

2/2-way Angle-Seat Valve for medium up to +180 °C, DN 15-50

For process valves
with decentralized
automation see
ELEMENT Type 2100

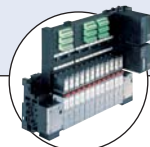


Type 2000 can be combined with...



Type 8697

Electrical position feedback



Type 8640/8644

Valve block



Type 6012/6014 P

Pilot valve

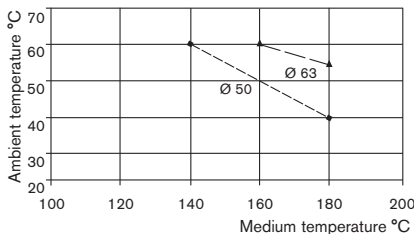
- High flow rates
- Very high cycle life
- Clamp body according to EN ISO 2852, BS 4825 or ASME BPE
- Deliverable with flow direction below or above seat
- Simple conversion of the circuit function

The externally piloted angle-seat valve is operated with a single or double-acting piston actuator. The actuator is available in two different materials, PA and PPS depending on the ambient temperature. The reliable self-adjusting packing gland provides high sealing integrity. High flow rates are attained with the stainless steel 2-way body.

These maintenance-free and robust valves can be retrofitted with a comprehensive range of accessories for position indication, stroke limitation or manual override.



For valves with port connection threaded port and weld end please see separate datasheets.

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

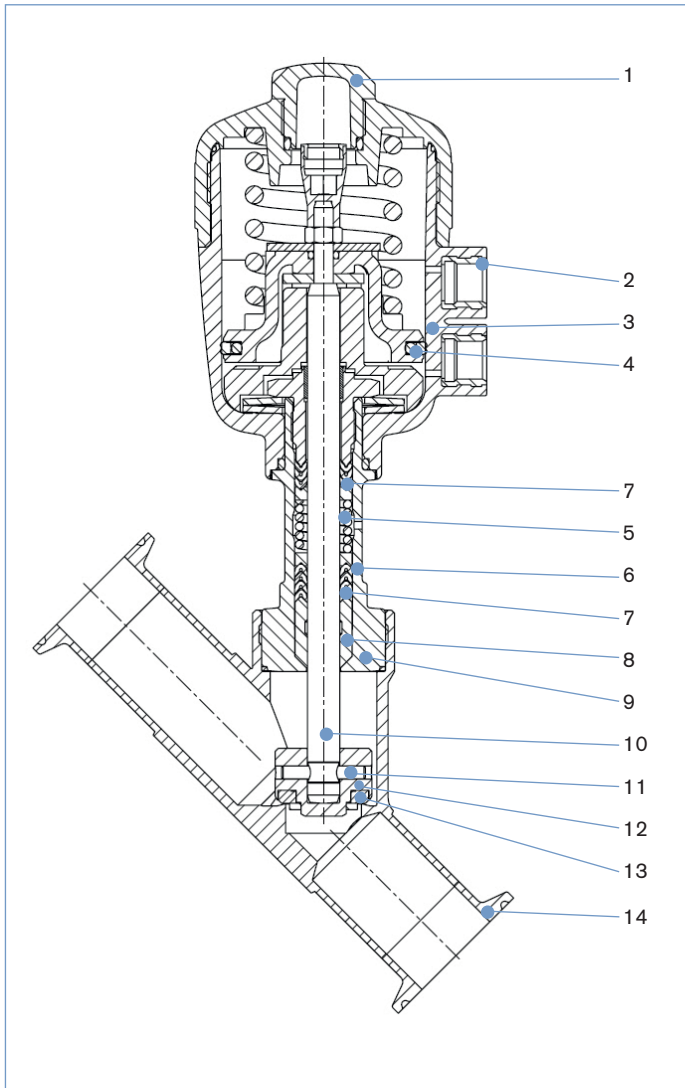


Technical data	
Orifice	DN15 to 50
Body materials	Stainless steel 316L
Actuator material	PA (PPS on request)
Seal material	PTFE (NBR, FKM, EPDM on request)
Medium	Water, alcohol, oils, fuel, hydraulic fluids, salt solution, alkali solutions, organic solvents, steam
Viscosity	Max. 600 mm ² /s
Packing gland (with silicone grease)	PTFE V-rings with spring compensation
Medium temperature¹⁾	-10 to +180 °C with PTFE seal
Ambient temperature	
PA actuator ¹⁾	-10 to +60 °C
PPS actuator ¹⁾ Ø 50-80	+5 to +140 °C
PPS actuator ¹⁾ Ø 100-125	+5 to +90 °C
Installation	As required, preferably with actuator in upright position
Control medium	Neutral gases, air
Max. pilot pressure	
Actuator size Ø 50-80	PA and PPS 10 bar
Actuator size Ø 100	PA 10 bar
Actuator size Ø 100	PPS 7 bar
Actuator size Ø 125	PA and PPS 7 bar
Port connection acc.	EN ISO 2852, BS 4825, ASME BPE on request DIN 32676
Surface finish	Standard Ra, internal ≤ 3.2 µm on request Internal connection area Ra ≤ 0.6 µm (external cast surface) electropolished

