

2/2-Way; DN15-50; PN10; Stainless Steel



Advantages / Benefits

The superior alternative e.g. to complex actuated ball valves:

- ▶ Compact size
- ▶ Min. 2-4 times increased cycle life
- ▶ Superior packing gland reduces risk of leaks to atmosphere (proven record)
- ▶ More cost-effective due to lower installation and running costs
- ▶ More versatility by a comprehensive range of options and accessories
- ▶ Hygienically clean and smooth surfaces
- ▶ Externally sterilizable with optional PPS-actuator

Design

The externally piloted angle-seat valve is either operated with a single-or double-acting piston actuator.

The actuator is available in two materials, depending on ambient temperatures. Standard material is PA, optional for ambient temperatures of up to 130°C is PPS (e.g. external sterilizing). Flow from above seat permits to apply smaller actuators resulting in lower costs and more compact overall dimensions. High flow rates are attained with the 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.

- Visual position indication
- low control air consumption
- 360° positioning of actuator control ports
- Simple conversion of control functions
- Safe and fast actuator servicing due to no preloaded spring tension and few parts
- Externally sterilizable with optional PPS-actuator
- Manual override (optional)
- Electr. position feedback (optional)
- Adjustable stroke limiter (optional)

Applications

- Gases and liquids up to 10 bar
- Steam up to 10 bar / 180°C (SIP)
- Aggressive fluids (CIP-fluids)
- Systems engineering
- Sterilizers
- Food and beverage processing
- Dairy product processing
- Pharmaceutical and cosmetics industry

burkert
Easy Fluid Control Systems

Tri-Clamp® Angle-Seat Valve

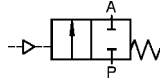
for steam, gases and low velocity liquids

Type 2000

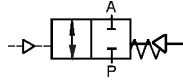
Technical Data

Control Functions

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

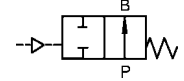


I 2/2-way valve, with double-acting actuator (on request)



Control Functions

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



Specifications

Connections ISO 2852	Orifice DN [mm]	Kv-Value Water [m³/h]	Max. Operating Pressure Differential Pressure ¹⁾		Weight [kg]	Actuator ø
			CFA [bar]	CFB ²⁾ [bar]		
15	13,0	4,2	10		0,83	50
				10		50
20	20,0	8	10		0,96	50
				10		50
25	25,0	19	10		1,83	63
				10		63
32	32,0	27,5	10		3,1	63
				10		63
40	40,0	42	10		3,5	63
				9		63
			10		5,0	80
				10		80
50	50,0	55	10		7,0	63
				6		63
			10		6,5	80
				10		80

¹⁾ Higher differential pressures by other combinations of actuators on request.

²⁾ Flow below seat only.

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

Technical Data

Tri-Clamp® connection	ISO 2852	Body material	1.4581
Nominal pressure	PN 10	Seal material	PTFE
Min. required control pressure	see diagram	Packing gland	self-adjusting PTFE-stem seals with intermediate relief and wiper.
Control pressure	max. 10 bar	Fluids (Examples)	water, alcohols, salt solutions, lyes, organic solvents, steam, CIP-fluids, beverages, pharmaceutical products and cosmetics
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

