



2/2-way Angle-Seat Valve with stainless steel design for medium up to +185°C, DN 15-65

- 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 threaded 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.

An explosion-proof version is also available.

Technical data	
Orifice	DN15 to DN65
Port connections	
Threaded	G 1/2 to G 2 1/2,
Weld and Clamp	see separate data sheet
Body material	Casted stainless steel 316L
Nominal pressure	PN25 (Body)
Actuator material	
Actuator	PPS
Cover	Stainless steel 1.4561 (316Ti)
Sealing material	PTFE
Medium	Water, alcohol, oils, fuels, hydraulic fluids, salt solution, alkali solutions, organic solvents, steam, optional fuel gas (EC Gas Appliances Directive 2009/142/EG)
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

Content



Valve specifications

Type 2100

Technical data & ordering info. p. 1-7



System spec. On/Off ELEMENT

Type 8801-YE

Technical data & ordering info.

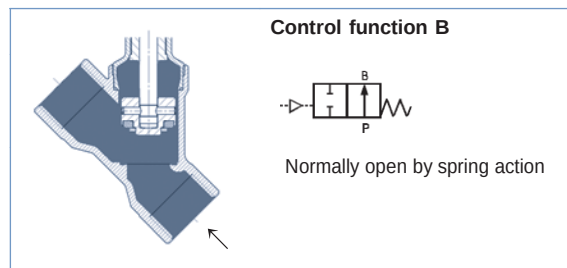
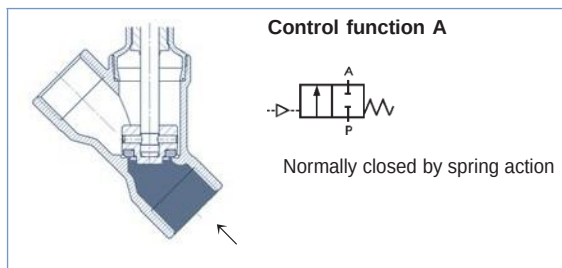
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Request for quotation

Type 8801-YE

p.13

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



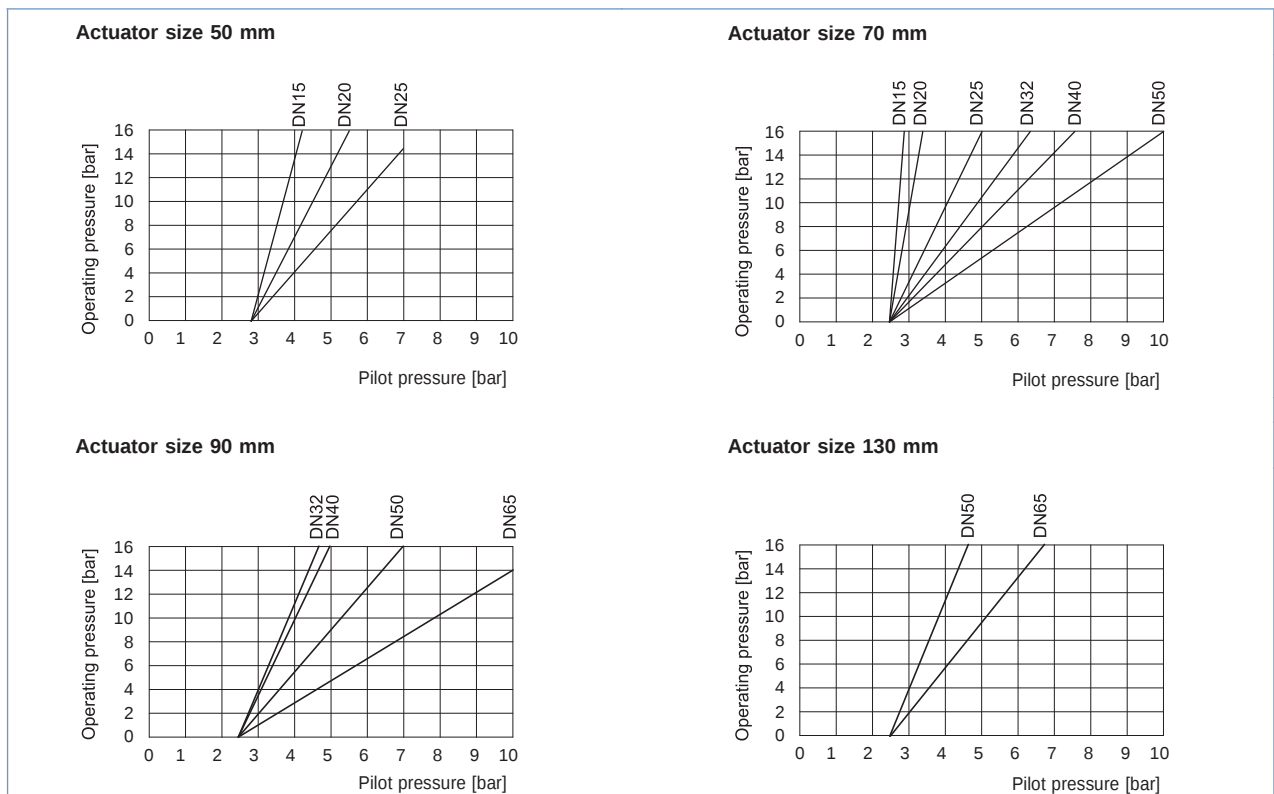
Orifice [mm]	Actuator size [mm]	Kv value water (m³/h)	Minimum pilot pressure CFA [bar]	Operating pressure up to +185°C CFA [bar]	CFB [bar]
15	50	5	5.2	25	16
	70	5	5.0	25	16
20	50	10	5.2	16	16
	70	11	5.0	20	16
25	50	15	5.2	9	14.5
	70	18	5.0	16	16
32	70	27	5.0	8.5	16
	90	28	5.0	16	16
40	70	38	5.0	6	16
	90	40	5.0	16	16
50	70	52	—	—	16
	90	55	5.0	10	16
	130	62	5.0	16	16
65	90	85	5.0	5	14
	130	95	5.6	16 (15*)	16 (15*)