Content

Valve specifications	System spec. On/Off CLASSIC	Request for quotation
 Type 2000 clamp	 Type 8801-YA	Type 8801-YA
Technical data & ordering info. p. 1-6	Ordering info. & technical data p. 7-10	p. 11

Materials Type 2000 clamp



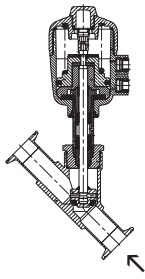
1	Transparent cap	PC (with PPS actuator; PSU)
2	Pilot air ports	Stainless steel 1.4305
3	Actuator	PA (PPS on request)
4	Piston seal	NBR (with PPS actuator; FKM)
5	Spring	Stainless steel 1.4310
6	Tube ²⁾	Stainless steel 1.4401 Stainless steel 316L ³⁾
7	V-Seals	PTFE (FKM on request)
8	Wiper	PTFE PEEK ¹⁾
9	Nipple ²⁾	Stainless steel 1.4401 Stainless steel 316L ³⁾
10	Spindle	Stainless steel 1.4401
11	Pins	Stainless steel 1.4401
12	Swivel plate	Stainless steel 1.4401
13	Seal	PTFE (NBR, FKM, EPDM on request)
14	Valve body	Stainless steel 316L

¹⁾ For actuator size 100 mm and 125 mm

²⁾ Single piece with actuator size 63 mm to 125 mm

³⁾ For actuator size 63 mm to 125 mm

Technical data for Type 2000 clamp with flow direction below seat (for gas and liquid)



Flow direction below seat

Orifice [mm]	Actuator size [mm]	Kv value water (m³/h)	Min. pilot pressure CFA [bar]	Max. operating pressure up to +180°		Weight [kg]
				CFA [bar]	CFB [bar]	
15	50	4.2	3.9	16	16	0.8
20	50	8.0	3.9	11	16	1.0
25	50	14.5	–	–	16	1.2
	63	19	4.2	11	16	1.8
32	63	27	4.2	6	16	2.3
	80	28	5.0	14	16	3.1
40	63	35	–	–	16	2.7
	80	38	5.0	9	16	3.5
50	63	49	–	–	13	4.0
	100	55	4.4	7.2	–	7.0

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

Pilot pressure diagram with control function B and flow direction below seat

Diagram 1

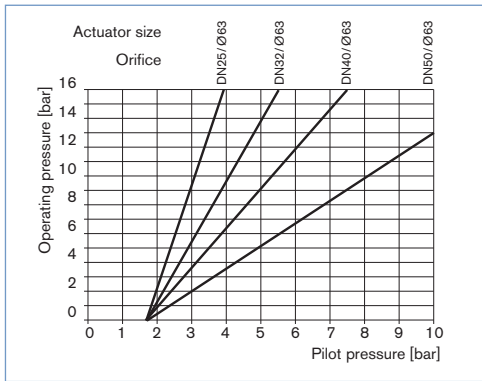
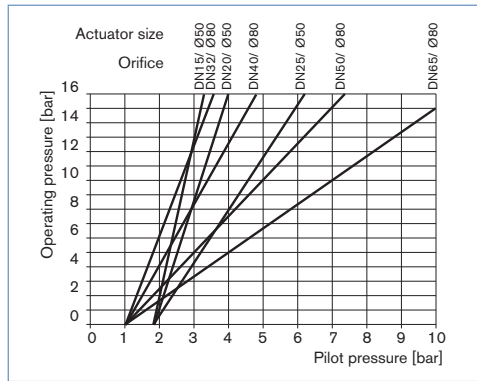


Diagram 2



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

Valves with clamp connection acc. to ISO 2852, ASME BPE or BS 4825, body in stainless steel, actuator material PA, Ra internal ≤ 3.2 µm

