



## 10-3

## 2-way control valve GVF 22 Series



(15A-40A)



(50A-150A)

### Summary

GVF22 is compatible with GEA Series and for heating, ventilation, HVAC or Temp. controlling.  
It is 2-way control valve made by ductile iron in flange type connection.  
- Nominal stroke : DN 15 ~ DN 50 : 20mm  
DN 65 ~ DN 150 : 40mm

### Applications

- Applicable fluid and temp. : -25 ~ 180°C for hot & cold water
- oxygen-absorbed mixtures or Anti-freeze ethylene glycol up to 50%
- saturated vapor / high Temp. vapor(max. steam 6bar abs / 180°C)

### Technical data

- Allowable pressure : 20Kgf/cm<sup>2</sup>(20bar)
- Applicable fluid and temp. : DIN4747 / DIN3158 at -25°C ~ 180°C
- Linear type
- Leakage : ≤ 0.01% of Kvs value Class IV (ANSI B 16.104)
- End connection : JIS 20K RF Type

※ Close-off pressure

Model	DN		Flow coefficient		Stroke	Sv	Actuator ΔPmax (kgf/cm <sup>2</sup> )			
	mm	Inch	Kv	Cv			GEA-20A(P)	GEA-35A(P)	GEA-55A(P)	GEA-100A(P)
GVF 22 · 15	15	1/2"	3	3.5	20	50	20	—	—	—
GVF 22 · 20	20	3/4"	5	5.8	20	50	20	—	—	—
GVF 22 · 25	25	1"	10	11.7	20	50	20	—	—	—
GVF 22 · 32	32	1 1/4"	16	18.7	20	50	16	—	—	—
GVF 22 · 40	40	1 1/2"	25	29	20	50	10	—	—	—
GVF 22 · 50	50	2"	39	45	20	50	6	—	—	—
GVF 22 · 65	65	2 1/2"	65	75.8	40	50	—	7.0	—	—
GVF 22 · 80	80	3"	91	106	40	50	—	4.6	—	—
GVF 22 · 100	100	4"	130	152	40	50	—	3.0	4.6	—
GVF 22 · 125	125	5"	188	219	40	50	—	1.9	3.0	—
GVF 22 · 150	150	6"	283	330	40	50	—	—	2.0	3.7

Sv : Rangeability (VDI 2173)

Kv = Cv / 1.167

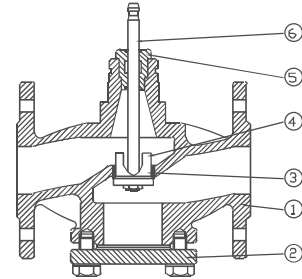
ΔPV100 : Maximum allowable pressure difference of valve faces in full opening position with installation highly loaded

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

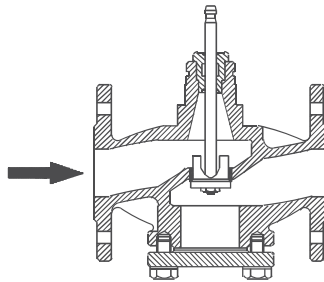
Make sure to indicate valve Model in case of assembling valve of stroke 20mm and GEA035A(P) in order-sheet

## Materials

No	1	2	3	4	5	6
Part Name	Body	Cover	Seat Ring	Plug	Packing Box	Stem
Material	FCD45	FCD45	SCS13	SCS13	Viton O-Ring	SUS304
	(A536)	(A536)	(A351CF8)	(A351CF8)		(AISI304)



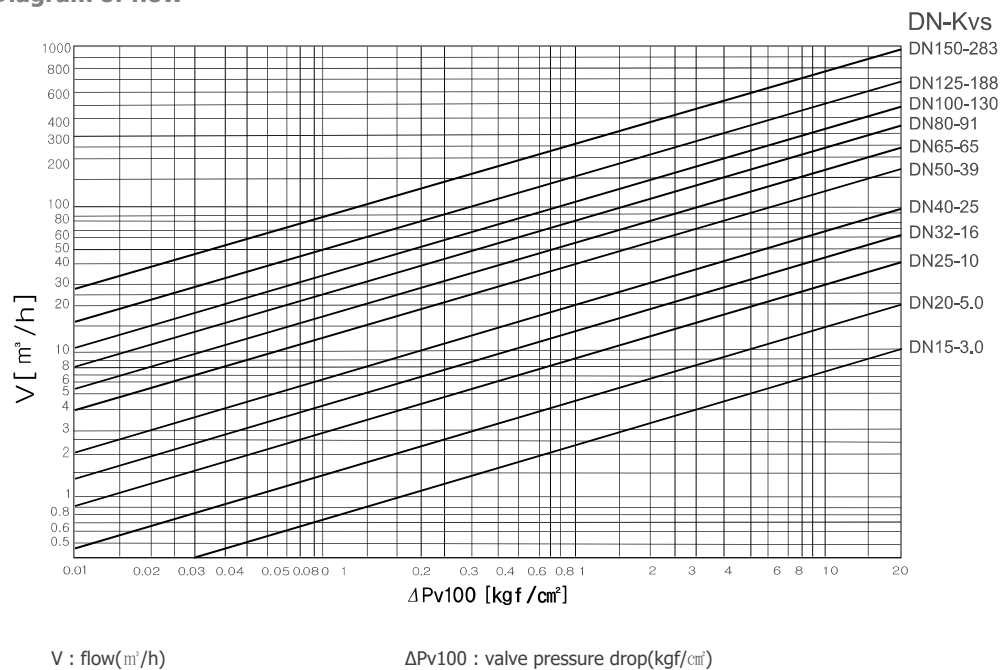
## Mechanical design



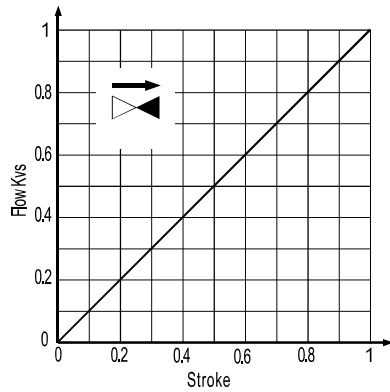
- For the use under 0°C, ASZ(electrical heating units) is required not to make stem parts frozen
- Plug direct-coupled with valve stem
- Seat with special material attached to valve body

