

2/2-way Diaphragm Control Valve, plastic body, pneumatically operated, DN 15-100



- Hermetical separation of fluids from the operating mechanism by diaphragm
- Integrated cascade process controller with PID algorithm
- Automatic self-adjustment of basic parameter means autotune for the valve and for PID
- Zero dead volume

Type 2730 can be combined with ...



Type 8692/8693
Positioner / Process Controller TopControl



Type 8694
Positioner TopControl Basic



Type 8630
Positioner TopControl



Type 8635
Positioner SideControl



Type 8792/93
SideControl Remote versions



Type 8030
Flow sensor

The diaphragm control valve Type 2730 consists of a pneumatically operated piston actuator, a diaphragm and a 2-way valve housing made of plastic. The actuator has been designed so that the stroke can be continuously changed. This makes a favourable characteristic possible for the continuous change of the flow.

Type 2730 can be actuated by the 8694/8692/8693/8630 TopControl or SideControl Type 8635 or SideControls 8792/93 Remote version forming a mechanical and functional unit and thus offering a complete control valve system. Using this control valve, continuous regulation tasks for fluids can be solved.

Technical data

Materials Body	PVC (PP and PVDF on request) PP (PVC and PVDF on request) PVC PA (polyamide)
Actuator	
True union	
Spigot	
Flange \geq DN 65	
Sealing materials	EPDM, PTFE/EPDM
Process media	For neutral gases or liquids, aggressive or abrasive fluids
Viscosity	Up to viscous
Media temperature	see chart p. 2
Ambient temperature	-10 to +60°C
Control medium (for coupling with a positioner)	Instrumental air class 3 acc. DIN ISO 8573-1
Pilot pressure	5.5 to 7 bar Actuators \varnothing 80 to 125 mm 5 to 6 bar Actuators \varnothing 175 and 225 mm
Threads for pilot air	G 1/4 stainless steel (St.St.)
Flow characteristic	see chart p. 2
Port connections	<ul style="list-style-type: none"> ▪ True union ▪ Spigot ▪ Flange (\geq DN 65)
Installation	As required, preferably with actuator in upright position

Content



Valve specifications

Type 2730

Technical data & ordering info.

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System spec. Continuous Classic

Type 8802-DC

Ordering info. & technical data

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Request for quotation

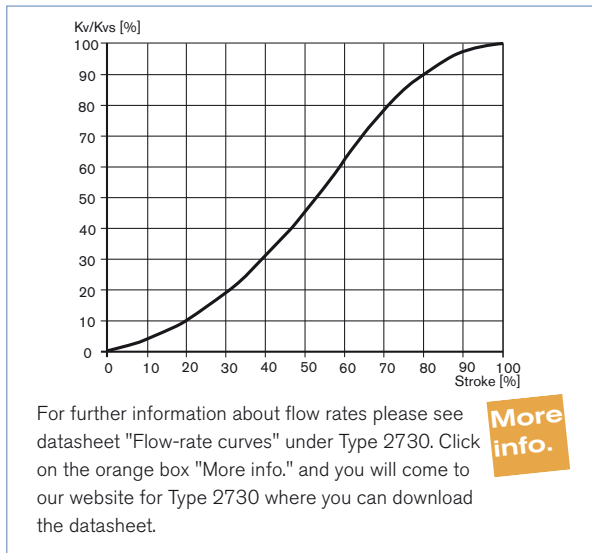
Type 8802-DC

p. 13

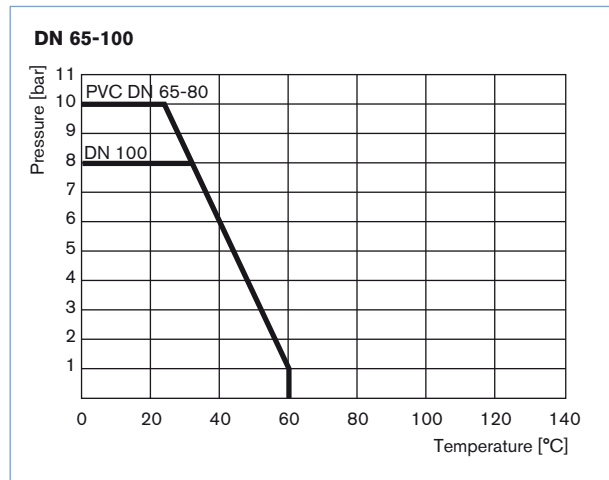
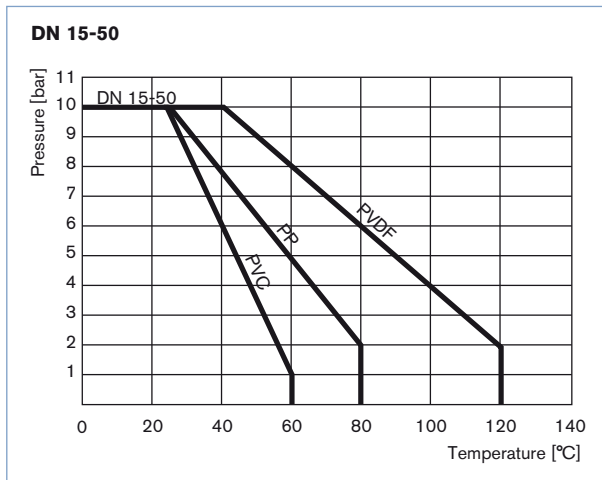
Technical data, cont.

