AXM

EXPERT IN PROCESS VALVE

GV400 Series
Pneumatic Flat-Seat Valve

◆ How to Order

GV4 | 0 | 4 | ⑧ | PX | 015 | 50 | NC | S | M | | | | | SV1 | |

Series

1	female thread
2	union
3	socket weld ends
4	flange ends

Type of Actuator

P	nylon PA66 clean port
PX	nylon PA66 built-in SS liner NAMUR port
PR	nylon PA66 built-in SS liner clean port
SD	S.S. polished actuator
S	S.S. actuator
AE	aluminium actuator built-in liner

Port size

010	3/8"
015	1/2"
020	3/4"
025	1"
032	1-1/4"
040	1-1/2"
050	2"
065	2-1/2"
080	3"
100	4"

Acting type

S	Single acting
D	Double acting

Control Function

NO	Normally Open
NC	Normally Closed
DA	Liberty (double acting)

M	flow direction above seat
G	flow direction below seat
T	flow via two way

Thread type

Blank	BSP(G)
N	NPT
R	PT(Rc)

Seal/Seat

	Seal	Seat
Blank	NBR	PTFE
B1	NBR	VITON
V1	VITON	PTFE
V2	VITON	PEEK

Body material

Blank	S.S.304
T1	S.S.316
T2	S.S316L

Solenoid Valve

⑦ SV1A SV1B SV1C	AX23-06/08 S.S parts 3/2-way solenoid valve
SV2	3V1-06 3/2-way solenoid valve
SV3	EV25/23-31-10 5/2-way change-over NAMUR solenoid valve
SV4	EV2531M-10 5/2-way NAMUR solenoid valve
SV5	DX23-06/08 brass body 3/2-way solenoid valve

Actuator Size

	Standard Actuator Size mm					
	P	S①	AE	SD	PX	PR②
DN10	40,50	40,50	50,70	40,50	40,50	40,50,63
DN15	40,50	40,50	50,70	40,50	40,50	40,50,63
DN20	50,63	50,63	50,70,100	50,63	50,63	50,63
DN25	50,63, 80,100	50,63,90,125	50,70,100	50,63,90	50,63,90	50,63,90
DN32	63,80,100	63,90,125	70,100,125	63,90	63,90	63,90
DN40	63,80,100	63,90,125	70,100,125	63,90	63,90	63,90
DN50	63,80,100	63,90,125	70,100,125	63,90	63,90	63,90
DN65	80,100	90,125	100,125,150	90	90	90,110
DN80	100,125	125,160	125,150,	110	110	110
DN100	125	125,160	125,150	110	110	110

Accessories

VM10	VM414	VM424	VT525
Manual Overried for Stroke Limiting	Proximity Switch for Position Feedback		Position locator Process Controller