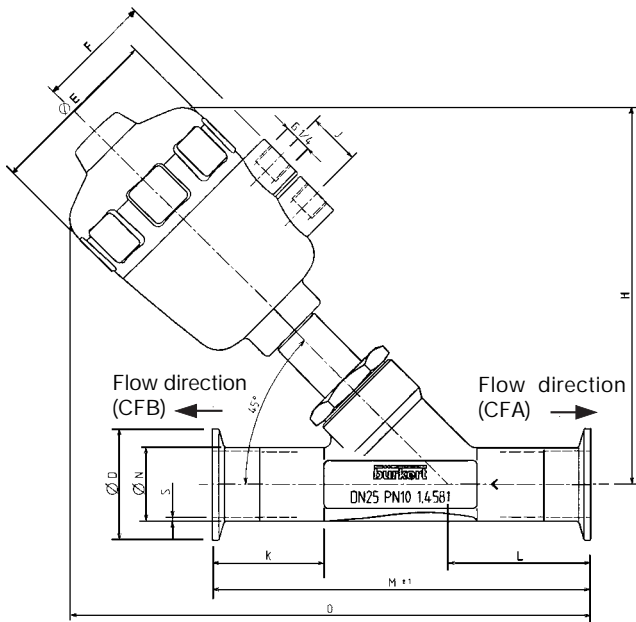
Tri-Clamp® Angle-Seat Valve

for steam, gases and low velocity liquids

Type 2000

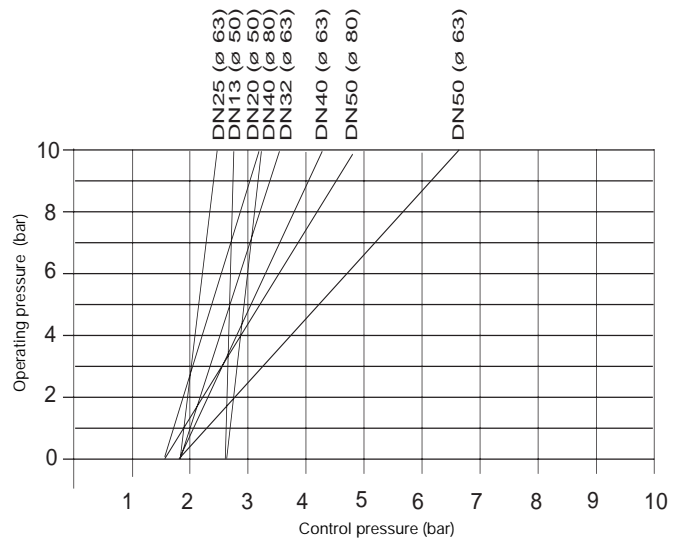
Dimensions in mm

Length M to DIN 3202, F1

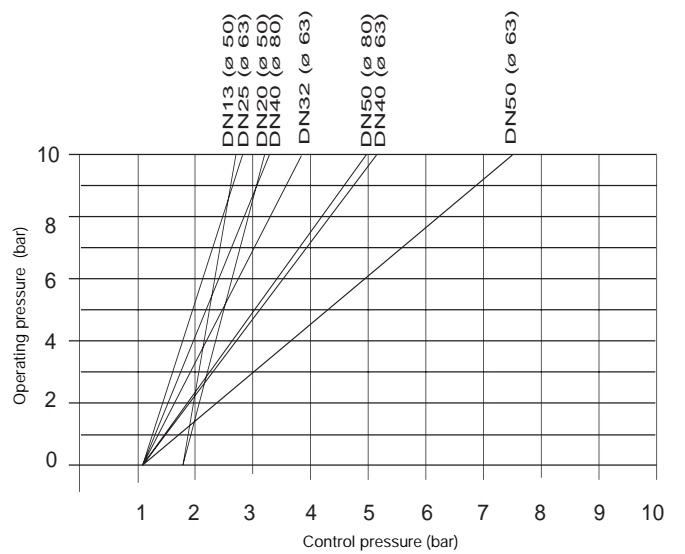


Control Pressure

Control Function A (CFA)



Control Function B (CFB)



Specifications

Function	A + B							
Actuator	ø50 mm		ø63 mm				ø80 mm	
DN	DN 13	DN 20	DN 25	DN 32	DN 40	DN50	DN40	DN50
D	34	50.5	50.5	50.5	64	77.5	64	77.5
E	64	64	80	80	80	80	101	101
F	44	44	52	52	52	52	60	60
H	137	145	173	186	189	205	213	225
J	24	24	24	24	24	24	24	24
K	35	42.5	45	47.5	50	57.5	50	57.5
L	49	56.5	58	62.5	69	77.5	69	77.5
M	130	150	160	180	200	230	200	230
N	21.5	27	33.5	42.5	48.5	60.5	48.5	60.5
O	189	199	232	248	258	283	278	303
S	1.6	1.6	2	2	2	2.6	2	2.6

Ordering Chart

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

Control Function	Orifice DN [mm]	Actuator Size [mm]	Flow Direction	Operating Pressure [bar]	Order-No.
A	13	ø 50	over seat	10	415 082 G
	20	ø 50	over seat	10	415 083 H
	25	ø 63	over seat	10	415 084 A
	32	ø 63	over seat	10	415 085 B
	40	ø 63	over seat	10	415 086 C
	40	ø 80	over seat	10	415 090 L
	50	ø 63	over seat	10	415 087 D
	50	ø 80	over seat	10	415 069 S
B	13	ø 50	under seat	10	415 076 R
	20	ø 50	under seat	10	415 077 J
	25	ø 63	under seat	10	415 078 T
	32	ø 63	under seat	10	415 079 U
	40	ø 63	under seat	9	415 080 J
	40	ø 80	under seat	10	415 088 N
	50	ø 63	under seat	6	415 081 F
	50	ø 80	under seat	10	415 089 P

On request:

- Double-acting actuator
- PPS-actuator for ambient temperatures up to 130°C
- Vacuum version

Options:

- Position feedback with Type 1062 or with external inductive switches
- Manual override
- NAMUR adapter for pilot valve
- Stroke adjustment (high/low flow)