



2/2-way Diaphragm Valve with stainless steel design, weld end or clamp connection, DN 4-25

- Hermetical separation of fluids from the operating mechanism by diaphragm
- Zero dead volume
- Various surface finishes
- Certified according to **FDA**
- Clean design for optimal use in hygienic environment

Type 2103 can be combined with...



Type 8690

Pneum. control unit with feedback



Type 8691

Control head



Type 8692/8693

Positioner / Process Controller TopControl



Type 8694

Positioner TopControl Basic



Type 8645

Automation system FreeLINE



Type 8110

Level sensor

The externally piloted diaphragm valve Type 2103 consists of a pneumatically operated piston actuator, a diaphragm and a 2-way valve housing made of cast stainless steel. The high-quality actuator with a stainless steel cover is designed for usage in hygienic or aggressive environments.




The flow optimised and zero dead volume valve body makes high flow rates possible and a variety of applications to be realised.

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

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

Technical data	
Orifice	DN 4 to 25
Body material	Cast stainless steel 316L/1.4435
Actuator material	
Actuator	PPS
Cover	Stainless steel 1.4561 (316Ti)
Diaphragm materials	EPDM, PTFE/EPDM (FKM on request)
Media	Neutral gases and liquids, high purity, sterile, aggressive or abrasive fluids
Viscosity	up to viscous
Surface finishes	(average surface finish)
internal mechanical polished	Ra ≤ 0.8 µm
internal electro polished	Ra ≤ 0.6 µm (on request)
internal mechanical polished	Ra ≤ 1.6 µm (on request)
Media temperatures	
EPDM	-10 to +130 °C (briefly up to +150°C for steam sterilisation)
PTFE/EPDM	-10 to +130°C
Ambient temperature	+5 to +60 °C
Control medium	Neutral gases, air
Max. pilot pressure	max. 10 bar
Port connections	
Welded acc.	EN ISO 1127/ISO 4200, DIN 11850 Serie 0 and 2, DIN 11850 Serie 3 and SMS 3008 (on request)
Clamp acc.	DIN 32676, BS 4825, ISO 2852/SMS 3017 (on request)
Sterile threaded ports	on request
Pilot air ports	Push-in connector for ø 6/4 mm hose, thread G1/8 (on request)
Installation	as required, preferably with actuator in upright position

Content

Valve specifications		System specifications On/Off		System specifications Continuous	
 Type 2103		 Type 8801-DF		 Type 8802-DF	
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Technical data, continued

Kv-value

Orifice		Kv value water (m ³ /h)	Actuator size Ø [mm]	Permitted pilot pressure [bar]		Max. operating pressure [bar] for seal material	
[mm]	[inch]			min.	max.	EPDM [bar]	PTFE/EPDM [bar]
4	–	0.8	50	5	10	10	10
6	–	0.8	50	5	10	10	10
8	1/4"	1.0	50	5	10	10	10
10	3/8"	1.0	50	5	10	10	10
15	1/2"	5.5	70	5	10	10	10
20	3/4"	10.0	70	5	10	10	10
25	1"	14.0	70	5	10	6.5	6
			90	5.5	10	10	8

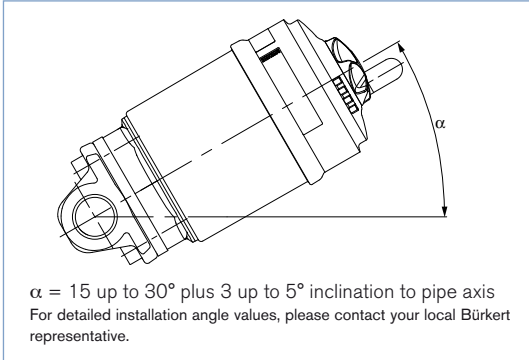
Flow rate: Kv value water (m³/h)

Measured at +20 °C, 1 bar pressure at valve inlet and free outlet.

Pressure values (bar)

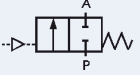
Measured as overpressure to the atmospheric pressure.

Installation for self-draining operation




Ordering chart Type 2103 diaphragm valve


Body with weld end, surface finish mechanical polished $Ra \leq 0.8/6.3 \mu\text{m}$, further versions on request


Control function	Orifice		External-Ø [mm]	Kv value water (m ³ /h)	Actuator size ø [mm]	Pilot pressure [bar]	Max. operating pressure [bar]	Item no.
	[mm]	[inch]						
A 2/2-way valve, normally closed (NC) 	Acc. to EN ISO 1127/ISO 4200							
	Diaphragm material EPDM							
	8	1/4"	13.5	1.0	50	5-10	10	187 239
	15	1/2"	21.3	5.5	70	5-10	10	175 128
	20	3/4"	26.9	10.0	70	5-10	10	175 129
	25	1"	33.7	14.0	70	5-10	6.5	175 131
					90	5.5-10	10	180 345
	Diaphragm material PTFE/EPDM							
	8	1/4"	13.5	1.0	50	5-10	10	187 240
	15	1/2"	21.3	5.5	70	5-10	10	175 132
	20	3/4"	26.9	10.0	70	5-10	10	175 133
	25	1"	33.7	14.0	70	5-10	6	175 134
					90	5.5-10	8	180 346
	Acc. to DIN 11850 Serie 2							
	Diaphragm material EPDM							
	10	3/8"	13	1.0	50	5-10	10	187 243
	15	1/2"	19	5.5	70	5-10	10	176 556
	20	3/4"	23	10.0	70	5-10	10	176 557
	25	1"	29	14.0	70	5-10	6.5	176 558
					90	5.5-10	10	180 349
	Diaphragm material PTFE/EPDM							
	10	3/8"	13	1.0	50	5-10	10	187 244
	15	1/2"	19	5.5	70	5-10	10	176 559
	20	3/4"	23	10.0	70	5-10	10	176 560
	25	1"	29	14.0	70	5-10	6	176 561
					90	5.5-10	8	180 350
	Acc. to DIN 11850 Serie 0							
	Diaphragm material EPDM							
4	-	6	0.8	50	5-10	10	187 255	
6	-	8	0.8	50	5-10	10	187 256	
Diaphragm material PTFE/EPDM								
4	-	6	0.8	50	5-10	10	187 257	
6	-	8	0.8	50	5-10	10	187 258	

