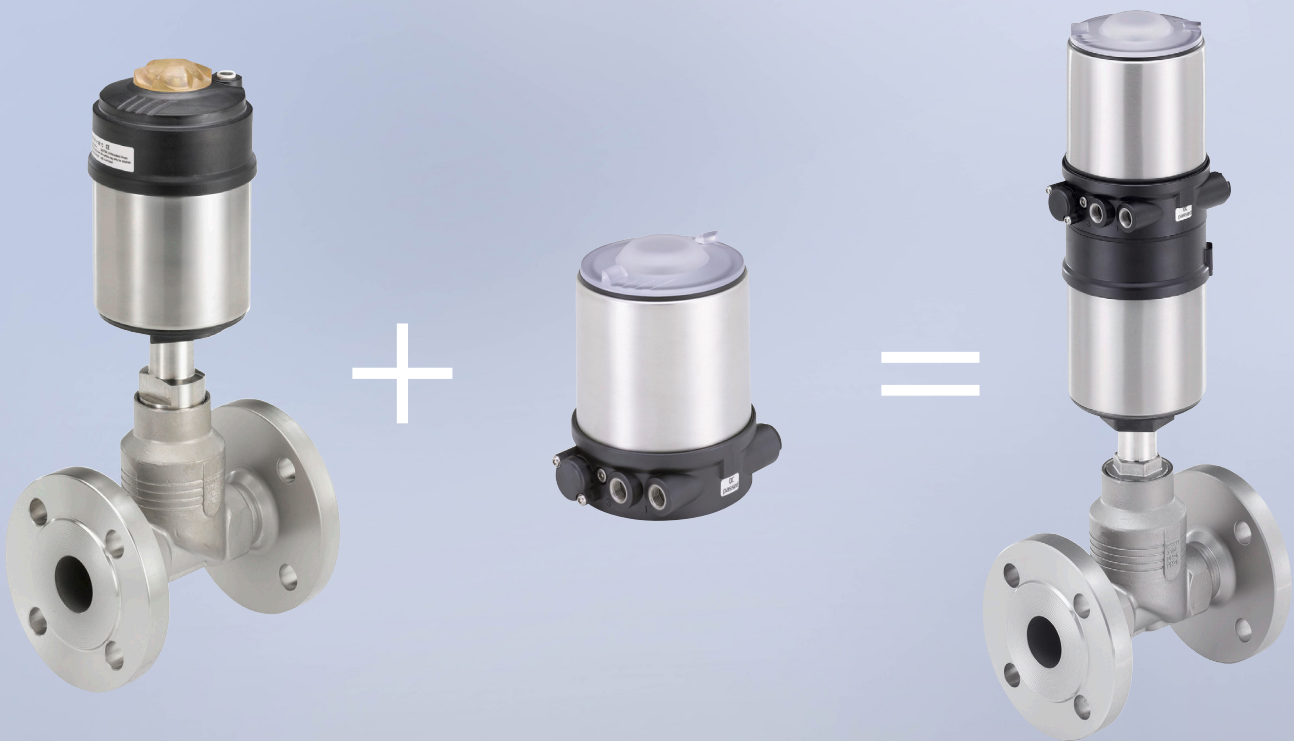


Globe Valve System for on/off control

Type 8801/2101 electro-pneumatically operated globe valve



TWO YEAR WARRANTY
on this valve system

Burkert Type 8801/2101



2101 globe series valve

+



8691 on/off control head

=



8801 on/off control valve

The design of the System Type 8801 On/Off ELEMENT valve system enables the easy integration of automation units whether they are electrical/ optical position feedback, pneumatic control units or an optional integrated fieldbus interface.

The fully integrated system with valve and automation unit has a compact and smooth design, integrated pneumatic lines, IP65/67/ NEMA4X protection class and superior chemical resistance.