* acc. to the Pressure Equipment Directive 97/23 / EC for compressible fluids in Group 1 (hazardous gases and vapors in accordance with Article 3, Section 1.3, letter a, first dash)

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

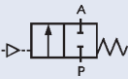
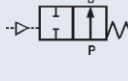
Pressure valves [bar]: Overpressure to the atmospheric pressure

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

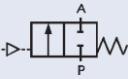
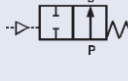


Ordering chart Type 2100, flow direction below the seat (for gases and liquids)

G threaded port, flow direction below the seat

Control function	Orifice (mm)	Actuator size ø [mm]	Threaded port connection	Minimum pilot pressure [bar]	Operating pressure up to +185°C [bar]	Item no.	Item no. certified Atex II 2GD Mechanical
A 2/2-way valve, NC 	15	50	G 1/2"	5.2	25	213 619	259 510
		70	G 1/2"	5.0	25	213 620	259 511
	20	50	G 3/4"	5.2	16	227 616	259 513
		70	G 3/4"	5.0	20	213 621	259 515
	25	50	G 1"	5.2	9	227 617	259 516
		70	G 1"	5.0	16	213 622	259 517
	32	70	G 1 1/4"	5.0	8.5	213 623	259 519
		90	G 1 1/4"	5.0	16	213 624	259 521
	40	70	G 1 1/2"	5.0	6	213 625	259 523
		90	G 1 1/2"	5.0	16	213 627	259 524
	50	90	G 2"	5.0	10	175 108	259 525
		130	G 2"	5.0	16	188 610	259 526
B 2/2-way valve, NO 	15	50	G 1/2"	see chart on p. 2	16	213 637	259 531
		70	G 1/2"		16	213 638	259 532
	20	50	G 3/4"		16	213 639	259 533
		70	G 3/4"		16	213 640	259 535
	25	70	G 1"		16	213 641	259 537
		70	G 1 1/4"		16	213 642	259 538
	32	70	G 1 1/4"		16	213 643	259 539
		70	G 1 1/2"		16	175 123	259 540
	40	70	G 2"		16	239 464	259 565
		90	G 2 1/2"		14	239 479	259 566
	65	90	G 2 1/2"		16 (15*)	239 479	259 566
		130	G 2 1/2"		16 (15*)	239 479	259 566

