

3- WAY CONTROL VALVE

(GXF21 Series)



(15A ~ 40A)



(50A ~ 150A)

Summary

"GXF21" series which has flange connection 3-way control Valve, is used in wide field for cooling, heating, ventilation and controlling BAS.

The body and the seat are made of cast iron.

Technical Data

- Operating pressure : 10Kg/cm²
- Operating temp : - 25 ~ 130℃
- Valve curve : Linear
- Leakage rate : 1) ≤0.01% of Kvs value Class(ANSI B 16.104 -1976)
2) By-pass: ≤0.1% of Kvs value
- Connection : JIS 10K RF FLANGED 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]
							Mixing	Diverting	Mixing	Diverting	Mixing	Mixing
GXF21.20	20	3/4"	5	5.8	20	50	8	4	8	4	-	-
GXF21.25	25	1"	10	11.7	20	50	8	4	8	4	-	-
GXF21.32	32	1 1/4"	16	18.7	20	50	7	3	8	4	-	-
GXF21.40	40	1 1/2"	25	29	20	50	-	-	8	4	-	-
GXF21.50	50	2"	39	45	20	50	-	-	6	6	-	-
GXF21.65	65	2 1/2"	65	75.8	20	50	-	-	4	2	-	-
GXF21.80	80	3"	91	106	20	50	-	-	3	-	-	-
GXF21.100	100	4"	130	152	40	50	-	-	-	-	3.4	-
GXF21.125	125	5"	188	219	40	50	-	-	-	-	2.0	3.4
GXF21.150	150	6"	283	330	40	50	-	-	-	-	-	2.3

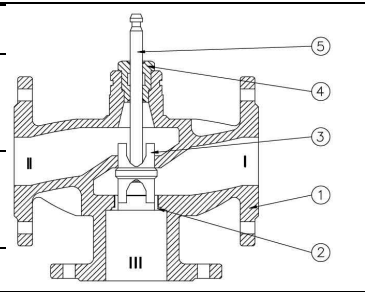
Sv : Range ability (VDI 2173)

* Kv=Cv/1.167

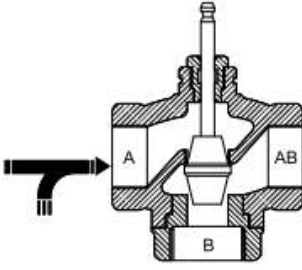
ΔPvmax in kgf/cm² = max, permissible differential pressure across closed valve

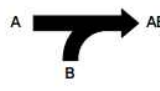
Materials

NO	1	2	3	4	5
Part Name	Body	Seat Ring	Plug	Packing Box	Stem
Material	FCD45	FCD45	SCS13	Viton, O-RING	SUS304

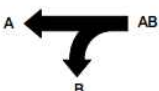


Mechanical Design





A → AB
B → AB



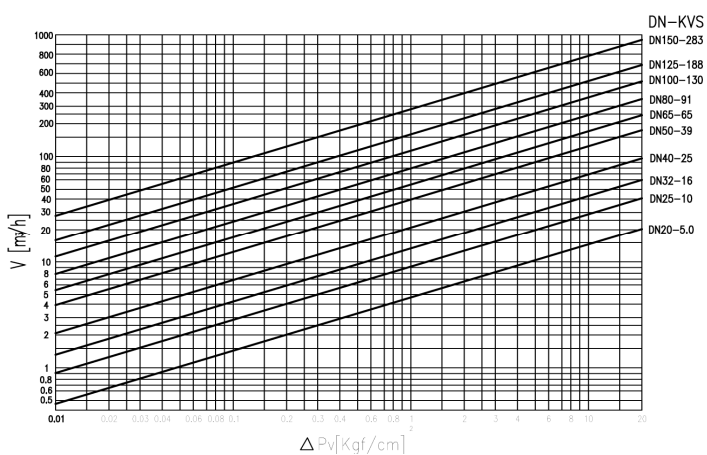
AB → A
AB → B

Mixing type / Diverting Type

- Plug is connected to the valve stem directly.
- A seat which is made of special material is fixed on the valve body.

Valve Selection

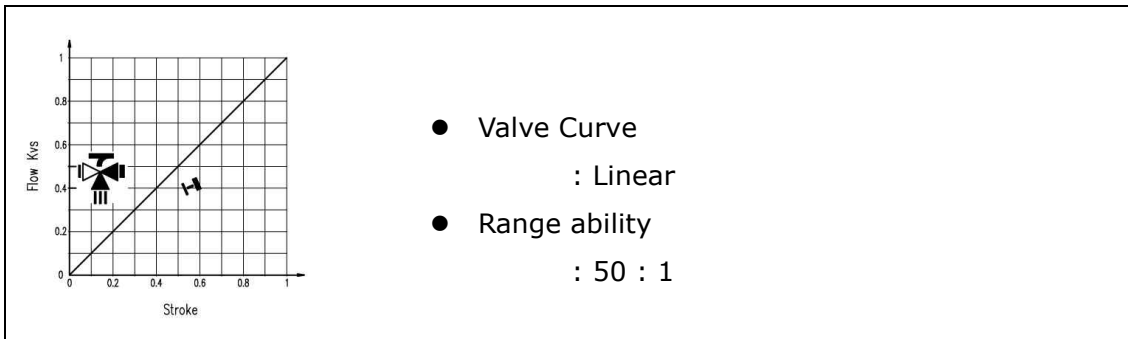
► FLOW DIAGRAM



V : WATER FLOW (m³/h)

ΔPv : VALVE PRESSURE DROP(Kgf/cm²)