Orifice [mm]	Actuator size [mm]	Kvs value [m³/h]
15	80	4.0
20	80	7.0
25	80	12.5
32	100	19.0
40	125	27.0
50	125	45.0
65	125	55.0
	175	60.0
80	175	105.0
	225	105.0
	225	160.0
100	175	160.0
	225	160.0

Flow characteristic



Pressure-temperature compatibility

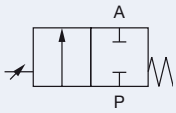
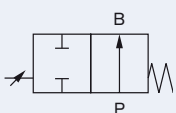
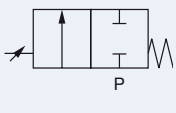
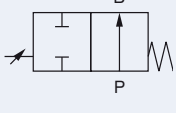


Important for the material selection!

Note that the permissible operating pressure is dependent on the media temperature

Ordering chart for valves (other versions on request)

Actuator in polyamide, PVC body with true union connection and flange connection (\geq DN 65), PP body with spigot connection (For approved media temperature please see chart "pressure-temperature compatibility")

Control function	Port connection [mm]	Actuator size [mm]	Kvs value [m ³ /h]	Operating pressure max. ¹⁾ [bar]	Item no.		
					PVC body with true union	PP body with spigot	PVC body with flange
EPDM diaphragm material							
A  NC by spring return	15	80	4	10	148 228	148 250	–
	20	80	7	10	148 229	148 251	–
	25	80	12.5	10	148 230	148 252	–
	32	100	19	10	148 231	148 253	–
	40	125	27	10	148 232	148 254	–
	50	125	45	8	148 233	148 255	–
	65	125	58	7	–	–	157 521
		175	60	10	–	–	157 522
	80	225	105	10	–	–	157 526
	100	225	160	8	–	–	157 527
B  NO by spring return	15	80	4	10	148 234	148 256	–
	20	80	7	10	148 235	148 257	–
	25	80	12.5	10	148 236	148 258	–
	32	100	19	10	148 237	148 259	–
	40	125	27	10	148 238	148 260	–
	50	125	45	7	148 239	148 261	–
	65	125	58	7.5	–	–	158 321
		175	60	10	–	–	158 322
	80	175	105	9	–	–	158 323
	100	175	160	7	–	–	158 324
PTFE/EPDM diaphragm material							
A  NC by spring return	15	80	4	10	147 567	147 486	–
	20	80	7	10	148 240	148 262	–
	25	80	12.5	7.5	148 241	148 263	–
	32	100	19	8	148 242	148 264	–
	40	125	27	10	148 243	148 265	–
	50	125	45	7	147 980	148 266	–
	65	125	58	4	–	–	157 529
		175	60	8.5	–	–	157 530
	80	225	105	10	–	–	157 534
	100	225	160	4	–	–	157 535
B  NO by spring return	15	80	4	9	148 244	148 267	–
	20	80	7	8.5	148 245	148 268	–
	25	80	12.5	8	148 246	148 269	–
	32	100	19	10	148 247	148 270	–
	40	125	27	10	148 248	148 271	–
	50	125	45	4	148 249	148 272	–
	65	125	58	6.5	–	–	158 325
		175	60	10	–	–	158 326
	80	175	105	7.5	–	–	158 327
	100	175	160	4	–	–	158 328