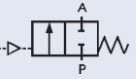
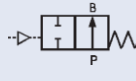
NPT threaded port, flow direction below the seat

Control function	Orifice (mm)	Actuator size ø [mm]	Threaded port connection	Minimum pilot pressure [bar]	Operating pressure up to +185°C [bar]	Item no.
A 2/2-way valve, NC 	15	50	NPT 1/2"	5.2	25	213 644
		70	NPT 1/2"	5.0	25	213 645
	20	50	NPT 3/4"	5.2	16	227 618
		70	NPT 3/4"	5.0	20	213 646
	25	50	NPT 1"	5.2	9	227 619
		70	NPT 1"	5.0	16	213 647
	32	70	NPT 1 1/4"	5.0	8.5	213 648
		90	NPT 1 1/4"	5.0	16	213 649
	40	70	NPT 1 1/2"	5.0	6	213 650
		90	NPT 1 1/2"	5.0	16	213 651
	50	90	NPT 2"	5.0	10	188 641
		130	NPT 2"	5.0	16	188 642
B 2/2-way valve, NO 	15	50	NPT 1/2"	see chart on p. 2	16	213 661
		70	NPT 1/2"		16	213 662
	20	50	NPT 3/4"		16	213 663
		70	NPT 3/4"		16	213 664
	25	70	NPT 1"		16	213 665
		70	NPT 1 1/4"		16	213 666
	32	70	NPT 1 1/4"		16	213 667
		70	NPT 1 1/2"		16	188 656
	40	70	NPT 2"		16	239 465
		90	NPT 2 1/2"		14	239 480
	65	90	NPT 2 1/2"		16 (15*)	239 480
		130	NPT 2 1/2"		16 (15*)	239 480

* acc. to the Pressure Equipment Directive 97/23 / EC for compressible fluids in Group 1 (hazardous gases and vapors in accordance with Article 3, Section 1.3, letter a, first dash)

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

RC threaded port, flow direction below the seat

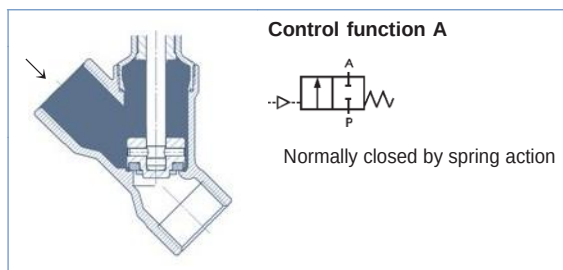
Control function	Orifice (mm)	Actuator size ø [mm]	Threaded port connection	Minimum pilot pressure [bar]	Operating pressure up to +185°C [bar]	Item no.
A 2/2-way valve, NC 	15	50	RC 1/2"	5.2	25	213 668
		70	RC 1/2"	5.0	25	213 669
	20	50	RC 3/4"	5.2	16	227 621
		70	RC 3/4"	5.0	20	213 670
	25	50	RC 1"	5.2	9	227 622
		70	RC 1"	5.0	16	213 671
	32	70	RC 1 1/4"	5.0	8.5	213 672
		90	RC 1 1/4"	5.0	16	213 673
	40	70	RC 1 1/2"	5.0	6	213 674
		90	RC 1 1/2"	5.0	16	213 675
	50	90	RC 2"	5.0	10	188 664
		130	RC 2"	5.0	16	188 665
	65	90	RC 2 1/2"	5.0	5	239 458
		130	RC 2 1/2"	5.6	16 (15*)	239 474
B 2/2-way valve, NO 	15	50	RC 1/2"	see chart on p. 2	16	213 685
		70	RC 1/2"		16	213 686
	20	50	RC 3/4"		16	213 687
		70	RC 3/4"		16	213 688
	25	70	RC 1"		16	213 689
	32	70	RC 1 1/4"		16	213 690
	40	70	RC 1 1/2"		16	213 691
	50	70	RC 2"		16	188 679
	65	90	RC 2 1/2"		14	239 466
		130	RC 2 1/2"		16 (15*)	239 481

* acc. to the Pressure Equipment Directive 97/23 / EC for compressible fluids in Group 1 (hazardous gases and vapors in accordance with Article 3, Section 1.3, letter a, first dash)

