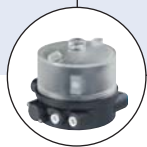




2/2-way-Globe Valve with stainless steel design for media up to +185°C, DN 15-100

- High cycle life
- Flow optimised body in stainless steel 316L
- 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 2101 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 2101 globe 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 DN100
Port connections	DIN EN 1092-1, ANSI B16.5, JIS 10K on request
Flange acc. to Welded and threaded	
Body material	Cast stainless steel 316L
Nominal pressure	PN25 (Body)
Actuator material	PPS / Stainless steel 1.4561 (316Ti)
Actuator / Cover	
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)
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 2101

Technical data & ordering info. p. 1-8



System spec. On/Off ELEMENT

Type 8801-GC

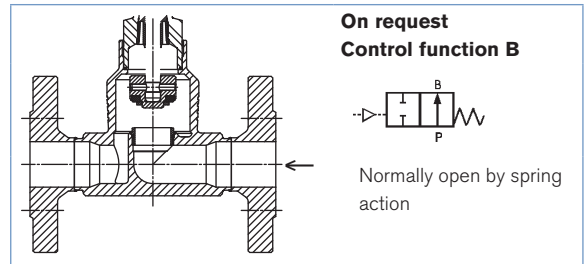
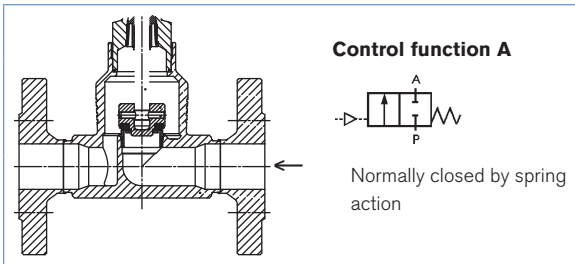
Technical data & ordering info. p. 9-16

Request for quotation

Type 8801-GC

p.15

Technical data globe valve Type 2101 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]	On request :CFB [bar]
15	50	4.7	4.8	25	16
	70	4.7	4.8	25	16
20	50	8.1	4.8	16	16
	70	8.1	4.8	20	16
25	50	13	4.8	9	14.5
	70	13	4.8	16	16
32	70	19.5	4.8	8.5	16
	90	19.5	5.0	16	16
40	70	31	4.8	6	16
	90	31	5.0	16	16
50	70	45	-	-	16
	90	45	5.0	10	16
	130	45	5.0	16	-
65	90	73	5.0	5	14
	130	73	5.6	16 (15*)	16 (15*)
80	130	110	5.6	10	11
100	130	165	5.6	6	7

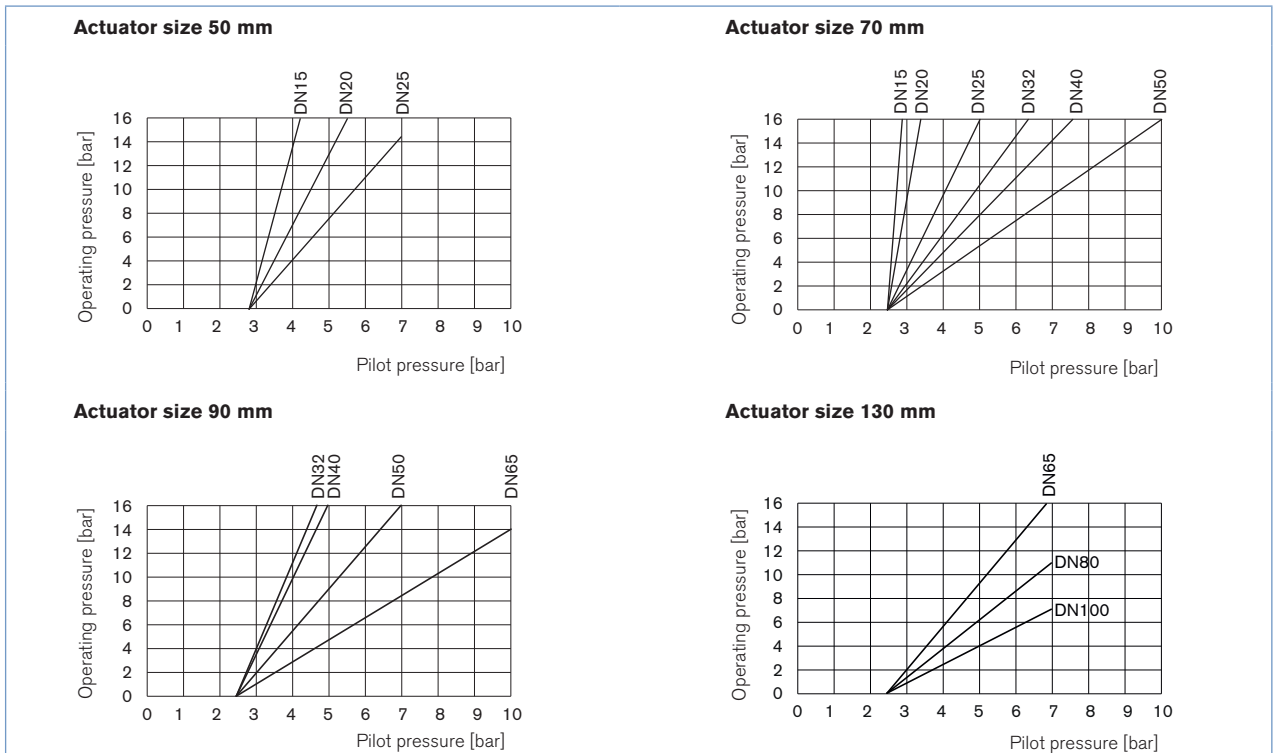
Flow rate: Kv value water [m³/h]: Measured at +20°C, 1 bar pressure at valve inlet and free outlet.