Control function	Orifice [mm]	Actuator size Ø [mm]	Port connection Clamp external Ø [mm]			Min. pilot pressure [bar]	Operating pressure up to 180 °C [bar]	Item no.		
			ISO 2852	ASME BPE	BS 4825			ISO 2852	ASME BPE	BS 4825
	15	50	34.0	25.0	25.0	3.9	16	415 070	175 574	183 245
	20	50	50.5	25.0	25.0	3.9	11	415 071	175 575	183 246
	25	63	50.5	50.5	50.5	4.2	11	415 072	175 576	175 576
	32	80	50.5	–	–	5	14	415 073	–	–
	40	80	64.0	50.5	50.5	5	9	415 074	175 579	175 579
	50	100	77.5	64.0	64.0	4.4	7.2	415 075	175 580	175 580
	15	50	34.0	25.0	25.0	see diagram 1 and 2 above	16	415 076	–	–
	20	50	50.5	25.0	25.0		16	415 077	–	–
	25	50	50.5	50.5	50.5		16	415 078	–	–
	32	63	50.5	–	–		16	415 079	–	–
	40	63	64.0	50.5	50.5		16	415 080	–	–
	50	63	77.5	64.0	64.0		13	415 081	–	–

i Further versions on request

Material
 Seal: NBR, FKM, EPDM
 Actuator: PPS

Port connections
 Clamp acc. DIN 32676,
 Weld end, threaded port

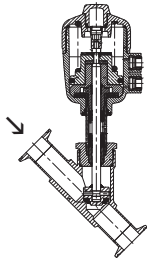
Additional
 Surface finish: int. Ra ≤ 0.8 µm electro polished,
 int. Ra ≤ 0.4 µm electro polished

Control function
 Double-acting actuator

Approvals
 GL, SIL

Mediums temperature
 Valves for mediums temperature up to +200°C or down to -40°C

Technical data for Type 2000 clamp with flow direction above seat (only for gas and steam)



Orifice [mm]	Actuator size [mm]	Kv value water (m ³ /h)	Max. operating pressure up to +180°	Weight [kg]
15	50	4.2	16	0.8
20	50	8.0	16	1.0
25	63	19.0	16	1.8
32	63	27.0	16	2.2
40	63	35.0	16	2.7
50	63	49.0	16	4.0

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

Flow direction above seat

Attention!

Valves with flow direction above the seat are only conditionally usable for liquid medium .
 There is a danger of waterhammer!

Pilot pressure diagram with control function A and flow direction above seat

Diagram 3

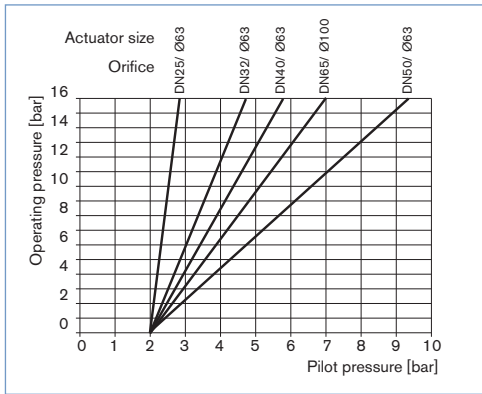
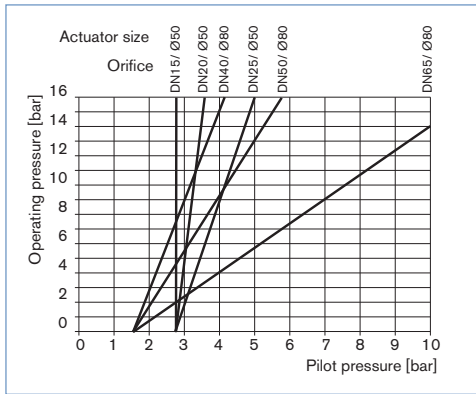


Diagram 4



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

Valves with clamp connection acc. to ISO 2852, ASME BPE or BS 4825, body in stainless steel, actuator material PA, Ra internal ≤ 3.2 µm

Control function	Orifice [mm]	Actuator size Ø [mm]	Port connection Clamp external Ø [mm]			Min. pilot pressure [bar]	Operating pressure up to 180 °C [bar]	Item no.		
			ISO 2852	ASME BPE	BS 4825			ISO 2852	ASME BPE	BS 4825
	15	50	34.0	25.0	25.0	see diagram 3 and 4 above	16	415 082	183 247	183 249
	20	50	50.5	25.0	25.0		16	415 083	183 248	183 264
	25	63	50.5	50.5	50.5		16	415 084	183 265	183 265
	32	63	50.5	-	-		16	415 085	-	-
	40	63	64.0	50.5	50.5		16	415 086	183 266	183 266
	50	63	77.5	64.0	64.0		16	415 087	183 267	183 267

