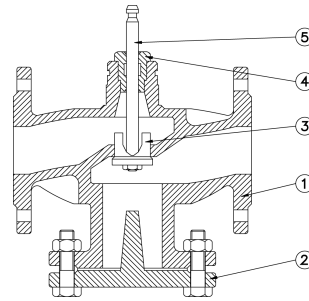
Sv : Range ability (VDI 2173)

* Kv=Cv/1.167

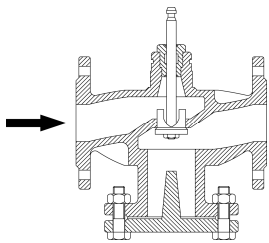
ΔPvmax in kgf/cm² = max, permissible differential pressure across closed valve

Material

NO	1	2	3	4	5
Part Name	Body	Cover	Plug/seat	Packing Box	Stem
Material	FCD45	FCD45	SCS13	VITON O-ring.	SUS304



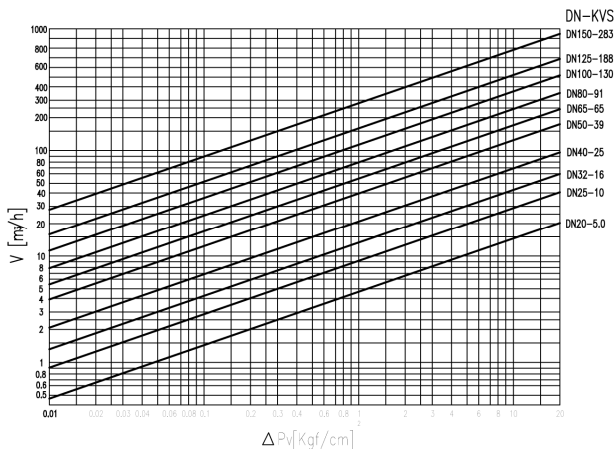
Mechanical Data



- Electric heating component is needed when the fluid is blow 0°C in order to protect the stem from frozen.
- Plug is connected to the valve stem directly.
- A seat which is made of special material is fixed on the valve body.

Valve Selection

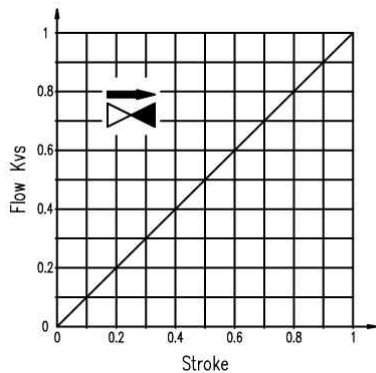
FLOW DIAGRAM



v : Water Flow(m³/h)

ΔPv : Valve Pressure Drop(Kgf/cm²)

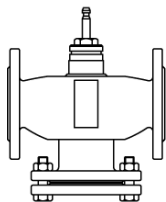
《Characteristic of Valve's Flow



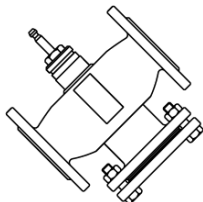
- Valve Curve
: Linear
- Range ability
: 50 : 1

- For Heating and Steam, you may want to install the valve at the returning line which has lower temperature in order to extend life cycle of the packing.
- Using strainer all the time is suggested and it at the fitting opening for better safety of operation

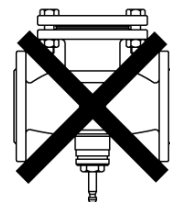
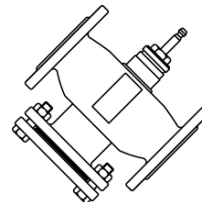
- Mounting positions



<permitted>



<Minimum allowed condition>



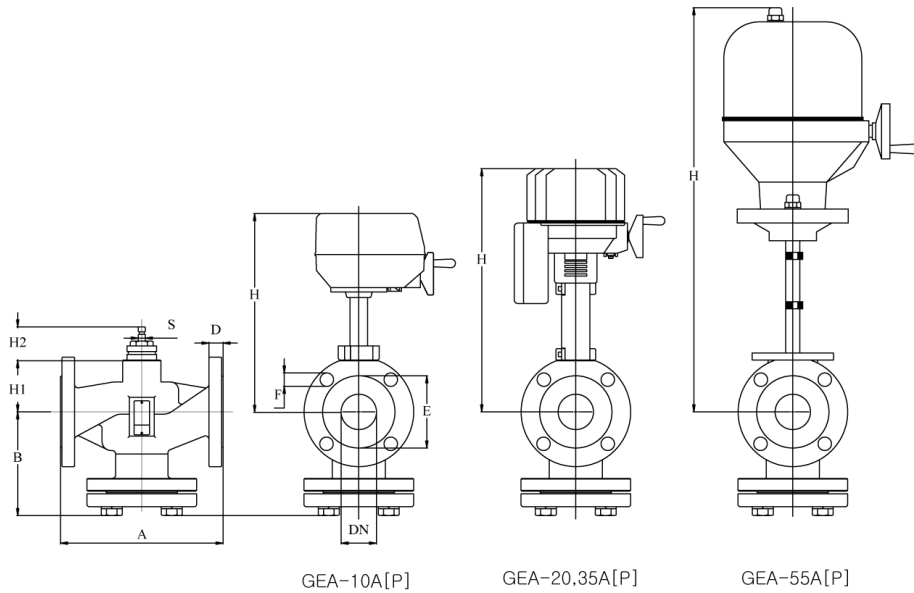
<not permitted>

《Guidelines For An Examination

Trial test should be conducted only when Actuator is mounted on the valve correctly.

1. spindle moves down : valve open
2. spindle moves up : valve closed

Dimension



Model	DN	A	C	S	D	E	F	B	H2	H1	H				Weight Valve (Kg)
											GEA-10	GEA-20	GEA-35	GEA-55	
GVF21·15	15	130	95	10	16	70	15x4	69	67.5	75	285	348	-	-	4.7
GVF21·20	20	150	100	10	18	75	15x4	75	67.5	80	290	355	-	-	5.5
GVF21·25	25	160	125	10	18	90	19x4	75	67.5	77	285	285	-	-	7.3
GVF21·32	32	200	135	10	20	100	19x4	97	67.5	74	282	345	-	-	10
GVF21·40	40	200	140	10	20	105	19x4	97	67.5	74	282	345	-	-	10.3
GVF21·50	50	230	155	14	20	120	19x4	147	67.5	70	278	341	-	-	15.6
GVF21·65	65	290	175	14	22	140	19x4	180	67.5	83	-	354	-	-	23.5
GVF21·80	80	310	185	14	22	150	19x8	186	67.5	73	-	354	-	-	27
GVF21·100	100	350	210	14	24	175	19x8	205	92.5	129	-	-	429	-	43
GVF21·125	125	400	250	14	24	210	23x8	238	92.5	118	-	-	416	-	61
GVF21·150	150	485	280	14	26	240	23x8	279	92.5	140	-	-	440	660	87