Pressure valves [bar]: Overpressure to the atmospheric pressure

* 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)

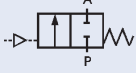
On request control function B

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

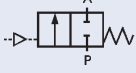


Ordering chart Type 2101, flow direction below the seat (for gases and liquids)

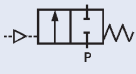
Flange connection acc. to DIN EN 1092-1, flow direction below the seat

Control function	Orifice (mm)	Actuator size ϕ [mm]	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	5.2	25	203 076	260 092
	20	50	5.2	16	203 077	260 093
		70	4.8	20	203 078	260 094
	25	50	5.2	9	203 079	260 095
		70	4.8	16	189 700	260 096
		70	4.8	8.5	203 080	260 099
		90	5.0	16	203 081	260 100
	40	70	4.8	6	203 082	260 101
		90	5.0	16	203 083	260 103
		90	5.0	10	203 084	260 104
		130	5.0	16	218 418	260 106
	65	90	5.0	5	239 524	260 107
		130	5.6	16 (15*)	219 533	260 109
		80	130	5.6	10	239 528
	100	130	5.6	6	239 531	260 144

Flange connection acc. to ANSI B16.5, flow direction below the seat

Control function	Orifice (mm)	Actuator size ϕ [mm]	Minimum pilot pressure [bar]	Operating pressure up to +185°C [bar]	Item no.	
A 2/2-way valve. NC 	15	50	5.2	25	203 095	
	20	50	5.2	16	203 086	
		70	4.8	20	203 097	
	25	50	5.2	9	203 098	
		70	4.8	16	203 099	
		70	4.8	6	203 100	
		90	5.0	16	203 101	
	50	90	5.0	10	203 102	
		130	5.0	16	218 419	
	65	90	5.0	5	239 525	
		130	5.6	16 (15*)	239 527	
		130	5.6	10	239 529	
		100	130	5.6	6	239 532

Flange connection acc. to JIS 10K, flow direction below the seat

Control function	Orifice (mm)	Actuator size ϕ [mm]	Minimum pilot pressure [bar]	Operating pressure up to +185°C [bar]	Item no.	
A 2/2-way valve. NC 	15	50	5.2	25	203 111	
	20	50	5.2	16	203 112	
		70	4.8	20	203 113	
	25	50	5.2	9	203 114	
		70	4.8	16	203 115	
		70	4.8	6	203 118	
		90	5.0	16	203 121	
	50	90	5.0	10	203 122	
		130	5.0	16	218 471	
	65	90	5.0	5	239 526	
		130	5.6	16 (15*)	219 537	
		80	130	5.6	10	239 530
		100	130	5.6	6	239 533

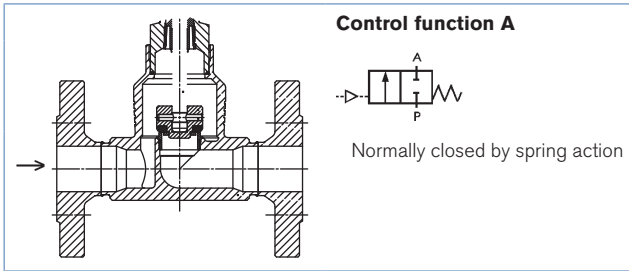
* acc. to the Pressure Equipment Directive 97/23 / EC for compressible fluids in Group 1 (hazardous gases and vapors in accordance with Article 3, Section 1.3, letter a, first dash)

i Further versions on request

Control function
B (normally open) and I (double-acting)

Port connection
Welded and threaded ports

Technical data globe valve Type 2101 flow direction above the seat (for gases and steam)



Attention!

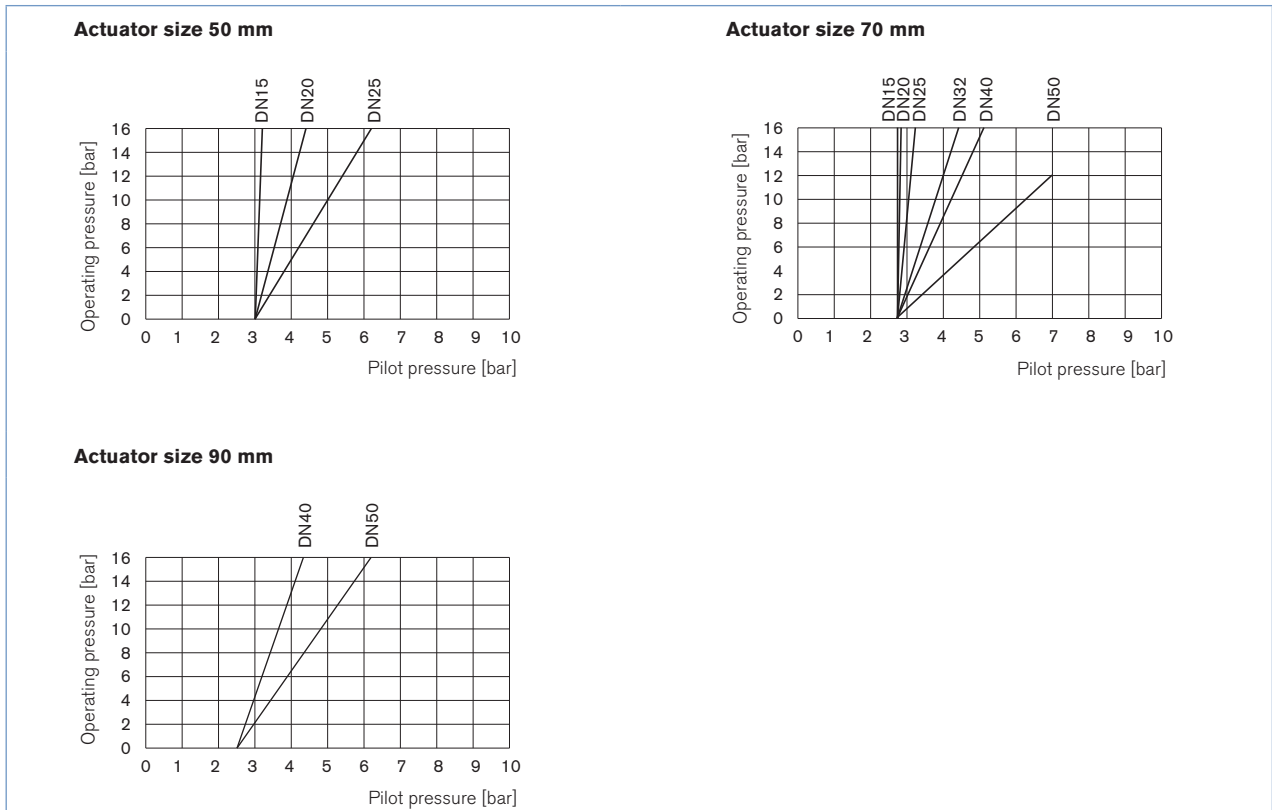
Valves with flow above the seat are only conditionally usable for liquid medium. There is a danger of waterhammer!

