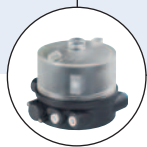




2/2-way Angle-Seat Valve with stainless steel design for medium up to +185°C, DN 15-50

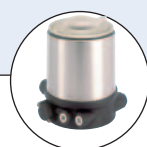
- High flow rates
- High cycle life
- Flow optimised body in stainless steel
- Deliverable with flow direction below or above seat
- Clean design for optimal use in hygienic environment
- Suitable for steam up to 10 bar(g)

Type 2100 clamp can be combined with...



Type 8690

Pneum. control unit with feedback



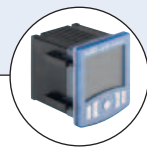
Type 8691

Control head



Type 8695

Control head



Type 8619

MultiCELL Transmitter/Controller



Type 8222

Conductivity transmitter

In line with Bürkert's philosophy for modular valves and sensors the construction of the 2100 angle-seat valve fulfils tough criteria for process environments. Unrivalled cycle life and sealing integrity is guaranteed by the proven self adjusting spindle packing with V-seals.

The design enables the easy integration of automation modules whether they are electrical/optical position feedback, pneumatic control units, an integrated fieldbus interface.

The fully integrated system has a compact and smooth design, integrated pneumatic lines, IP65/67 protection class and superior chemical resistance.

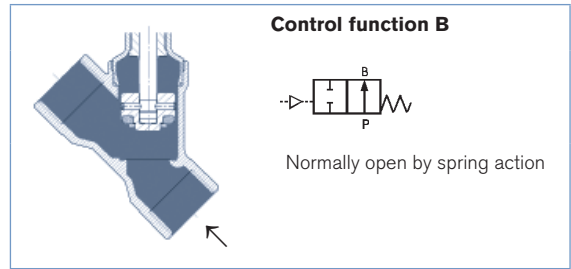
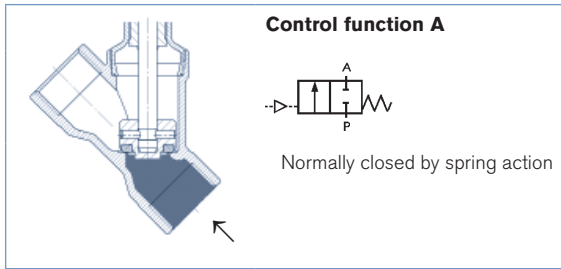
Optionally, an explosion-proof version is also available.

Technical data	
Orifice	DN15 to DN50
Port connections Clamp acc. to Weld and threaded	ISO 2852, ASME BPE see separate data sheet
Body material	Stainless steel 316L
Actuator material Actuator Cover	PPS Stainless steel 1.4561 (316Ti)
Sealing material	PTFE
Medium	Water, alcohol, oils, fuels, hydraulic fluids, salt solution, alkali solutions, organic solvents, steam
Viscosity	max. 600 mm ² /s
Spindle packing	PTFE V-rings with spring compensation
Medium temperature	-10 to +185°C
Ambient temperature	0 to +55°C (integrated control head) 0 to +60°C (push-in air ports) 0 to +100°C (threaded air ports)
Control medium	Neutral gases, air
Max. pilot pressure	max. 10 bar; actuator size 130 mm, 7 bar
Pilot air ports	Push-in connector for external ø 6 mm or 1/4" tube, thread G1/8 (on request)
Installation	As required, preferably with actuator in upright position
Surface Finish, standard	in internal connection area Ra ≤ 0.6 µm electropolished (external cast surface)

Content

Valve specifications Type 2100	System spec. On/Off ELEMENT Type 8801-YE	Request for quotation Type 8801-YE
Technical data & ordering info. p. 1-6	Technical data & ordering info. p. 7-11	p.12

