

2/2-way Angle-Seat Valve, compact valve body, for media up to +180 °C, DN13-65



- Ultra compact version, short face-to-face length
- Long service life
- Valve body in gunmetal and stainless steel
- Deliverable with flow direction below or above seat

Type 2002 can be combined with...



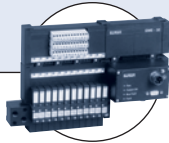
Type 6012/6014 P

Pilot valve



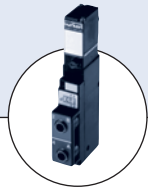
Type 8631

TopControl On/Off



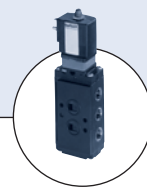
Type 8640/8644

Valve block



Type 5470

Solenoid valve



Type 6519

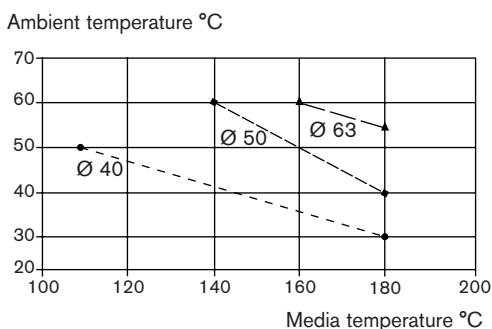
NAMUR

The pneumatically operated 2/2-way valve is operated with a piston actuator.

The actuator is available in two different materials, depending on the ambient temperature. The standard material is PA for high ambient temperatures (e.g. external sterilization) PPS is available for temperatures up to 140°C. High flow rates are attained with the gunmetal or stainless steel 2-way body with a short face-to-face length. Compatible with the Type 0251.

The reliable self-adjusting packing gland provides high sealing integrity. These maintenance-free and robust valves can be retrofitted with a comprehensive range of accessories for position indication, stroke limitation or manual override.

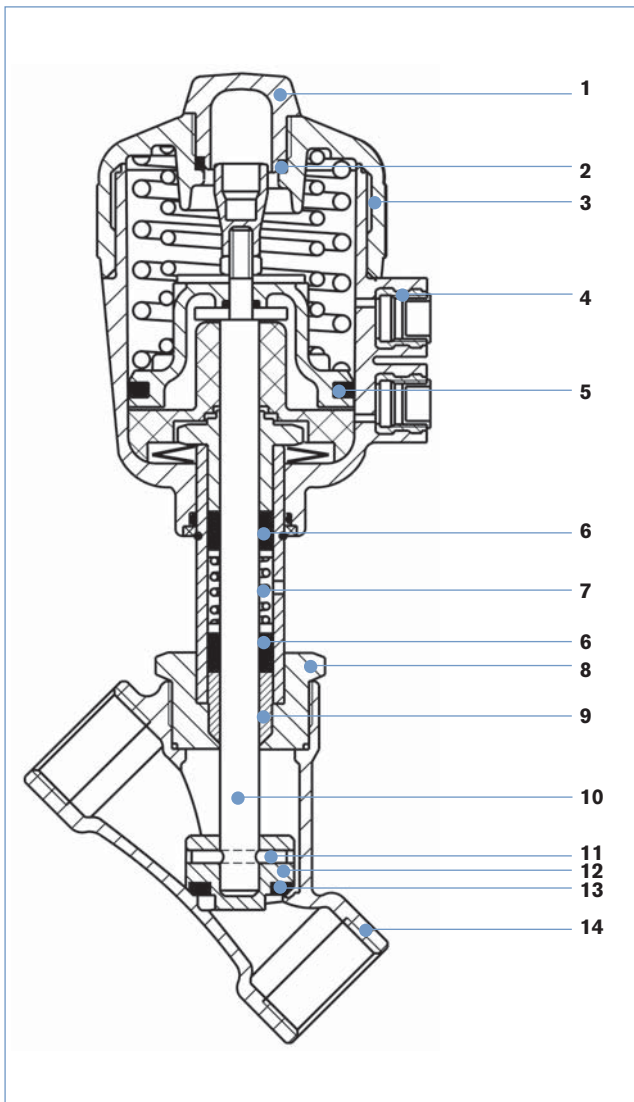
¹**Note:** For PA actuators in the sizes 40, 50 and 63, the combination of max. media temperature and max. ambient temperature is as shown in the following chart:



Technical data	Flow direction below seat (for gases and fluids)
Orifice	DN 13 - 65
Body materials	Gunmetal, cast stainless steel 316L
Actuator material	PA or PPS
Seal material	PTFE (NBR, FPM and EPDM on request)
Media	Water, alcohol, oils, fuels, salt solutions, hydraulic fluids alkaline solutions, steam, organic solutions
Viscosity	Max. 600 mm ² /s
Packing gland (with silicone grease)	PTFE V-rings with spring compensation
Media temperature¹⁾	-10 to +180 °C with PTFE seal
Ambient temperature	
PA actuator¹⁾	-10 to +60 °C
PPS actuator	
Actuator sizes Ø 40-80	+5 to +140 °C
Actuator sizes Ø 100-125	+5 to +90 °C, (briefly up to 140° C)
Face-to-face length	As Bürkert Type 0251
Installation	As required, preferably with actuator in upright position
Control medium	Neutral gases, air
Max. pilot pressure	
Actuator size Ø 40 - 80	PA/PPS 10 bar
Actuator size Ø 100	PA 10 bar
Actuator size Ø 100	PPS 7 bar
Actuator size Ø 125	PA/PPS 7 bar
Port connections	G 3/8 to G 2 1/2 (NPT on request)

Flow rate	Measured at +20 °C, 1 bar pressure at valve inlet and free outlet
Pressure values [bar]	Gauge pressures with respect to the prevailing atmosphere pressure

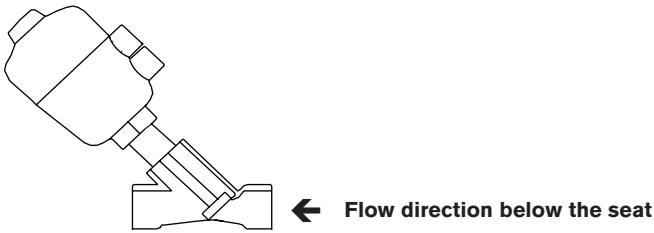
Materials



Description	Gunmetal body	Stainless steel body
1 Transparent cap	PC/PSU	PC/PSU
2 O-Ring	FPM	FPM
3 Actuator	PA/PPS	PA/PPS
4 Pilot air ports G 1/8	Brass	1.4305
5 Cylinder seal	NBR/FPM	NBR/FPM
6 V-seals	PTFE	PTFE
7 Tension spring	1.4310	1.4310
8 Nipple	Brass CuZn	Brass CuZn
9 Wiper	PTFE	PTFE
10 Spindle	1.4401	1.4401
11 Pin	1.4401	1.4401
12 Swivel plate	CuZb36Pb1.5	1.4401
13 Seals	PTFE	PTFE
14 Valve body	Gunmetal G-CuSn5ZnPb2%Ni	Stainless steel 1.4408

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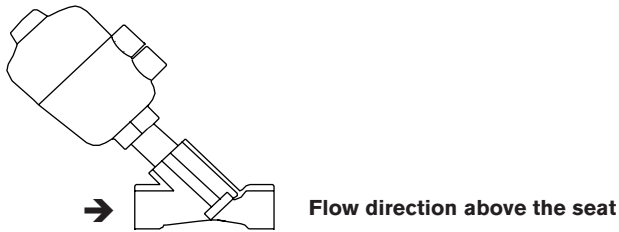
Ordering chart for valves with flow direction below the seat (other versions on request)