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Control function
I (double-acting)

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

**Attention!**

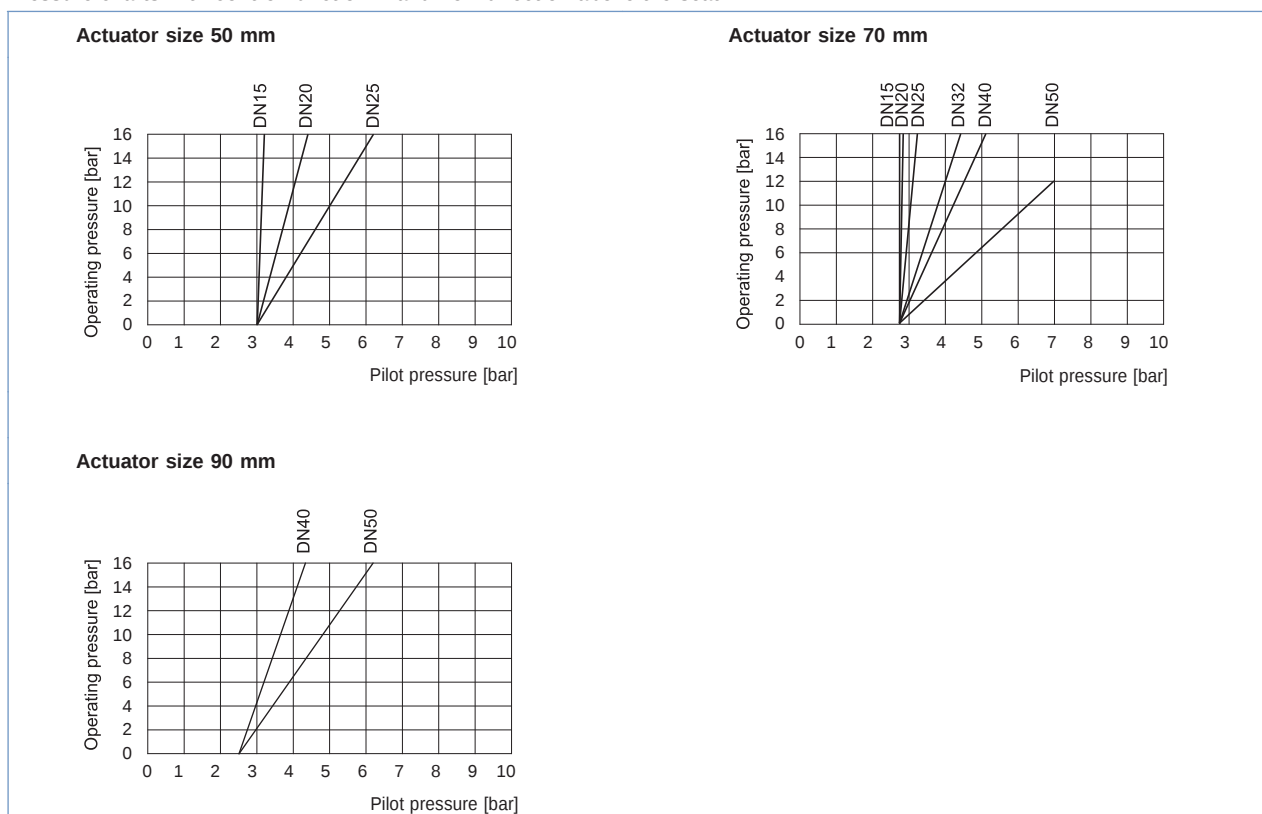
Valves with flow above the seat are only conditionally usable for liquid medium. There is a danger of waterhammer!

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.