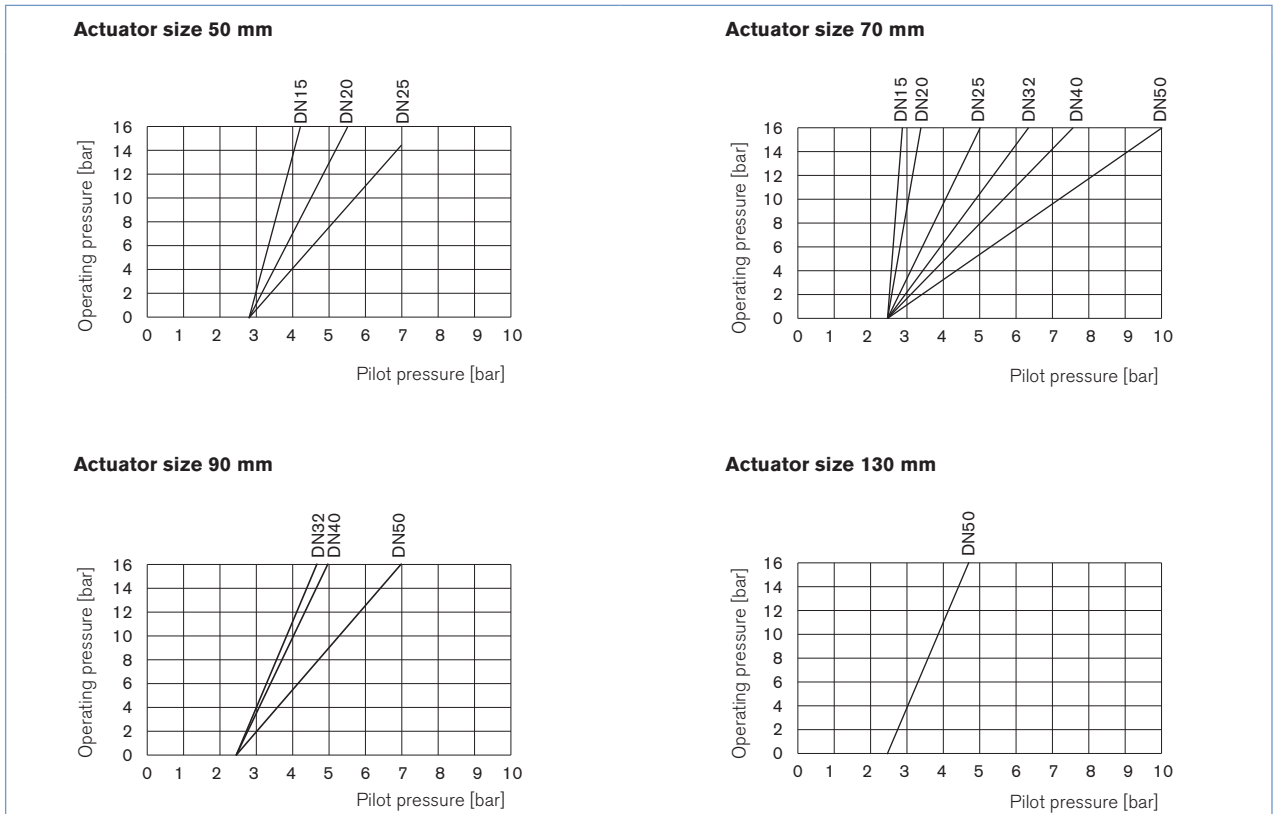
Technical data angle seat valve Type 2100 flow direction below the seat (for gases and liquids)



Orifice [mm]	Actuator size [mm]	Kv value water (m ³ /h)	Minimum pilot pressure CFA [bar]	Operating pressure up to +185°C	
				CFA [bar]	CFB [bar]
15	50	5	5.2	25	16
	70	5	5.0	25	16
20	50	10	5.2	16	16
	70	11	5.0	20	16
25	50	15	5.2	9	14.5
	70	18	5.0	16	16
32	70	27	5.0	8.5	16
	90	28	5.0	16	16
40	70	38	5.0	6	16
	90	40	5.0	16	16
50	70	52	–	–	16
	90	55	5.0	10	16
	130	62	5.0	16	16

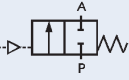
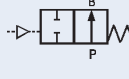
Flow rate: Kv value water [m³/h]: Measured at +20°C, 1 bar pressure at valve inlet and free outlet.
Pressure valves [bar]: Overpressure to the atmospheric pressure

Pressure charts with control function B and flow direction below the seat

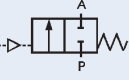
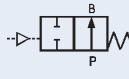


Ordering chart Type 2100, flow direction below the seat (for gases and liquids)

Clamp acc. to ISO 2852, flow direction below the seat

Control function	Orifice (mm)	Actuator size \varnothing [mm]	Port connection clamp external \varnothing (mm)	Minimum pilot pressure [bar]	Operating pressure up to +185°C [bar]	Item no.	
A 2/2-way valve, NC 	15	50	34.0	5.2	25	187 097	
		70	34.0	5.0	25	188 783	
	20	50	50.5	5.2	16	209 437	
		70	50.5	5.0	20	188 784	
	25	50	50.0	5.2	9	227 613	
		70	50.5	5.0	16	188 785	
	32	70	50.5	5.0	8.5	188 786	
		90	50.5	5.0	16	188 787	
	40	70	64.0	5.0	6	188 788	
		90	64.0	5.0	16	188 789	
	50	90	77.5	5.0	10	188 790	
		130	77.5	5.0	16	188 791	
	B 2/2-way valve, NO 	15	50	34.0	see chart on p. 2	16	187 101
			70	34.0		16	188 800
20		50	50.5	16		187 102	
		70	50.5	16		188 801	
25		70	50.5	16		188 802	
		32	70	50.5		16	188 803
40		70	64.0	16		188 804	
		50	70	77.5		16	188 805

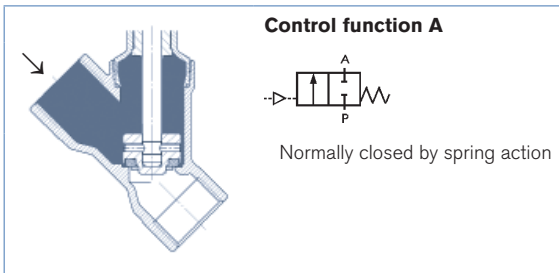
Clamp acc. to ASME BPE, flow direction below the seat