¹⁾ With a pilot pressure of 5.5 bar

i Further versions on request

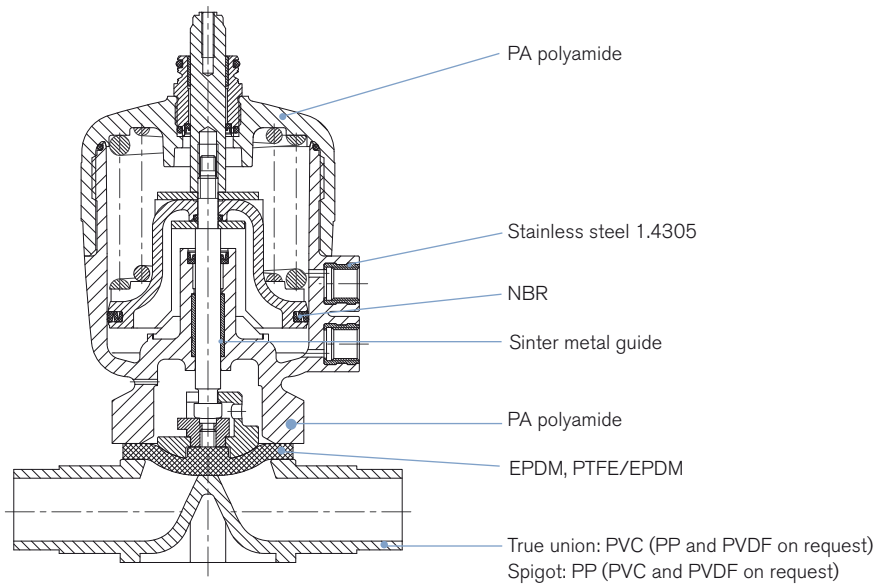


Material

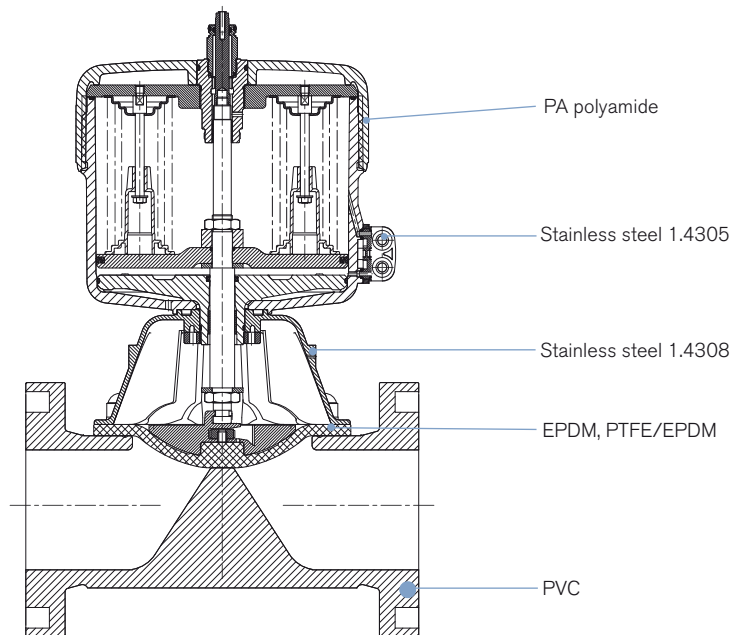
Body: PP and PVDF with true union, PVC and PVDF with spigot

Materials

DN 15-50



DN 65-100



Suitable for foodstuffs / sterile applications



- The composition of the EPDM and PTFE/EPDM diaphragms corresponds to the *Code of Federal Regulations*, published by the *FDA* (Food and Drug Administration, USA).
- The EPDM diaphragms correspond to the *KTW-Recommendation* (Plastics in the Drinking Water Sector), A Manufacturer's Declaration will be supplied on request.

Ordering information for valve system Continuous Classic Type 8802-DC

A valve system Continuous Classic Type 8802-DC consists of a diaphragm control valve Type 2730 and a digital electropneumatic Positioner Type 8692, a digital electropneumatic Process Controller Type 8693, a digital electropneumatic Positioner Basic Type 8694 (below) or a valve actuation system TopControl Type 8630, SideControl Type 8635 or an electropneumatic positioner Type 8792/8793 (next page) (see separate datasheets). For the configuration of further valve systems please use the "Request for quotation" on p. 13 [go to page](#)

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

Ordering the valve system Continuous Classic Type 8802-DC

Diaphragm control valve Type 2730



Positioner



Positioner
Type 8692



Process Controller
Type 8693



Positioner Basic
Type 8694

Diaphragm control valve with desired control unit



Valve system
Continuous Classic
Type 8802-DC-I
2730 + 8692



Valve system
Continuous Classic
Type 8802-DC-J
2730 + 8693



Valve system
Continuous Classic
Type 8802-DC-L
2730 + 8694

When you click on the orange box "More info." below, you will come to our website for the resp. product where you can download the datasheet.

Positioner TopControl Type 8692

More
info.



Process Controller TopControl Type 8693

More
info.



Positioner TopControl Basic Type 8694

More
info.



The new generation of integrated positioners/process controllers for combination with actuators from the process valve series Type 23xx/2103 is specially designed for the requirements of hygienic process environments. The easy handling and the selection of additional software functions are done either on a big graphic display with backlight and keypad or via a PC interface. A contact-free analogue position sensor registers the valve position without deterioration. Single-acting or double-acting actuators are controlled via the integral positioner system. With Type 8693, the process controller function is superimposed on the position control loop. Profibus DPV1 and DeviceNet communication interfaces are available as options. Main customer benefits:

- Compact design of the valve system with integrated positioner/process controller meets the demands for plant washdown environments through the selection of materials, external seals and integrated control air supply to the actuator
- Extremely simple commissioning and operation thanks to the backlighting of the graphics display and proven multilingual software structure
- Automatic parameterisation of the positioner and process controller using the TUNE functions
- Field bus communication via Profibus DPV1 or DeviceNet
- Air intake filter enhances the process valve system availability
- Simple and reliable actuator adaption
- Explosion-proof models for zone 2/22

The new generation of integrated positioners for combination with actuators from the process valve series Type 23xx/2103 is specially designed for the requirements of hygienic process environments. The operation and selection of the software functions close tight function, inversion of the operating direction of the setpoint signal, characteristic curves selection and switching manual/automatic operation are effected via push-buttons and DIP switches or via the PC interface. The position setpoint is set using the standard signal 4 - 20 mA. In addition, the enable can be controlled via the binary input and an optional position feedback can be integrated. The positioner, Type 8694, registers the valve position without deterioration through a contact-free analogue position sensor. Single-acting or double-acting actuators are controlled via the integral positioner system. An AS-Interface communication interface is available as an option. Main customer benefits:

- Compact design of the valve system with integrated positioner meets the demands for plant washdown environments through the selection of materials, external seals and integrated control air supply to the actuator
- Automatic parameterisation of the process controller using the Process TUNE function
- Field bus communication via optional AS-Interface
- Air intake filter enhances the process valve system availability
- Simple and reliable actuator adaption allowing additional actuators of the process valve series, Type 20xx or actuators from other manufacturers to be used
- Explosion-proof models for zone 2/22

Ordering information for valve system Continuous Classic Type 8802-DC, continued

A valve system Continuous Classic Type 8802-DC consists of a diaphragm control valve Type 2730 and a digital electropneumatic Positioner Type 8692, a digital electropneumatic Process Controller Type 8693, a digital electropneumatic Positioner Basic Type 8694 (previous page) or a valve actuation system TopControl Type 8630, SideControl Type 8635 or an electropneumatic positioner Type 8792/8793 (below) (see separate datasheets). For the configuration of further valve systems please use the "Request for quotation" on p. 13 [go to page](#)

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

Ordering the valve system Continuous Classic Type 8802-DC

Diaphragm control valve
Type 2730

Positioner



Positioner/
Process Controller
Type 8630



Positioner/
Process Controller
Type 8635



Positioner
Type 8792/
Process
Controller
Type 8793

Diaphragm control valve
with desired control unit



Valve system
Continuous Classic
Type 8802-DC-A
2730 + 8630



Valve system
Continuous Classic
Type 8802-DC-B
2730 + 8635



Valve system
Continuous Classic
Type 8802-DC-P
2730 + 8792 /
Type 8802-DC-Q
2730 + 8793

When you click on the orange box "More info." below, you will come to our website for the resp. product where you can download the datasheet.