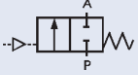
Pressure valves [bar]: Overpressure to the atmospheric pressure

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

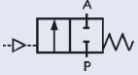


Ordering chart Type 2100 flow direction above the seat (for gases and steam)

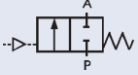
G threaded port, flow direction above the seat

Control function	Orifice (mm)	Actuator size ø [mm]	Threaded port connection	Minimum pilot pressure [bar]	Operating pressure up to +185°C [bar]	Item no.	Item no. certified Atex II 2GD Mechanical
A 2/2-way valve. NC 	15	50	G 1/2"	see chart on p. 5	16	213 628	259 567
		70	G 1/2"		16	213 629	259 568
	20	50	G 3/4"		16	213 630	259 569
		70	G 3/4"		16	213 631	259 571
	25	50	G 1"		16	213 632	259 573
		70	G 1"		16	213 633	259 575
	32	70	G 1 1/4"		16	213 634	259 576
		70	G 1 1/2"		16	213 635	259 577
	40	90	G 1 1/2"		16	213 636	259 578
		70	G 2"		12	175 115	259 579
	50	70	G 2"		16	175 116	259 580
		90	G 2"		16	175 116	259 580

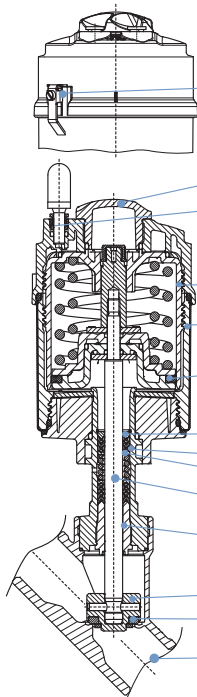
NPT threaded port, flow direction above the seat

Control function	Orifice (mm)	Actuator size ø [mm]	Threaded port connection	Minimum pilot pressure [bar]	Operating pressure up to +185°C [bar]	Item no.
A 2/2-way valve. NC 	15	50	NPT 1/2"	see chart on p. 5	16	213 652
		70	NPT 1/2"		16	213 653
	20	50	NPT 3/4"		16	213 654
		70	NPT 3/4"		16	213 655
	25	50	NPT 1"		16	213 656
		70	NPT 1"		16	213 657
	32	70	NPT 1 1/4"		16	213 658
	40	70	NPT 1 1/2"		16	213 659
	50	70	NPT 2"		12	188 649

RC threaded port, flow direction above the seat

Control function	Orifice (mm)	Actuator size ø [mm]	Threaded port connection	Minimum pilot pressure [bar]	Operating pressure up to +185°C [bar]	Item no.
A 2/2-way valve. NC 	15	50	RC 1/2"	see chart on p. 5	16	213 676
		70	RC 1/2"		16	213 677
	20	50	RC 3/4"		16	213 678
		70	RC 3/4"		16	213 679
	25	50	RC 1"		16	213 680
		70	RC 1"		16	213 681
	32	70	RC 1 1/4"		16	213 682
	40	70	RC 1 1/2"		16	213 683
	50	70	RC 2"		12	188 672

Materials angle seat valve Type 2100

	A	Groundt erminal	Stainless steel 1.4301/1.4305 Only for the ATEX version
	1	Optical position indicator	Transparent cap polysulfone PSU
	2	Pilot air ports	Push-in connector PP (standard) On request: 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]

