

Angle seat valve for high quality applications and steam

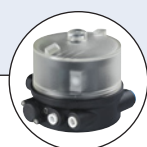


Type 2000 can be combined with...



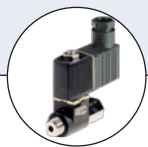
Type 8691

Control Head



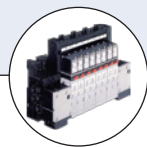
Type 8690

Pneumatic Control Unit with feedback



Type 6012

Pilot valve with push-in fittings



Type 8640

Valve bank, pilot valves



Stroke Limiter

For 2000 Series



Manual Override

For 2000 Series

- Spring return closed or open, double-acting
- With self-adjusting packing glands, intermediate relief and wiper
- Low control air consumption due to minimised volume in the actuator
- Optical position indication

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 pilot connection can be rotated through 360°.

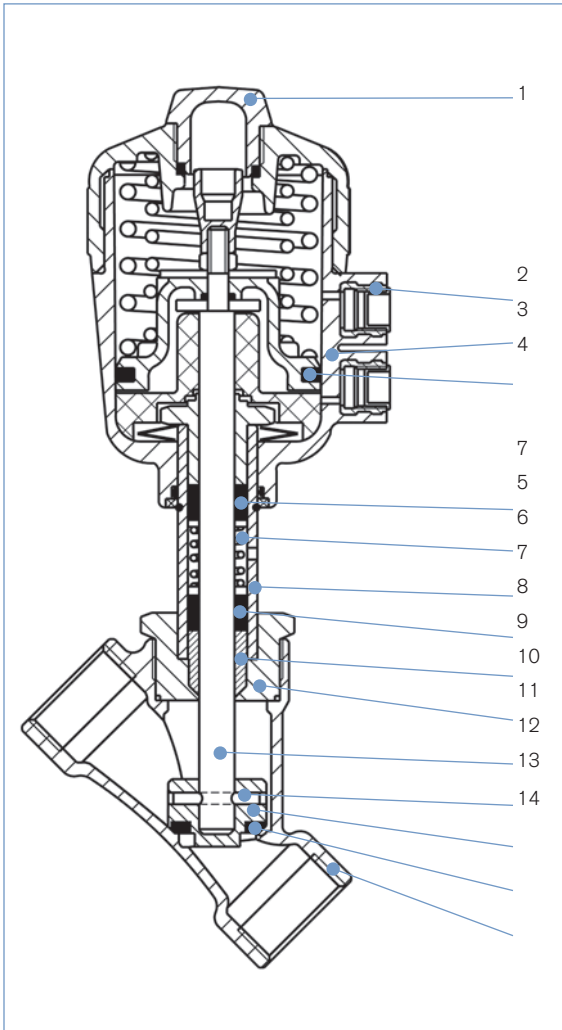
The reliable self-adjusting packing gland provides high sealing integrity. These maintenance-free and robust valves can be retrofitted with a comprehensive range of accessories for position indication, stroke limitation or manual override.

Applications

- Neutral gases, liquids to 16 bar
- Steam to 10 bar, 180°C
- Aggressive fluids SS body
- Food processing
- Chemical industry
- Sterilisers

Technical data	
Orifice	DN 13 to 65
Body materials	Gunmetal, cast stainless steel 316L
Actuator material	PA or PPS
Seal material	PTFE (NBR, FKM, EPDM on request)
Medium	Water, alcohol, oils, fuel, hydraulic fluids, salt solution, alkali solutions, organic solvents, steam
Viscosity	max. 600 mm ² /s
Packing gland (with silicone grease)	PTFE V-rings with spring compensation
Medium temperature¹⁾	-10 to +180 °C with PTFE seal
Ambient temperature PA actuator ¹⁾ PPS actuator ¹⁾ Ø 40-80 PPS actuator ¹⁾ Ø 100-125	-10 to +60 °C +5 to +140 °C +5 to +90 °C, briefly up to +140 °C
Installation	As required, preferably with actuator in upright position
Control medium	Neutral gases, air
Max. pilot pressure Actuator size Ø 40-80 Actuator size Ø 100 Actuator size Ø 100 Actuator size Ø 125	PA and PPS 10 bar PA 10 bar PPS 7 bar PA and PPS 7 bar
Port connection	G 3/8" to G 2 1/2" (NPT on request)

