

G 1/2 - G 1



Advantages/Benefits

- ▶ G 1/2 to G 1
- ▶ spring to close or spring to open
- ▶ Water hammer resistant
- ▶ Diaphragm actuator, pneumatically operated
- ▶ Actuator body of glass-fibre reinforced epoxy resin
- ▶ Teflon diaphragm provides glandless seal between fluid and actuator
- ▶ Body material: brass, nickel-plated brass

Design/Function

This air-piloted 2/2 valve is configured either spring to close or spring to open.

In circuit function A the valve is held shut by the spring and is opened by applying air pressure to the actuator.

In circuit function B, normally-open, the function principle is reversed.

The valve design is glandless.

Applications

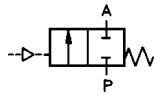
- Air conditioning and cooling systems
- Laundries
- Solvents
- Coolant control for machine tools
- Colour chemistry
- Bakeries and breweries
- Plastic production
- Animal feeders
- Sterilizers, steam up to 140 °C
- Hazardous environments
- Vacuum

burkert
Easy Fluid Control Systems

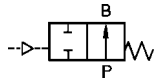
Technical Data

Circuit Functions

A 2/2-way valve,
when de-energized closed by spring
action.



B 2/2-way valve,
when de-energized open by spring
action.



Body Material

Brass

Specifications

Orifice DN	Kv-Value Water	Pressure Range (incl. vacuum)		Weight ¹⁾
		Actuators CF A, B	Control Press. CF A reduced	
[mm]	[m ³ /h]	[bar]	[bar]	[kg]
13	3,0	0-10	0- 8	1,4
20	6,5	0- 8	0- 4	1,6
25	10,0	0- 6	0- 3	1,9

¹⁾ The weight increases per 0.75 kg with integrally mounted pilot valve Type 331.

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

Operating Data (Valve)

Seal Materials/Fluids Handled/Temp.- Range

NBR Neutral fluids, e.g. compressed air,
natural gas, water, hydraulic oil, town gas
-10 to +90 °C

EPDM Oil- and fat-free fluids, e.g. hot water,
alkaline washing and bleaching lyes
-30 to +140 °C

FPM Fluids, that EPDM and NBR are not
suitable for, e.g. hot air, oxygen
per-solutions, hot oils, freons
-10 to +140 °C

PTFE Water, alcohols, oils, petrols, hydraulic
liquids, salt solutions, lyes, organic
solvents, steam
0 to +140 °C

For more detailed information please refer to resistance
chart (Leaflet-No. 1896009).

Max. ambient temperature +90 °C,
with integrally mounted pilot valve: +55 °C

Max. viscosity 100 mm²/s

Position Indication / Accessories

- Optical position indication
- Electrical feedback ("open" position only)
- Electrical position indication (other versions)

Pilot valves must be ordered separately

Type 331 is available on a banjo-coupler for integral
mounting (see ordering chart, other versions see Type 331).
In circuit function B the sub-base is mounted to the upper
connection of the actuator.

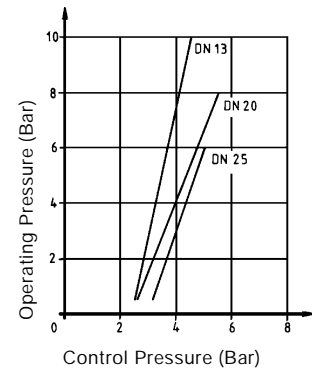
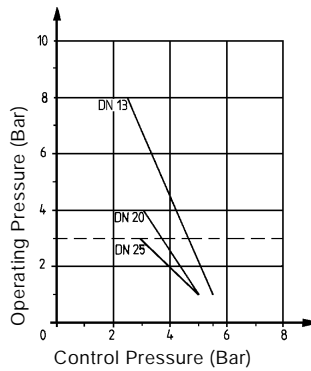
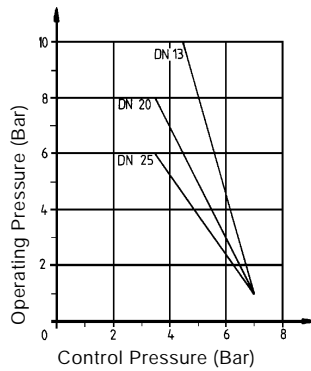
Remote operation Types 331, 311, 411, 413, 420.