 Further versions on request

 **Material**
Diaphragm: FKM

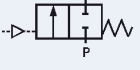
 **Port connection**
Welded acc. to SMS 3008

 **Additional**
Surface finish $Ra \leq 0.6 \mu\text{m}$ and further

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

Ordering chart Type 2103 diaphragm valve, continued

Body with clamp connection, surface finish mechanical polished $Ra \leq 0.8/6.3 \mu\text{m}$, further versions on request

Control function	Orifice		External- \varnothing [mm]	Kv value water (m^3/h)	Actuator size \varnothing [mm]	Pilot pressure [bar]	Max. operating pressure [bar]	Item no.
	[mm]	[inch]						
A 2/2-way valve, normally closed (NC) 	Acc. to DIN 32676							
	Diaphragm material EPDM							
	15	1/2"	34.0	5.5	70	5-10	10	188 479
	20	3/4"	34.0	10.0	70	5-10	10	188 480
	25	1"	50.5	14.0	70	5-10	6.5	188 481
					90			10
	Diaphragm material PTFE/EPDM							
	15	1/2"	34.0	5.5	70	5-10	10	188 485
	20	3/4"	34.0	10.0	70	5-10	10	188 486
	25	1"	50.5	14.0	70	5-10	6	188 487
					90			8
	Acc. to BS 4825							
	Diaphragm material EPDM							
	8	1/4"	25.0	1.0	50	5-10	10	187 279
	10	3/8"	25.0	1.0	50	5-10	10	187 280
	15	1/2"	25.0	5.5	70	5-10	10	188 527
	25	1"	50.5	14.0	70	5-10	6.5	188 528
					90			10
	Diaphragm material PTFE/EPDM							
	8	1/4"	25.0	1.0	50	5-10	10	187 281
	10	3/8"	25.0	1.0	50	5-10	10	187 282
	15	1/2"	25.0	5.5	70	5-10	10	188 532
	25	1"	50.5	14.0	70	5-10	6	188 533
					90			8

 Further versions on request
**Material**

Diaphragm: FKM

**Port connection**

Clamp acc. ISO 2852-SMS 3017

**Additional**Surface finish $Ra \leq 0.6 \mu\text{m}$ and further**Control function**

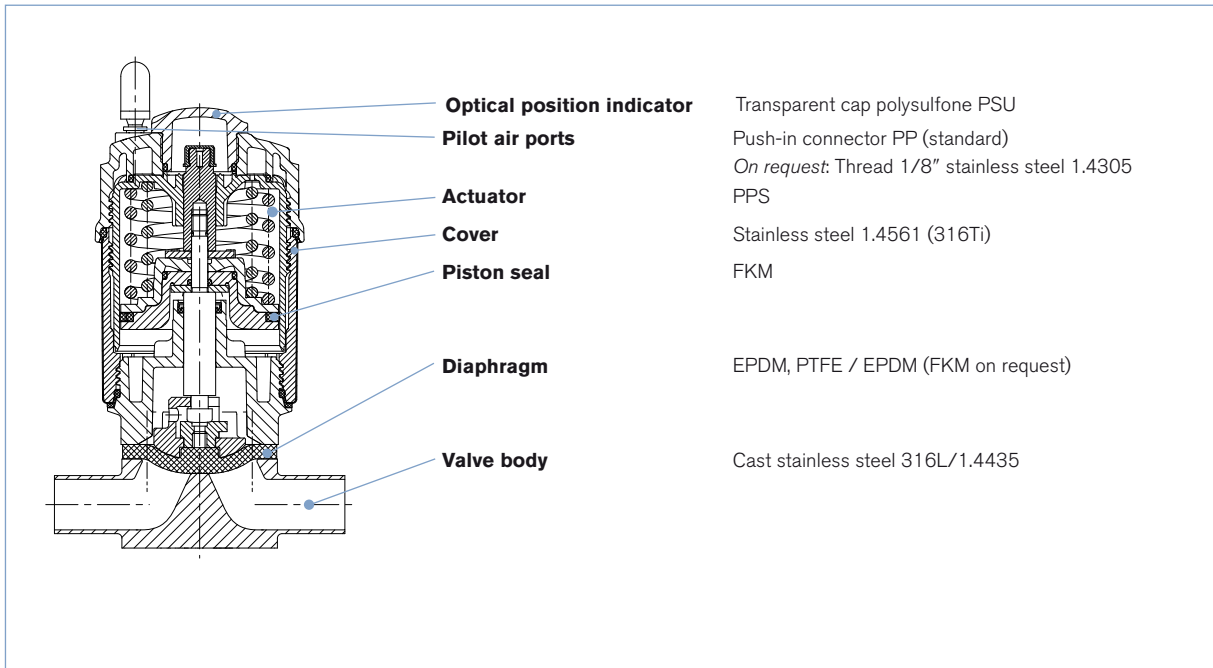
B (normally open) and I (double-acting)