Materials Type 2000 long body, threaded port

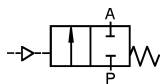


No.	Item	Gunmetal Body	Cast Stainless Steel Body
1	Transparent cap	PC (with PPS actuator; PSU)	PC (with PPS actuator; PSU)
2	Pilot air ports	Brass	Stainless steel 1.4305
3	Actuator	PA, PPS	PA, PPS
4	Piston seal	NBR (with PPS actuator; FKM)	NBR (with PPS actuator; FKM)
5	Spring	Stainless steel 1.4310	Stainless steel 1.4310
6	Tube	Brass, CuZn39Pb3	Stainless steel 1.4401
7	V-Seals	PTFE (FKM on request)	PTFE (FKM on request)
8	Wiper	PTFE	PTFE
9	Nipple	Brass CuZn	Stainless steel 1.4401
10	Spindle	Stainless steel 1.4021	Stainless steel 1.4401
11	Pins	Stainless steel 1.4401	Stainless steel 1.4401
12	Swivel plate	Brass CuZn36Pb1.5	Stainless steel 1.4401
13	Seal	PTFE (NBR, FKM, EPDM on request)	PTFE (NBR, FKM, EPDM on request)
14	Valve body	Gunmetal GCuSn5ZnPb2%Ni	Stainless steel 316L

Technical Data

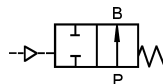
Circuit functions available

Circuit Function A



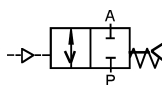
2/2-Way valve, normally closed spring return

Circuit Function B



2/2-Way valve, normally open spring return

Circuit Function I



2/2-Way valve, with double acting actuator

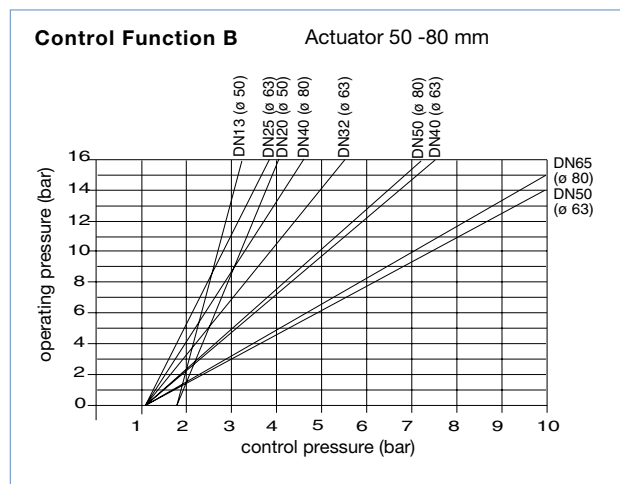
Technical Data (other versions on request)

Body with threaded ports, flow below the seat

	Orifice DN [mm]	Actuator Size [mm]	Kv-Value Water [m ³ /h]	Min. Pilot Pressure CFA [bar]	Max. Operating Pres up to ±180°		Weight [kg]
					CFA [bar]	CFB [bar]	
<p>Flow direction below the seat</p> <p>Valves with flow direction below the seat are waterhammer free, typically for use with liquids.</p>	13	40	3.7	4	15	16	0.8
		50	4.2	3.9	16	16	0.8
	20	40	7	4	6.5	16	0.9
		50	8.5	3.9	11	16	1.0
		63	9	4.5	16	–	1.4
	25	50	10	–	–	16	1.2
		63	18	4.5	11	16	1.8
		80	18	5	16	16	2.2
	32	63	25	4.5	6	16	2.2
		80	27	5	14	16	3.1
	40	63	35	–	–	16	2.7
		80	38	5	10	16	3.5
		100	40	4.4	12.5	–	7.6
		125	40	3.2	16	–	9.0
	50	63	49	–	–	13	4.0
		80	52	–	–	15	4.8
100		55	4.4	7.2	–	7.0	
125		55	3.2	10	–	9.4	
65	80	77	–	–	15	6.4	
	125	90	3.2	5.2	–	11.0	