Control function	Orifice (mm)	Actuator size \varnothing [mm]	Port connection clamp external \varnothing (mm)	Minimum pilot pressure [bar]	Operating pressure up to +185°C [bar]	Item no.	
A 2/2-way valve, NC 	15	50	25.0	5.2	25	187 103	
		70	25.0	5.0	25	188 806	
	20	50	25.5	5.2	16	227 614	
		70	25.5	5.0	20	188 807	
	25	50	50.5	5.2	9	227 615	
		70	50.5	5.0	16	188 808	
	40	70	50.5	5.0	6	188 809	
		90	50.5	5.0	16	188 810	
	50	90	64.0	5.0	10	188 811	
		130	64.0	5.0	16	188 812	
	B 2/2-way valve, NO 	15	50	25.0	see chart on p. 2	16	187 107
			70	25.0		16	188 820
20		50	25.0	16		187 108	
		70	50.5	16		188 821	
25		70	50.5	16		188 822	
		40	70	50.5		16	188 823
50		70	64.0	16		188 824	

 Further versions on request

 Control function
I (double-acting)

Technical data angle seat valve Type 2100 flow direction above the seat (for gases and steam)

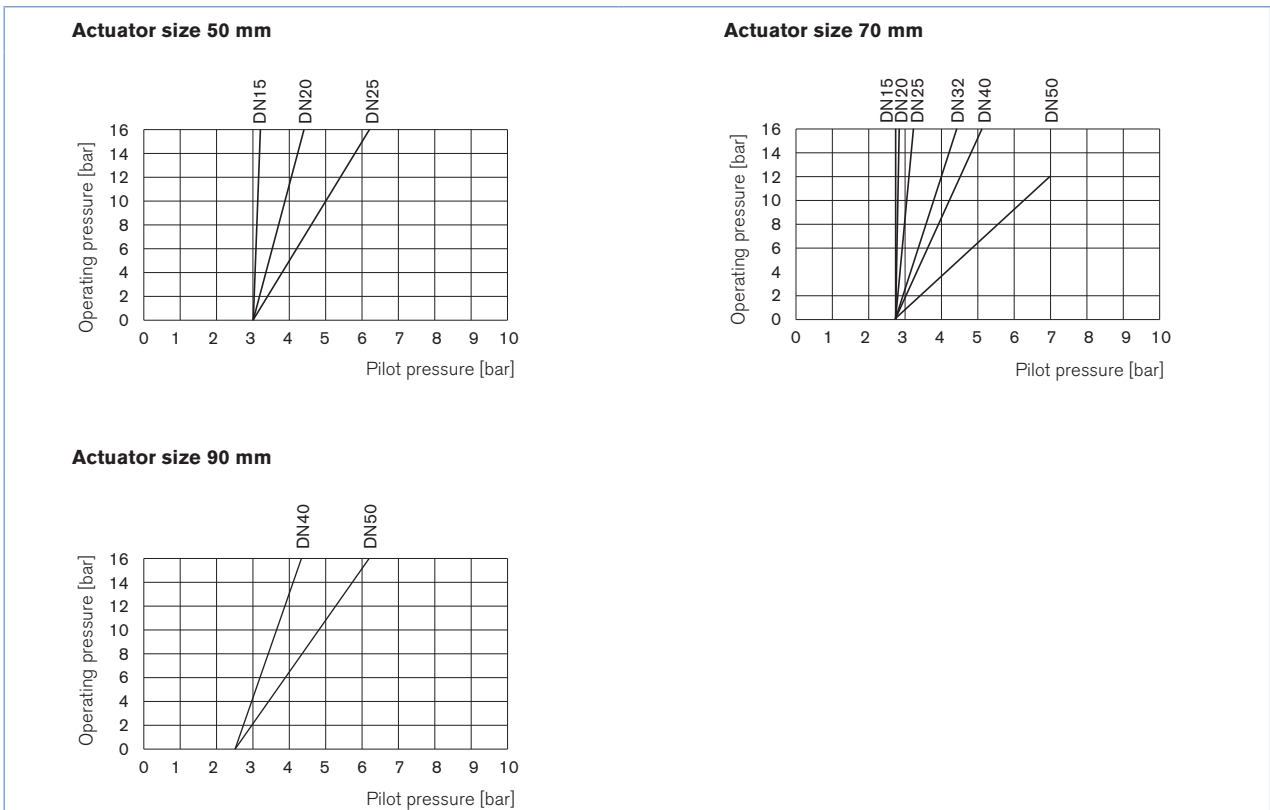


Valves with flow above the seat are only conditionally usable for liquid medium. There is a danger of waterhammer!

Orifice [mm]	Actuator size [mm]	Kv value water (m³/h)	Operating pressure up to +185°C CFA [bar]
15	50	5	16
	70	5.1	16
20	50	10	16
	70	12	16
25	50	15	16
	70	19	16
32	70	28	16
40	70	38	16
	90	40	16
50	70	50	12
	90	55	16

Flow rate: Kv value water [m³/h]: Measured at +20°C, 1 bar pressure at valve inlet and free outlet.
Pressure valves [bar]: Overpressure to the atmospheric pressure

Pressure charts with control function A and flow direction above the seat



Ordering chart Type 2100 flow direction above the seat (for gases and steam)

Clamp acc. to ISO 2852, flow direction above the seat

Control function	Orifice (mm)	Actuator size \varnothing [mm]	Port connection clamp external \varnothing (mm)	Minimum pilot pressure [bar]	Operating pressure up to +185°C [bar]	Item no.
A 2/2-way valve. NC 	15	50	34.0	see chart on p. 4	16	187 098
	20	50	50.5		16	187 099
	25	50	50.5		16	187 100
	32	70	50.5		16	188 795
	40	70	64.0		16	188 796
	50	70	77.5		12	188 798