Control function	Orifice [mm]	Port connection	Actuator size Ø [mm]	Kv value water [m³/h]	Min. pilot pressure [bar]	Max. operating pressure to 180°C [bar]	Weight	Gunmetal body		Stainless steel body	
								Item no. PA actuator	Item no. PPS actuator	Item no. PA actuator	Item no. PPS actuator
A 2/2-way valve, NC with spring action	13	G 3/8	40	3.8	4.0	15	0.7	142 609	141 400	140 331	141 403
		G 1/2	40	3.8	4.0	15	0.7	140 321	141 401	140 332	141 404
		G 3/8	50	4.2	3.9	16	0.8	140 323	140 913	140 334	140 938
		G 1/2	50	4.2	3.9	16	0.8	140 324	140 914	140 335	140 939
	20	G 3/4	40	7.0	4.0	6.5	0.9	140 322	142 869	140 333	141 780
			50	8.5	3.9	11	1.0	140 325	140 917	140 336	140 942
			63	9.0	4.2	16	1.5	140 919	142 871	140 944	142 876
	25	G 1	63	18	4.2	11	1.8	140 326	140 922	140 337	140 947
			80	18	5.0	16	2.2	140 925	141 317	140 950	142 882
	32	G 1 1/4	63	25	4.2	6.0	2.7	140 924	142 884	140 949	142 889
			80	27	5.0	15	3.1	140 327	140 927	140 338	140 952
	40	G 1 1/2	80	38	5.0	10	3.5	140 928	140 929	140 953	140 954
			100	40	4.4	12.5	5.6	140 328	140 930	140 339	140 955
			125	40	3.2	16	9.0	140 933	142 891	140 958	142 897
	50	G 2	100	60	4.4	7.2	7.0	140 931	140 932	140 956	140 957
125			60	3.2	10	9.4	140 329	140 934	140 340	141 318	
65	G 2 1/2	125	88	3.2	5.2	11.0	140 330	142 909	140 341	140 959	

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Ordering chart for valves with flow direction above seat (other versions on request)



Attention!

Valves with flow over the seat are only conditionally usable for liquid media. There is a danger of waterhammer!

Various actuator and body materials

Minimum pilot pressure depending on operating pressure, please see Charts 1 and 2

Control function	Orifice [mm]	Port connection	Actuator size Ø [mm]	Kv value water [m³/h]	Max. operating pressure to 180°C [bar]	Gunmetal body		Stainless steel	
						item no. PA actuator	item no. PPS actuator	item no. PA actuator	item no. PPS actuator
A 2/2-way valve, NC with spring action	13	G 3/8	40	3.8	16	140 342	141 406	140 355	141 409
			40	3.8	16	140 343	141 407	140 356	141 410
		G 1/2	50	4.2	16	140 345	140 963	140 358	140 983
			50	4.2	16	140 346	140 964	140 359	140 984
	20	G 3/4	40	7.0	16	140 344	142 870	140 357	142 875
			50	8.5	16	140 347	140 967	140 360	141 320
	25	G 1	50	10.0	16	140 969	142 877	140 987	142 881
			63	18.0	16	140 348	140 972	140 361	140 990
	32	G 1 1/4	63	25.0	16	140 349	140 974	140 362	141 321
			80	35.0	16	140 350	140 975	140 363	140 992
	40	G 1 1/2	80	38.0	16	140 351	141 319	140 364	142 896
			63	52.0	16	140 352	140 976	140 365	142 905
	50	G 2	80	52.0	16	140 353	140 977	140 366	141 322
			80	70.0	14	140 354	140 978	140 367	-
	65	G 2 1/2	80	70.0	14	140 354	140 978	140 367	-
			100	88.0	16	140 979	142 908	140 993	-

