



10-4

2-way control valve GVF 21 / GVF 22



Summary

GVF21/22 is for wide range of applications in the system of HVAC, steam and hot&cold water.

Size	200A	250A	300A	350A
Stroke(mm)	50	60	75	80

Application

- Allowable pressure : 10Kgf/cm²
- Applicable fluid and temp. : 1) up to 130°C for hot water
2) up to -25°C for cold water

Technical Data

- Allowable pressure : 10Kgf/cm²(10bar)
 - Applicable fluid and temp. : -25°C ~ 130°C (-25°C ~ 180°C with GVF22)
 - Linear type
 - Leakage : ≤ 0.01% of Kvs value Class IV (ANSI B 16.104)
 - End connection : GVF21 - JIS 10K RF type
GVF22 - JIS 21K RF type
- ※ FCD of body material is available upon the request of customer

※ Close-off pressure

Model	DN		Flow coefficient		Stroke mm	Sv	Actuator ΔPmax (kgf/cm ²)	
	mm	Inch	Kv	Cv			GEA-100A(P)	GEA-250A(P)
GVF 21 · 200	200	8"	594	696	50	50	2.4	6.1
GVF 21 · 250	250	10"	906	1057	60	50	1.6	3.9
GVF 21 · 300	300	12"	1608	1875	75	50	—	2.7
GVF 21 · 350	350	14"	2509	2928	80	50	—	2.0

Sv : Rangeability (VDI 2173)

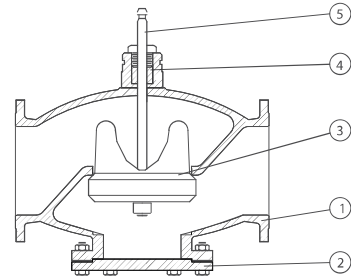
Kv = Cv/1.167

ΔPV100 : Maximum allowable pressure difference of valve faces in full opening position with installation highly loaded

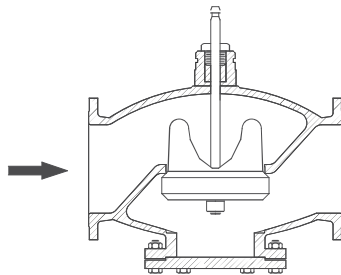
ΔPmax : Maximum allowable pressure difference of actuator not to leak fluid in closing position(close-off pressure)

Materials

No	1	2	3	4	5
Part Name	Body	Flange	Plug	Packing Box	Stem
Material	SCPH2	SCPH2	SCS13	V-Ring (Teflon)	SUS304
	(A216WCB)	(A216WCB)	(A351CF8)		(AISI304)



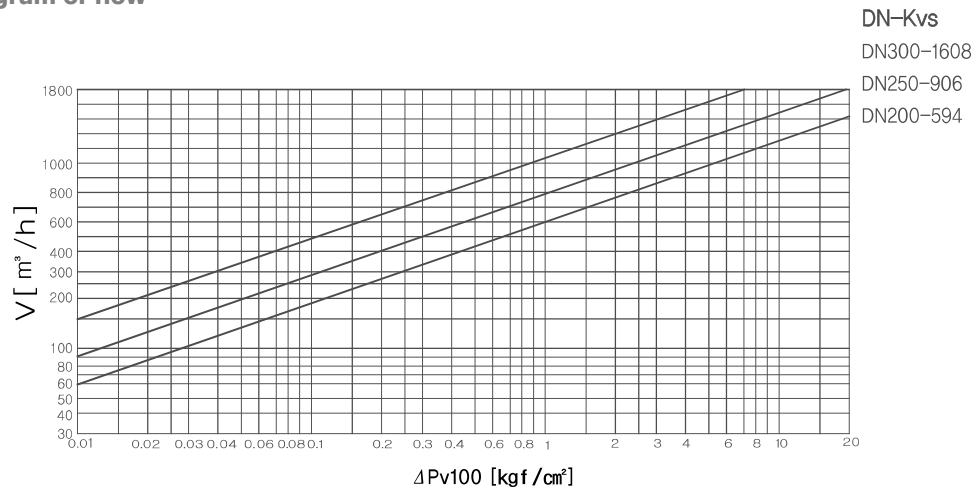
Mechanical Design



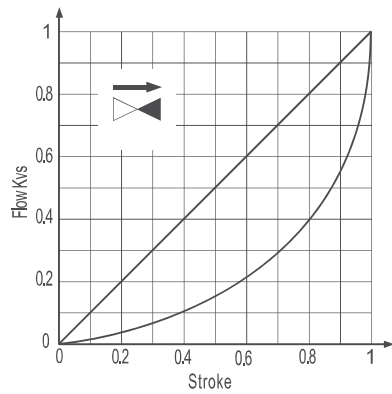
- Plug direct-coupled with valve stem
- Seat with special material attached to valve body

Valve to select

► Diagram of flow



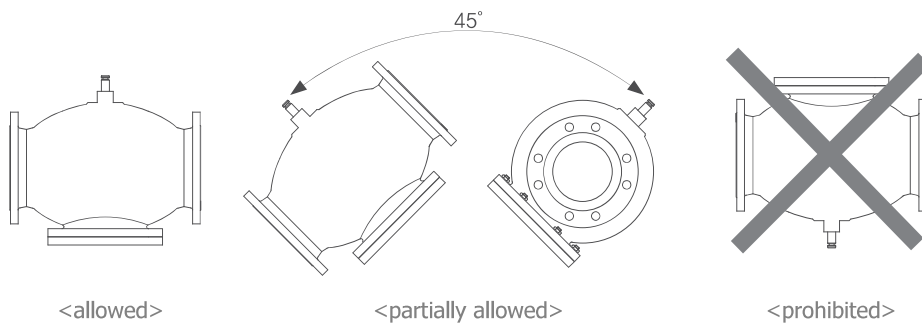
Valve flows



- Flow control of valve
- Linear or EQ%
- Proportion of flow control - 50:1

Mounting Notes

- Recommend to install circulating line to protect valve stem normally
- Strainer installation recommended for higher safety rate of valve function