Clamp acc. to ASME BPE, flow direction above the seat

Control function	Orifice (mm)	Actuator size \varnothing [mm]	Port connection clamp external \varnothing (mm)	Minimum pilot pressure [bar]	Operating pressure up to +185°C [bar]	Item no.
A 2/2-way valve. NC 	15	50	25.0	see chart on p. 4	16	187 104
	20	50	25.0		16	187 105
	25	50	50.5		16	187 106
	40	70	50.5		16	188 816
	50	70	64.0		12	188 818

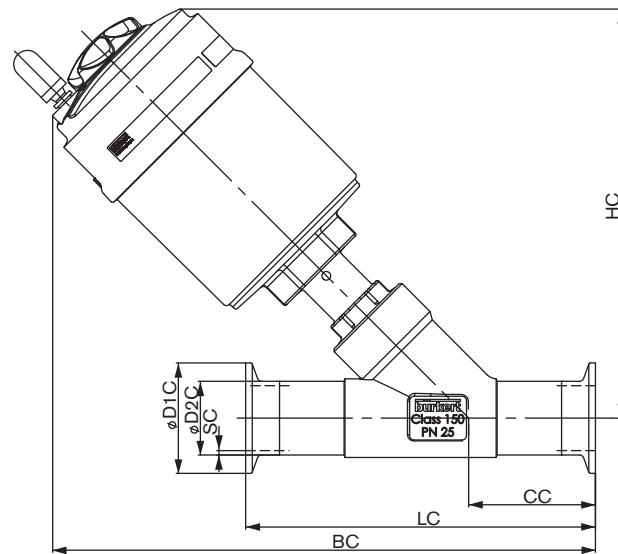
Materials angle seat valve Type 2100

A	Ground terminal	Stainless steel 1.4301/1.4305 <i>Only for the ATEX version</i>
1	Optical position indicator	Transparent cap polysulfone PSU
2	Pilot air ports	Push-in connector PP (standard) <i>On request:</i> Thread G1/8" stainless steel 1.4305
3	Actuator	PPS
4	Cover	Stainless steel 1.4561 (316Ti)
5	Piston seal	FKM
6	Spring	Stainless steel 1.4310
7	Pipe	Stainless steel 1.4401 (316)/1.4404 (316L)
8	Spindle packing	PTFE
9	Spindle	Stainless steel 1.4401 (316)/1.4404 (316L)
10	Spindle guide	PEEK
11	Swivel plate	Stainless steel 1.4401 (316)/1.4404 (316L)
12	Seals	PTFE
13	Valve body	Stainless steel 316L

Lubricants for spindle packing and actuator are classified according NSF H1

Dimensions angle seat valve Type 2100 [mm]

Clamp body



ISO 2852, DIN 32676

All bodies		Clamp body acc. to ISO 2852							DIN 32676				
Orifice [mm]	Actuator size [mm]	HC	BC	CC	LC	øD1C	øD2C	SC	CC	LC	øD1C	øD2C	SC
15	50	163	215	49	130	34	21.3	1.6	49.5	130	34	19	1.5
	70	178	231										
20	50	171	230	56.5	150	50.5	26.9	1.6	57	150	34	23	1.5
	70	186	246										
25	50	172	233	58	160	50.5	33.7	2	58.5	160	50.5	29	1.5
	70	188	249										
32	70	197	258	57.5	180	50.5	42.4	2	58	180	50.5	35	1.5
	90	242	300										
40	70	201	273	69	200	64	48.3	2	69.5	200	50.5	41	1.5
	90	245	316										
	130	296	365										
50	70	219	300	77.5	230	77.5	60.3	2.6	78	230	64	53	1.5
	90	261	340										
	130	312	389										