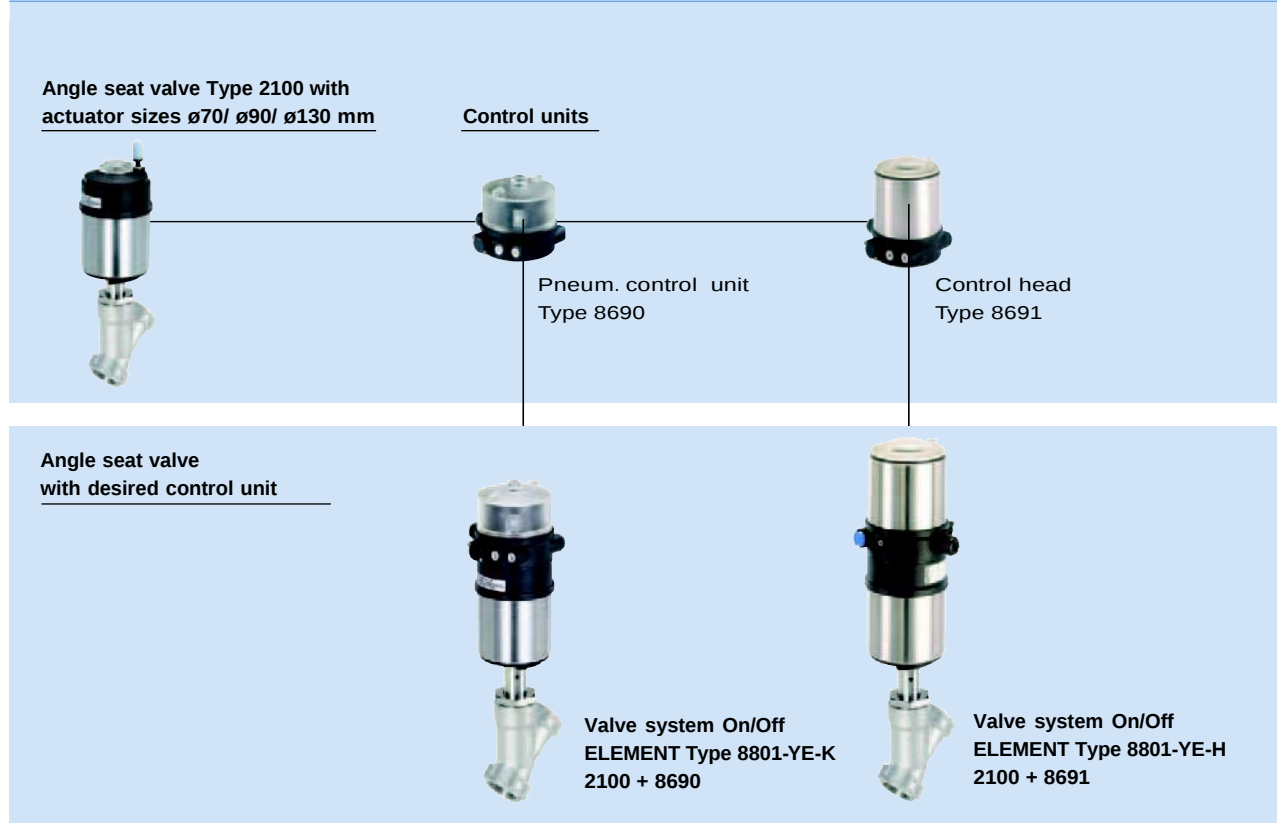
Push-in connector for
plastic tube - $\varnothing$ 6/4 m
or thread G 1/8"

Orifice [mm]	Actuator size [mm]	Ø A	F	G	R	HM	BM	CM	LM	SW	G D	E	NPT D	E	Rc D	E
15	50	64.5	19.8	6.1	17.15	158	185	24	65	27	G 1/2	14	NPT 1/2	13.7	RC 1/2	13.2
	70	91	23.3	8.5	30.5	173	201									
20	50	64.5	19.8	6.1	17.15	166	195	27	75	34	G 3/4	16	NPT 3/4	14	RC 3/4	14.5
	70	91	23.3	8.5	30.5	181	211									
25	50	64.5	19.8	6.1	17.15	172	204	29.5	90	41	G 1	18	NPT 1	16.8	RC 1	16.8
	70	91	23.3	8.5	30.5	187	220									
32	70	91	23.3	8.5	30.5	195	235	36	110	50	G 1 1/4	16	NPT 1 1/4	17.3	RC 1 1/4	19.1
	90	120	23.3	8.5	30.5	240	277									
40	70	91	23.3	8.5	30.5	197	236	35	120	55	G 1 1/2	18	NPT 1 1/2	17.3	RC 1 1/2	19.1
	90	120	23.3	8.5	30.5	242	278									
50	130	159	23.3	8.5	30.5	293	328	45	150	70	G 2	24	NPT 2	17.6	RC 2	23.4
	70	91	23.3	8.5	30.5	214	262									
65	90	120	23.3	8.5	30.5	255	301	57	185	85	G 2 1/2	26	NPT 2 1/2	23.7	RC 2 1/2	26.7
	130	159	23.3	8.5	30.5	306	351									

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. 13. 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



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



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 $\varnothing 70/\varnothing 90/\varnothing 130\text{mm}$) 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. 13