## Valve to select

### ► Diagram of flow



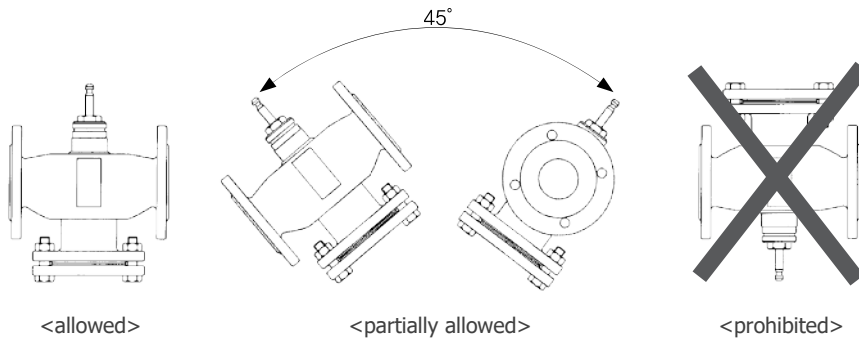
## Valve flows



- Flow control of valve
- Linear
- 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

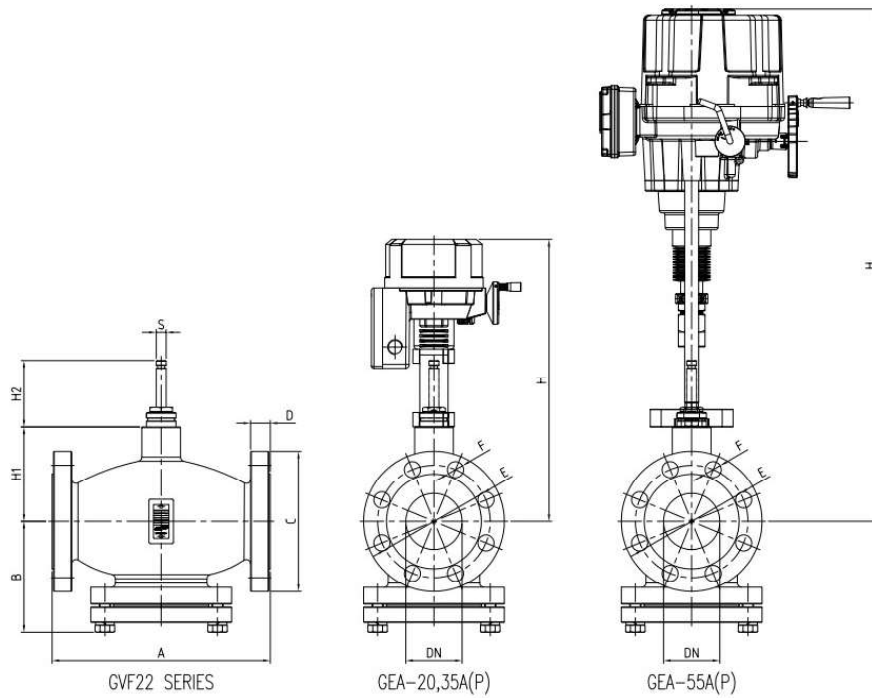


- Match the flow direction with marked direction( ➡ ) on valve body

## 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

## Shape dimension



MODEL	DN	A	C	S	D	E	F	B	H1	H2	H			Weight Valve(Kg)
											GEA-20	GEA-35	GEA-55	
GVF 22.15	15	130	ø95	ø10	18	ø70	4-ø15	91.5	76.5	67.5	343.5	-	-	4.7
GVF 22.20	20	150	ø100	ø10	18	ø75	4-ø15	93	76.5	67.5	343.5	-	-	5.5
GVF 22.25	25	160	ø125	ø10	18	ø90	4-ø19	106.5	78.5	67.5	345.5	-	-	7.3
GVF 22.32	32	200	ø135	ø10	20	ø100	4-ø19	89	73.5	67.5	340.5	-	-	10
GVF 22.40	40	200	ø140	ø10	20	ø105	4-ø19	89	73.5	67.5	340.5	-	-	10.3
GVF 22.50	50	230	ø155	ø14	24	ø120	8-ø19	121.5	115	67.5	382	-	-	18.5
GVF 22.65	65	290	ø175	ø14	24	ø140	8-ø19	131.5	132	95	-	425	-	27
GVF 22.80	80	310	ø200	ø14	28	ø160	8-ø23	158	134.5	95	-	427.5	-	36.5
GVF 22.100	100	350	ø225	ø14	30	ø185	8-ø23	185.5	164	95	-	457	759	50
GVF 22.125	125	400	ø270	ø14	30	ø225	8-ø25	187	179.5	95	-	472.5	774.5	67.5
GVF 22.150	150	480	ø305	ø14	30	ø260	12-ø25	218	192	95	-	485	787	90

Units : mm  
Specifications to be changed upon the production environment