◆ GV4 Series Pneumatic Flat-seat Valve DN10 -DN100

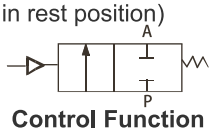
	Pic	Actuator Material/ Function	Port range	Control Pressure	Working Pressure	Temp. of Medium	Temp. of Ambient	Body Material	Standard of Pipeline interface	Optional Accessories
GV401		PA(NAMUR interface) PA(clean port) PA(classic) Stainless steel Aluminium AE / A with position indicator	DN10...DN65	2~10 bar	0~25 bar	-40 ~ +180°C	-40 ~ +60°C	304 / 316 / 316L	G (DIN ISO228-1) NPT (ASME B 1.20.1) Rc (ISO7-1)	Pilot Valve/ Regulating the Cone /Manual Override for Stroke Limiting/ Proximity Switch for Position Feedback/ Position locator& Process Controller
GV402		PA(NAMUR interface) PA(clean port) PA(classic) Stainless steel Aluminium AE / A with position indicator	DN10...DN65	2~10 bar	0~25bar	-40 ~ +180°C	-40 ~ +60°C	304 / 316 / 316L	DIN EN ISO1127/ ISO4200 DIN 11850-2 / DIN 11866 A ASME BPE/DIN 11866 C SMS 3008	Pilot Valve/ Regulating the Cone /Manual Override for Stroke Limiting/ Proximity Switch for Position Feedback/ Position locator& Process Controller
GV403		PA(NAMUR interface) PA(clean port) PA(classic) Stainless steel Aluminium AE / A with position indicator	DN10...DN65	2~10 bar	0~25 bar	-40 ~ +180°C	-40 ~ +60°C	304 / 316 / 316L	DIN EN ISO1127/ ISO4200 DIN 11850-2 / DIN 11866 A ASME BPE/DIN 11866 C SMS 3008	Pilot Valve/ Regulating the Cone /Manual Override for Stroke Limiting/ Proximity Switch for Position Feedback/ Position locator& Process Controller
GV404		PA(NAMUR interface) PA(clean port) PA(classic) Stainless steel Aluminium AE / A with position indicator	DN10...DN100	2~10 bar	0~25 bar	-40 ~ +180°C	-40 ~ +60°C	304 / 316 / 316L	UNI EN 1092-1 (JB/T82.1-1994) ISO / DIN /JIS to be customized	Pilot Valve/ Regulating the Cone /Manual Override for Stroke Limiting/ Proximity Switch for Position Feedback/ Position locator& Process Controller

GENERAL FEATURES

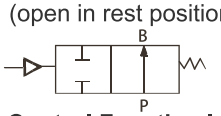
- High flow due to angle seat design
- Anti-waterhammer design (fluid entry under the disc)
- Standard gland packing suitable for Vacuum up to 10^{-2}mbar
- Wide range of piston-type operators (32 - 40 - 50- 63 - 90 - 110 -125 -150 - 160mm dia.) rotatable through 360°, for maximum performance at different minimum pilot pressures
- High performance, maintenance-free stuffing box
- Valve body material: AISI 304,AISI 316, AISI316L and Gunmetal
- Valve ends: Female thread, Male thread,Butt welds, Socket welds, Flange ends, and Tri -clamp ends.
- Range available from 1/4"to 4" in the double acting versions, spring return N.C.from above and below the seat, spring return N.O. from below the seat.
- The variations in the actioning of the valve, the several combinations and the possibility to intercept the fluid from above or below the seat, originate multiple versions of the automatic valve.
- On the basis of the kind of valve and the variations of pressure that must be intercepted, the necessary control pressure can be individuated, and consequently, the code for the corresponding valve.

◆ Symbol

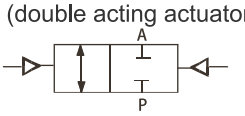
Control Function A
(closed by spring force in rest position)



Control Function B
(open in rest position)



Control Function I
(double acting actuator)



◆ Characteristics

Orifice	DN08...100
Body materials	Cast stainless steel 304,316,316L, gunmetal
Actuator material	PA （Glass fibre filled PA） Stainless steel 304 Aluminium
Seal material	PTFE(NBR,FKM,EPDM on request)
Medium	Air,water, alcohol,oils, fuel, hydraulic fluids,salt solution, alkali solutions,organic solvents, steam
Pressure	0~16Bar (steam from 180°C， from 0 to 10Bar) depending on the size and model chosen (see catalogue for details)
Viscosity	Max.600cst (mm²/s)
Packing gland (with silicone grease)	PTFE V-ring with spring compensation
Medium temperature	-10 to +180 ℃ with PTFE seal
Ambient temperature	PA nylon -10 to 90 ℃ Stainless steel -10 to 150 ℃ Aluminium -10 to 150 ℃
Installation	As required, preferably with actuator in upright position The valves can be mounted in any position without affecting operation Pipe connections (G*) have standard combination thread according to ISO 228/1 and ISO 7/1 Installation/maintenance instructions are included with each valve
Control medium	Neutral gases, air
Max.pilot pressure	PA nylon actuator size Φ32...63 10 bar PA nylon actuator size Φ90...110 8 bar Stainless steel 10 bar Aluminium 10 bar
Connection	Female thread ends DN08...DN80 Male thread ends DN15...DN65 Butt weld ends DN15...DN65 Socket weld ends DN15...DN65 Flange ends DN15...DN100 Tri-clamp ends DN15...DN65 Gunmetal body DN13...DN65