Orifice [mm]	Actuator size [mm]	Kv value water (m³/h)	Operating pressure up to +185°C CFA [bar]
15	50	4.7	16
	70	4.7	16
20	50	8.1	16
	70	8.1	16
25	50	13	16
	70	13	16
32	70	19.5	16
40	70	31	16
	90	31	16
50	70	45	12
	90	45	16

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

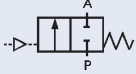
Pressure valves [bar]: Overpressure to the atmospheric pressure

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

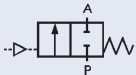


Ordering chart Type 2101 flow direction above the seat (for gases and steam)

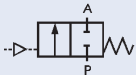
Flange connection acc. to DIN EN 1092-1, flow direction below the seat

Control function	Orifice (mm)	Actuator size \varnothing [mm]	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	see chart on p. 4	16	203 086	260 145
	20	50		16	203 087	260 146
	25	50		16	203 088	260 151
	32	70		16	203 091	260 153
	40	70		16	203 092	260 154
	50	70		12	204 973	260 157
		90		16	203 094	260 158

Flange connection acc. to ANSI B16.5, flow direction below the seat

Control function	Orifice (mm)	Actuator size \varnothing [mm]	Minimum pilot pressure [bar]	Operating pressure up to +185°C [bar]	Item no.
A 2/2-way valve. NC 	15	50	see chart on p. 4	16	203 103
	20	50		16	203 104
	25	50		16	203 105
	40	70		16	203 107
	50	70		12	204 974
		90		16	203 109

Flange connection acc. to JIS 10K, flow direction below the seat

Control function	Orifice (mm)	Actuator size \varnothing [mm]	Minimum pilot pressure [bar]	Operating pressure up to +185°C [bar]	Item no.
A 2/2-way valve. NC 	15	50	see chart on p. 4	16	203 123
	20	50		16	203 124
	25	50		16	203 125
	40	70		16	203 127
	50	70		12	204 975
		90		16	203 129

i Further versions on request



Control function

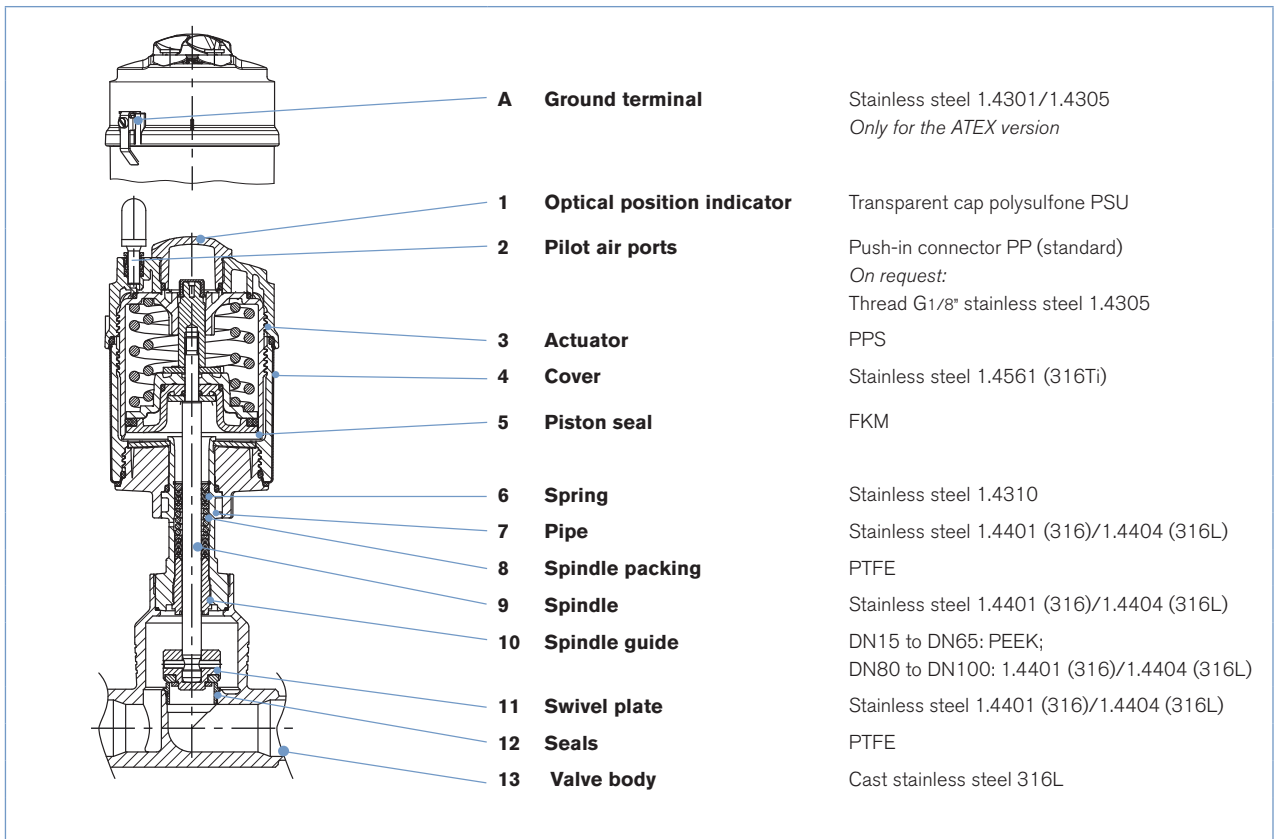
B (normally open) and I (double-acting)