Support documentation for 2101 + 8691



2101 Datasheet



8691 Datasheet



Burkert Type 2101

2/2-way-Globe Valve with stainless steel design
for media up to 365°F (+185°C) 1/2" - 4"

- 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 150 psi(g)



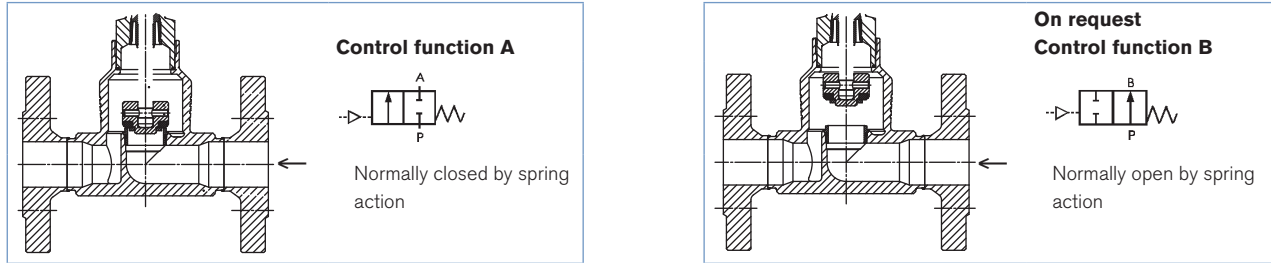
Technical Data	
Orifice	1/2" (DN15) to 4" (DN100)
Port Connections Flange acc. to Welded and threaded	ANSI B16.5 on request
Body Material	Cast stainless steel 316L
Nominal pressure	PN25 (Body)
Actuator material Actuator / Cover	PPS / Stainless steel 1.4561 (316ti)
Sealing Material	PTFE
Medium	Water, alcohol, oils, fuel, 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°C to 185°C; 14°F to 365°F
Abmient temperature	+32°F to 131°F (integrated control head) +32°F to 140°F (push-in air ports)
Control medium	Neutral gases, air
Max. pilot air pressure	max.145 psi ; actuator size 130 mm, 101 psi
Pilot air ports	Threaded ports G1/8 stainless steel
Installation	As required, preferably with actuator in upright position

In line with Burkert'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.

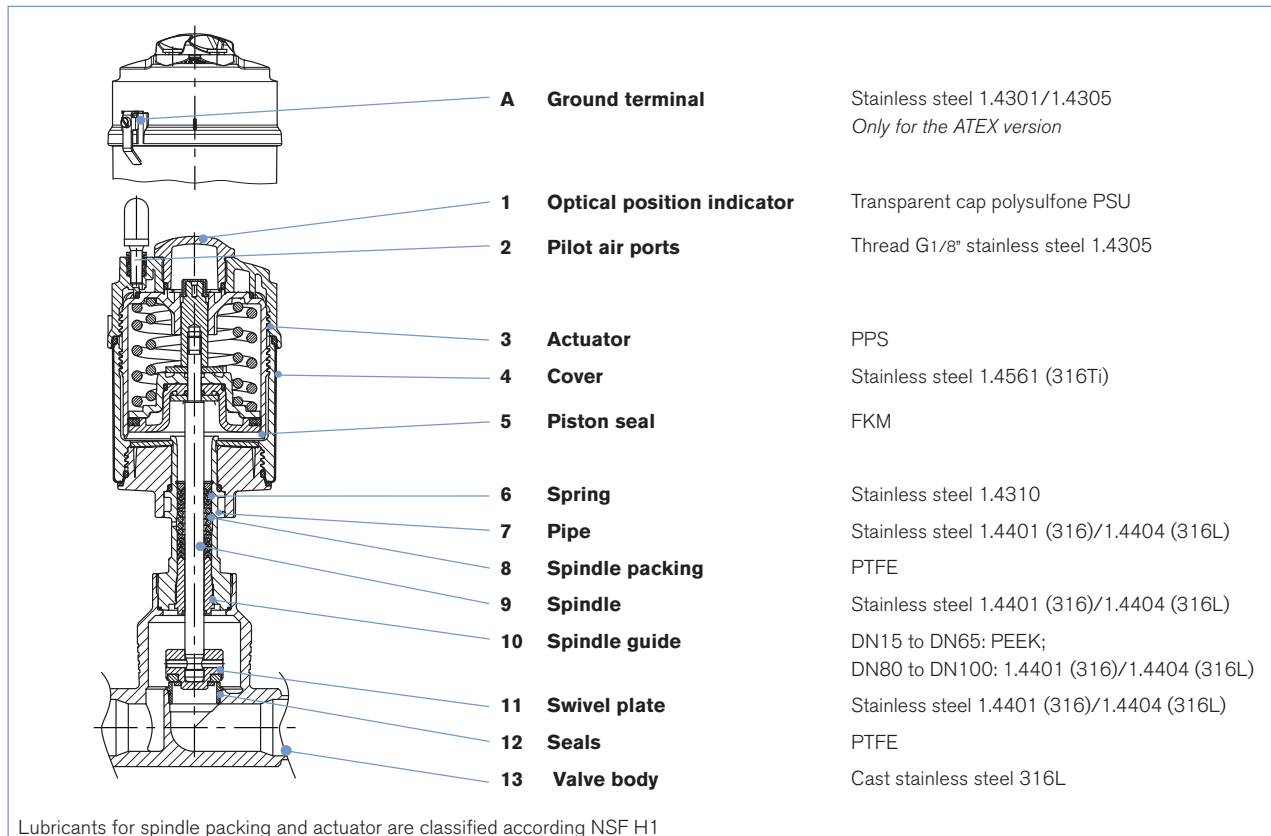
Technical data globe valve Type 2101 flow direction below the seat (for gases and liquids)