Pressure charts

with control function A and flow direction above the seat

Chart 1

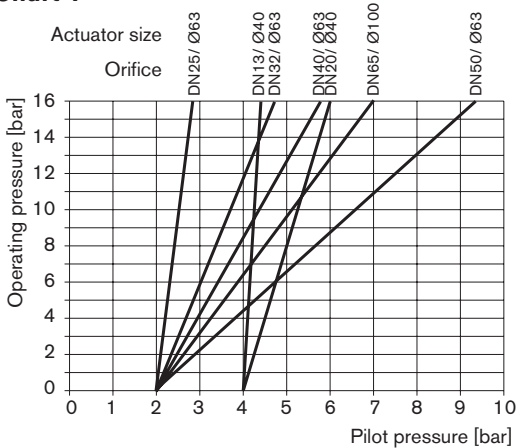
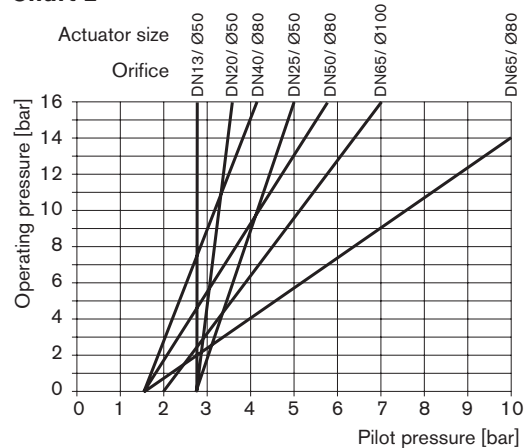
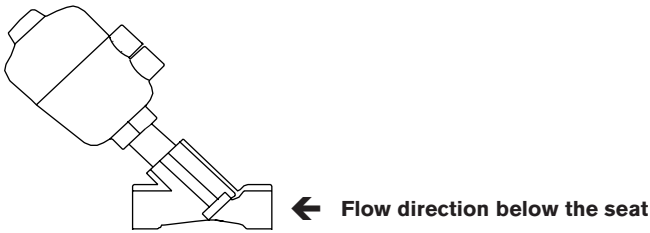


Chart 2



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Ordering chart for valves with flow direction below the seat (other versions on request)



Different actuators and body materials
 Minimum pilot pressure depending on operating pressure, please see Charts 3 and 4

Control function	Orifice [mm]	Actuator size Ø [mm]	Port connection	Kv value water [m³/h]	Max. operating pressure to 180°C [bar]	Gunmetal body		Stainless steel body	
						item no. PA actuator	item no. PPS actuator	item no. PA actuator	item no. PPS actuator
B 2/2-way valve, NO with spring action	13	G 3/8	40	3.8	16	142 610	141 412	140 379	141 415
		G 1/2		3.8	16	140 369	141 413	140 380	141 416
		G 3/8	50	4.2	16	140 995	140 997	141 016	141 018
		G 1/2		4.2	16	140 370	140 998	140 381	141 019
	20	G 3/4	40	7.0	16	140 371	142 910	140 382	142 911
		G 3/4	50	8.5	16	140 372	141 001	140 383	141 022
	25	G 1	50	10	16	141 003	142 912	141 024	142 913
		G 1	63	18	16	140 373	141 006	140 384	141 027
	32	G 1 1/4	63	25	16	140 374	141 008	140 385	141 029
		G 1 1/4	80	38	16	141 009	142 914	141 030	142 915
	40	G 1 1/2	63	35	16	140 375	141 010	140 386	141 031
		G 1 1/2	80	40	16	140 376	142 916	140 387	142 917
	50	G 2	63	52	13	140 377	141 011	140 388	141 032
		G 2	80	55	15	140 378	141 012	140 389	-
65	G 2 1/2	80	70	16	141 013	141 014	141 033	141 034	

Pressure charts

with control function B and flow direction below the seat

Chart 3

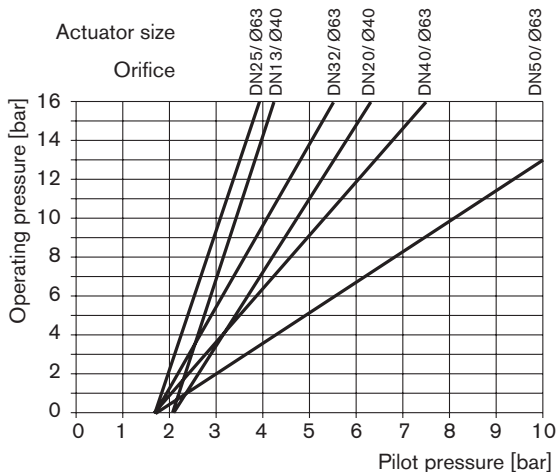
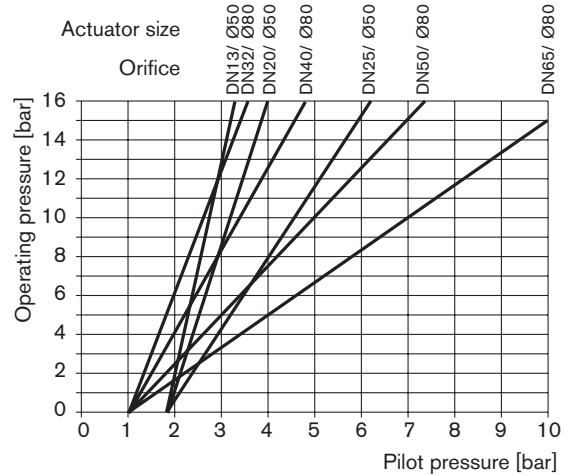