Approvals

Suitability for foodstuffs / sterile applications

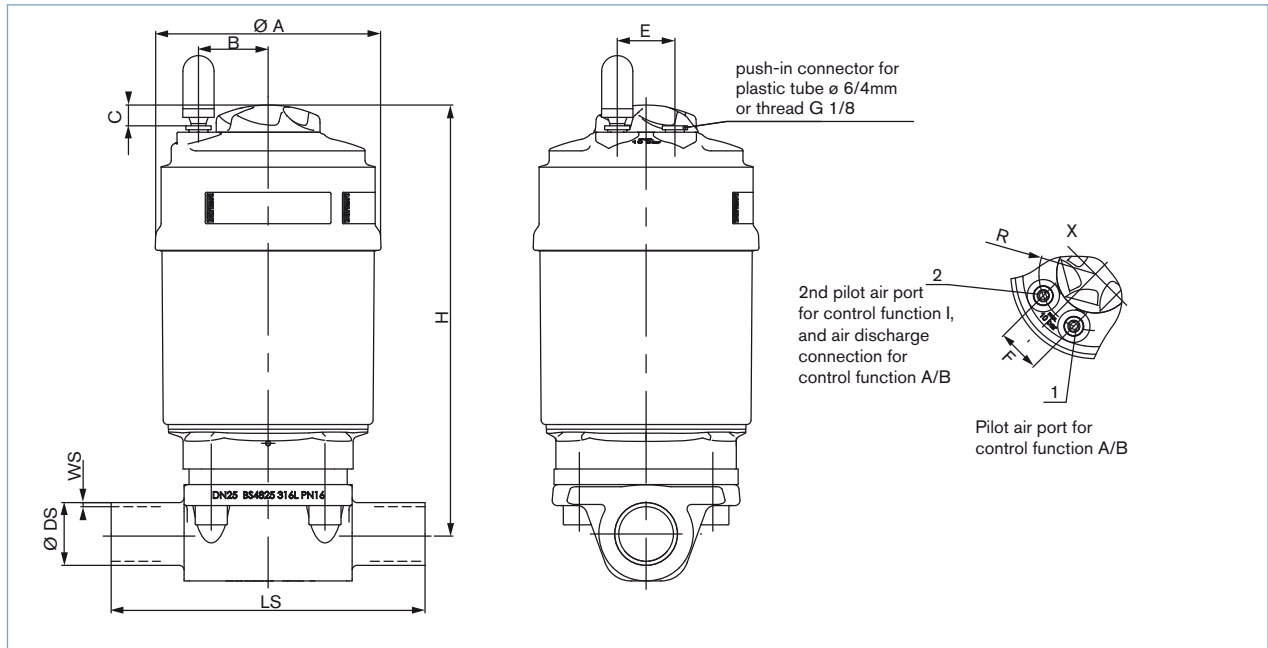
- FDA** • The composition of the EPDM and PTFE/EPDM diaphragms corresponds to the *Code of Federal Regulations*, published by the *FDA* (Food and Drug Administration, USA).
- The EPDM diaphragms correspond to the *KTW Recommendation* (Plastics in the Drinking Water Sector).
A Manufacturer's Declaration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

Materials Type 2103 diaphragm valve



Dimensions [mm]

Welded body



EN ISO 1127/ISO 4200, DIN 11850 S2

Orifice [mm]	Actuator size Ø [mm]	Ø A	B	F	C	R	E	H	LS	EN ISO 1127/ ISO 4200		DIN 11850 Serie 2	
										Ø DS	WS	Ø DS	WS
8	50	64.5	17.15	19.8	6.1	17.15	19.8	129	90	13.5	1.6	-	-
10	50	64.5	17.15	19.8	6.1	17.15	19.8	129	90	17.2	1.6	13	1.5
15	70	91	30.5	23.3	8.5	30.5	23.3	161	110	21.3	1.6	19	1.5
20	70	91	30.5	23.3	8.5	30.5	23.3	171	119	26.9	1.6	23	1.5
25	70	91	30.5	23.3	8.5	30.5	23.3	174	129	33.7	2.0	29	1.5
	90	120	30.5	23.3	8.5	30.5	23.3	207	129	33.7	2.0	29	1.5

DIN 11850 S0

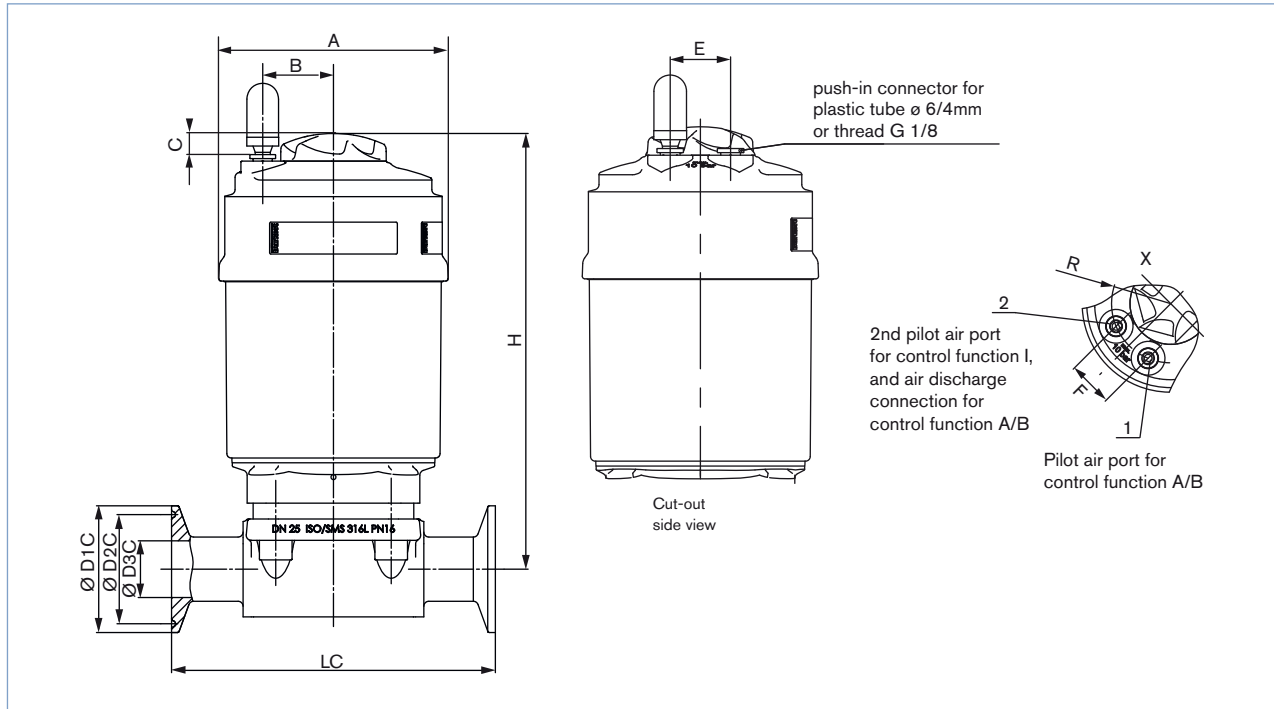
Orifice [mm]	Actuator size Ø [mm]	Ø A	B	F	C	R	E	H	LS	Ø DS	WS
4	50	64.5	17.15	19.8	6.1	17.15	19.8	129	90	6	1.0
6	50	64.5	17.15	19.8	6.1	17.15	19.8	129	90	8	1.0