◆ Applications

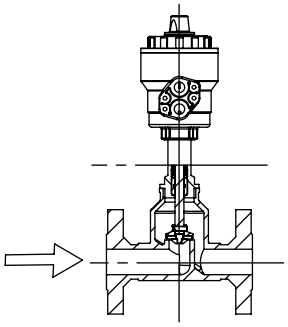
- Industrial gas compression and separation
- Biological gas generation
- Industrial steam sterilization and separation
- Heat-exchange system.
- Polystyrene foaming and packaging
- Beverage processing
- Dying and purification
- Filling system
- Mechanical equipment and automation machinery
- Petrolium and chemical industry

◆ Options and accessories

- Signaling box or compact signaling unit
- Stroke limiter for opening
- Manual safety device
- Positioner for proportional control
- Optical position indicator on 32, 40, 50, 63, 90, 110,125,150,160mm.
- NAMUR port mounting pilot is optional,except to 32mm
- NET-INOX passivation treatment on stainless steel body valve
- ATEX 94/9/EC versions for potentially explosive atmospheres
- Polit operated drain valve assembly with electronic timer (see solenoids, coils & Acce -ssories sections)
- Male thread ,Weld end, clamp and flange end connections are available on request
- Vacuum applications up to $9x10^{-3}$ mbar

◆ Specification

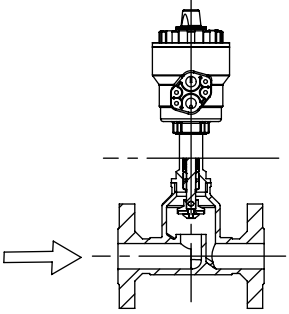
Pneumatically operated on/off valve, normally closed by spring force, flow direction below the seat



Flow direction below seat
（Waterhammer-free）

Port size (DN)	Orifice size (in)	Actuator size (mm)	Kv	Pilot Pressure (bar) SA		Operating Pressure Differential Max.		Max. Fluid Temp. ℃
	G *		m^3/h	Min.	Max.	SA②	DA	
DN10	3/8"	40	4.7	4.0	10	15	16	180
		50	4.7	3.9	10	16	16	180
DN15	1/2"	40	4.7	4.0	10	15	16	180
		50	4.7	3.9	10	16	16	180
		63	4.7	4.2	10	16	16	180
DN20	3/4"	40	8.1	4.0	10	6.5	16	180
		50	8.1	3.9	10	11	16	180
		63	8.1	4.2	10	16	-	180
DN25	1"	63	13.0	4.2	10	11	16	180
		90	13.0	4.3	10	16	-	180
DN32	1 1/4"	63	19.5	4.2	10	6	16	180
		90	19.5	4.3	10	-	8	180
DN40	1 1/2"	90	31.0	4.3	10	10	16	180
		110	31.0	4.0	8.0	16	-	180
DN50	2"	110	45.0	4.0	8.0	7.2	16	180
		160①	45.0	4.6	10	16	-	180
DN65	2 1/2"	110	73.0	5.0	8.0	10	13	180
		160	73.0	4.8	10	15	-	180
DN80	3"	110	110	5.0	8.0	7	10	180
		160	110	4.8	10	15	-	180
DN100	4"	110	155	5.0	8.0	3.7	10	180
		160	155	4.8	10	7.0	10	180

Pneumatically operated on/off valve, normally open by spring force, flow direction below the seat