Port connection

Welded and threaded ports

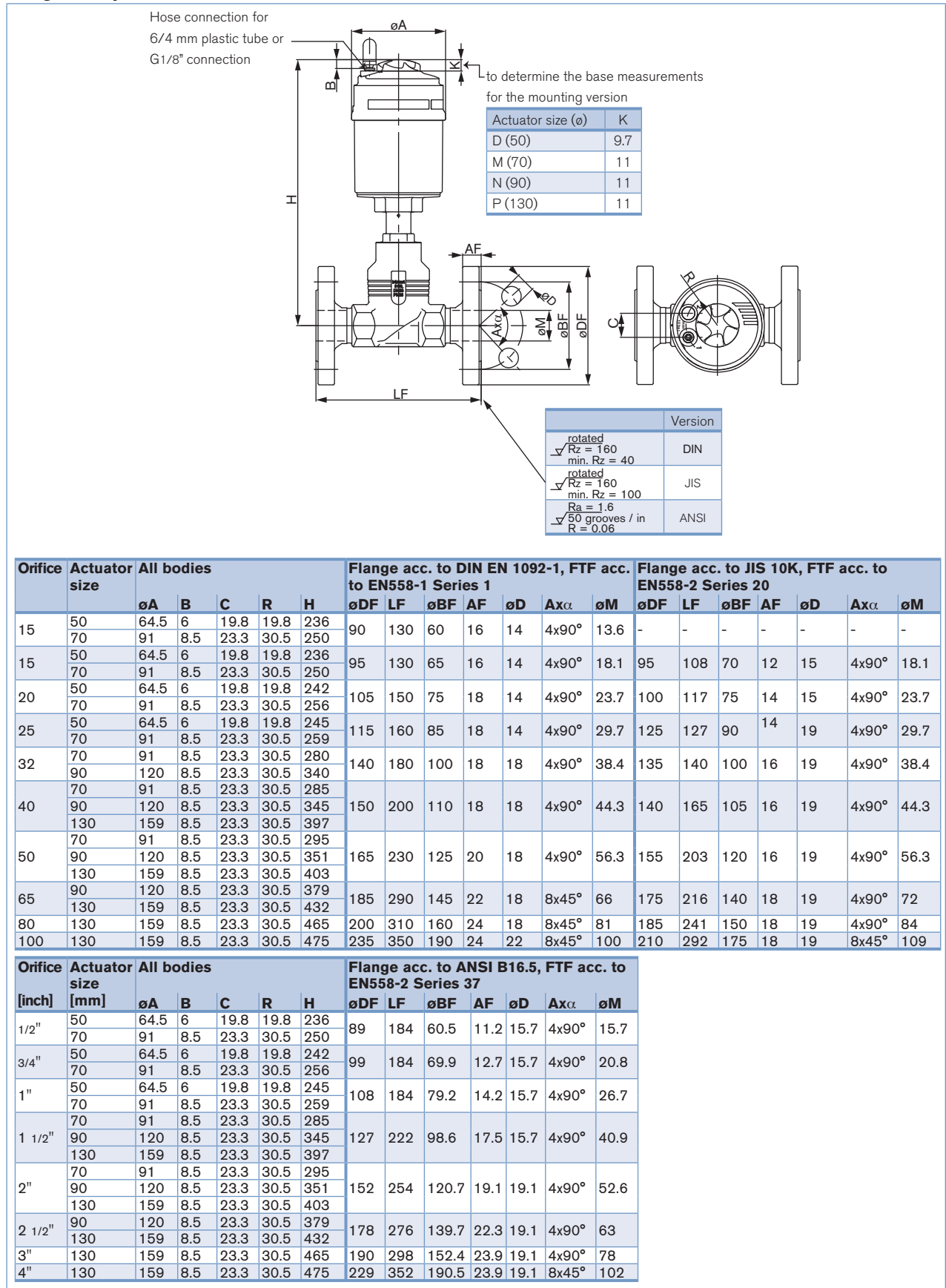
Materials globe valve Type 2101



Lubricants for spindle packing and actuator are classified according NSF H1

Dimensions globe valve Type 2101 [mm]