On request: SMS 3008

Orifice [mm]	[inch]	Actuator size Ø [mm]	Ø A	B	F	C	R	E	H	LS	Ø DS	WS
			Ø A	B	F	C	R	E	H	LS	Ø DS	WS
25	1"	70	91	30.5	23.3	8.5	30.5	23.3	174	127	25	1.2
		90	120	30.5	23.3	8.5	30.5	23.3	207	127	25	1.2

Dimensions [mm], continued

Clamp body



DIN 32676 and BS 4825

All bodies			DIN 32676							BS 4825							
Orifice		Actuator size \varnothing	\varnothing A	B	F	C	R	E	H	LC	\varnothing D1C	\varnothing D2C	\varnothing D3C	LC	\varnothing D1C	\varnothing D2C	\varnothing D3C
[mm]	[inch]																
8	1/4"	50	64.5	17.15	19.8	6.1	17.15	19.8	129	-	-	-	-	89	25	20.22	7.1
10	3/8"	50	64.5	17.15	19.8	6.1	17.15	19.8	144	-	-	-	-	89	25	20.22	10.3
15	1/2"	70	91	30.5	23.3	8.5	30.5	23.3	161	110	34	27.5	16	102	25	20.22	16.7
20	3/4"	70	91	30.5	23.3	8.5	30.5	23.3	171	119	34	27.5	20	-	-	-	-
25	1"	70	91	30.5	23.3	8.5	30.5	23.3	174	129	50.5	43.5	26	114	50.5	43.5	22.2
		90	120	30.5	23.3	8.5	30.5	23.3	207	129	50.5	43.5	26	114	50.5	43.5	22.2

On request: ISO 2852-SMS 3017

Orifice		Actuator size \varnothing	\varnothing A	B	F	C	R	E	H	LC	\varnothing D1C	\varnothing D2C	\varnothing D3C
[mm]	[inch]												
25	1"	70	91	30.5	23.3	8.5	30.5	23.3	174	129	50.5	43.5	22.6
		90	120	30.5	23.3	8.5	30.5	23.3	207	129	50.5	43.5	22.6

Ordering information for valve system On/Off Type 8801-DF

A valve system On/Off Type 8801-DF consists of a diaphragm valve Type 2103 and a pneumatic control unit Type 8690 or control head Type 8691 (for valve actuator sizes $\varnothing 70/90$ mm) or control head Type 8695 (for valve actuator size $\varnothing 50$ mm) (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 On/Off Type 8801-DF with valve actuator sizes $\varnothing 70/90$ mm

Diaphragm valve Type 2103
with actuator sizes $\varnothing 70/90$ mm

Control units



Type 8690



Type 8691

Diaphragm valve with
desired control unit



Valve system On/Off
Type 8801-DF-K
2103 + 8690



Valve system On/Off
Type 8801-DF-H
2103 + 8691

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

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 Type 8801-DF, continued

A valve system On/Off Type 8801-DF consists of a diaphragm valve Type 2103 and a pneumatic control unit Type 8690 or control head Type 8691 (for valve actuator sizes $\varnothing 70/90$ mm) or control head Type 8695 (for valve actuator size $\varnothing 50$ mm) (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 On/Off Type 8801-DF with valve actuator size $\varnothing 50$ mm

**Diaphragm valve Type 2103
with actuator size $\varnothing 50$ mm**



Control unit



**Diaphragm valve with
desired control unit**



**Valve system On/Off
Type 8801-DF-M
2103 + 8695**

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

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.

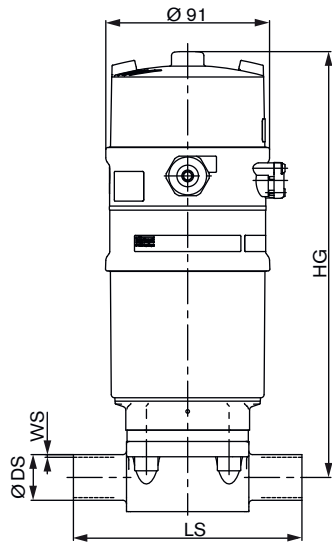
Main customer benefits:

- 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 Type 8801-DF [mm]

Dimensions valve system On/Off Type 8801-DF-K with pneumatic control unit Type 8690 [mm]

Welded body



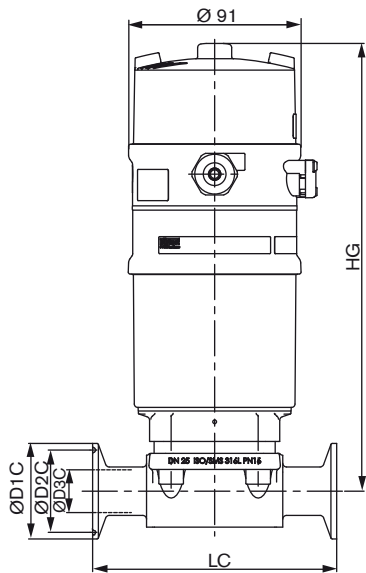
EN ISO 1127/ISO 4200, DIN 11850 S2

Orifice [mm]	Actuator size Ø [mm]	HG	LS	EN ISO 1127/ ISO 4200		DIN 11850 Serie 2	
				Ø DS	WS	Ø DS	WS
15	70	224	110	21.3	1.6	19	1.5
20	70	234	119	26.9	1.6	23	1.5
25	70	237	129	33.7	2.0	29	1.5
	90	270	129	33.7	2.0	29	1.5