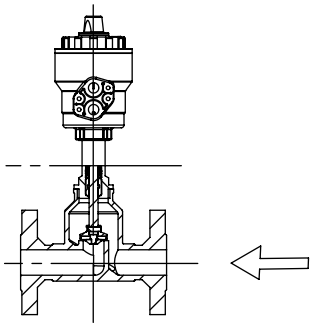


Flow direction below seat
（Waterhammer-free）

DN10	3/8"	40	4.7	2.3	10	16	-	180
		50	4.7	2.0	10	126	-	180
DN15	1/2"	40	4.7	2.3	10	16	-	180
		50	4.7	2.0	10	16	-	180
DN20	3/4"	40	8.1	2.3	10	16	-	180
		50	8.1	2.0	10	16	-	180
DN25	1"	63	13.0	2.0	10	16	-	180
DN32	1 1/4"	63	19.5	2.0	10	16	-	180
DN40	1 1/2"	90	31.0	2.0	10	16	-	180
DN50	2"	90	45.0	2.0	10	16	-	180
DN65	2 1/2"	110	73.0	2.0	8.0	16	-	180
DN80	3"	110	110	2.0	8.0	12	-	180
DN100	4"	110	155	2.0	8.0	7.0	-	180
		160	155	2.0	10	10	-	180

Note: ① 160mm actuator material is Casting found S.S. 304。
② steam（≤180℃）

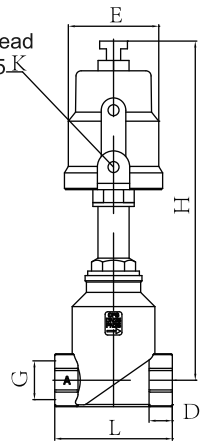
Pneumatically operated on/off valve, normally closed, flow direction above the seat



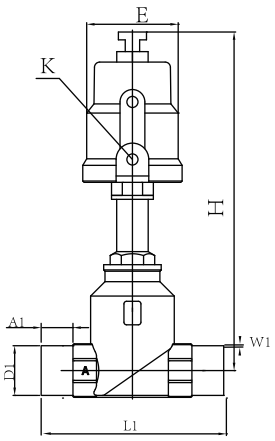
Port size (DN)	Orifice size (in)	Actuator size (mm)	Kv	Pilot Pressure (bar) SA		Operating Pressure Differential Max.		Max. Fluid Temp. ℃
	G *		m^3/h	Min.	Max.	SA	DA	
DN10	3/8"	40	3.0	4.0	10	16	-	180
		50	3.0	2.0	10	16	-	180
DN15	1/2"	40	4.7	4.0	10	16	-	180
		50	4.7	2.0	10	16	-	180
DN20	3/4"	40	8.1	4.0	10	16	-	180
		50	8.1	2.8	10	16	-	180
DN25	1"	50	13.0	2.8	10	16	-	180
DN32	1 1/4"	63	19.5	2.0	10	16	-	180
DN40	1 1/2"	90	31.0	2.0	10	16	-	180
DN50	2"	90	45.0	2.0	10	16	-	180
DN65	2 1/2"	110	73.0	2.0	8.0	10	-	180
DN80	3"	110	110	2.0	8.0	10	-	180
DN100	4"	110	155	2.0	8.0	6	-	180

◆ Dimensions [mm]