BS 4825, ASME BPE

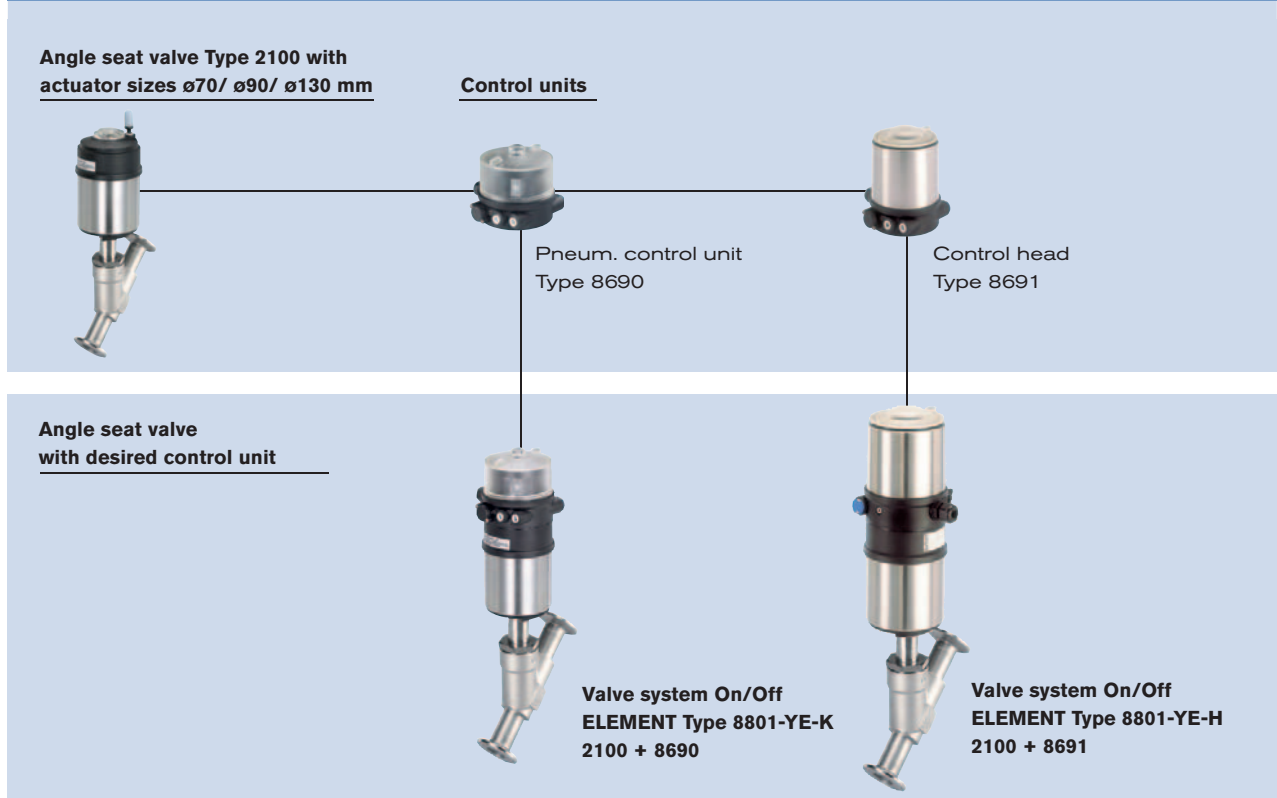
All bodies		Clamp body acc. to BS 4825							ASME BPE				
Orifice [mm]	Actuator size [mm]	HC	BC	CC	LC	øD1C	øD2C	SC	CC	LC	øD1C	øD2C	SC
15	50	163	215	49	130	25.2	12.7	1.2	49	130	25	12.7	1.65
	70	178	231										
20	50	171	230	56.5	150	25.2	19.05	1.2	56.5	150	25	19.05	1.65
	70	186	246										
25	50	172	233	58	160	50.5	25.4	1.65	-	-	-	-	-
	70	188	249										
40	70	201	273	69	200	50.5	38.1	1.65	-	-	-	-	-
	90	245	316										
	130	296	365										
50	70	219	300	77.5	230	64	50.8	1.65	-	-	-	-	-
	90	261	340										
	130	312	389										

Ordering information for valve system On/Off ELEMENT Type 8801-YE

A valve system On/Off ELEMENT Type 8801-YE consists of an angle seat valve Type 2100 and a pneumatic control unit Type 8690, control head Type 8691 (for valve actuator sizes $\varnothing 70/\varnothing 90/\varnothing 130\text{mm}$) or control head Type 8695 (for valve actuator size $\varnothing 50\text{ mm}$) (see separate data sheets). For the configuration of further valve systems please use the "Request for quotation" on p. 12 [go to page](#)


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

Ordering the valve system On/Off ELEMENT Type 8801-YE with valve actuator sizes $\varnothing 70/\varnothing 90/\varnothing 130\text{mm}$



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

Pneumatic control unit Type 8690



More info.

The new generation of integrated controllers for combination with actuators from the process valve series Type 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:

- Compact design of the valve system with integrated controller meets the demands for plant washdown environments through the selection of materials, external seals and integrated control air supply to the actuator.
- 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

Control head Type 8691



More info.

The new generation of integrated control heads for combination with actuators from the process valve series Type 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:

- Compact, hygienic design of the valve system with integrated controller meets the demands of plant washdown environments through the selection of materials, external seals and integrated control air supply to the actuator.
- 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

Ordering information for valve system On/Off ELEMENT Type 8801-YE, *continued*

A valve system On/Off ELEMENT Type 8801-YE consists of an angle seat valve Type 2100 and a pneumatic control unit Type 8690, control head Type 8691 (for valve actuator sizes $\varnothing 70/\varnothing 90/\varnothing 130$ mm) or control head Type 8695 (for valve actuator size $\varnothing 50$ mm) (see separate data sheets). For the configuration of further valve systems please use the "Request for quotation" on p. 12 [go to page](#)

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

Ordering the valve system On/Off ELEMENT Type 8801-YE with valve actuator sizes $\varnothing 50$ mm