TopControl Type 8630 [More info.](#)



0/4-20 mA
0-5/10 V

PROFIBUS
PA
DeviceNet™



The Type 8630 is an electro-pneumatic positioner for usage with pneumatically operated process valves. The compact design with integrated position encoder and LCD display was developed for demanding applications of the process industry.

Main customer benefits are:

- Time saving algorithms for temperature, flow and pressure PID parameters through ProcessTUNE function.
- Quick and simple menu driven parameterization through keyboard
- Field bus communication via Profibus DPV1 or DeviceNet
- Fits seamlessly to Bürkert's process valve systems
- Break resistant housing
- Suitable for hazardous locations per zone 2 and 22

SideControl Type 8635, 2-wire, intrinsically safe [More info.](#)



4-20 mA

PROFIBUS
PA



Type 8635 is a digital electro-pneumatic positioner with an optional, integrated process controller for precise control requirements. The compact design with integrated position encoder and LCD display was developed for demanding applications of the process industry.

Main customer benefits are:

- Time saving algorithms for temperature, flow and pressure PID parameters through ProcessTUNE function.
- Quick and simple menu driven parameterization through keyboard or Profibus PA
- Remote setpoint adjustment via a 4-20 mA signal
- Adaptation according to IEC534-6 for lift and swivel drives
- Rugged anodised aluminium housing
- Suitable for hazardous locations per zone 1, zone 21 or zone 2 and 22

Positioner SideControl Type 8792 [More info.](#)

Process Controller SideControl Type 8793 [More info.](#)



PROFIBUS
PA



Type 8792/8793 is a digital electro-pneumatic positioner with an optional, integrated process controller (8793) for precise control requirements. The compact design with integrated position encoder and LCD display was developed for demanding applications of the process industry. A Profibus DPV1 communication interface is available as an option.

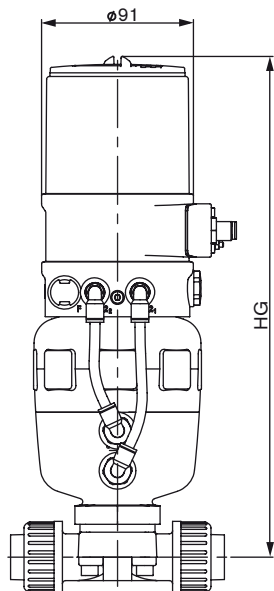
Main customer benefits are:

- Time saving algorithms for temperature, flow and pressure PID parameters through ProcessTUNE function.
- Quick and simple menu driven parameterization through keyboard or Profibus DPV1 PA
- Adaption acc. to IEC534-6 and VDI/VDE 3845 for lift and swivel drives or as a Remote version together with Bürkert process valves
- Rugged anodised aluminium housing
- Suitable for hazardous locations per zone 2/22

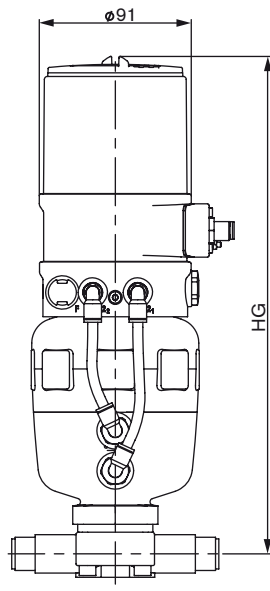
Dimensions for valve system Continuous Classic Type 8802-DC [mm], continued

Dimensions valve system Continuous Classic Type 8802-DC-I with positioner TopControl Type 8692 or 8802-DC-J with process controller TopControl Type 8693 [mm]

