

Pneumatically operated 2/2 way diaphragm valve ELEMENT for decentralized automation



Type 2103 forged On/Off can be combined with...



Type 8691

Control Head



Type 8695

Control Head



Type 8690

Pneumatic Control Unit



Type 8697

Pneumatic Control Unit

- Optimized flow and zero deadleg
- Diaphragm hermetically separates the fluids from the operating mechanism
- Easy integration of ELEMENT automation units
- Stainless steel body with clamp or weld ends
- FDA/3A quality certifications



For process valves with centralized automation see CLASSIC Type 20xx

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 device versions. The fully integrated system has a compact and smooth design, integrated pneumatic lines, IP65/67, NEMA Type 4X protection class and superior chemical resistance.

Technical data	
Port connection size	DN6 - DN65 (1/8" - 2 1/2")
Diaphragm size	8 - 50
Port connections	
Weld ends	ASME BPE / DIN 11866 C DIN EN ISO 1127/ISO 4200/DIN11866 B DIN 11850 2/DIN11866 A BS4825 SMS 3008 DIN 11850 0
Clamps	ASME BPE DIN 32676 A (with pipe DIN 11850 2) DIN 32676 B (with pipe ISO 4200) further port connections on request
Materials	
Body	Stainless steel 316L/1.4435/BN2
Diaphragm materials	EPDM (AB), PTFE/EPDM (EA) EPDM (AD), advanced PTFE/EPDM (EU), Gylon®/EPDM laminated (ER) and FKM (FF) on request
Actuator / Cover	PPS / Stainless steel 1.4561 (316Ti)
Media	Neutral gases and liquids, high-purity, sterile, aggressive or abrasive fluids
Viscosity	Up to viscous
Surface finish	
internally electropolished	Ra ≤ 0.38 µm (ASME BPE SF ⁴⁾)
internally mechanically polished	Ra ≤ 0.5 µm (ASME BPE SF ¹⁾)
Medium temperature	
EPDM (AB), PTFE/EPDM (EA)	- 10 to + 130 °C (steam sterilisation + 140 °C for 60 min)
EPDM (AD), advanced PTFE/EPDM (EU)	- 5 to + 143 °C (steam sterilisation + 150 °C for 60 min)
Gylon®/EPDM laminated (ER)	- 5 to + 130 °C (steam sterilisation + 140 °C for 60min)
FKM (FF)	0 to + 130 °C (not recommended for steam)

continued

Content










Valve specifications	System spec. On/Off ELEMENT	Request for quotation
Type 2103 forged On/Off	Type 8801-DF	Type 8801-DF
Technical data	Ordering info.	
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Ordering information for decentralized automation of On/Off ELEMENT valve system Type 8801-DF

A decentralized, automated **On/Off ELEMENT valve system Type 8801-DF** consists of a **diaphragm valve Type 2103** and a valve actuation system control head **Type 8691/8695** or a pneumatic control unit **Type 8690/8697** (see separate datasheets).

For the configuration of further valve systems please use the "Request for quotation" on p. 14-16.

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

<u>Diaphragm valve Type 2103</u>	<u>Control Head</u>		<u>Pneumatic Control Unit / Feedback</u>	
	Type 8691	Type 8695	Type 8690	Type 8697
	 More info.	 More info.	 More info.	 More info.
<u>Valve System On/Off ELEMENT</u>				
				
	Valve System Type 8801-DF-H 2103 + 8691 (Actuator size Ø 70/90/130 mm)	Valve System Type 8801-DF-M 2103 + 8695 (Actuator size Ø 50 mm)	Valve System Type 8801-DF-K 2103 + 8690 (Actuator size Ø 70/90/130 mm)	Valve System Type 8801-DF-U 2103 + 8697 (Actuator size Ø 50 mm)

A detailed description of the control heads and pneumatic control units is on the next page... →

Ordering information for decentralized automation of On/Off ELEMENT valve system Type 8801-DF

Control Head



More info.