Further versions on request

Material
 Seal: NBR, FKM, EPDM
 Actuator: PPS

Port connections
 Clamp acc. DIN 32676,
 Weld end, threaded port

Additional
 Surface finish: int. Ra ≤ 0.8 µm electro polished,
 int. Ra ≤ 0.4 µm electro polished

Control function
 Double-acting actuator

Approvals
 GL, SIL

Mediums temperature
 Valves for mediums temperature up to +200°C or down to -40°C

Ordering chart for accessories

3/2-way pilot valves with banjo bolts

Seal material valve FKM, seal material banjo bolt NBR

Valve for actuator size [Ø mm]	Type	Pressure inlet P (valve body)	Service port A (banjo bolt)	Orifice [mm]	Qn value air [l/min]	Pressure range [bar]	Electrical coil connection Ind. Std.	Power consumption [W]	Item no. Voltage/frequency [V/Hz]	
									024/DC	230/50
50-63	6012P	Tube fitting ø6 mm	G 1/4	1.2	48	0-10	Form B	4	552 283	552 286
50-125	6014P	G 1/4	G 1/4	2	120	0-10	Form A	8	424 103	424 107

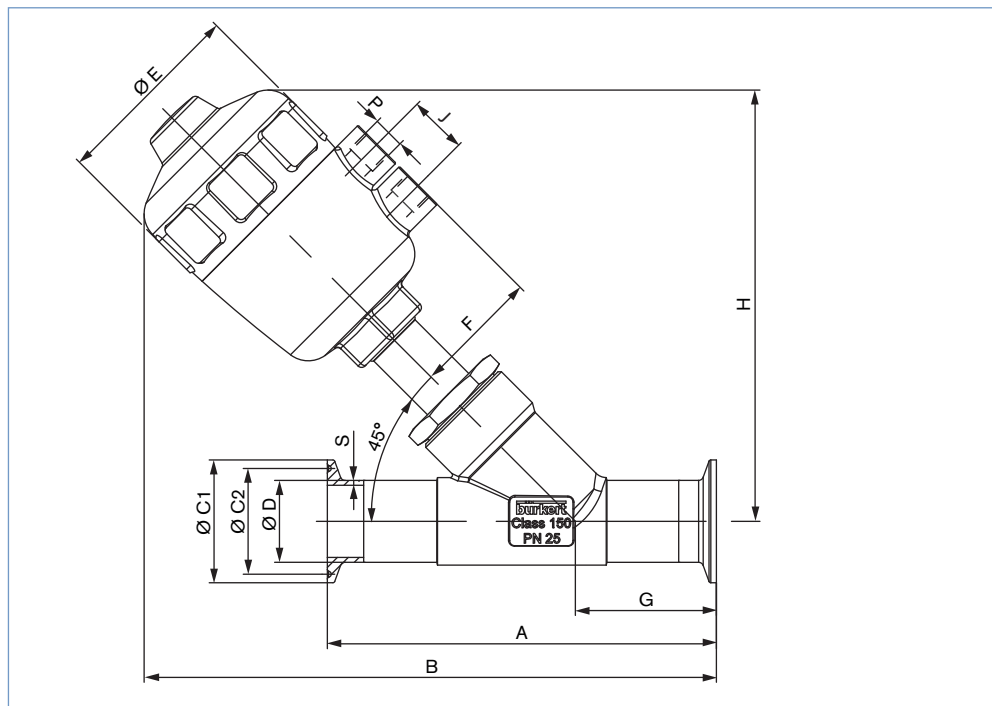
Cable plug Type 2507, Form B or Type 2508, Form A

	Item no.
Type 2507, Form B Industrial standard, 0 to 250 V without circuitry (Type 6012 P)	423 845
Type 2508, Form A acc. DIN EN 175301-803, 0 to 250 V without circuitry (Type 6014 P, Type 0331P)	008 376

For further accessories see datasheet for Type 1062 or the accessories datasheet Type 2XXX for the full options programme.