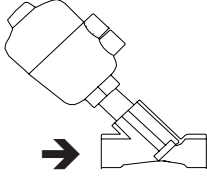
Kv value water [m³/h]: Measured at +20 °C, 1 bar pressure at valve inlet and free outlet
 Pressure values [bar]: Measured as overpressure to the atmospheric pressure

Pressure Chart: body with threaded ports, flow below the seat



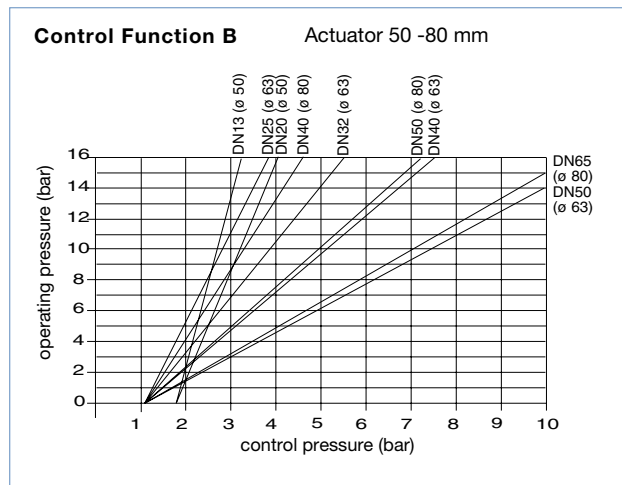
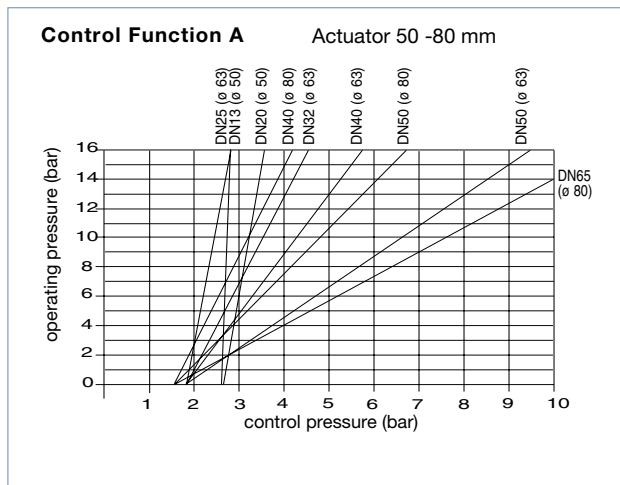
Technical Data (other versions on request)

Body with threaded ports, flow above the seat for gases and steam

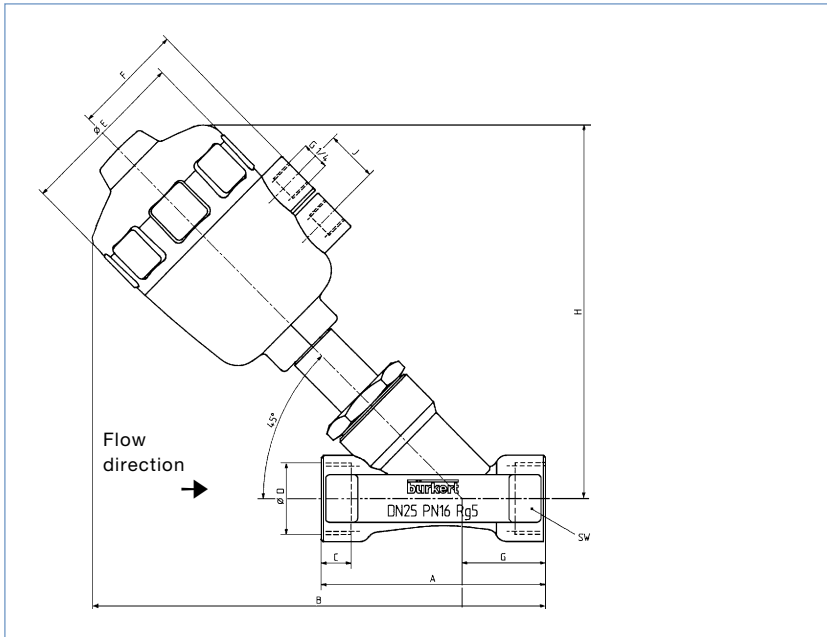
	Orifice DN [mm]	Actuator Size [mm]	Kv-Value Water [m ³ /h]	Max. Operating Pres up to ±180° CFA [bar]	Weight [kg]
 <p>Flow direction above the seat</p> <p>Valves with flow direction above the seat are only conditionally usable for liquid medium. There is a danger of waterhammer.</p>	13	40	3.7	16	0.8
	20	50	4.2	16	0.8
		40	7.9	16	0.9
	25	50	8	16	1.0
		63	14.5	16	1.2
	32	63	19	16	1.8
		63	27	16	2.2
	40	63	35	16	2.7
		80	38	16	3.5
	50	63	49	16	4.0
		80	52	16	4.8
	65	80	77	14	6.4
100		90	15	8.6	