Angle seat valve Type 2100 with actuator size $\varnothing 50$ mm



Control unit



Control head
Type 8695

Angle seat valve with desired control unit



**Valve system On/Off
ELEMENT Type 8801-YE-M
2100 + 8695**

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

Control head Type 8695



**More
info.**

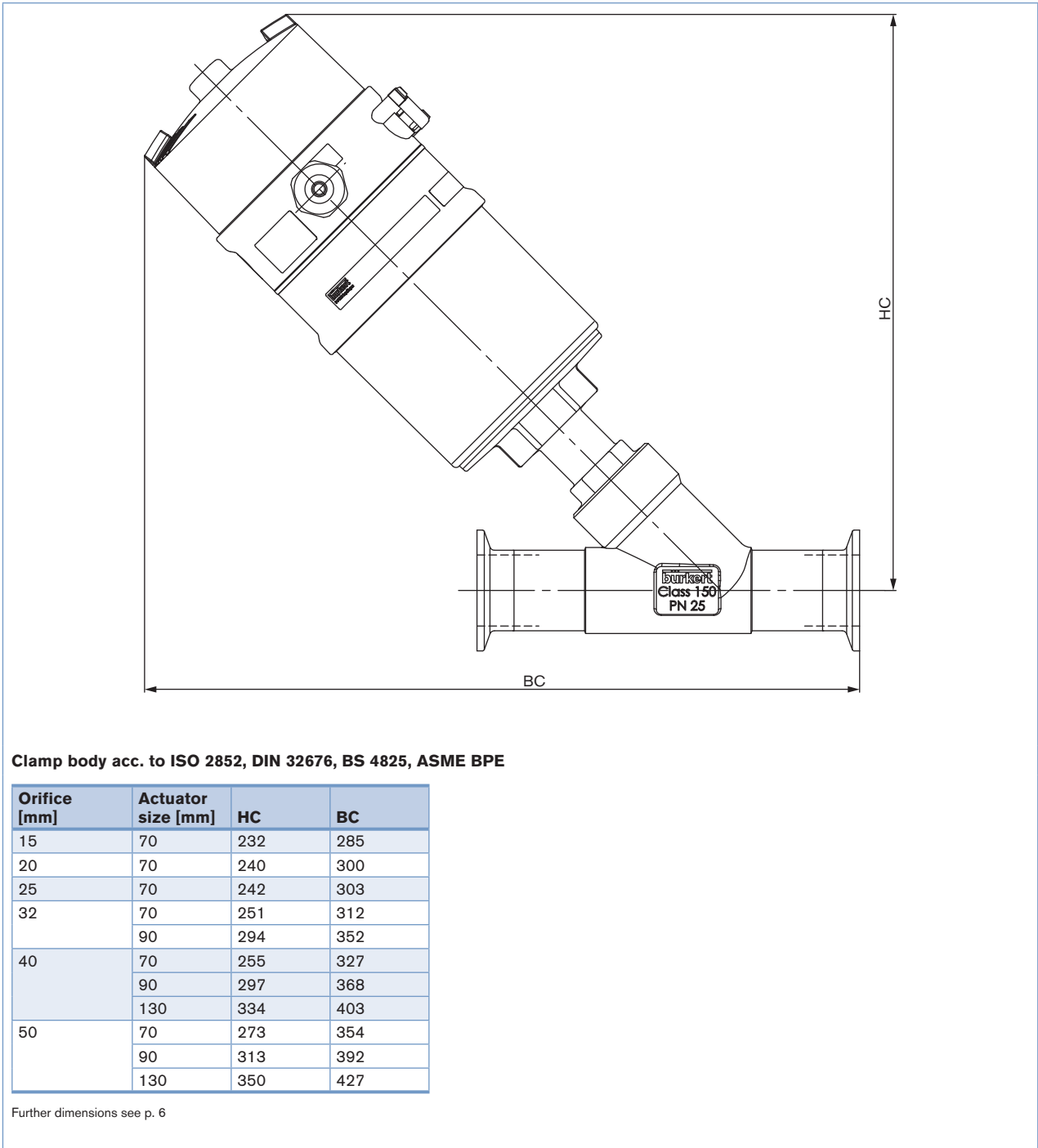
The new generation of integrated control heads for combination with small actuators from the process valve series Type 21xx is specially designed for the requirements of hygienic process environments. The intelligent control head, Type 8695, detects the valve position by means of a contact-free analog position sensor circumventing excessive wear of mechanical parts. Single and double-acting actuators are controlled via the integral pilot valve. An AS-Interface communication interface is available as an option.

Main customer benefits:

- Compact, hygienic design of the valve system with integrated controller meets the demands of plant washdown environments through the selection of materials, external seals and integrated control air supply to the actuator
- Automatic setting of the control head at the push of a button
- Visual status display on the control head
- Monitoring and diagnosis: Process valve systems with fieldbus interface used in modern plant processes
- Integrated pilot valve
- Simple and reliable actuator adaption