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

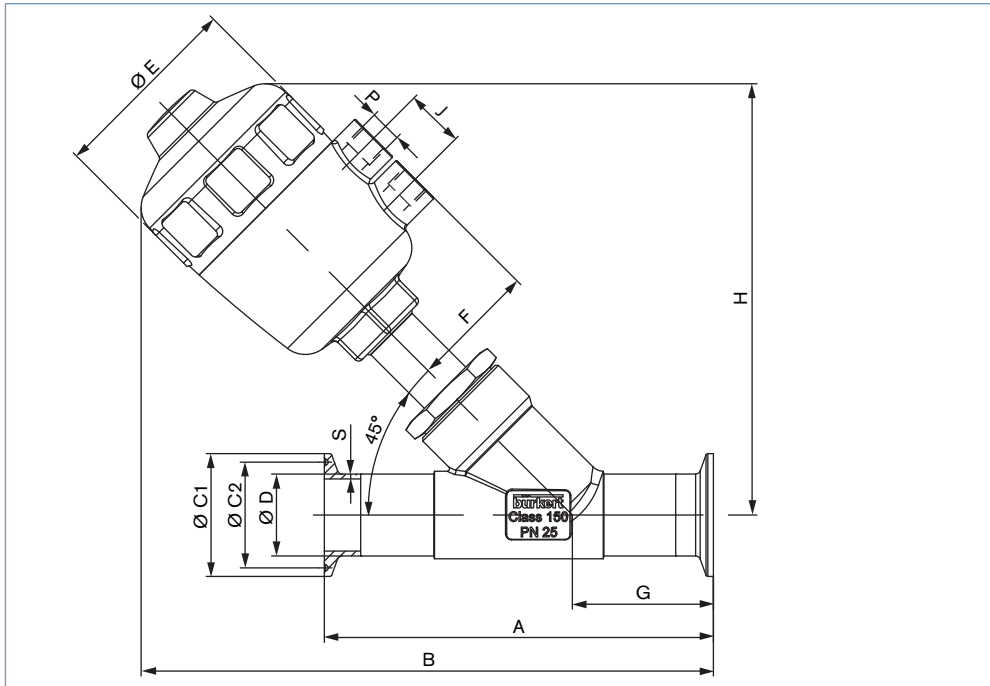
Dimensions Type 2000 clamp [mm]



Dimensions according to EN ISO 2852 [mm]

DN [mm]	Actuator size Ø	Ø E	H	F	P	J	A	B	Ø C1	Ø C2	Ø D	G	S
15	50	64	145	44	G 1/4	24	130	194	34.0	27.5	21.3	49	1.6
20	50	64	149	44	G 1/4	24	150	205.5	50.5	43.5	26.9	56.5	1.6
25	50	64	152	44	G 1/4	24	160	210	50.5	43.5	33.7	58	2
	63	80	178	52	G 1/4	24	160	236	50.5	43.5	33.7	58	2
32	63	80	188	52	G 1/4	24	180	245.5	50.5	43.5	42.4	57.5	2
	80	101	209	60	G 1/4	24	180	266.5	50.5	43.5	42.4	57.5	2
40	63	80	191	52	G 1/4	24	200	260	64	56.5	48.3	69	2
	80	101	213	60	G 1/4	24	200	282	64	56.5	48.3	69	2
50	63	80	209	52	G 1/4	24	230	286.5	77.5	70.5	60.3	77.5	2.6
	100	127	277	73	G 1/4	30	230	354.5	77.5	70.5	60.3	77.5	3.6

Dimensions Type 2000 clamp [mm], *continued*



Dimensions according to ASME BPE [mm]

DN [mm]	Actuator size Ø	Ø E	H	F	P	J	A	B	Ø C1	Ø C2	Ø D	G	S
15	50	64	145	44	G 1/4	24	130	194	25.2	20.2	12.7	49	1.65
20	50	64	149	44	G 1/4	24	150	205.5	25.2	20.2	19.05	56.5	1.65
25	50	64	152	44	G 1/4	24	160	210	50.5	43.5	25.4	58	1.65
	63	80	178	52	G 1/4	24	160	230	50.5	43.5	25.4	58	1.65
40	63	80	191	52	G 1/4	24	200	260	50.5	43.5	38.1	69	1.65
	80	101	213	60	G 1/4	24	200	282	50.5	43.5	38.1	69	1.65
50	63	80	209	52	G 1/4	24	230	286.5	64.0	56.5	50.8	77.5	1.65
	100	127	277	73	G 1/4	30	230	354.5	64.0	56.5	50.8	77.5	1.65

Dimensions according to BS 4825 [mm]

DN [mm]	Actuator size Ø	Ø E	H	F	P	J	A	B	Ø C1	Ø C2	Ø D	G	S
15	50	64	145	44	G 1/4	24	130	194	25.2	20.2	12.7	49	1.2
20	50	64	149	44	G 1/4	24	150	205.5	25.2	20.2	19.05	56.5	1.2
25	50	64	152	44	G 1/4	24	160	210	50.5	43.5	25.4	58	1.65
	63	80	178	52	G 1/4	24	160	236	50.5	43.5	25.4	58	1.65
40	63	80	191	52	G 1/4	24	200	260	50.5	43.5	38.1	69	1.65
	80	101	213	60	G 1/4	24	200	282	50.5	43.5	38.1	69	1.65
50	63	80	209	52	G 1/4	24	230	286.5	64.0	56.5	50.8	77.5	1.65
	100	127	277	73	G 1/4	30	230	354.5	64.0	56.5	50.8	77.5	1.65