PVC body with true union connection



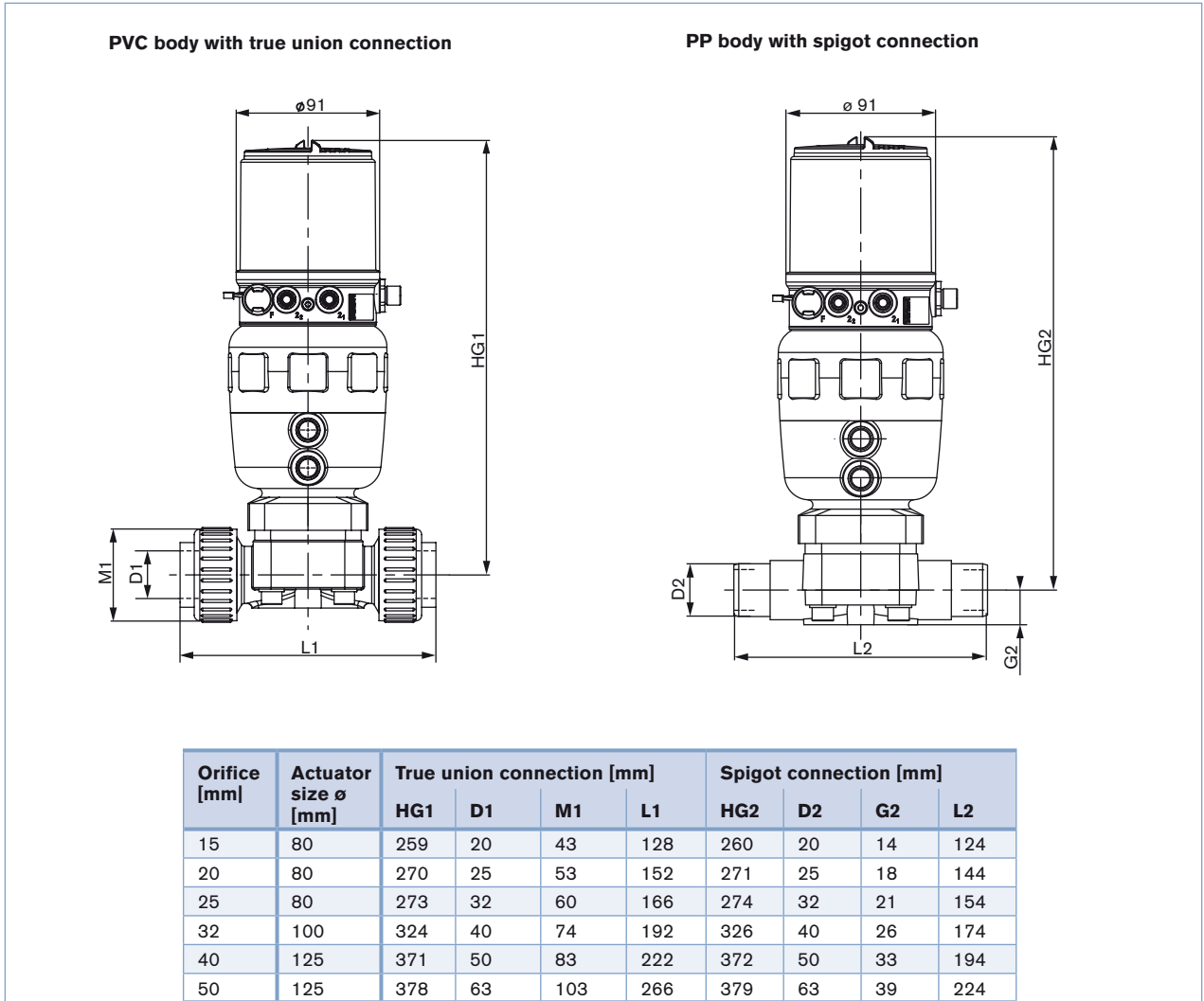
PP body with spigot connection



Orifice [mm]	Actuator size \varnothing [mm]	HG [mm]
15	80	300
20	80	311
25	80	314
32	100	366
40	125	412
50	125	419
65	125	430
	175	531
80	175	542
	225	537
100	175	559
	225	554

Dimensions for valve system Continuous Classic Type 8802-DC [mm]

Dimensions valve system Continuous Classic Type 8802-DC-L with positioner TopControl Basic Type 8694 [mm]