Connection	Orifice [mm]	Actuator (mm)	Cv value water (gpm)	Minimum pilot pressure CFA [psi]	Operating pressure up to +365°F	
					CFA [psi]	On request : CFB [psi]
1/2	15	70	5.47	70	362	232
3/4	20	70	9.42	70	290	232
1	25	70	15.12	70	232	232
1-1/2	40	90	36.05	72.5	232	232
2	50	130	52.33	72.5	232	232
2-1/2	65	130	75.58	82	232 (217*)	232 (217*)
3	80	130	127.9	82	145	159
4	100	130	191.86	82	87	101

Flow rate: Cv value water [gpm]: measure at +68°F, 1psi pressure at valve inlet and free outlet. Pressure valves [psi]: 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)

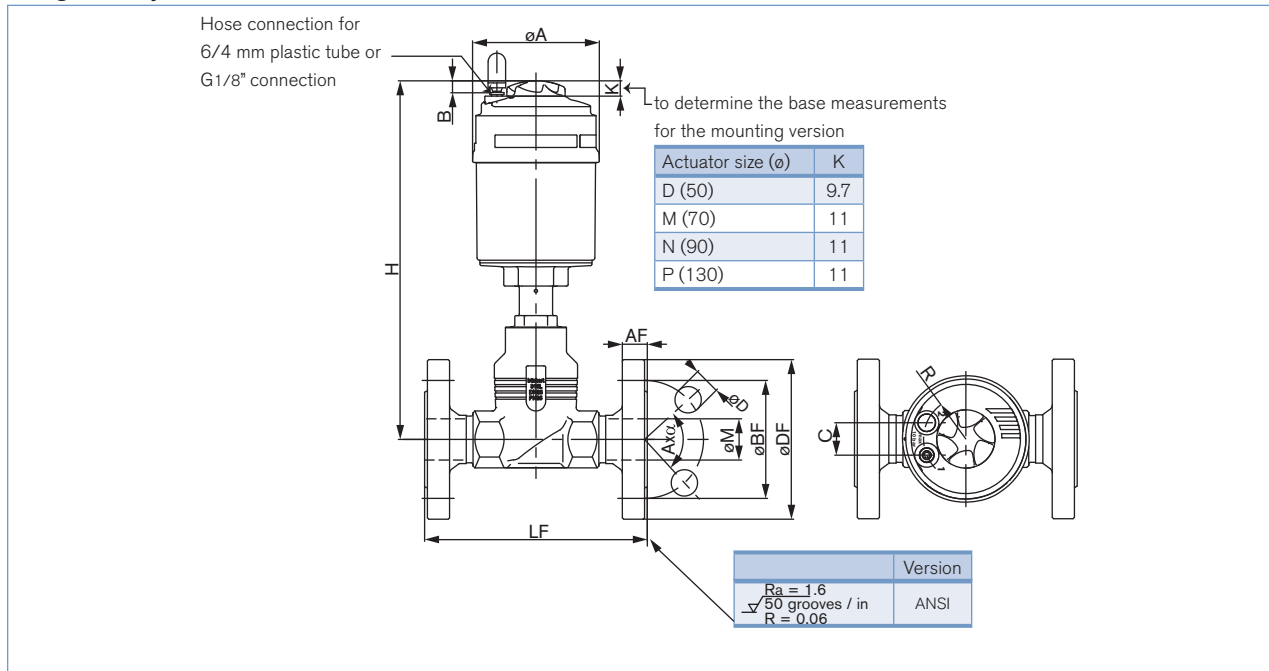
Materials globe valve Type 2101



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] ...cont.

Orifice [inch]	Actuator (mm)	All bodies					Flange acc. to ANSI B16.5						
		$\varnothing A$	B	C	R	H	$\varnothing DF$	LF	$\varnothing BF$	AF	$\varnothing D$	Ax α	$\varnothing M$
1/2	70	3.583	0.335	0.917	1.201	9.843	3.504	7.244	2.382	0.441	0.618	4x90°	0.618
3/4	70	3.583	0.335	0.917	1.201	10.079	3.898	7.244	2.752	0.5	0.618	4x90°	0.819
1	70	3.583	0.335	0.917	1.201	10.197	4.252	7.244	3.118	0.559	0.618	4x90°	1.051
1-1/2	90	4.724	0.335	0.917	1.201	13.583	5	8.74	3.882	0.689	0.618	4x90°	1.61
2	130	6.26	0.335	0.917	1.201	15.866	5.984	10	4.752	0.752	0.752	4x90°	2.071
2-1/2	130	6.26	0.335	0.917	1.201	17.008	7.008	10.866	5.5	0.878	0.752	4x90°	2.48
3	130	6.26	0.335	0.917	1.201	18.307	7.48	11.732	6	0.941	0.752	4x90°	3.071
4	130	6.26	0.335	0.917	1.201	18.701	9.016	13.858	7.5	0.941	0.752	4x90°	4.016

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

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 	1/2"	(15)	70	362	466 863	
	3/4"	(20)	70	290	203 097	
	1"	(25)	70	232	203 099	
	1 1/2"	(40)	90	72.5	232	203 101
	2"	(50)	130	72.5	232	218 419
	2 1/2"	(65)	130	82	232 (217*)	219 535
	3"	(80)	130	82	145	239 529
	4"	(100)	130	82	87	239 532

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



Burkert Type 8691

2101 System On/Off ELEMENT 8801-GC
Control Head for the integrated mounting on process valves

- Contact-free inductive valve position registration
- Coloured illuminated status display
- Integrated control air routing