Circuit Function A

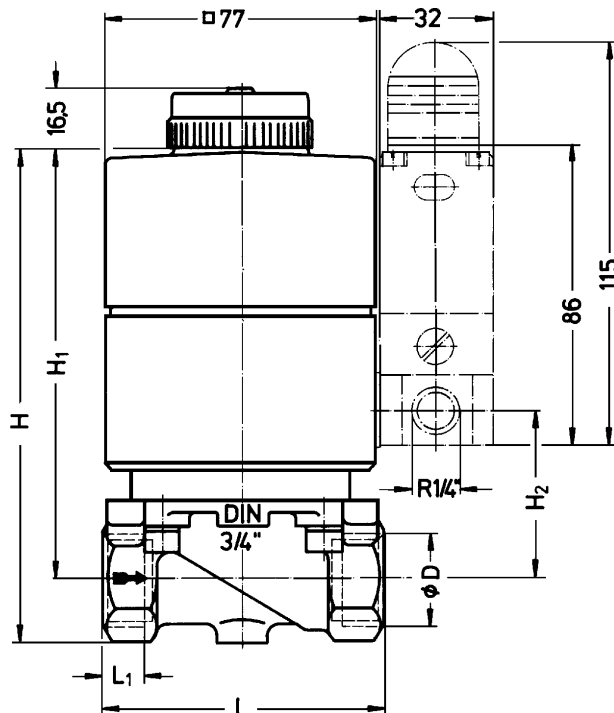
Circuit Function A

Circuit Function B

"reduced control pressure"



Dimensions in mm



The adjacent illustration shows a Type 174-A valve with integrally mounted pilot valve Type 331-C and optical position indicator. These items should be ordered individually if required.

Orifice	Ø D	H	H1	H2	L	L1	SW
13	G 1/2	133,5	119	44	67	8,5	27
20	G 3/4	142,5	123,5	48	80	12	33
25	G 1	152,5	128,5	53	95	14	41

Ordering Chart (Other Versions on Request)

Circuit Function	Orifice DN [mm]	Flow Rate		Port Connection [ISO 228]	Pressure Range [bar]	Body Material	Seal Material	Weight [kg]	Voltage/Frequency [V/Hz]	Order-No.
		Water Kv-Value [m³/h]	Air QNn [l/min]							
A	13,0	3,0		G 1/2	0- 8	brass	EPDM	1,4		028 514 L ¹⁾
					0-10	brass	NBR	1,4		027 221 M
					0- 8	brass	NBR	1,4		027 330 W ¹⁾
					0-10	brass	PTFE	1,4		027 397 N
					0- 8	brass	PTFE	1,4		027 429 N ¹⁾
					0- 8	brass	FPM	1,4		028 024 L ¹⁾
	20,0	6,5		G 3/4	0- 8	brass	NBR	1,6		027 593 B
					0- 4	brass	NBR	1,6		026 335 N ¹⁾
					0- 8	brass	PTFE	1,6		027 287 Q
					0- 4	brass	PTFE	1,6		028 237 W ¹⁾
					0- 4	brass	FPM	1,6		026 285 M ¹⁾
25,0	10,0		G 1	0- 6	brass	EPDM	1,9		027 564 M	
				0- 6	brass	NBR	1,9		027 396 M	
				0- 3	brass	NBR	1,9		026 348 B ¹⁾	
				0- 6	brass	PTFE	1,9		027 223 P	
				0- 3	brass	PTFE	1,9		027 350 A ¹⁾	
B	13,0	3,0		G 1/2	0-10	brass	NBR	1,4		026 792 R
					0-10	brass	PTFE	1,4		026 993 B
	20,0	6,5		G 3/4	0- 8	brass	NBR	1,6		027 469 W
					0- 8	brass	PTFE	1,6		028 718 G
	25,0	10,0		G 1	0- 6	brass	NBR	1,9		027 820 J
					0- 6	brass	PTFE	1,9		027 812 E
Type 331 pilot valve (see data sheet)										
C	3,0	0,15	165	G 1/4	0-10	brass	NBR	0,40	230/50	041 228 A

¹⁾ Reduced control pressure