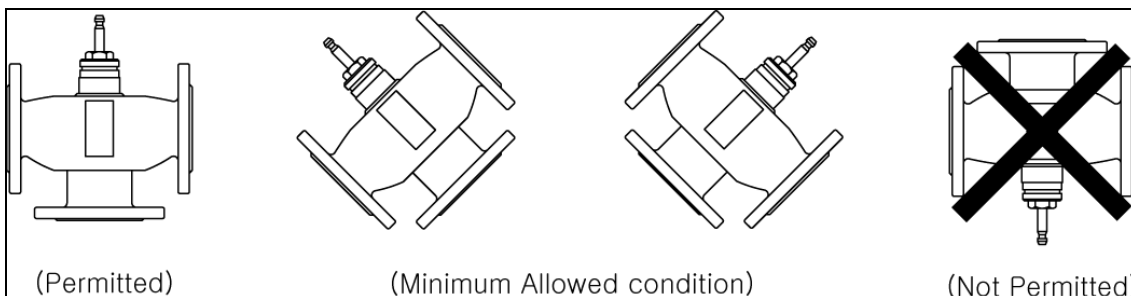
《Characteristic of Valve's Flow



Mounting and Installation Guide

- 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 install it at the fitting opening for better safety of operation

-Mounting positions



- The valve should be installed in a same direction of the Fluid flow



- in case of using as Mixing valve : from II, III to I
- in case of using as Diverting valve : from I to II, III
- (you can using Diverting valve sizing : 20A - 65A)

《Guidelines For An Examination

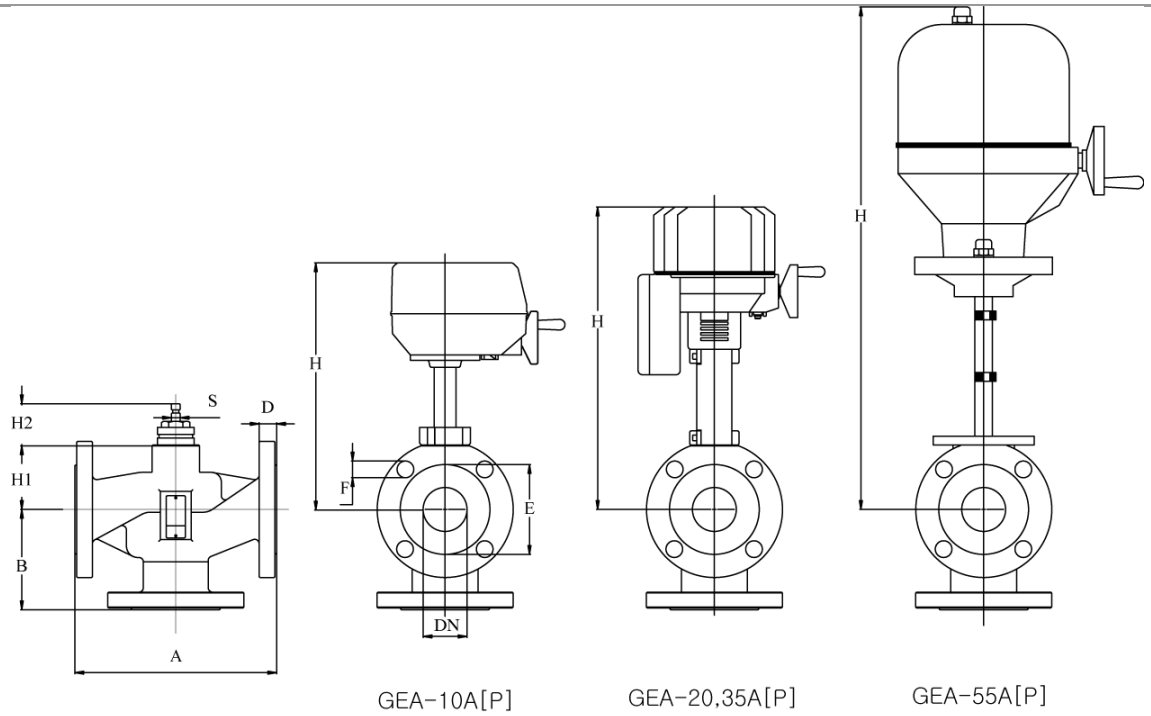
Trial test should be conducted only when Actuator is mounted on the valve correctly.

1. Downward valve spindle: Through-port: Open / By-pass : Close
2. Upward valve spindle : Through-port: Close / By-pass : Open

《Check

- In case of damaging of the valve's packing, There is no need disassembling the valve and actuator for replacement.
- Packing box can be used for -25~+130°C of Fluids.(Cold, Chilled and Hot water)

Dimension



Model	DN	A	C	S	D	E	F	B	H2	H1	H				Weight Valve(Kg)
											GEA-10	GEA-20	GEA-35	GEA-55	
GXF 21. 20	20	150	100	10	18	75	15×4	130	67.5	34	245	305	-	-	4.5
GXF 21. 25	25	160	125	10	18	90	19×4	130	67.5	34	245	305	-	-	4.8
GXF 21. 32	32	200	135	10	20	100	19×4	158	67.5	39	250	310	-	-	8.5
GXF 21. 40	40	200	140	10	20	105	19×4	158	67.5	39	250	310	-	-	8.8
GXF 21. 50	50	230	155	14	20	120	19×4	110	67.5	39	250	310	-	-	18
GXF 21. 65	65	290	175	14	22	140	19×4	150	92.5	60	-	335	-	-	24
GXF 21. 80	80	310	185	14	22	150	19×8	150	92.5	60	-	335	-	-	32
GXF 21.100	100	350	210	14	24	175	19×8	175	92.5	91	-	-	390	620	45
GXF 21.125	125	400	250	14	24	210	23×8	205	92.5	102	-	-	400	625	62
GXF 21.150	150	485	280	14	26	240	23×8	245	92.5	118	-	-	420	638	74