Technical Data	
Material	
Body	PPS, stainless steel
Cover	PC
Sealing	EPDM
Control medium	neutral gases, air, quality classes acc. to ISO 8573-1
Dust concentration	Class 7 (<40µm particle size)
Particle Density	Class 5 (<10mg/m ³)
Pressure condensation point	Class 3 (<-20°C)
Oil concentration	Class X (<25mg/m ³)
Supply pressure	43.5 to 100 psi ¹⁾
Air input filter	exchangeable
Mesh aperture	~0.1mm
Pilot air ports	Threaded ports G1/8, stainless steel
Position feedback	Analogue position sensor (contact-free) with teach function; switchport (PNP) (NPN on request)
Ambient temperature with pilot valve	-10°C to +55°C
Installation	As required, preferably with actuator in upright position
Protection type	IP65 and IP67 according to EN 60529
Protection class	3 acc. to DIN EN 61140
Approvals	cULus Cert. No. 238179
Conformity	EMC directive 2014/30/EU
Electrical connection	
Multipole	M12, 8-pins

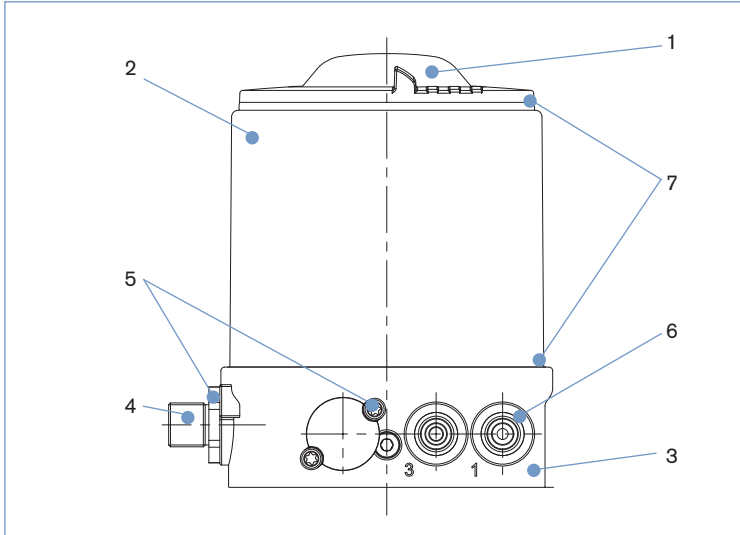
1) The supply pressure has to be 7.25 to 14.5 psi above the minimum required pilot pressure for the valve actuator.

The Control Head Type 8691 is optimized for integrated mounting on the 21XX process valve series. The registration of the valve end position is done through a contact-free analog position sensor, which automatically recognizes and saves the valve end position through the Teach function when starting up. The integrated pilot valve controls single-action actuators

The design of the control unit and the actuator enables an internal control air channel without external tubings. Besides the electrical position feedback signal the status of the device is shown directly on the control head itself through colored powerful LEDs showing a clear visible valve position status, even under dirty or dark environments.

The housing is easy to clean and features proved IP protection and chemically resistant materials for use in hygienic processing in food, beverage and pharmaceutical industries. Focused on wash down applications the IP rating is supported by a positive pressure inside the control head. Combined with Burkert ELEMENT actuators the unique pilot valve system enables a compressed air recycling that avoids actuator chambers contamination from the environment.