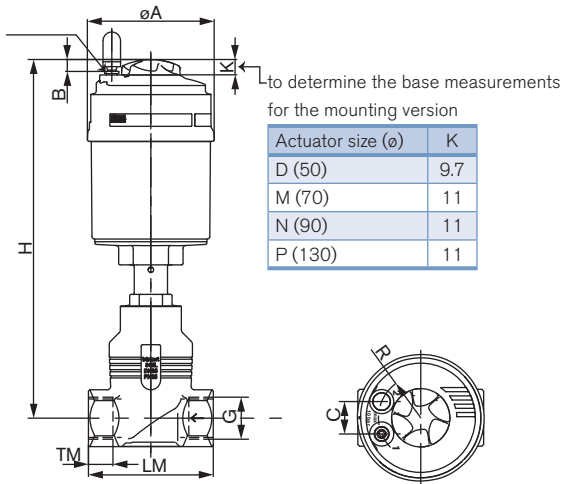
Flanged body



Dimensions globe valve Type 2101 [mm], *continued*

Threaded body

Hose connection for
6/4 mm plastic tube or
G1/8" connection



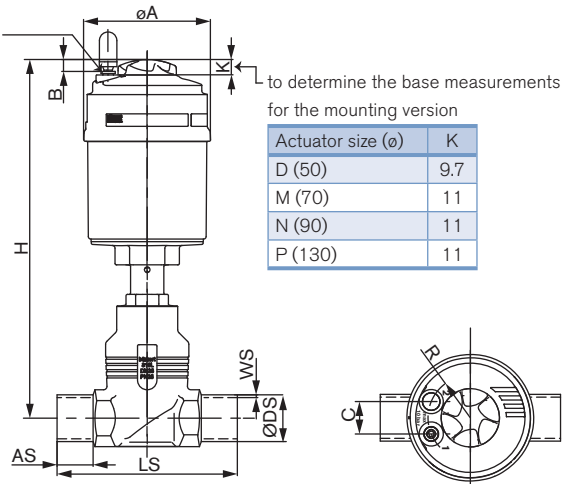
Actuator size (ø)	K
D (50)	9.7
M (70)	11
N (90)	11
P (130)	11

Orifice	Actuator size	All bodies					LM	G		NPT		Rc	
		øA	B	C	R	H		G	TM	G	TM	G	TM
15	50	64.5	6	19.8	19.8	236	65	G 3/8"	12	NPT 3/8"	10.3	Rc 3/8"	10.1
	70	91	8.5	23.3	30.5	250							
15	50	64.5	6	19.8	19.8	236	65	G 1/2"	14	NPT 1/2"	13.7	Rc 1/2"	13.2
	70	91	8.5	23.3	30.5	250							
20	50	64.5	6	19.8	19.8	242	75	G 3/4"	16	NPT 3/4"	14	Rc 3/4"	14.5
	70	91	8.5	23.3	30.5	256							
25	50	64.5	6	19.8	19.8	245	90	G 1"	18	NPT 1"	16.8	Rc 1"	16.8
	70	91	8.5	23.3	30.5	259							
32	70	91	8.5	23.3	30.5	280	110	G 1 1/4"	20	NPT 1 1/4"	17.3	Rc 1 1/4"	19.1
	90	120	8.5	23.3	30.5	340							
	70	91	8.5	23.3	30.5	285							
40	90	120	8.5	23.3	30.5	345	120	G 1 1/2"	22	NPT 1 1/2"	17.3	Rc 1 1/2"	19.1
	130	159	8.5	23.3	30.5	397							
	70	91	8.5	23.3	30.5	295							
50	90	120	8.5	23.3	30.5	351	150	G 2"	24	NPT 2"	17.6	Rc 2"	23.4
	130	159	8.5	23.3	30.5	403							
	70	91	8.5	23.3	30.5	295							
65	90	120	8.5	23.3	30.5	379	185	G 2 1/2"	26	NPT 2 1/2"	23.7	Rc 2 1/2"	26.7
	130	159	8.5	23.3	30.5	432							
	70	91	8.5	23.3	30.5	295							

Dimensions globe valve Type 2101 [mm], *continued*

Weld end body

Hose connection for
6/4 mm plastic tube or
G1/8" connection



Orifice size	Actuator size	All bodies						ISO 4200		DIN 11850 R2		
		øA	B	C	R	H	AS	LS	ø DS	WS	ø DS	WS
15	50	64.5	6	19.8	19.8	236	20	90	17.2	1.6	13	1.5
	70	91	8.5	23.3	30.5	250						
15	50	64.5	6	19.8	19.8	236	20	90	21.3	1.6	19	1.5
	70	91	8.5	23.3	30.5	250						
20	50	64.5	6	19.8	19.8	242	20	10	26.9	1.6	23	1.5
	70	91	8.5	23.3	30.5	256						
25	50	64.5	6	19.8	19.8	245	26	130	33.7	2.0	29	1.5
	70	91	8.5	23.3	30.5	259						
32	70	91	8.5	23.3	30.5	280	26	140	42.4	2.0	35	1.5
	90	120	8.5	23.3	30.5	340						
	70	91	8.5	23.3	30.5	285						
40	90	120	8.5	23.3	30.5	345	26	150	48.3	2.0	41	1.5
	130	159	8.5	23.3	30.5	397						
	70	91	8.5	23.3	30.5	295						
50	90	120	8.5	23.3	30.5	351	26	175	60.3	2.0	53	1.5
	130	159	8.5	23.3	30.5	403						
	90	120	8.5	23.3	30.5	379						
65	90	120	8.5	23.3	30.5	379	26	210	76.1	2.3	70	2.0
	130	159	8.5	23.3	30.5	432						