Chart 4



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Ordering chart for accessories (3/2-way pilot valves Types 6012P and 6014P with banjo bolt)

Pilot valve according to actuator size	Voltage	Item no.
Type 6012 P for actuator Ø 40 mm	024 V/DC	425 299
Control media inserts G 1/8	230 V/50 Hz	425 304
Type 6012 P for actuator Ø 50 and 63 mm	024 V/DC	425 285
Control media inserts G 1/4	230 V/50 Hz	425 290
Type 6014 P for actuator Ø 80 to 125 mm	024 V/DC	424 103
Control media inserts G 1/4	230 V/50 Hz	424 107

Options and accessories (on request)

- Control function I (double-acting actuator)
- TopControl On/Off Type 8631
- Electrical position feedback Type 1060 and 1062
- Magnet-inductive proximity sensors Type 1071
- Stroke limitation max. and min./max.
- Manual actuator
- NAMUR adapter for pilot valves with NAMUR flange
- Mounting key for actuator cover

Note:

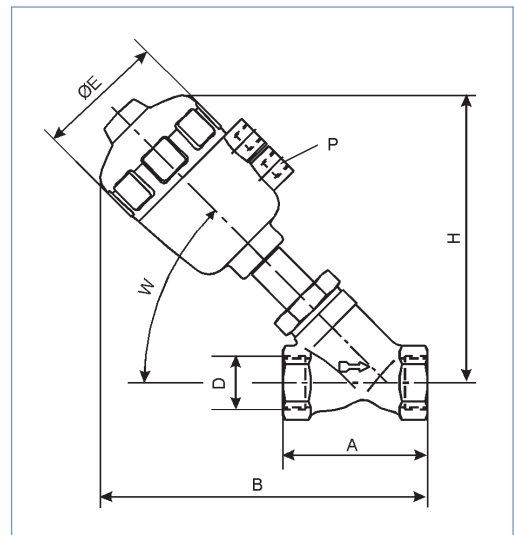
For design reasons, some of the accessories cannot be supplied for actuator size Ø 40 mm. Please request the Accessories datasheet 2XXX.

Approvals

GL Approvals on request.

Dimensions [mm]

Orifice	Actuator size Ø	Port connection D	A	B	Ø E	H	P
13	40	G 3/8	65	137	53	113	G 1/8
	40	G 1/2	65	137	53	113	G 1/8
	50	G 3/8	65	163	64	136	G 1/4
	50	G 1/2	65	163	64	136	G 1/4
20	40	G 3/4	75	144	53	118	G 1/8
	50	G 3/4	75	167	64	144	G 1/4
	63	G 3/4	75	195	80	169	G 1/4
25	50	G 1	90	175	64	145	G 1/4
	63	G 1	90	199	80	170	G 1/4
	80	G 1	90	221	101	192	G 1/4
32	63	G 1 1/4	110	226	80	186	G 1/4
	80	G 1 1/4	110	255	101	210	G 1/4
40	63	G 1 1/2	120	229	80	189	G 1/4
	80	G 1 1/2	120	249	101	213	G 1/4
	100	G 1 1/2	120	300	127	260	G 1/4
	125	G 1 1/2	120	328	153	288	G 1/4
50	63	G 2	150	250	80	205	G 1/4
	80	G 2	150	270	101	225	G 1/4
	100	G 2	150	316	127	271	G 1/4
	125	G 2	150	346	153	301	G 1/4
65	80	G 2 1/2	185	296	101	239	G 1/4
	100	G 2 1/2	185	344	127	287	G 1/4
	125	G 2 1/2	185	372	153	315	G 1/4



Angle **W** for gunmetal body 45°
for stainless steel body 42°

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

We reserve the right to make technical changes without notice.

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