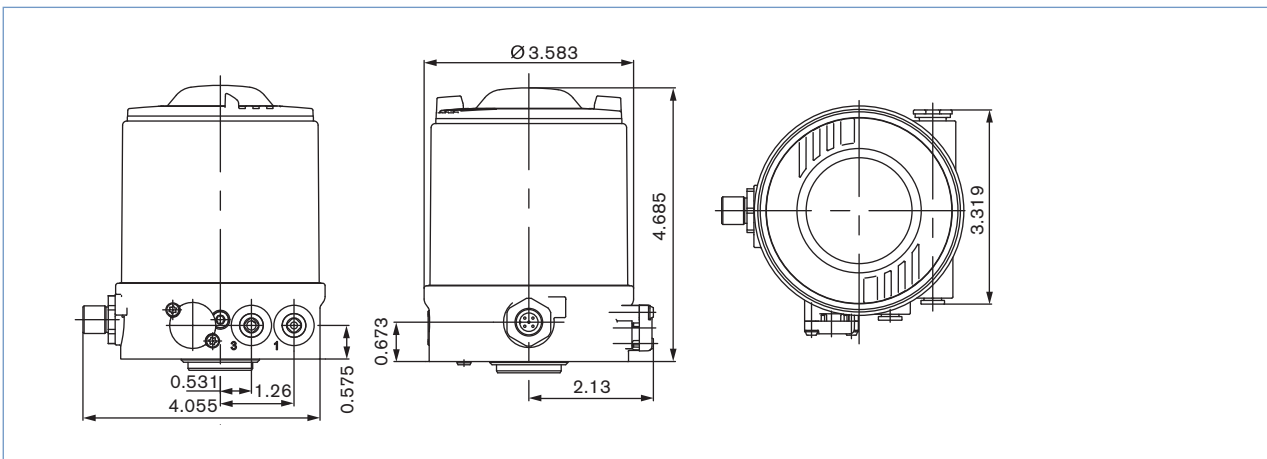
Materials



1 Cover	PC
2 Housing	Stainless steel
3 BASIC body	PPS
4 Plug M12	Stainless steel
5 Screws	Stainless steel
