

2/2-Way Angle-Seat Valve

for High-Quality Applications and Steam

Type 2000
Waterhammer-free

DN13-65, G 1/2 bis 2 1/2"



Design

The externally piloted angle-seat valve is operated with a single- or double-acting piston actuator. The actuator is available in two different materials, depending on the ambient temperature. High flow rates are attained with the gunmetal or stainless steel 2-way body. The reliable self-adjusting packing gland provides high sealing integrity. These maintenance-free and robust valves can be retro-fitted with a comprehensive range of accessories for position indication, stroke limitation or manual override.

Advantages / Benefits

- ▶ Spring return closed or open, double-acting
- ▶ Materials: gunmetal, stainless steel
- ▶ High flow rate
- ▶ With self-adjusting packing glands, intermediate relief and wiper
- ▶ Optical position indication
- ▶ Pilot connection can be rotated through 360°
- ▶ Low control air consumption due to minimized volume in the actuator
- ▶ Electrical position indication, stroke limitation and manual override available as accessories

Applications

Neutral gases and liquids up to 16 bar

Steam up to 10 bar / 180°C

Aggressive fluids with stainless steel body

Systems engineering

Food processing

Chemical industry

Sterilizers

bürkert
Easy Fluid Control Systems

2/2-Way Angle-Seat Valve

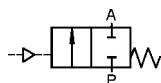
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Technical Data

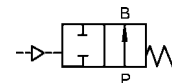
Control Functions

A 2/2-way flow valve,
normally closed spring return

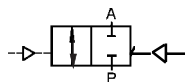


Control Functions

B 2/2-way flow valve,
normally open spring return



I 2/2-way flow valve,
with double-acting actuator
(on request)



Specifications

Connections ISO 228	Orifice DN [mm]	Kv-Value Water [m³/h]	Max. Operating Pressure ²⁾ } → Differential Pressure ¹⁾		Required Control Pressure CFA [bar]	Weight [kg]	Actuator Size ø
			CFA [bar]	CFB [bar]			
G 1/2	13,0	4,2	16		3.9	0,83	50
				16			50
G 3/4	20,0	8	11		3.9	0,96	50
				16			50
G 1	25,0	19	11		4.2	1,83	63
				16			63
G 1 1/4	32,0	27,5	14		4,5	3,1	80
				13		2,7	63
G 1 1/2	40,0	42	8		4,5	3,5	80
				9		3,0	63
			13		4,5	4,0	100
				16		5,0	80
G 2	50,0	55	8		4,5	7,0	100
				6		6,0	63
			12		4,5	10,2	125
				9		6,5	80
G 2 1/2	65,0	90	7		4,5	11,0	125
				6		8,3	80

¹⁾ Higher differential pressures by other combinations of actuators on request. ²⁾ Max. operating pressure with steam -> 10bar (180°C).

All pressures quoted are gauge pressures with respect to the prevailing atmospheric pressure.

Operating Data

Threaded connection	ISO 228	Body material	
Weld ends	ISO 4200	gunmetal	RG
Nominal pressure gunmetal	PN 16	stainless steel:	1.4408 (threaded connection) 1.4581 (weld ends)
Nominal pressure stainless steel	PN 16	Seal material	PTFE
Min. control pressure		Packing gland	self-adjusting PTFE-stem seals, intermediate relief and wiper
control function A	see chart	Fluids	water, alcohols, oils, fuels,
control function B	see diagram	(Examples)	hydraulic liquids, salt solutions, lyes, organic solvents, steam
Max. control pressure	10 bar		
Control fluid	neutral gases, air		
Max. viscosity	600 mm²/s		
Ambient temperature			
PA-actuator	min. -10 °C max. +60 °C		
PPS-actuator	min. + 5 °C max.+130 °C		
Fluid temperature	min. -10 °C max.+180 °C		