On request: SMS 3008

Orifice [mm]	[inch]	Actuator size Ø	HG	LS	Ø DS	WS
		90	270	127	25	1.2

Clamp body



DIN 32676, BS 4825

All bodies				DIN 32676			BS 4825				
Orifice		Actuator size Ø	HG	LC	Ø D1C	Ø D2C	Ø D3C	LC	Ø D1C	Ø D2C	Ø D3C
[mm]	[inch]										
15	1/2"	70	224	110	34	27.5	16	102	25	20.22	16.7
20	3/4"	70	234	119	34	27.5	20	-	-	-	-
25	1"	70	237	129	50.5	43.5	26	114	50.5	43.5	22.2
		90	270	129	50.5	43.5	26	114	50.5	43.5	22.2

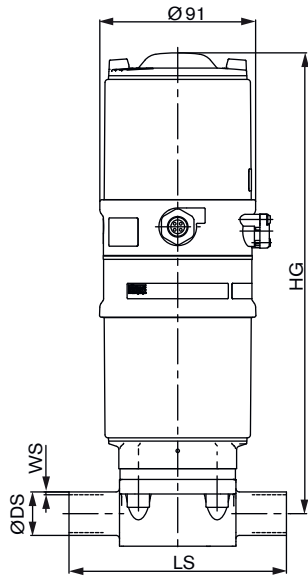
On request: ISO 2852-SMS 3017

Orifice		Actuator size Ø	HG	LC	Ø D1C	Ø D2C	Ø D3C
[mm]	[inch]						
25	1"	70	237	129	50.5	43.5	22.6
		90	270	129	50.5	43.5	22.6

Dimensions for valve system On/Off Type 8801-DF [mm], continued

Dimensions valve system On/Off Type 8801-DF-K with control head Type 8691 [mm]

Welded body



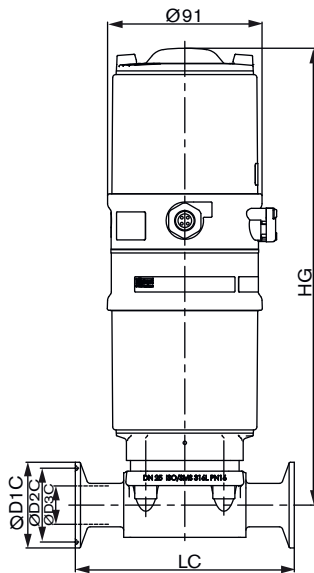
EN ISO 1127/ISO 4200, DIN 11850 S2

Orifice mm]	Actuator size Ø [mm]	HG	LS	EN ISO 1127/ ISO 4200 Ø DS	WS	DIN 11850 Serie 2 Ø DS	WS
15	70	257	110	21.3	1.6	19	1.5
20	70	267	119	26.9	1.6	23	1.5
25	70	270	129	33.7	2.0	29	1.5
	90	303	129	33.7	2.0	29	1.5

On request: SMS 3008

Orifice		Actuator size Ø	HG	LS	Ø DS	WS
[mm]	[inch]	[mm]				
25	1"	70	270	127	25	1.2
		90	303	127	25	1.2

Clamp body



DIN 32676, BS 4825

All bodies				DIN 32676				BS 4825			
Orifice		Actuator size Ø	HG	LC	Ø D1C	Ø D2C	Ø D3C	LC	Ø D1C	Ø D2C	Ø D3C
[mm]	[inch]	[mm]									
15	1/2"	70	257	110	34	27.5	16	102	25	20.22	16.7
20	3/4"	70	267	119	34	27.5	20	-	-	-	-
25	1"	70	270	129	50.5	43.5	26	114	50.5	43.5	22.2
		90	303	129	50.5	43.5	26	114	50.5	43.5	22.2

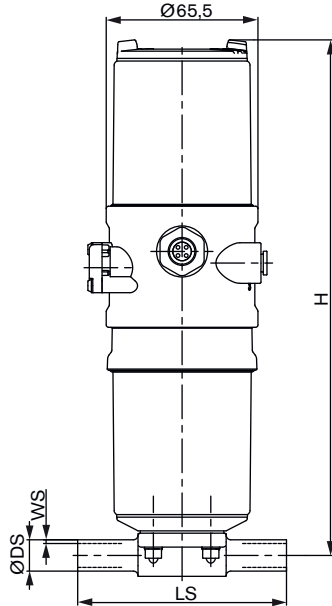
On request: ISO 2852-SMS 3017

Orifice		Actuator size Ø	HG	LC	Ø D1C	Ø D2C	Ø D3C
[mm]	[inch]	[mm]					
25	1"	70	270	129	50.5	43.5	22.6
		90	303	129	50.5	43.5	22.6

Dimensions for valve system On/Off Type 8801-DF [mm], continued

Dimensions valve system On/Off Type 8801-DF-M with control head Type 8695 [mm]

Welded body



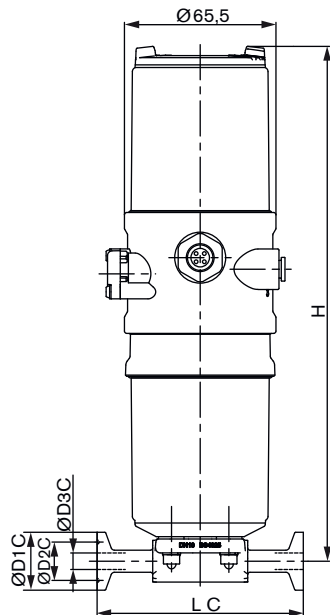
EN ISO 1127/ISO 4200, DIN 11850 S2

Orifice [mm]	Actuator size Ø [mm]	EN ISO 1127/ ISO 4200		DIN 11850 Serie 2	
		H	LS	Ø DS	WS
8	50	223	90	13.5	1.6
10	50	223	90	17.2	1.6