Kv value water [m³/h]: Measured at +20 °C, 1 bar pressure at valve inlet and free outlet
 Pressure values [bar]: Measured as overpressure to the atmospheric pressure

Pressure Chart: body with threaded ports, flow above the seat for gases and steam




Technical Data: Dimensions




Actuator	ø50mm	ø63mm	ø80mm	DN 13	DN 20	DN 25	DN 32	DN 40	DN50	DN40	DN50	DN65
DN	DN 13	DN 20	DN 25	DN 25	DN 32	DN 40	DN 50	DN 50	DN 65	DN 65	DN 65	DN 65
øD	1/2"	3/4"	1"	1 1/4"	1 1/2"	2"	1 1/2"	2"	2 1/2"	2"	2 1/2"	2 1/2"
A	85	95	105	120	130	150	130	150	185			
B	173	178	212	226	230	250	250	270	296			
C	12	12	14	16	18	20	18	20	22			
E	64	80	80	80	80	80	101	101	101			
F	44	44	52	52	52	52	60	60	60			
G	33	36	39	41	41	45	41	45	57			
H	137	145	173	186	189	205	213	225	239			
J	24	24	24	24	24	24	24	24	24			
K	20	25	30	30	30	30	30	30	-			
L	34	39	43	45	49	50	49	50	-			
M	100	115	130	145	160	175	160	175	-			
N	21.3	26.9	35.7	42.4	48.3	60.3	48.3	60.3	-			
O	174	181	217	230	238	255	258	275	-			
S	1.6	1.6	2	2	2	2.6	2	2.6	-			

Ordering chart for valves (other versions on request)

Type 2000, threaded ports with flow below the seat

	Control Function	Port Connection	Orifice DN [mm]	Actuator Size Ø [mm]	Kv Valve water [m³/h]	Operating Pressure [bar]	Gunmetal body		Stainless Steel body	
							ID PA Actuator	ID PPS Actuator	ID PA Actuator	ID PPS Actuator
A	3/8"	13mm	40	3.7	15	-	-	142613	178612	
	1/2"	13mm	50	4.2	16	001130	002165	001135	002371	
	3/4"	20mm	40	7.9	6.5	002199	-	002197	-	
	3/4"	20mm	50	8	11	001131	001852	001136	001698	
	3/4"	20mm	63	10	16	002185	-	130175	140767	
	1"	25mm	63	19	11	007225	002166	001446	001236	
	1"	25mm	80	20	16	001983	002003	130176	140768	
	1 1/4"	32mm	63	27	6	130339	-	130177	167953	
	1 1/4"	32mm	80	28	15	001132	002167	001138	001237	
	1 1/2"	40mm	80	38	10	001133	002168	001139	001238	
	1 1/2"	40mm	125	42	16	130459	209750	130460	140770	
	2"	50mm	100	55	7.2	001134	002170	001140	001239	
	2"	50mm	125	55	10	001593	002171	001601	182748	
	2 1/2"	65mm	125	90	5.2	001368	002172	001373	001703	
	B	1/2"	13mm	50	4.2	16	001144	002173	001150	001704
		3/4"	20mm	50	7.9	16	001145	002174	001151	001705
		1"	25mm	63	19	16	001146	-	001152	-
		1 1/4"	32mm	63	28	16	001369	002176	001374	001707
		1 1/2"	40mm	63	38	16	001370	002177	001375	001708
1 1/2"		40mm	80	42	16	001594	-	001602	-	
2"		50mm	63	55	14	001371	002179	001376	001709	
2"		50mm	80	55	16	001595	002180	001603	002164	
2 1/2"		65mm	80	90	15	001372	002181	001377	001710	