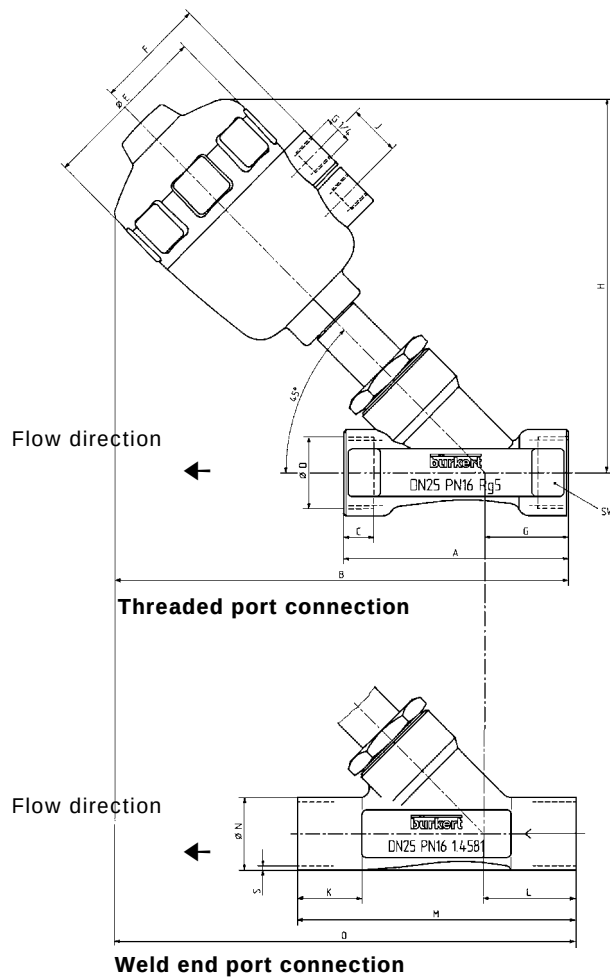
Installation

Installation as required

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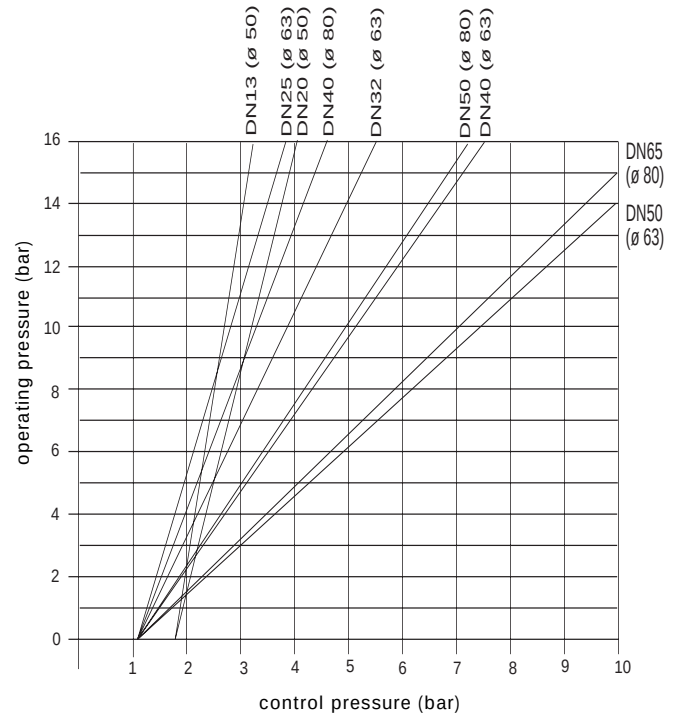
Dimensions in mm



Control Pressure

Control function B

Actuator 50 - 80 mm



Specification

Function	CFA - B			CFA						CFB					
Actuator	ø50mm		ø63mm	ø80mm	ø100 mm		ø125mm			ø63mm		ø80mm			
DN	DN 13	DN 20	DN 25	DN 32	DN 40	DN40	DN50	DN50	DN65	DN32	DN40	DN50	DN 40	DN 50	DN65
øD	1/2"	3/4"	1"	1 1/4"	1 1/2"	1 1/2"	2"	2"	2 1/2"	1 1/4"	1 1/2"	2"	1 1/2"	2"	2 1/2"
A	85	95	105	120	130	130	150	150	185	120	130	150	130	150	185
B	173	178	212	255	250	301	322	346	372	226	230	250	250	270	296
C	12	12	14	16	18	18	20	20	22	16	18	20	18	20	22
E	64	64	80	101	101	127	127	153	153	80	80	80	101	101	101
F	44	44	52	60	60	73	73	86	86	52	52	52	60	60	60
G	33	36	39	41	41	41	45	45	57	41	41	45	41	45	57
H	137	145	173	210	213	260	316	301	315	186	189	205	213	225	239
K	20	25	30	30	30	30	30	30	-	30	30	30	30	30	-
L	34	39	43	45	49	49	50	50	-	45	49	50	49	50	-
M	100	115	130	145	160	160	175	175	-	145	160	175	160	175	-
N	21,3	26,9	33,7	42,4	48,3	48,3	60,3	60,3	-	42,4	48,3	60,3	48,3	60,3	-
O	174	181	217	259	258	309	327	351	-	230	238	255	258	275	-
S	1,6	1,6	2	2	2	2	2,6	2,6	-	2	2	2,6	2	2,6	-