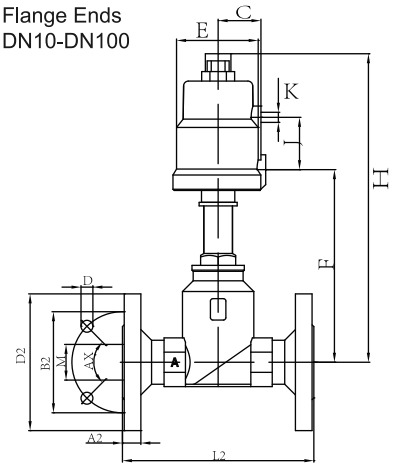
Female Thread
DN10-DN65



Weld Ends
DN10-DN100



Flange Ends
DN10-DN100



All bodies data					Female thread			Weld ends EN MISO 1127/ISO 4200			
Model	Actuator size	E	H	K	G	L	D	A1	D1	L1	W1
DN 10	40	46	200	G1/8	3/8	66	12	20	17.2	90	1.6
	50	56	212	G1/8	3/8	66	12	20	17.2	90	1.6
DN 15	40	46	205	G1/8	1/2	66	14	20	21.3	90	1.6
	50	56	219	G1/8	1/2	66	14	20	21.3	90	1.6
DN 20	50	56	224	G1/8	3/4	76	17	20	26.9	100	1.6
	63	70	244	G1/8	3/4	76	17	20	26.9	100	1.6
DN 25	50	56	236	G1/8	1	91	18	26	33.7	130	2.0
	63	70	256	G1/8	1	91	18	26	33.7	130	2.0
DN 32	63	70	261	G1/8	1-1/4	110	20	26	42.4	140	2.0
	90	96	274	G1/4	1-1/4	110	20	26	42.4	140	2.0
DN 40	63	70	264	G1/8	1-1/2	120	23	26	48.3	160	2.0
	90	96	282	G1/4	1-1/2	120	23	26	48.3	160	2.0
DN 50	63	70	277	G1/8	2	150	26	26	60.3	175	2.0
	90	96	295	G1/4	2	150	26	26	60.3	175	2.0
	125	135	310	G1/4	2	150	26	26	60.3	175	2.0
DN 65	90	96	318	G1/4	2-1/2	186	31	26	76.1	210	2.3
	125	135	333	G1/4	2-1/2	186	31	26	76.1	210	2.3
DN 80	125	135	351	G1/4	3			26	88.9	230	2.3
	160	172	427	G1/4	3			26	88.9	230	2.3
DN100	125	135	366	G1/4	4			26	114.3	260	2.6
	160	172	442	G1/4	4			26	114.3	260	2.6

All bodies data								Flange ends DIN						
Model	Actuator size	C	E	F	H	K	J	D2	L2	B2	A2	D	Ax	M
DN 10	40	23	46	101	200	G1/8	40	90	130	60	16	14	4x90°	14
	50	32	56	102	212	G1/8	38	90	130	60	16	14	4x90°	14
DN 15	40	23	46	107	205	G1/8	40	95	130	65	16	14	4x90°	18
	50	32	56	108	219	G1/8	38	95	130	65	16	14	4x90°	18
DN 20	50	32	56	114	224	G1/8	38	105	150	75	18	14	4x90°	24
	63	36	70	126	244	G1/8	44	105	150	75	18	14	4x90°	24
DN 25	50	32	56	126	236	G1/8	38	115	160	85	18	14	4x90°	30
	63	36	70	138	256	G1/8	44	115	160	85	18	14	4x90°	30
DN 32	63	36	70	149	261	G1/8	44	135	180	100	20	18	4x90°	38
	90	49	96	152	274	G1/4	67	135	180	100	20	18	4x90°	38
DN 40	63	36	70	157	264	G1/8	44	145	200	110	22	18	4x90°	44
	90	49	96	160	282	G1/4	67	145	200	110	22	18	4x90°	44
DN 50	63	36	70	170	277	G1/8	44	165	230	125	24	18	4x90°	56
	90	49	96	173	295	G1/4	67	165	230	125	24	18	4x90°	56
	125	69	135	175	310	G1/4	65	165	230	125	24	18	4x90°	56
DN 65	90	49	96	196	318	G1/4	67	180	290	145	25	18	8x45°	66
	125	69	135	197	333	G1/4	65	180	290	145	25	18	8x45°	66
DN 80	125	69	135	213	351	G1/4	65	195	310	160	25	18	8x45°	81
	160	87	172	224	427	G1/4	120	195	310	160	25	18	8x45°	81
DN100	125	69	135	230	366	G1/4	65	230	350	190	27	23	8x45°	100
	160	87	172	238	442	G1/4	120	230	350	190	27	23	8x45°	100