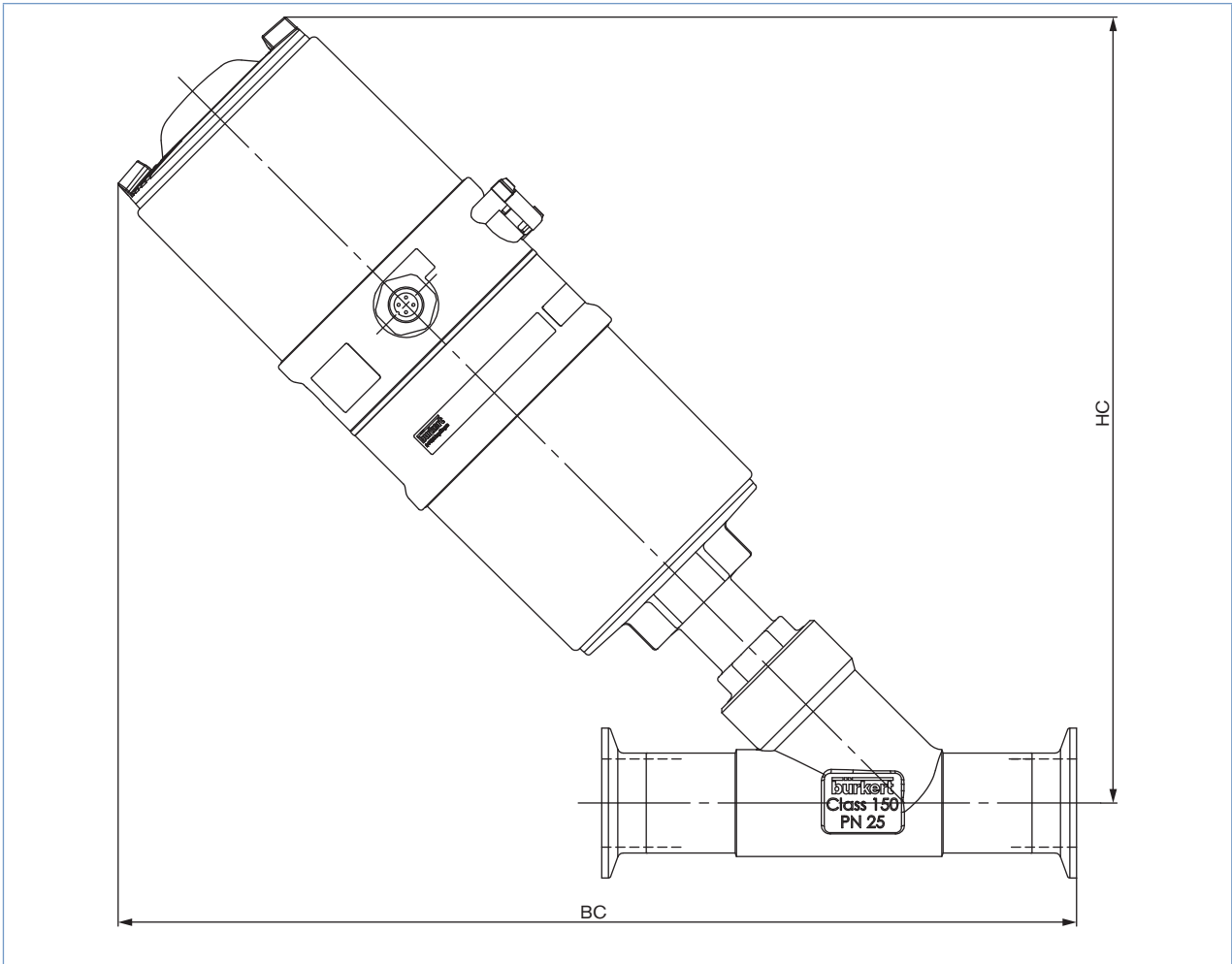
Dimensions for valve system On/Off ELEMENT Type 8801-YE [mm]

Dimensions valve system On/Off ELEMENT Type 8801-YE-K (with pneumatic control unit Type 8690) [mm]



Dimensions for valve system On/Off ELEMENT Type 8801-YE [mm], *continued*

Dimensions valve system On/Off ELEMENT Type 8801-YE-H (with pneumatic control unit Type 8691) [mm]



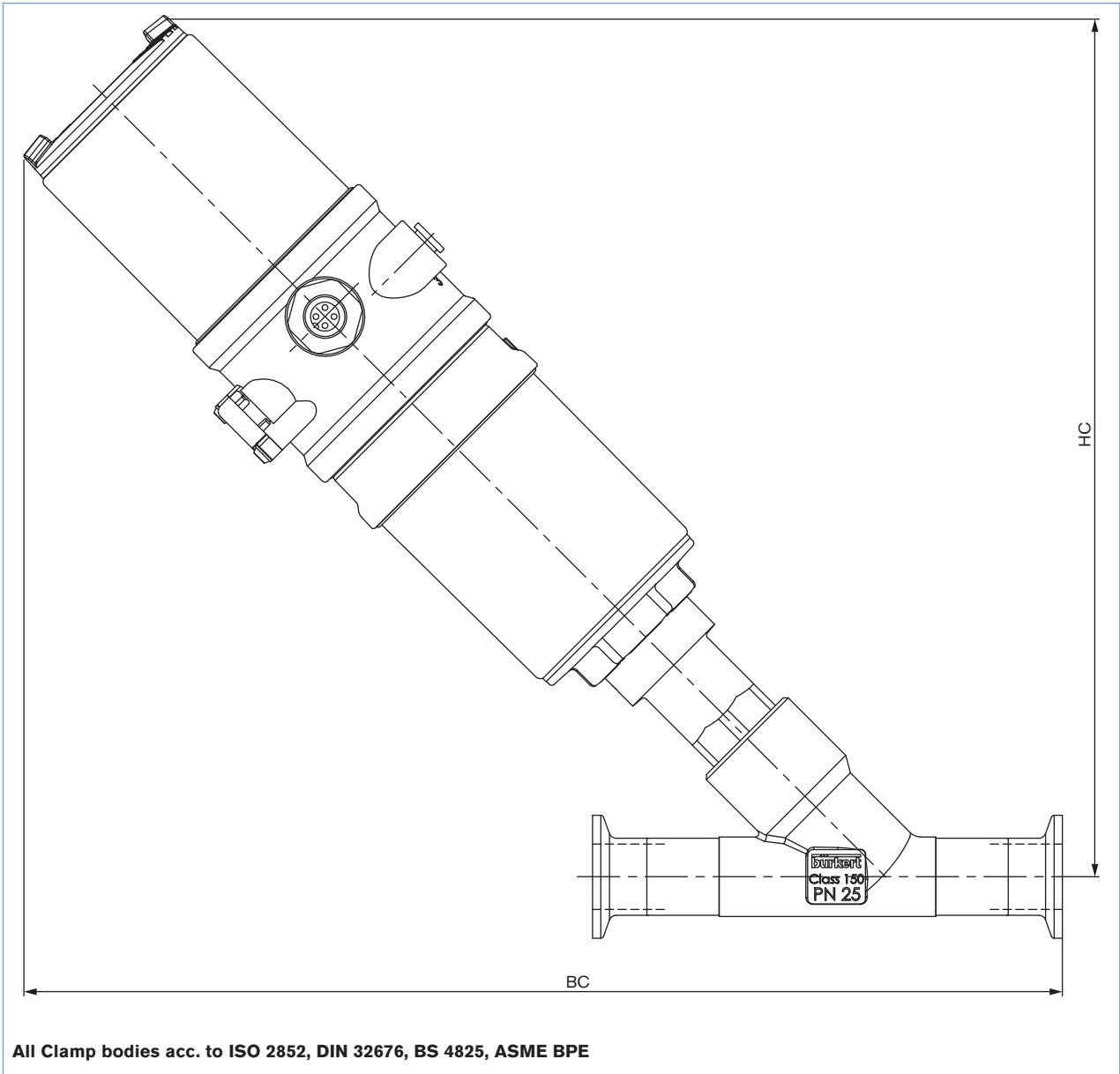
Clamp body acc. to ISO 2852, DIN 32676, BS 4825, ASME BPE