DIN 11850 S0

Orifice [mm]	Actuator size Ø [mm]	H	LS	Ø DS	WS
4	50	223	90	6	1.0
6	50	223	90	8	1.0

Clamp body



BS 4825

Orifice [mm]	Actuator size Ø	H	LC	BS 4825		
				Ø D1 C	Ø D2 C	Ø D3 C
8	50	223	89	25	20.22	7.1
10	50	223	89	25	20.22	10.3

Note

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

Valve system On/Off Type 8801-DF - 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 <input type="text"/>	PN <input type="text"/>
Pipe material	<input type="text"/>	
<input checked="" type="checkbox"/> Process medium	<input type="text"/>	
<input checked="" type="checkbox"/> Type of media	<input type="checkbox"/> Liquid	<input type="checkbox"/> Steam <input type="checkbox"/> Gas

Valve features

Surface finish	<input type="text"/>	internal	<input type="text"/>	external
Seal material	<input type="checkbox"/> PTFE	<input type="checkbox"/> EPDM	<input type="checkbox"/> FKM	
Nominal pressure	PN <input type="text"/>			
Orifice	DN <input type="text"/>			
Type of connection	<input type="checkbox"/> Threaded	<input type="checkbox"/> Welded	<input type="checkbox"/> Clamp	
Standard connection	<input type="checkbox"/> ISO	<input type="checkbox"/> DIN	<input type="checkbox"/> other	<input type="text"/>
Control function	<input type="checkbox"/> NC ¹⁾	<input type="checkbox"/> NO ¹⁾	<input type="checkbox"/> double-acting	
Pilot pressure	<input type="text"/>	min.	<input type="text"/>	max.
Please specify item no. if known: <input type="text"/>				

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

Control unit features

For actuator sizes 70/90 mm	For actuator sizes 70/90 mm	For actuator size 50 mm
<input type="checkbox"/> Pneumatic Control Unit Type 8690	<input type="checkbox"/> Control Head Type 8691	<input type="checkbox"/> Control Head Type 8695
Pneumatic function <input type="checkbox"/> Single-acting <input type="checkbox"/> Double-acting 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"/> 24 V / DC (ATEX Zone 2/22) <input type="checkbox"/> Ex ia IIC T6 (ATEX Zone 1) Pilot air ports <input type="checkbox"/> Push-in connector ø 6/4 mm <input type="checkbox"/> Thread G 1/8" Please specify item no. if known: <input type="text"/>	Pneumatic function <input type="checkbox"/> Single-acting <input type="checkbox"/> Double-acting Pilot air ports <input type="checkbox"/> Push-in connector ø 6/4 mm <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"/>	Pneumatic function <input type="checkbox"/> Single-acting <input type="checkbox"/> Double-acting Pilot air ports <input type="checkbox"/> Push-in connector ø 6/4 mm <input type="checkbox"/> Thread G 1/8" Communication <input type="checkbox"/> ASI Please specify item no. if known: <input type="text"/>

Comments

* To find your nearest Bürkert facility, click on the orange box → www.burkert.com

Ordering information for valve system Continuous Type 8802-DF

A valve system Continuous Type 8802-DF consists of a diaphragm valve Type 2103 and a digital electropneumatic Positioner Type 8692, a digital electropneumatic Process Controller Type 8693 or a digital electropneumatic Positioner Basic Type 8694 (for valve actuator sizes $\varnothing 70/90$ mm) or a digital electropneumatic Positioner Basic Type 8696 (for valve actuator size $\varnothing 50$ mm) (see separate datasheets).

For the configuration of further valve systems please use the "Request for quotation" on p.19 [go to page](#)

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

Ordering the valve system Continuous Type 8802-DF with valve actuator sizes $\varnothing 70/90$ mm

Diaphragm valve Type 2103

with actuator sizes $\varnothing 70/90$ mm

Control units



Type 8692



Type 8693



Type 8694

Diaphragm valve with desired control unit



Valve system Continuous Type 8802-DF-I 2103 + 8692



Valve system Continuous Type 8802-DF-J 2103 + 8693



Valve system Continuous Type 8802-DF-L 2103 + 8694

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.



PROFIBUS

DeviceNet™



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 analog 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

Positioner TopControl Basic Type 8694

More info.



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 Type 8802-DF, continued

A **valve system Continuous Type 8802-DF** consists of a **diaphragm valve Type 2103** and a digital electropneumatic Positioner **Type 8692**, a digital electropneumatic Process Controller **Type 8693** or a digital electropneumatic Positioner Basic **Type 8694** (for valve actuator sizes $\varnothing 70/90$ mm) or a digital electropneumatic Positioner Basic **Type 8696** (for valve actuator size $\varnothing 50$ mm) (see separate datasheets).

For the configuration of further valve systems please use the "Request for quotation" on p.19 [go to page](#)

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

Ordering the valve system Continuous Type 8802-DF with valve actuator size $\varnothing 50$ mm

Diaphragm valve Type 2103 with actuator size $\varnothing 50$ mm



Control unit



Type 8696

Diaphragm valve with desired control unit



Valve system Continuous Type 8802-DF-N 2103 + 8696

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 Basic Type 8696



More info.