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 $\varnothing 50\text{ mm}$

**Angle seat valve Type 2100 with
actuator size $\varnothing 50\text{ mm}$**



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



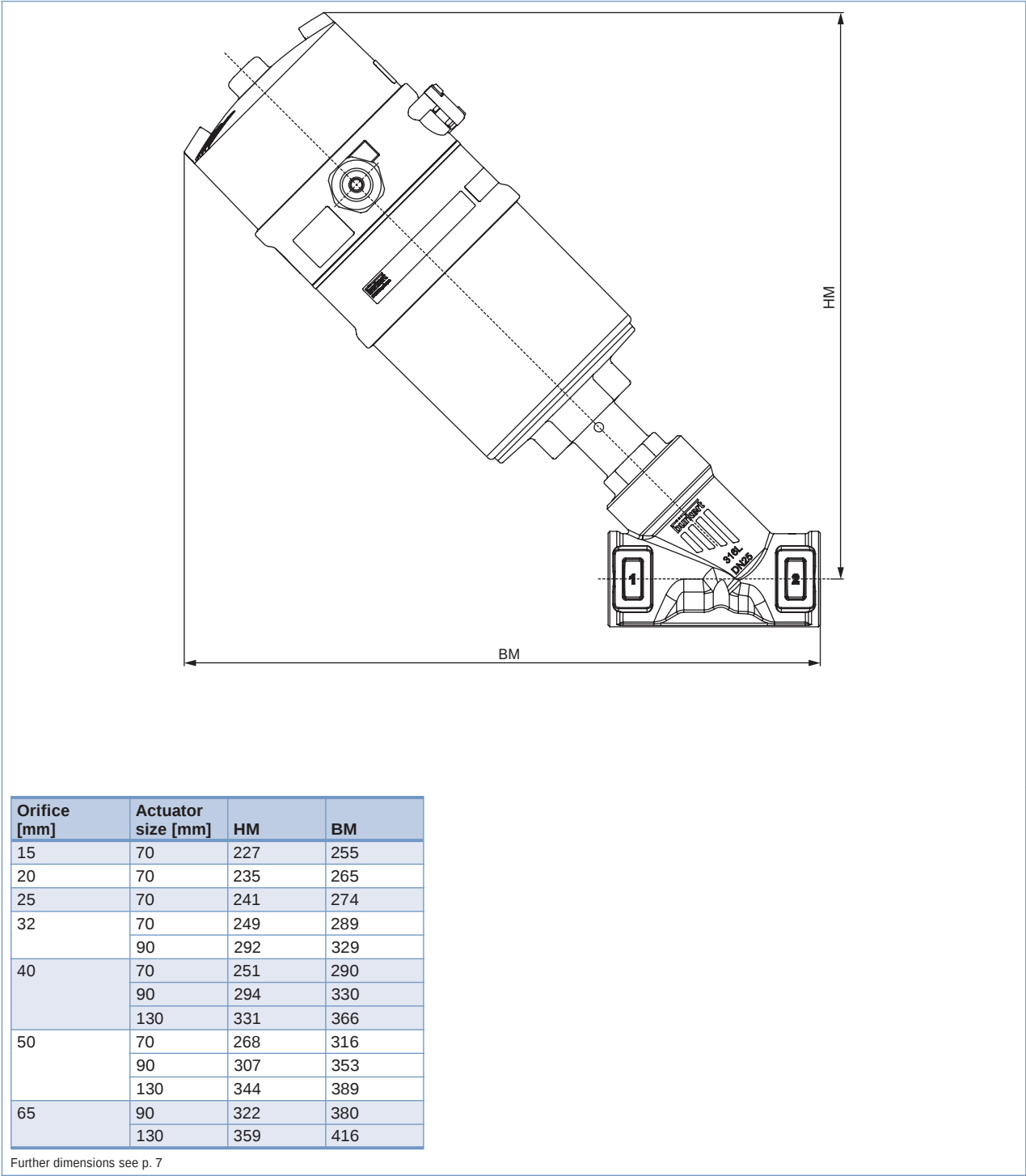
The new generation of integrated control heads for combination with small actuators from the process valve series Type 21xx is specially designed for the requirements of hygienic process environments. The intelligent control head, Type 8695, detects the valve position by means of a contact-free analog 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 control head Type 8691) [mm]