Dimensions according to DIN 32676 [mm]

DN [mm]	Actuator size Ø	Ø E	H	F	P	J	A	B	Ø C1	Ø C2	Ø D	G	S
15	50	64	145	44	G 1/4	24	130	194	34.0	27.5	19.0	49	1.5
20	50	64	149	44	G 1/4	24	150	205.5	34.0	27.5	23.0	56.5	1.5
25	50	64	152	44	G 1/4	24	160	210	50.5	43.5	29.0	58	1.5
	63	80	178	52	G 1/4	24	160	236	50.5	43.5	29.0	58	1.5
32	63	80	188	52	G 1/4	24	180	245.5	50.5	43.5	35.0	57.5	1.5
	80	101	209	60	G 1/4	24	180	266.5	50.5	43.5	35.0	57.5	1.5
40	63	80	191	52	G 1/4	24	200	260	50.5	43.5	41.0	69	1.5
	80	101	213	60	G 1/4	24	200	282	50.5	43.5	41.0	69	1.5
50	63	80	209	52	G 1/4	24	230	286.5	64.0	56.5	53.0	77.5	1.5
	100	127	277	73	G 1/4	30	230	354.5	64.0	56.5	53.0	77.5	1.5

Ordering information for valve system On/Off CLASSIC Type 8801-YA

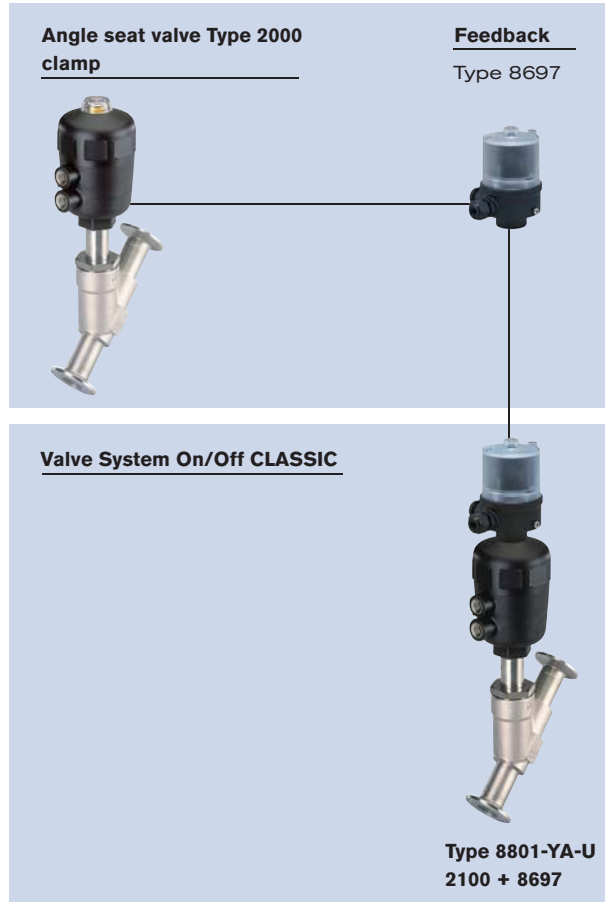
An **angle seat valve Type 2000** can be combined with the **feedback Type 8697** to form a **valve system On/Off CLASSIC**.

The valve system On/Off CLASSIC is composed of:

- a feedback **Type 8697** (see separate datasheet) [More info.](#)
- an angle seat valve **Type 2000** (see ordering chart p. 3)

For the configuration of further valve systems please use the "Request for quotation" on p. 9 [go to page](#)

You order two components and receive a complete assembled and certified valve.



Electrical position feedback

[More info.](#)



Type 8697

Actuator size 40 to 225

The pneumatic control unit Type 8697 is designed for integrated mounting on CLASSIC series 20XX process valves suiting the requirements of hygienic process environment. Mechanical or inductive limit switches register the position of the valve.