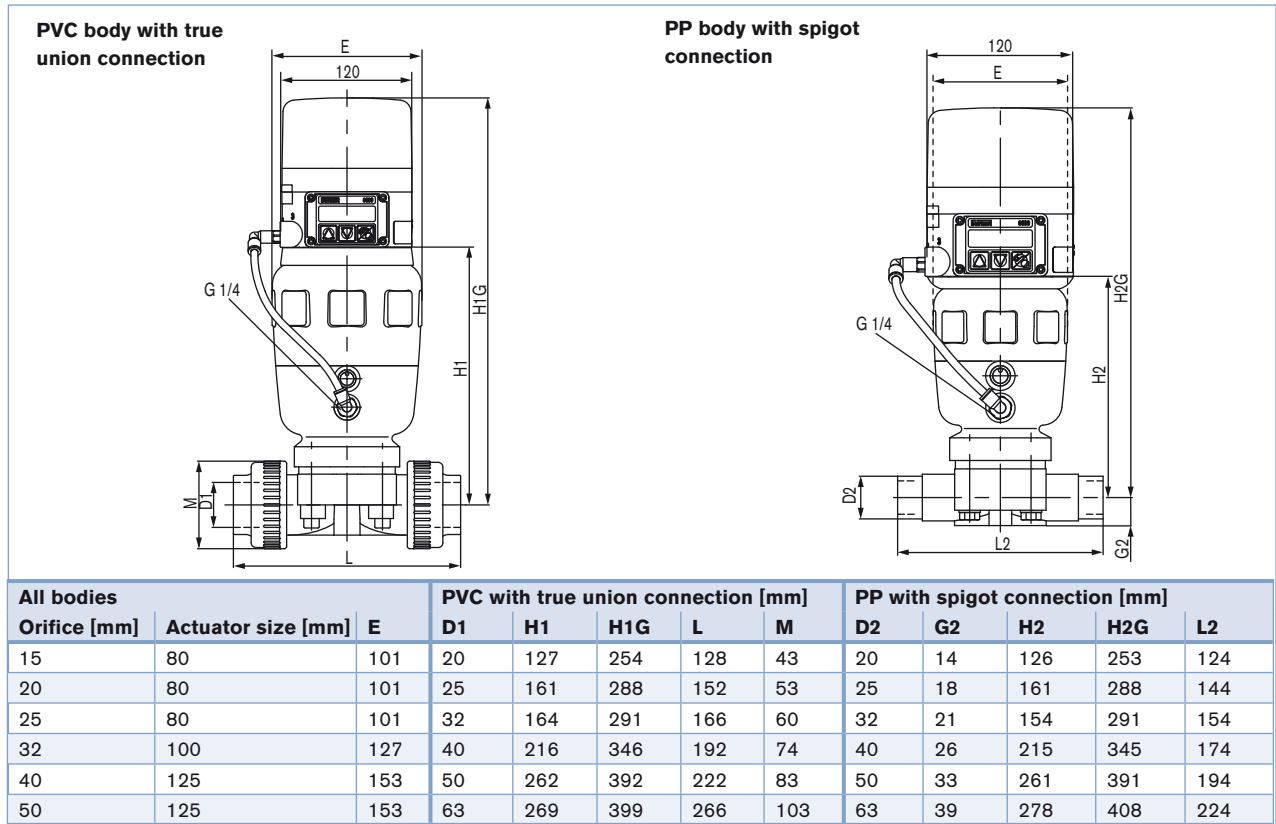


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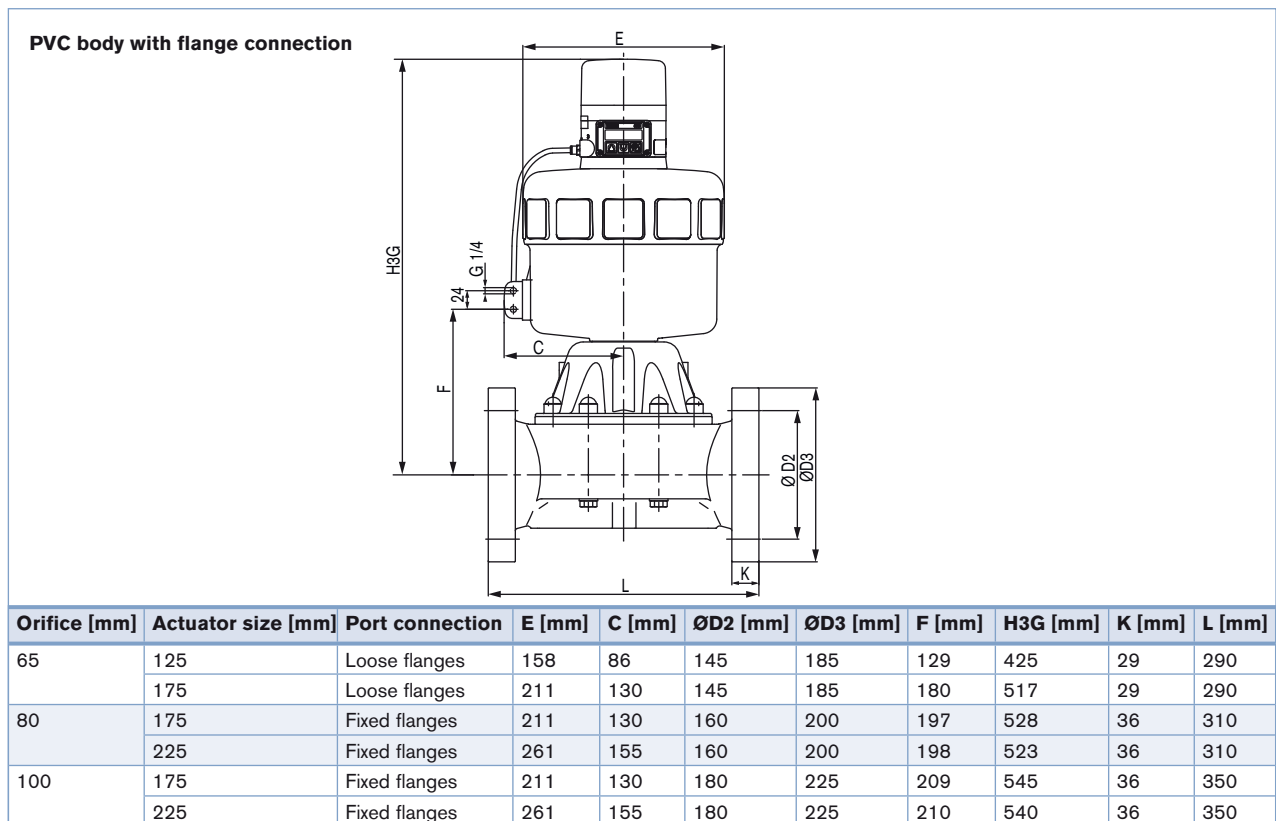
Dimensions for valve system Continuous Classic Type 8802-DC [mm], continued

Dimensions valve system Continuous Classic Type 8802-DC-A with TopControl Type 8630 [mm]