Type 2000, threaded ports with flow above the seat for steam and gases

	Control Function	Port Connection	Orifice DN [mm]	Actuator Size Ø [mm]	Kv Valve water [m³/h]	Operating Pressure [bar]	Gunmetal body		Stainless Steel body	
							ID PA Actuator	ID PPS Actuator	ID PA Actuator	ID PPS Actuator
A	3/8"	13mm	40	3.7	16	-	-	142615	173772	
	1/2"	13mm	50	4.2	16	001252	002018	001421	002152	
	3/4"	20mm	50	8	16	001253	002144	001422	002153	
	1"	25mm	63	19	16	001248	002145	001137	002154	
	1 1/4"	32mm	63	27	16	001249	002146	001399	002155	
	1 1/2"	40mm	63	35	16	001250	002147	001400	002156	
	2"	50mm	63	49	8	001251	002149	001401	002158	
	2"	50mm	80	52	16	001457	002150	001458	002159	
	2 1/2"	65mm	80	77	7	001398	002151	001402	002160	
	2 1/2"	65mm	100	90	14	130332	-	130333	-	

Ordering information for valve system On/Off Classic Type 8801-YA/8803-YA)

A valve system On/Off Classic Type 8801-YA/8803-YA consists of an angle-seat valve Type 2000 and a valve actuation system control head Type 8691, a pneumatic control unit Type 8690 or an electrical position feedback Type 1062 (see separate datasheets). You order two components and receive a complete assembled and certified valve.

Ordering the valve system On/Off Classic Type 8801-YA/8803-YA

Angle-seat valve Type 2000 threaded port



Control units



8691
(for actuator
sizes 50-125 mm)



8690
(for actuator
sizes 50-125 mm)



1062

Angle-seat valve with desired control unit

For port connections weld end and clamp, see separate datasheets



**Valve system
On/Off Classic
Type 8801-YA-H
2000 + 8691**



**Valve system
On/Off Classic
Type 8801-YA-K
2000 + 8690**



**Valve system
On/Off Classic
Type 8803-YA
2000 + 1062**

When you click on the orange box "More info." below, you will come to our website for the resp. product where you can download the datasheet.

Control head Type 8691



The new generation of integrated control heads for combination with actuators from the process valve series Type 20xx/21xx is specially designed for the requirements of hygienic process environments. The intelligent control head, Type 8691, detects the valve position by means of a contact-free analog position sensor circumventing excessive wear of mechanical parts. Single or double-acting actuators are controlled via the integral pilot valve. Communication interfaces AS-Interface and DeviceNet are available as options.

Main customer benefits:

- Automatic setting of the control head at the push of a button
- Even under dirty or dark environments, a clearly visible status display due to powerful LEDs
- Monitoring and diagnosis: Process valve systems with field bus interface used in modern plant processes
- Integrated pilot valve with manual actuation
- Air intake filter enhances the process valve system availability
- Simple and reliable actuator adaptations allowing additional actuators of the process valve series, Type 20xx or actuators from other manufacturers to be used

Pneumatic control unit Type 8690



The new generation of integrated controllers for combination with actuators from the process valve series Type 20xx/21xx is specially designed for the requirements of hygienic process environments.

The pneumatic control unit Type 8690 combines electrical position feedback and pneumatic control for single or double-acting actuators, and is also optionally available as an intrinsically safe model to ATEX.

Main customer benefits:

- Integrated pilot valve with manual actuation
- Air intake filter enhances the process valve system availability
- Simple and reliable actuator adaptations allowing additional actuators of the process valve series, Type 20xx or actuators from other manufacturers to be used

Electrical Position Feedback Type 1062



Positions are electrically signaled according to switch type:

- open,
- closed or
- open and closed.

LEDs provide optical position indication (except for Namur Ex-version). Mechanical or inductive switches are housed in a compact splash-proof enclosure. The position indicator can be rotated 360° and is easily fitted to the valve. Trip cams do not require adjustment. The unit only needs to be screwed on and connected to be ready for operation.