Features

- Compact design
- LED position indicator
- Mechanical or inductive limit switches for end position registering
- Easy to clean chemically resistant housing featuring IP65 / IP67, 4X Rating
- Optional intrinsically safe version acc. to ATEX

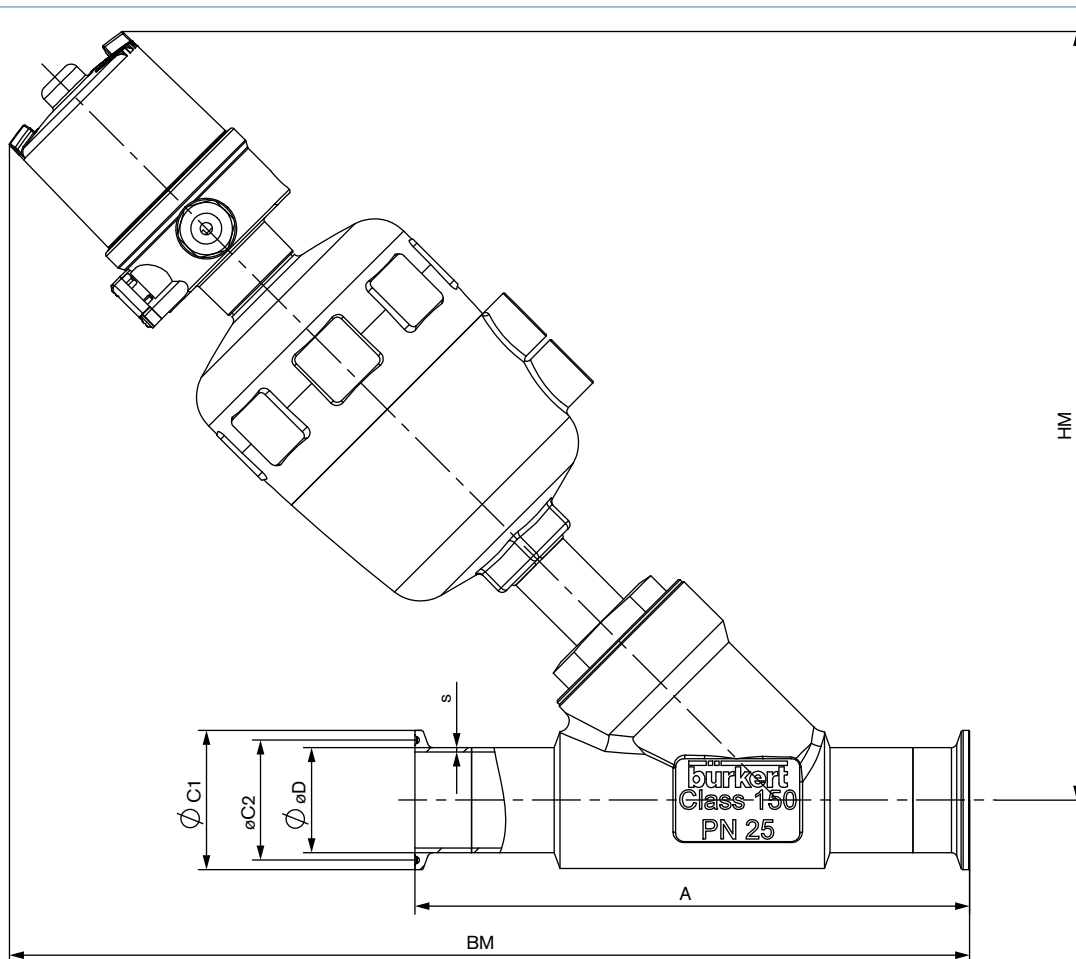
Benefits

- Easy and quick installation
- High level of signal reliability thanks to self adjusting limit switches
- Signal safety through the automatic adjustment of the limit switches
- Minimised space requirement in the plant piping for more flexibility in plant design

Click on the orange box „More info“... you will come to our website for the resp. product where you can download the data sheet.

Dimensions for valve system On/Off CLASSIC Type 8801-YA [mm]

Dimensions valve system On/Off CLASSIC Type 8801-YA-U with electrical position feedback Type 8697



Connection	Orifice [mm]	Actuator size [mm]	BM [mm]	HM [mm]	A	ØC1	ØC2	ØD	s
Clamp ISO 2852	15	50	246	197	130	34	27.5	21.3	1.6
	20	50	278	222	150	50.5	43.5	26.9	1.6
	25	63	308	251	160	50.5	43.5	33.7	2
	32	80	333	277	180	50.5	43.5	42.4	2
	40	80	348	280	200	64	56.5	48.3	2
Clamp ASME BPE	15	50	246	197	130	25.2	20.2	12.7	1.65
	20	50	278	222	150	25.2	20.2	19.05	1.65
	25	63	308	251	160	50.5	43.5	25.4	1.65
	40	80	348	280	200	50.5	43.5	38.1	1.65
	50	100	403	334	230	64	56.5	50.8	1.65
Clamp BS 4825	15	50	246	220	130	25.2	20.2	12.7	1.2
	20	50	278	225	150	25.2	20.2	19.05	1.2
	25	63	308	251	160	50.5	43.5	25.4	1.65
	40	80	348	280	200	50.5	43.5	38.1	1.65
	50	100	403	334	230	64	56.5	50.8	1.65
Clamp DIN 32676	15	50	246	197	130	34	27.5	19	1.5
	20	50	278	222	150	34	27.5	23	1.5
	25	63	308	251	160	50.5	43.5	29	1.5
	40	80	348	280	200	50.5	43.5	41	1.5
	50	100	403	334	230	64	56.5	53	1.5