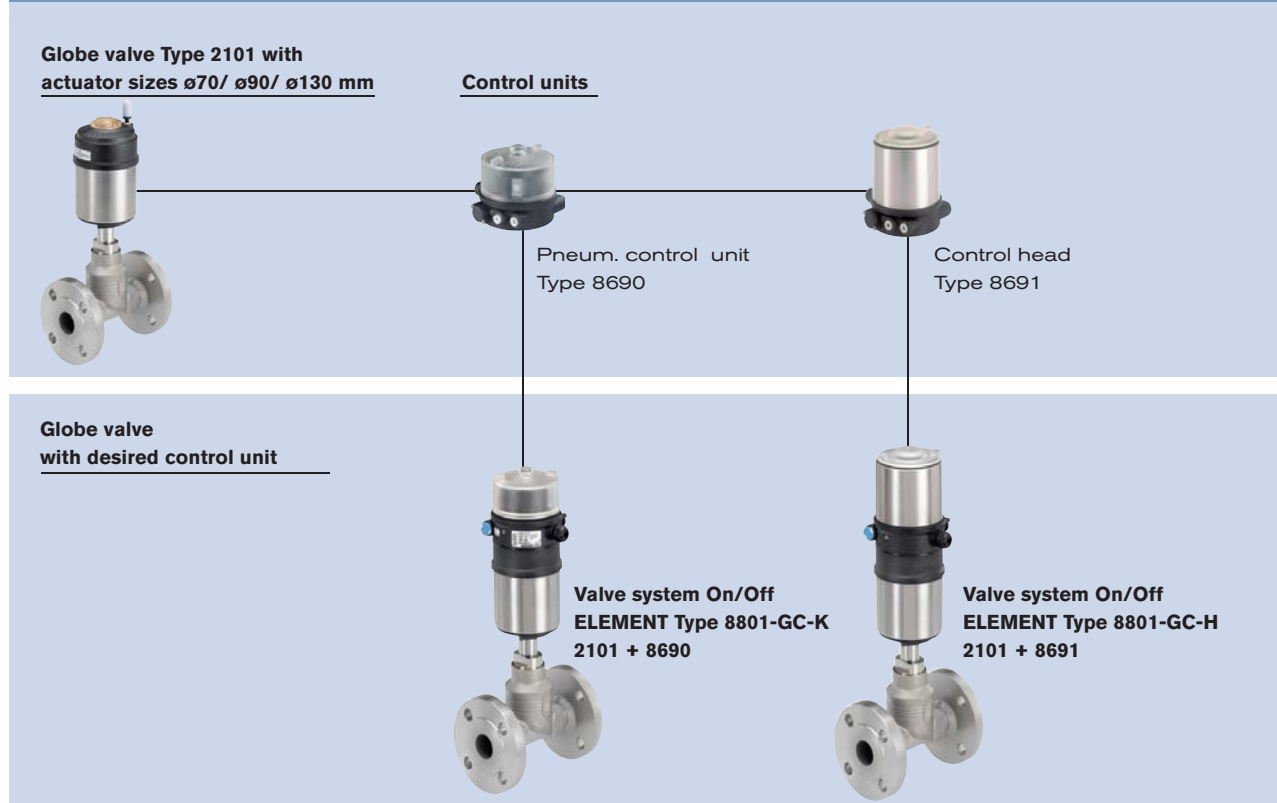
Orifice [inch]	Actuator size [mm]	All bodies						BS 4825 Part1		ASME BPE		
		øA	B	C	R	H	AS	LS	ø DS	WS	ø DS	WS
1/2"	50	64.5	6	19.8	19.8	236	20	90	12.7	1.2	12.7	1.65
	70	91	8.5	23.3	30.5	250						
3/4"	50	64.5	6	19.8	19.8	242	20	90	19.05	1.2	19.05	1.65
	70	91	8.5	23.3	30.5	256						
1"	50	64.5	6	19.8	19.8	245	20	100	25.4	1.6	25.4	1.6
	70	91	8.5	23.3	30.5	259						
1 1/2"	70	91	8.5	23.3	30.5	285	26	140	38.1	1.6	38.1	1.6
	90	120	8.5	23.3	30.5	345						
	130	159	8.5	23.3	30.5	397						
2"	70	91	8.5	23.3	30.5	295	26	150	50.8	1.6	50.8	1.6
	90	120	8.5	23.3	30.5	351						
	130	159	8.5	23.3	30.5	403						
2 1/2"	90	120	8.5	23.3	30.5	379	26	175	63.5	1.6	63.5	1.6
	130	159	8.5	23.3	30.5	432						

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

A valve system On/Off ELEMENT Type 8801-GC consists of an **Globe valve Type 2101** 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. 15 [go to page](#)

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

Ordering the valve system On/Off ELEMENT Type 8801-GC 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-GC, *continued*

A valve system On/Off ELEMENT Type 8801-GC consists of an **Globe valve Type 2101** 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. 15 [go to page](#)

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

Ordering the valve system On/Off ELEMENT Type 8801-GC with valve actuator sizes $\varnothing 50\text{mm}$