DN 15-50



DN 65-100

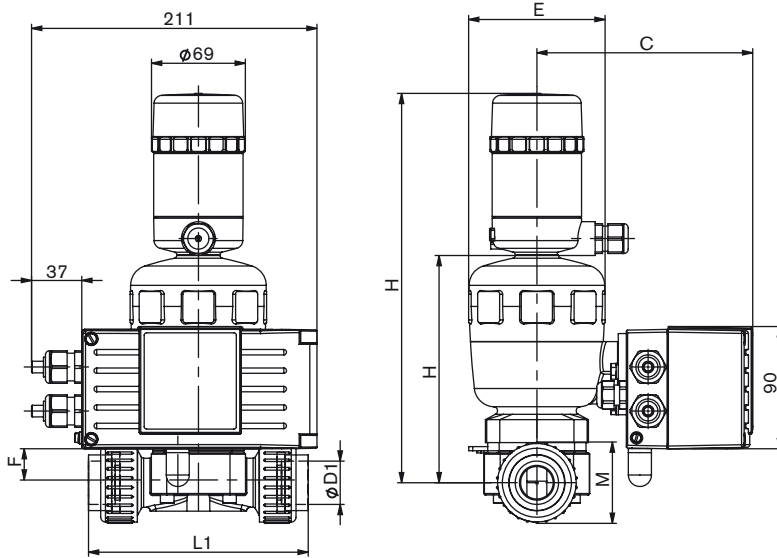


Dimensions for valve system Continuous Classic Type 8802-DC [mm], continued

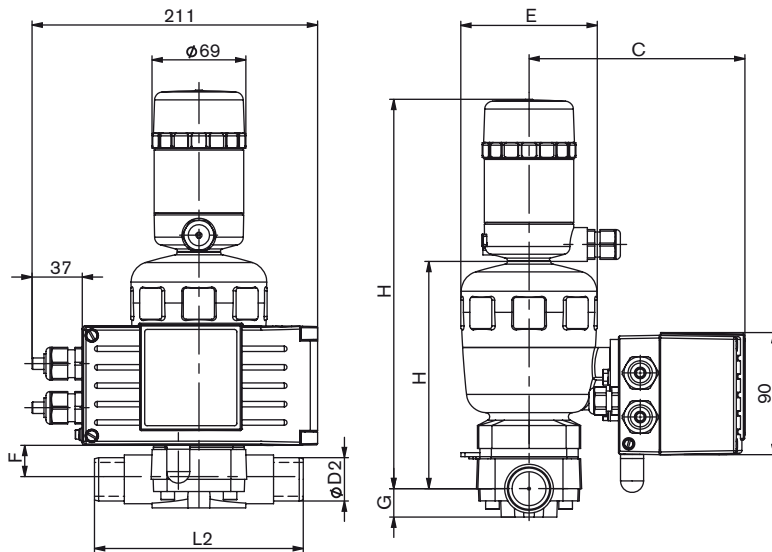
Dimensions valve system Continuous Classic Type 8802-DC-B with positioner SideControl Type 8635 [mm]

DN 15-50

PVC body with true union connection



PP body with spigot connection



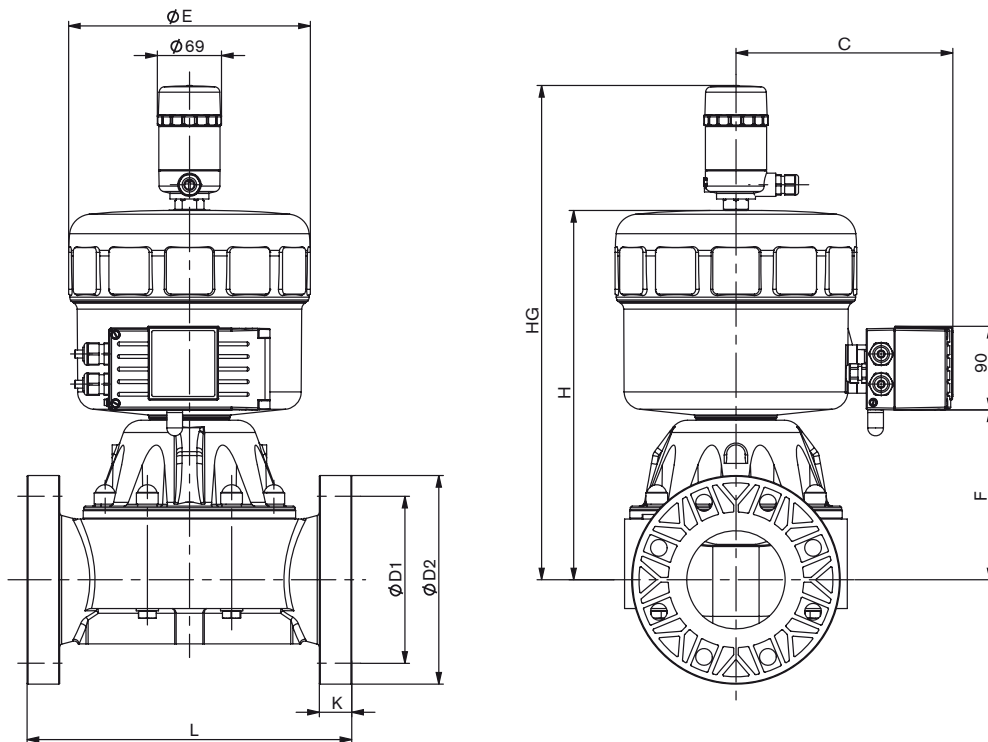
All bodies [mm]							PVC with true union connection [mm]			PP with spigot connection [mm]		
Orifice	Actuator size	E	F	C	H	HG	D1	L1	M	D2	G	L2
15	80	101	14	159	127	247	20	128	43	20	14	124
20	80	101	18	159	161	281	25	152	53	25	18	144
25	80	101	23	159	164	284	32	166	60	32	21	154
32	100	127	40	172	216	336	40	192	74	40	26	174
40	125	153	50	185	262	382	50	222	83	50	33	194
50	125	153	54	185	269	389	63	266	103	63	39	224

Dimensions for valve system Continuous Classic Type 8802-DC [mm], continued

Dimensions valve system Continuous Classic Type 8802-DC-B with positioner SideControl Type 8635 [mm]