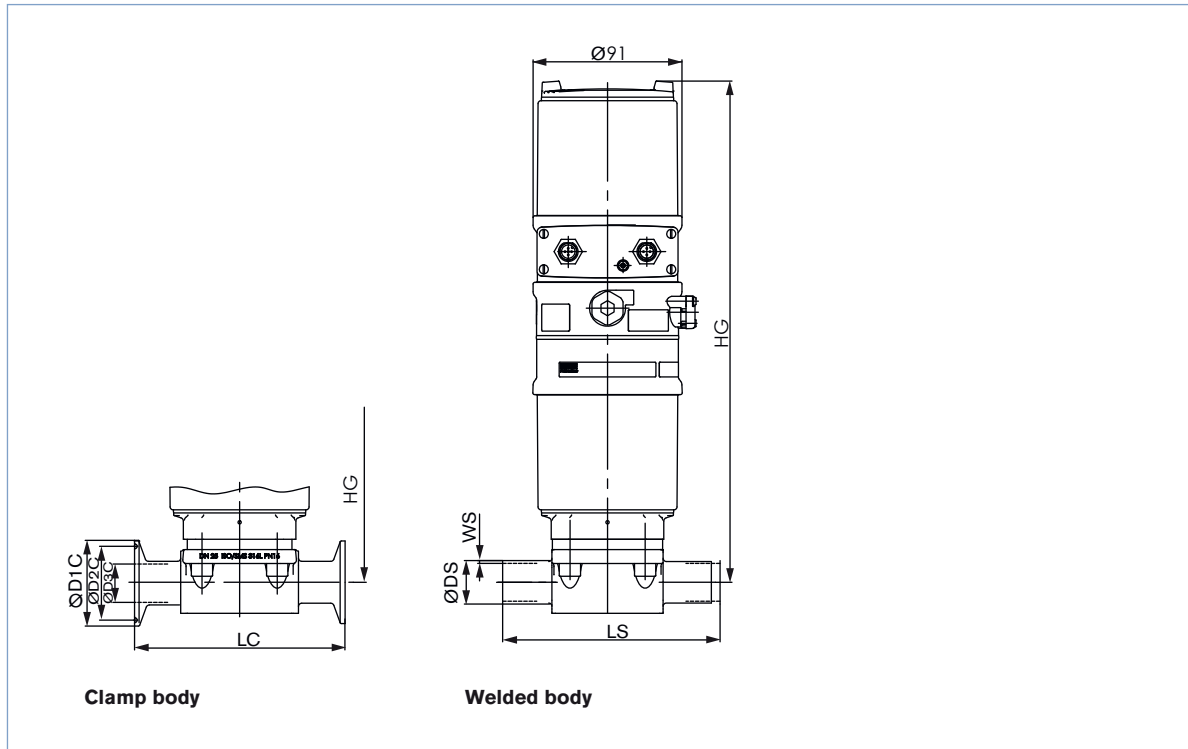
The new generation of integrated positioners for combination with small actuators from the process valve series Type 23xx/2103 is specially designed for the requirements of hygienic process environments. The operation and selection of the software functions close tight function, inversion of the operating 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 8696, registers the valve position without deterioration through a contact-free analogue position sensor. Single-acting actuators are controlled via the integral positioner system.

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 positioner using the TUNE function
- Simple and reliable actuator adaption
- Explosion-proof models for zone 2/22

Dimensions for valve system Continuous Type 8802-DF [mm]

Dimensions valve system Continuous Type 8802-DF-I with Positioner TopControl Type 8692 and 8802-DF-J with Process Controller TopControl Type 8693 [mm]



Welded body

Orifice [mm]	Actuator size Ø [mm]	HG	EN ISO 1127/ ISO 4200			DIN 11850 Serie 2			SMS 3008 (on request)		
			LS	Ø DS	WS	LS	Ø DS	WS	LS	Ø DS	WS
15	70	294	110	21.3	1.6	110	19	1.5	-	-	-
20	70	304	119	26.9	1.6	119	23	1.5	-	-	-
25	70	307	129	33.7	2.0	129	29	1.5	127	25	1.2
	90	340	129	33.7	2.0	129	29	1.5	127	25	1.2

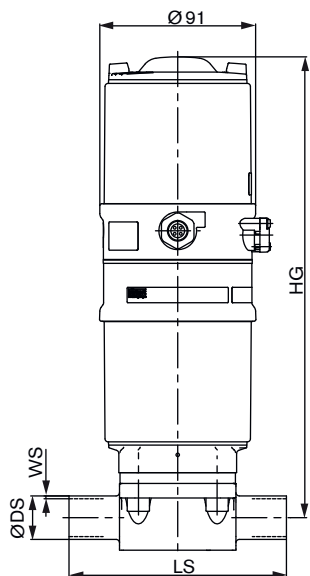
Clamp body

All bodies			DIN 32676					BS 4825				ISO 2852-SMS 3017 (on request)			
Orifice		Actuator size Ø [mm]	HG	LC	ØD1C	ØD2C	ØD3C	LC	ØD1C	ØD2C	ØD3C	LC	ØD1C	ØD2C	ØD3C
[mm]	[inch]														
15	1/2"	70	294	110	34	27.5	16	102	25	20.22	16.7	-	-	-	-
20	3/4"	70	304	119	34	27.5	20	-	-	-	-	-	-	-	-
25	1"	70	307	129	50.5	43.5	26	114	50.5	43.5	22.2	129	50.5	43.5	22.6
		90	340	129	50.5	43.5	26	114	50.5	43.5	22.2	129	50.5	43.5	22.6

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

Dimensions valve system Continuous Type 8802-DF-L with Positioner TopControl Basic Type 8694 [mm]

Welded body



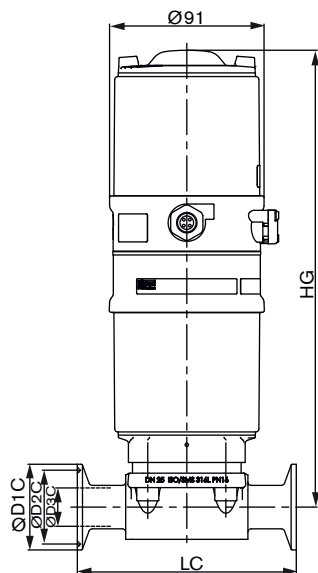
EN ISO 1127/ISO 4200, DIN 11850 S2

Orifice mm]	Actuator size Ø [mm]	HG	LS	EN ISO 1127/ ISO 4200		DIN 11850 Serie 2	
				Ø DS	WS	Ø DS	WS
15	70	257	110	21.3	1.6	19	1.5
20	70	267	119	26.9	1.6	23	1.5
25	70	270	129	33.7	2.0	29	1.5
	90	303	129	33.7	2.0	29	1.5