Globe valve Type 2101 with actuator size $\varnothing 50\text{mm}$



Control unit



Control head
Type 8695

Globe valve with desired control unit



**Valve system On/Off ELEMENT Type 8801-GC-M
2101 + 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.

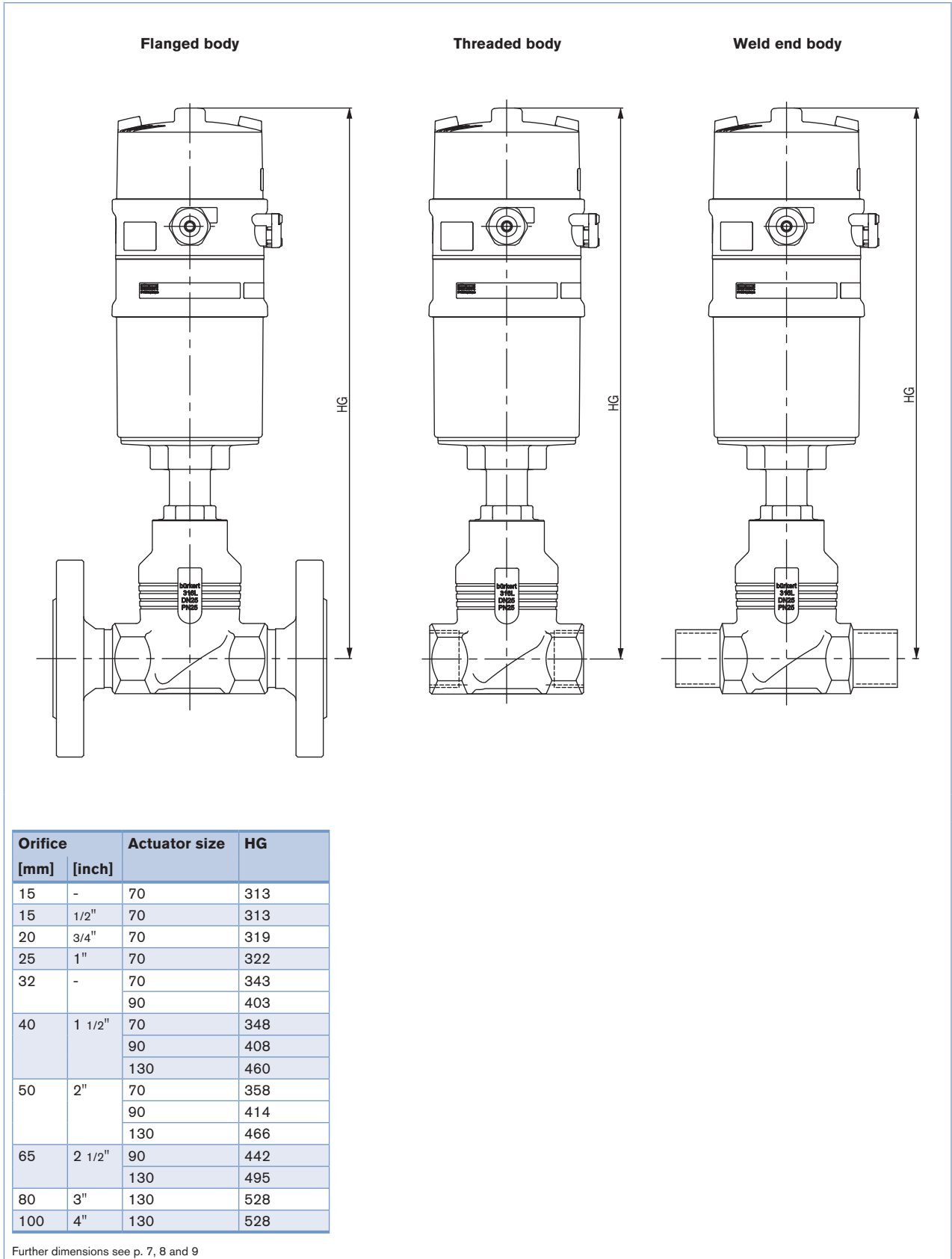
The new generation of integrated control heads for combination with small actuators from the process valve series Type 21xx is specially designed for the requirements of hygienic process environments. The intelligent control head, Type 8695, detects the valve position by means of a contact-free analog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

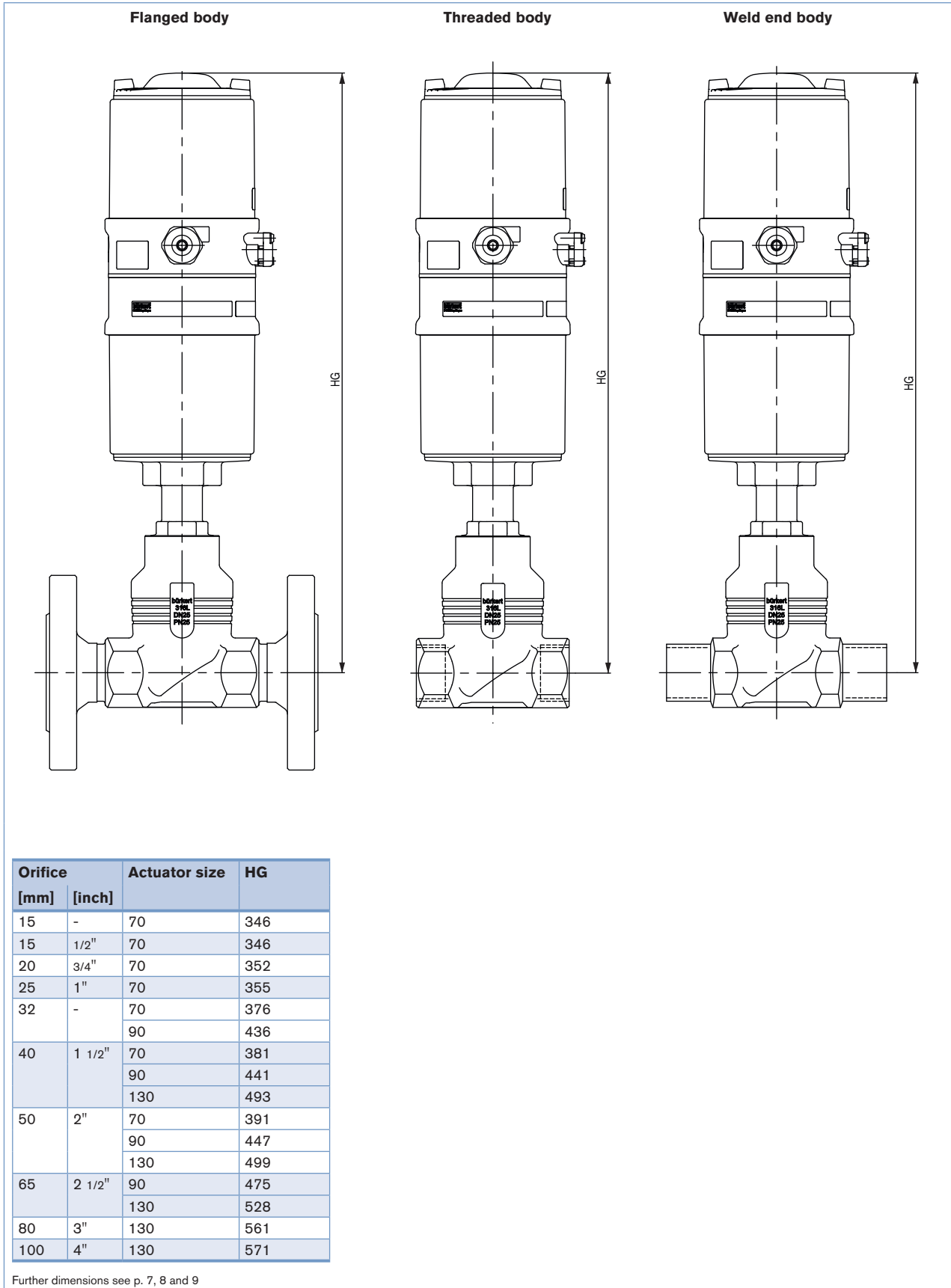
Dimensions for valve system On/Off ELEMENT Type 8801-GC [mm]