Orifice [mm]	Actuator size [mm]	HC	BC
15	70	256	309
20	70	264	324
25	70	266	327
32	70	275	336
	90	318	376
40	70	279	351
	90	321	392
	130	358	427
50	70	297	378
	90	337	416
	130	374	451

Further dimensions see p. 6

Dimensions for valve system On/Off ELEMENT Type 8801-YE [mm], *continued*

Dimensions valve system On/Off ELEMENT Type 8801-YE-M (with pneumatic control unit Type 8695) [mm]



All Clamp bodies acc. to ISO 2852, DIN 32676, BS 4825, ASME BPE

Orifice [mm]	Actuator size [mm]	HC	BC
15	50	239	291
20	50	247	306
30	50	248	309

Further dimensions see p. 6

Note
You can fill out the fields directly in the PDF file before printing out the form.

Valve system On/Off ELEMENT Type 8801-YE – 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

Pipe line DN PN

Pipe material

Process medium

Type of media Liquid Steam Gas

Valve features

Seal material PTFE NBR Other

Nominal pressure PN

Orifice DN

Type of connection Threaded Welded Clamp

Standard connection ISO DIN Other

Body material selection with welded connection acc. to EN ISO 1127/ISO 4200 and DIN 11850
 Stainless steel 1.4581 Stainless steel 316L

Control function NC ¹⁾ NO ¹⁾ Double-acting

Pilot pressure min. max.

Atex II 2GD Mechanical

Please specify item no. (if known):

¹⁾NC: normally closed by spring action; NO: normally open by spring action

Control unit features

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

For actuator sizes ø70/ø90/ø130 mm	For actuator sizes ø50 mm
<input type="checkbox"/> Pneumatic Control Unit Type 8690 <small>More info.</small> Pneumatic function <input type="checkbox"/> Single-acting <input type="checkbox"/> Double-acting <input type="checkbox"/> Without pilot valve Position feedback <input type="checkbox"/> 1x inductive <input type="checkbox"/> 2x inductive <input type="checkbox"/> 1x inductive (NAMUR) <input type="checkbox"/> 2x inductive (NAMUR) <input type="checkbox"/> 1x mechanical <input type="checkbox"/> 2x mechanical Supply voltage <input type="checkbox"/> 24V DC (ATEX Zone 2/22) <input type="checkbox"/> Ex ia IIC T6 (ATEX Zone 1) Pilot air ports <input type="checkbox"/> Push-in connector external ø 6 mm or 1/4" <input type="checkbox"/> Thread G 1/8" Please specify item no. (if known): <input type="text"/>	<input type="checkbox"/> Control Head Type 8691 <small>More info.</small> Pneumatic function <input type="checkbox"/> Single-acting <input type="checkbox"/> Double-acting Pilot air ports <input type="checkbox"/> Push-in connector external ø 6 mm or 1/4" <input type="checkbox"/> Thread G 1/8" Communication <input type="checkbox"/> ASI <input type="checkbox"/> Multipol M12 <input type="checkbox"/> Flat cable clip, 1 m cable <input type="checkbox"/> DeviceNet Please specify item no. (if known): <input type="text"/>
<input type="checkbox"/> Control Head Type 8695 <small>More info.</small> Pneumatic function <input type="checkbox"/> Single-acting <input type="checkbox"/> Double-acting Pilot air ports <input type="checkbox"/> Push-in connector external ø 6 mm or 1/4" <input type="checkbox"/> Thread G 1/8" Communication <input type="checkbox"/> ASI Please specify item no. (if known): <input type="text"/>	

Comment

* To find your nearest Bürkert office, click on the orange box →

www.burkert.com