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Ordering Chart (Other Versions on Request)

Standard-Programme

Type 2000 with gunmetal body, PA-actuator, pilot port with gunmetal inserts

Control Function	Orifice DN [mm]	Port Connection (ISO 228)	Actuator Size [mm]	Flow Direction	Operating Pressure ^{1) 2)} [bar]	Order-No.
A	13	G 1/2	ø 50	below seat	16	001 130 V
	20	G 3/4	ø 50	below seat	11	001 131 J
	25	G 1	ø 63	below seat	11	007 225 W
	32	G 1 1/4	ø 80	below seat	14	001 132 K
	40	G 1 1/2	ø 80	below seat	8	001 133 L
	40	G 1 1/2	ø 100	below seat	13	001 592 R
	50	G 2	ø 100	below seat	8	001 134 M
	50	G 2	ø 125	below seat	12	001 593 J
	65	G 2 1/2	ø 125	below seat	7	001 368 P
B	13	G 1/2	ø 50	below seat	16	001 144 X
	20	G 3/4	ø 50	below seat	16	001 145 Y
	25	G 1	ø 63	below seat	16	001 146 Z
	32	G 1 1/4	ø 63	below seat	13	001 369 Q
	40	G 1 1/2	ø 63	below seat	9	001 370 M
	40	G 1 1/2	ø 80	below seat	16	001 594 K
	50	G 2	ø 63	below seat	6	001 371 A
	50	G 2	ø 80	below seat	9	001 595 L
	65	G 2 1/2	ø 80	below seat	6	001 372 B

Type 2000 with stainless steel body, PA-actuator, pilot port with stainless steel inserts

Control Function	Orifice DN [mm]	Port Connection (ISO 228)	Actuator Size [mm]	Flow Direction	Operating Pressure ^{1) 2)} [bar]	Order-No.	Order-No.
						Threaded port. ISO 228	Weld connection ISO 4200
A	13	G 1/2	ø 50	below seat	16	001 135 N	001 392 Y
	20	G 3/4	ø 50	below seat	11	001 136 P	001 393 Z
	25	G 1	ø 63	below seat	11	001 446 W	001 394 S
	32	G 1 1/4	ø 80	below seat	14	001 138 Z	001 395 T
	40	G 1 1/2	ø 80	below seat	8	001 139 S	001 396 N
	40	G 1 1/2	ø 100	below seat	14	001 600 M	-
	50	G 2	ø 100	below seat	8	001 140 F	001 397 V
	50	G 2	ø 125	below seat	12	001 601 A	-
	65	G 2 1/2	ø 125	below seat	7	001 373 C	-
B	13	G 1/2	ø 50	below seat	16	001 150 H	001 488 Z
	20	G 3/4	ø 50	below seat	16	001 151 W	001 489 S
	25	G 1	ø 63	below seat	16	001 152 X	001 490 X
	32	G 1 1/4	ø 63	below seat	13	001 374 D	001 491 L
	40	G 1 1/2	ø 63	below seat	9	001 375 E	001 492 M
	40	G 1 1/2	ø 80	below seat	16	001 602 B	-
	50	G 2	ø 63	below seat	6	001 376 F	001 493 N
	50	G 2	ø 80	below seat	9	001 603 C	-
	65	G 2 1/2	ø 80	below seat	6	001 377 G	-

¹⁾ Required control pressure-> 4,5 bar ²⁾ 10 bar with steam

On request:

- Double-acting actuator
- PPS-actuator for ambient temperatures up to 130°C
- Vacuum-version
- Control function B for pressures up to 16 bar

Options:

- Stroke limitation (min./max flow)
- Position indication Type 1062 or position indication with external inductive switches.
- Manual override
- Namur adapter for pilot valve

In case of special application requirements, please consult for advice.

We reserve the right to make technical changes without notice
710-GB/ 2-0028