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



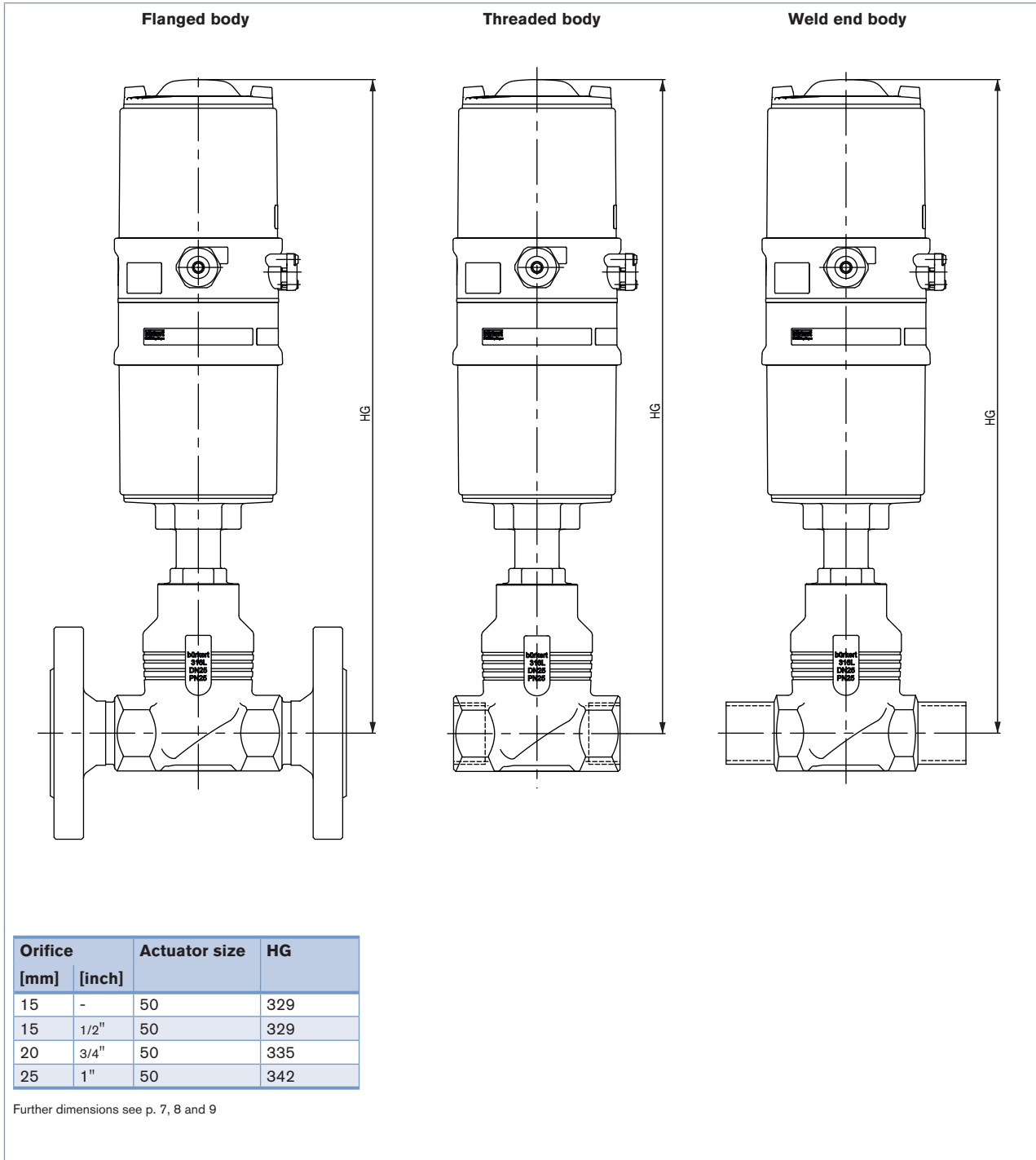
Dimensions for valve system On/Off ELEMENT Type 8801-GC [mm], *continued*

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



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

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



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

Valve system On/Off ELEMENT Type 8801-GC – 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 Flanged Threaded Welded Clamp

Standard connection ISO DIN Other

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

Pneumatic Control Unit Type 8690 More info.

Pneumatic function

Single-acting Double-acting

Without pilot valve

Position feedback

1x inductive 2x inductive

1x inductive (NAMUR) 2x inductive (NAMUR)

1x mechanical 2x mechanical

Supply voltage

24V DC (ATEX Zone 2/22)

Ex ia IIC T6 (ATEX Zone 1)

Pilot air ports

Push-in connector external ø 6 mm or 1/4"

Thread G 1/8"

Please specify item no. (if known):

Control Head Type 8691 More info.

Pneumatic function

Single-acting Double-acting

Pilot air ports

Push-in connector external ø 6 mm or 1/4"

Thread G 1/8"

Communication

ASI

Multipol M12

Flat cable clip, 1 m cable

DeviceNet

Please specify item no. (if known):

For actuator sizes ø50 mm

Control Head Type 8695 More info.

Pneumatic function

Single-acting Double-acting

Pilot air ports

Push-in connector external ø 6 mm or 1/4"

Thread G 1/8"

Communication

ASI

Please specify item no. (if known):

Comment

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

www.burkert.com

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

Subject to alteration.
© Christian Bürkert GmbH & Co. KG

1412/11_EU-en_00895100

DTS 1000112108 EN Version: K Status: RL (released | freigegeben | valide) printed: 19.01.2015