Valve system On/Off CLASSIC Type 8801-YA – request for quotation

Please fill out and send to your nearest Bürkert facility* with your inquiry or order

Company	Contact person
Customer no.	Department
Address	Tel./Fax
Postcode/town	E-Mail

= mandatory fields to fill out Quantity Required delivery date

Operating data

Pipeline	DN	<input type="text"/>	PN	<input type="text"/>
Pipe material	<input type="text"/>			
Process medium	<input type="text"/>			
Type of medium	<input type="checkbox"/> Liquid	<input type="checkbox"/> Steam	<input type="checkbox"/> Gas	
Flow rate (Q, Q _N , W) ¹⁾	<input type="text"/>	standard	<input type="text"/>	unit
Temperature at valve inlet	<input type="text"/>			
Absolute pressure at valve inlet	<input type="text"/>			

¹⁾ standard unit: Liquid Q = m³/h; Steam W = kg/h; Gas Q_N = Nm³/h

Valve features

Actuator material	<input type="checkbox"/> PA	<input type="checkbox"/> PPS
Body material	<input type="checkbox"/> Stainless steel	<input type="checkbox"/> Gunmetal
Seat sealing material	<input type="checkbox"/> PTFE <input type="checkbox"/> NBR	<input type="checkbox"/> Other <input type="text"/>
Nominal pressure	PN <input type="text"/>	
Nominal size	DN <input type="text"/>	
Type of connection	<input type="checkbox"/> Welded <input type="checkbox"/> Internal thread <input type="checkbox"/> Clamp	
Standard connection	<input type="checkbox"/> ISO <input type="checkbox"/> DIN <input type="checkbox"/> ANSI <input type="checkbox"/> JIS <input type="checkbox"/> Other <input type="text"/>	
Function	<input type="checkbox"/> NC ²⁾ <input type="checkbox"/> NO ²⁾ <input type="checkbox"/> Double-acting	
Pilot pressure	<input type="text"/> min.	<input type="text"/> max.

²⁾ NC: normally closed by spring action; NO: normally open by spring action

Automation unit features

Click on the orange box „More info“... you will come to our website for the resp. product where you can download the data sheet.

Electrical position feedback

Type 8697
For actuator size 40 to 225



- LED position indicator
- Mechanical or inductive limit switches for end position registering
- Housing with IP65/IP67, 4X rating protection
- Optional intrinsically safe version acc. to ATEX / IECEx

Position feedback switches

- Micro switch 24V DC
- Micro switch 50 – 225 V DC/AC
- Inductive switch 3-wire PNP
- Inductive switch 2-wire NAMUR
- Inductive switch 2-wire 24V DC

Electrical connection

- Cable gland
- M12 connector
(applicable only with inductive switch 3-wire PNP)

Number of Position feedback switches

- 2x

Approval

- ATEX cat. 3GD, IECEx
- ATEX cat. 2DG, IECEx
- without

Valve system On/Off CLASSIC Type 8801-YA – request for quotation, *continued*

Valve accessories	
Pilot valve	Stroke limitation
<input type="checkbox"/> Pilot valve	<input type="checkbox"/> Stroke limitation
Power supply <input type="text"/>	<input type="checkbox"/> Min./max. stroke limitation , with visual position indicator
	<input type="checkbox"/> Max. stroke limitation , without visual position indicator
Please specify item no. if known: <input type="text"/>	Please specify item no. if known: <input type="text"/>

Certifications
<input type="checkbox"/> Attestation of compliance with the order EN-ISO 10204 2.1
<input type="checkbox"/> Test report EN-ISO 10204 2.2
<input type="checkbox"/> Certification of Conformity for Raw Material EN-ISO 10204 3.1
<input type="checkbox"/> EN161 (European Gas Device guideline)

Comment / sketch

DTS 1000100702 EN Version: R Status: RL (released | freigegeben | valide) printed: 24.10.2016

*To find your nearest Bürkert facility, click on the orange box → www.burkert.com