6 Threaded ports G 1/8	Stainless steel
7 Sealing	EPDM

Dimensions

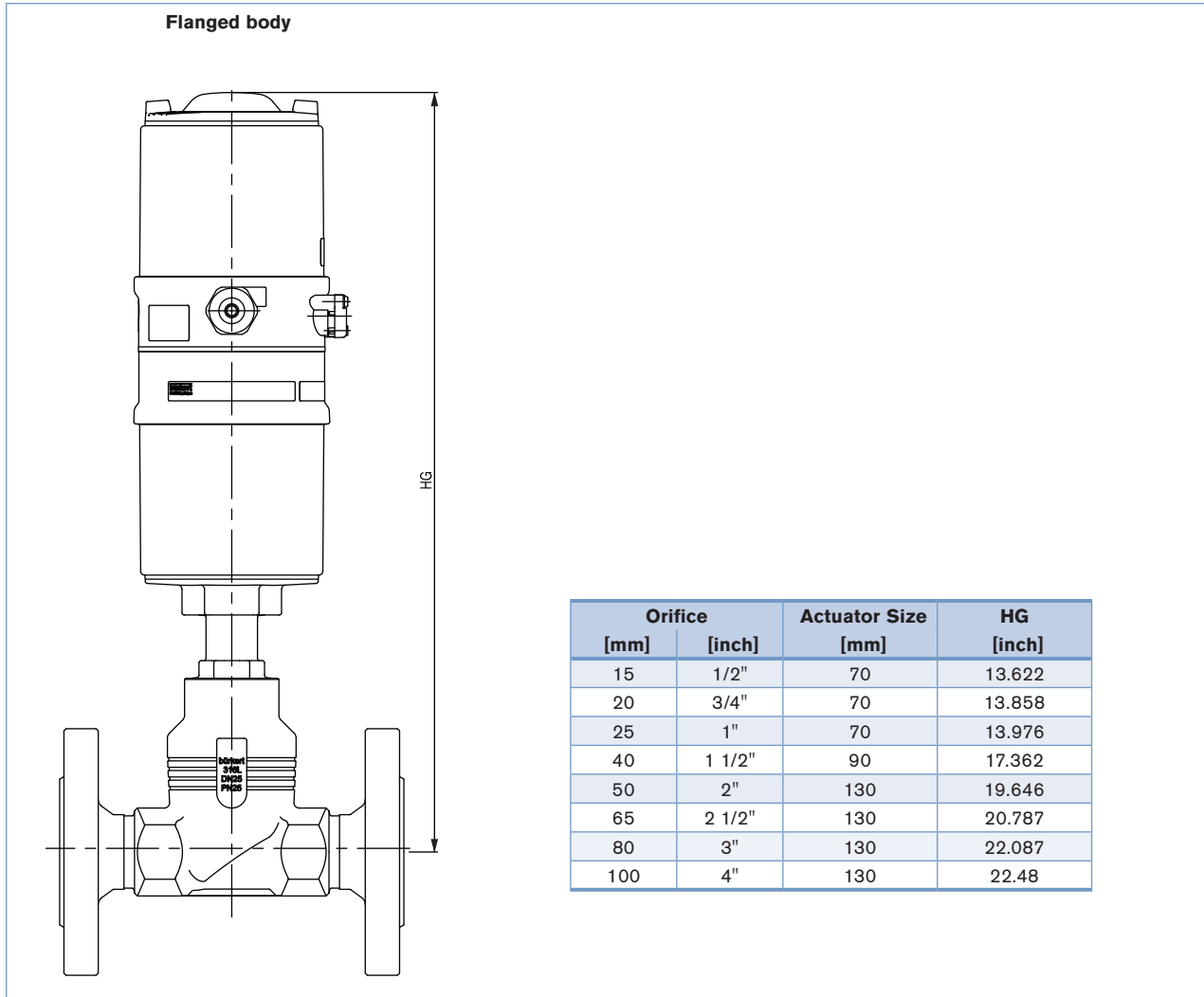
Mounting on process valve ELEMENT Type 21xx