- Match the flow direction with marked direction(➡) on valve body

Guide for inspection

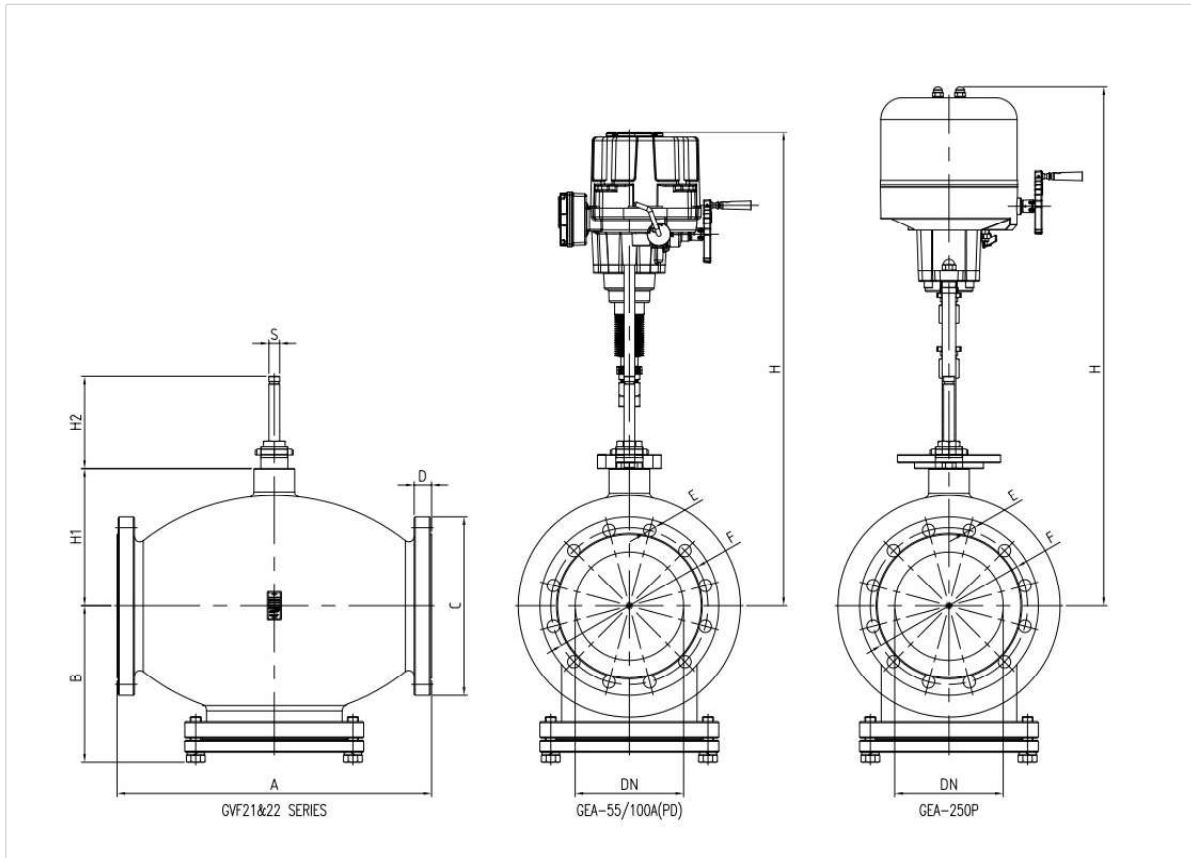
Inspect the valve in the status of right mounting of actuator

1. Close position with valve shaft upward
2. Open position with valve shaft downward

Tips

- Valve packing replacement without disassembling in case of damage
- Packing box applicable for -25 ~ 130°C(hot and cold water)

Shape dimension



JIS 10K RF, KS 10K RF (KS B 1511)

MODEL	DN	A	C	S	D	E	F	B	H1	H2	H		Weight Valve(Kg)
											GEA-100	GEA-250	
GVF 21.200	200	580	ø330	ø20	32	ø290	12-ø23	287	255	170	875	869	165
GVF 21.250	250	685	ø400	ø20	32	ø355	12-ø25	346	305	180	925	919	280
GVF 21.300	300	800	ø445	ø20	34	ø400	16-ø25	376	300	195	-	914	368
GVF 21.350	350	880	ø490	ø20	34	ø445	16-ø25	398	325	200	-	939	430

JIS 20K RF, KS 20K RF

MODEL	DN	A	C	S	D	E	F	B	H1	H2	H		Weight Valve(Kg)
											GEA-100	GEA-250	
GVF 22.200	200	580	ø350	ø20	34	ø305	12-ø25	287	255	170	875	-	182
GVF 22.250	250	685	ø430	ø20	34	ø380	12-ø27	346	305	180	925	919	305
GVF 22.300	300	800	ø480	ø20	40	ø430	16-ø27	376	300	195	-	914	388
GVF 22.350	350	880	ø540	ø20	42	ø480	16-ø33	398	325	200	-	939	450

Units : mm

Specifications to be changed upon the production environment