On request: SMS 3008

Orifice		Actuator size Ø [mm]	HG	LS	Ø DS	WS
[mm]	[inch]					
25	1"	70	270	127	25	1.2
		90	303	127	25	1.2

Clamp body



DIN 32676, BS 4825

All bodies				DIN 32676				BS 4825			
Orifice		Actuator size Ø [mm]	HG	LC	Ø D1C	Ø D2C	Ø D3C	LC	Ø D1C	Ø D2C	Ø D3C
[mm]	[inch]										
15	1/2"	70	257	110	34	27.5	16	102	25	20.22	16.7
20	3/4"	70	267	119	34	27.5	20	-	-	-	-
25	1"	70	270	129	50.5	43.5	26	114	50.5	43.5	22.2
		90	303	129	50.5	43.5	26	114	50.5	43.5	22.2

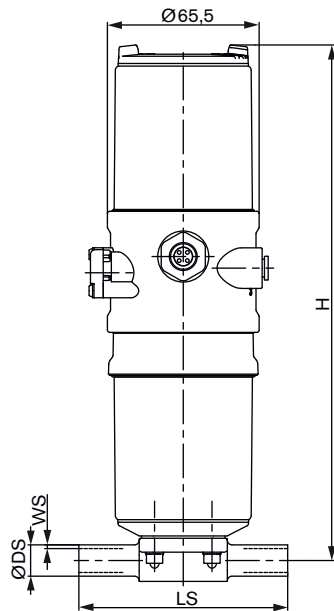
On request: ISO 2852-SMS 3017

Orifice		Actuator size Ø [mm]	HG	LC	Ø D1C	Ø D2C	Ø D3C
[mm]	[inch]						
25	1"	70	270	129	50.5	43.5	22.6
		90	303	129	50.5	43.5	22.6

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

Dimensions valve system Continuous Type 8802-DF-N with Positioner TopControl Basic Type 8696 [mm]

Welded body



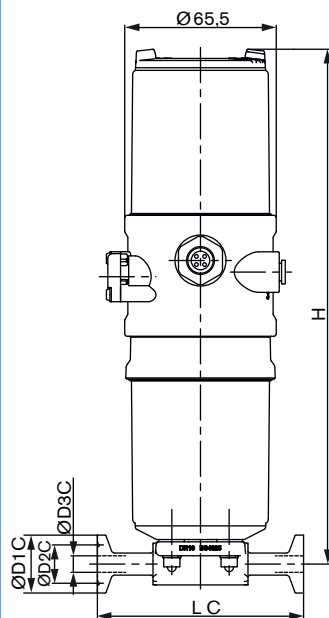
EN ISO 1127/ISO 4200, DIN 11850 S2

Orifice [mm]	Actuator size Ø [mm]	H	LS	EN ISO 1127/ ISO 4200		DIN 11850 Serie 2	
				Ø DS	WS	Ø DS	WS
8	50	223	90	13.5	1.6	–	–
10	50	223	90	17.2	1.6	13	1.5

DIN 11850 S0

Orifice [mm]	Actuator size Ø [mm]	H	LS	Ø DS	WS
4	50	223	90	6	1.0
6	50	223	90	8	1.0

Clamp body



BS 4825

Orifice [mm]	[inch]	Actuator size Ø	H	LC	Ø D1 C	Ø D2 C	Ø D3 C
					8	1/4"	50
10	3/8"	50	223	89	25	20.22	10.3

Valve system Continuous Type 8802-DF - Request for quotation

Note

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

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

Flow rate (Q, Q _N , W) ¹⁾	Min	Standard	Max	Unit
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"/>

¹⁾ standard unit Liquid Q = m³/h; Steam W = Kg/h; Gas QN = Nm³/h

Valve features

Surface finish internal external

Seal material PTFE EPDM FKM

Orifice DN







Type of connection Threaded Welded Clamp

Standard connection ISO DIN other

Control function NC ²⁾ NO ²⁾ double-acting

Please specify item no. if known: ²⁾ NC: normally closed by spring action; NO: normally open by spring action

Control unit features

  For actuator sizes 70/90 mm		 For actuator size 50 mm
<input type="checkbox"/> Positioner TopControl Type 8692 	<input type="checkbox"/> Process Controller TopControl Type 8693 	<input type="checkbox"/> Positioner TopControl Basic Type 8694 
Pneumatic function <input type="checkbox"/> Single-acting <input type="checkbox"/> Double-acting	Pneumatic function <input type="checkbox"/> Single-acting	Pneumatic function <input type="checkbox"/> Single-acting
Communication <input type="checkbox"/> Profibus <input type="checkbox"/> DeviceNet	Pilot air ports <input type="checkbox"/> Push-in connector Ø 6/4 mm <input type="checkbox"/> Thread G 1/8"	Pilot air ports <input type="checkbox"/> Push-in connector Ø 6/4 mm <input type="checkbox"/> Thread G 1/8"
Electrical connection <input type="checkbox"/> Cable gland <input type="checkbox"/> Multipol connection	Feedback <input type="checkbox"/> 4-20 mA	Feedback <input type="checkbox"/> 4-20 mA
Feedback <input type="checkbox"/> 4-20 mA <input type="checkbox"/> 4-20 mA + 2 binary outputs	Please specify item no. if known: <input type="text"/>	Please specify item no. if known: <input type="text"/>
Initiator <input type="checkbox"/> Initiator		

Comments

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

Subject to alteration.
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