Flanged body - Type 8801-GC-H (with control head type 8691)
Dimensions in inches

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

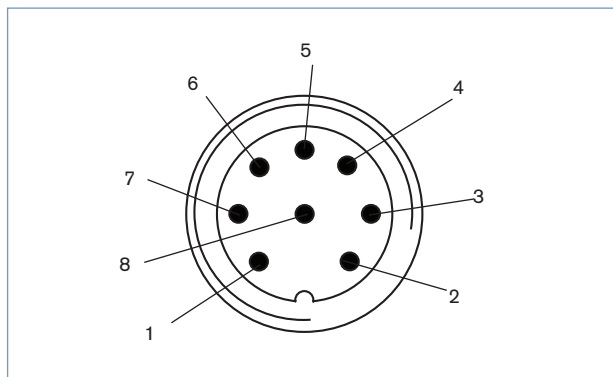
Dimensions valve system On/Off ELEMENT Type 8801-GC-H (with control head Type 8691)



Connection options

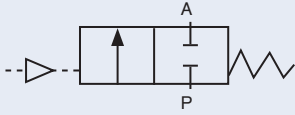
24 V DC

Multipole connection M12, 8-pins



Pin	Description	Configuration
1	Limit switch 1	IN 1 / TOP
2	Limit switch 2	IN 2 / BOTTOM
3	Power supply	GND
4	Operating voltage +	24 V DC
5	Valve control +	Valve +
6	Valve control -	Valve
7	n.a.	not assigned
8	n.a.	not assigned

Ordering chart for valve system On/Off Type 2101 & 8691 ELEMENT 8801-DF-H

Control function	Orifice (inch)	Actuator size Ø [mm]	Minimum pilot pressure [psi]	Operating pressure up to +185°C [psi]	Item no.
A 2/2-way valve. NC 	1/2"	70	70	362	305 469
	3/4"	70	70	290	305 470
	1"	70	70	232	261 751
	1 1/2"	90	72.5	232	305 472
	2"	130	72.5	232	305 473
	2 1/2"	130	82	232 (217*)	305 474
	3"	130	82	145	305 475
	4"	130	82	87	305 477

Flange connection acc. to ANSI B16.5, flow direction below the seat (for gases and liquids)

Ordering chart accessories

Description	Item no.
M12 socket, 8-pins, 5m assembled cable	919 267
Silencer G1/8 (spare part)	788934
Sensor puck (spare part)	682 240
G1/8 X 1/4" push tube connector (spare part)	98132544

All valve systems come pre-assembled and tested. 1/4" push tube connections and air mufflers are also included.

One M12 socket, 8-pin cable is required. See accessories chart for ID#.

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