DN 65-100

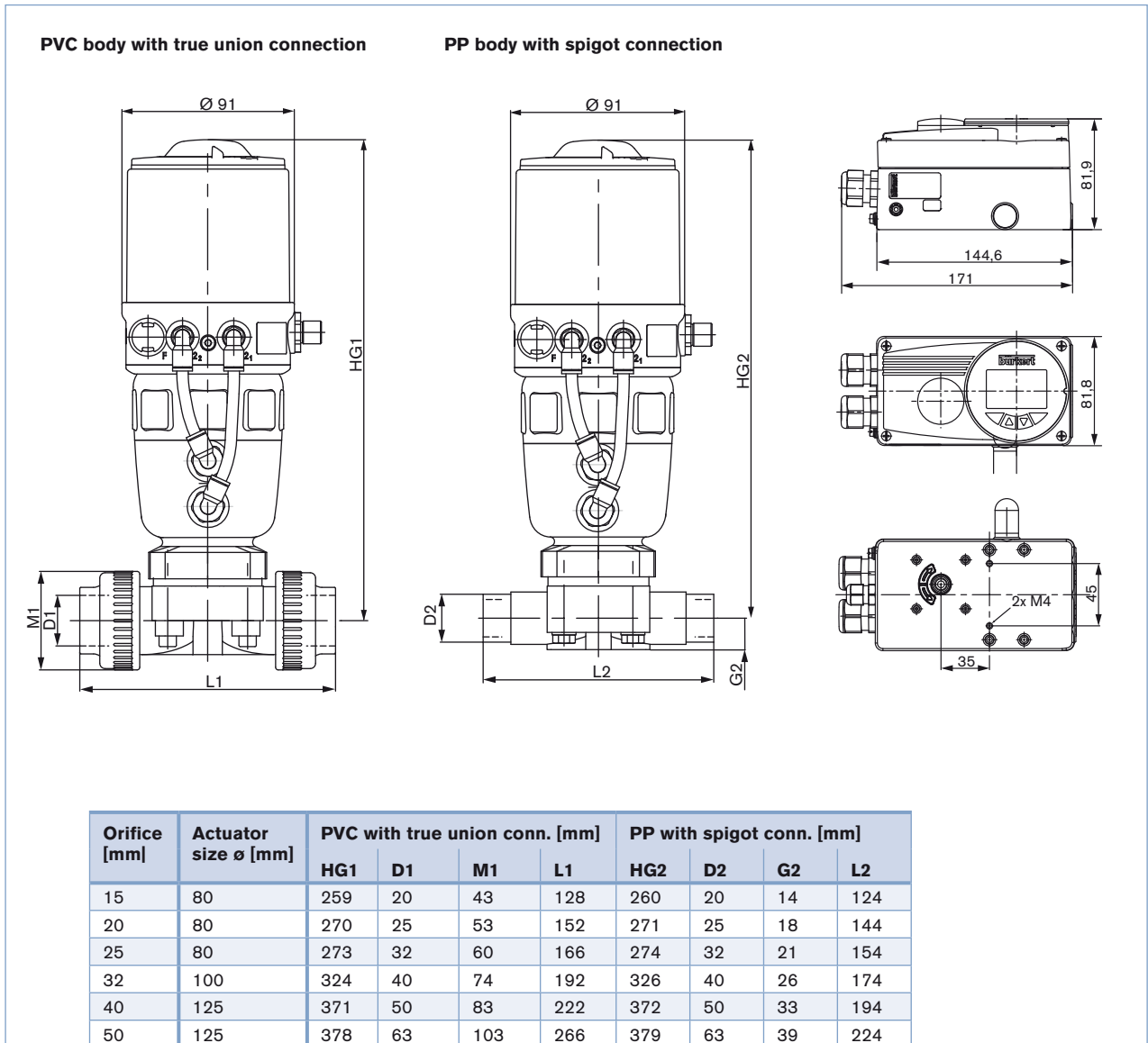
PVC body with flange connection



Orifice [mm]	Actuator size [mm]	Port connection	E [mm]	C [mm]	D1 [mm]	D2 [mm]	F [mm]	H [mm]	HG [mm]	K [mm]	L [mm]
65	125	Loose flanges	158	190	145	185	75	280	400	29	290
	175	Loose flanges	211	215	145	185	150	376	510	29	290
80	175	Fixed flanges	211	215	160	200	170	387	521	36	310
	225	Fixed flanges	261	240	160	200	175	382	516	36	310
100	175	Fixed flanges	211	215	180	225	180	404	538	36	350
	225	Fixed flanges	261	235	180	225	185	399	533	36	350

Dimensions for valve system Continuous Classic Type 8802-DC [mm], continued

Dimensions valve system Continuous Classic Type 8802-DC-P with Positioner SideControl Remote Type 8792 and Type 8802-DC-Q with Process Controller SideControl Remote Type 8793 [mm]



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

Valve system Continuous Classic Type 8802-DC - 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

Site of control	<input type="text"/>			
Measuring and control task	<input type="text"/>			
Pipeline	DN <input type="text"/>	PN <input type="text"/>		
Pipe material	<input type="text"/>			
Process medium	<input type="text"/>			
Type of media	<input type="checkbox"/> Liquid	<input type="checkbox"/> Gas		
	min	standard	max	unit
Flow rate (Q, Q _N , W) ¹⁾	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Temperature at valve inlet T1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Absolute pressure at valve inlet P1	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Absolute pressure at valve outlet P2	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Kinematic viscosity (ν)	<input type="text"/>	mm ² /s or cSt		
Dynamic viscosity (η)	<input type="text"/>	mPa.s or cP		
Standard density	<input type="text"/>	Kg/m ³		
Max. sound level accepted	<input type="text"/>	dB (A)		

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

Valve features

Body material	<input type="checkbox"/> PVC	<input type="checkbox"/> PP	<input type="checkbox"/> PVDF	<input type="checkbox"/> Other <input type="text"/>
Seat sealing material	<input type="checkbox"/> PTFE	<input type="checkbox"/> EPDM		
Nominal pressure	PN <input type="text"/>			
Nominal size	DN <input type="text"/>			
Type of connection	<input type="checkbox"/> Flange	<input type="checkbox"/> True union	<input type="checkbox"/> Spigot	
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

continued next page

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www.burkert.com