More info.

Type 8691

Actuator size Ø 70/90/130 mm

Type 8695

Actuator size Ø 50 mm

The Control Head Type 8691/ 8695 is optimised for integrated mounting on the 21XX process valve series. The registration of the valve end position is done through a contactless analog position sensor, which automatically recognises and saves the valve end position through the Teach function when starting up. The integrated pilot valve controls single or double-acting actuators. The status of the valve is shown through high power coloured LEDs.

Features

- High power coloured Status-LEDs
- Contactless inductive position sensor
- Pilot valve with manual override
- Teach function for automatic registration of valve positions
- Hygienic stainless steel design
- Easy to clean chemically resistant housing featuring IP65 / IP67, 4X Rating
- AS-Interface or DeviceNet Fieldbus communication

Benefits

- Easy and safe Start-up through Teach function
- Easy process monitoring and error detection through clearly visible high-power coloured LEDs
- High plant availability due to prolonged actuator life boosted by spring chamber ventilation
- Minimised space requirement in the plant piping for more flexibility in plant design

Pneumatic Control Unit / Feedback



More info.



More info.

Type 8690

Actuator size Ø 70/90/130 mm

Type 8697

Actuator size Ø 50 mm

The pneumatic control unit Type 8697/8690 is optimised for integrated mounting on the 21XX process valve series. Mechanical or inductive limit switches register the position of the valve. The integrated pilot valve controls single or double-acting (8690) actuators.

Features

- Visual position indicator
- Mechanical or inductive limit switches for end position registering
- Pilot valve with manual override
- Compact design
- Easy to clean chemically resistant housing featuring IP65 / IP67, 4X Rating
- Optional intrinsically safe version acc. to ATEX

Benefits

- Easy and safe Start-up through Teach function (Type 8697)
- High level of signal reliability thanks to self adjusting limit switches
- Minimised space requirement in the plant piping for more flexibility in plant design

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

Technical data, *continued*

Ambient temperature	+5 to +60 °C
Control medium	Neutral gases; air
Max. pilot pressure	max. 10 bar, 7 bar with actuator size 130 mm
Pilot air ports	Push-in connector for external Ø 6 mm or ¼" tube, thread G ½ (on request)
Installation	As required, preferably with actuator in upright position

Pressure values

Diaphragm size	Actuator size Ø [mm]	Pilot pressure [bar]	Max. operating pressure [bar]	
			EPDM, FKM	PTFE, advanced PTFE, Gylon®
8	50	5 - 10	10	10
15	70	5 - 10	10	10
20	70	5 - 10	10	10
25	90	5 - 10	10	8
40	90	5 - 10	5.5	5
40	130	5 - 7	10	10
50	130	5 - 7	8	7

Pressure values: Overpressure to the atmospheric pressure, valve closes dynamical against max. operating pressure.

Note: For low operating pressures optional variants with reduced spring forces are recommended

K_v values

Port Connection DN		Diaphragm size	K _v value [m³/h]					
[mm]	[inch]		DIN EN ISO 1127 ISO 4200 DIN 11866 B	DIN 11850 2 DIN 11866 A	ASME BPE DIN 11866 C	DIN 11850 0	BS4825	SMS3008
6	¼"	8	-	-	-	1.1	-	-
8	¼"	8	1.5	-	0.7	1.7	0.5	-
10	⅜"	8	1.5	1.5	1.6	-	1.4	-
15	½"	8	-	-	1.5	-	-	-
10	⅜"	15	5.5	3.5	-	-	-	-
15	½"	15	6.5	6.5	3.1	-	3.7	-
20	¾"	15	-	-	6.5	-	-	-
20	¾"	20	12.5	12.4	8.4	-	8.9	-
25	1"	25	18	20	15.5	-	15.5	16
32	1 ¼"	40	-	34	-	-	-	-
40	1 ½"	40	41	40	37	-	37	38
50	2"	50	66	66	66	-	66	66
65	2 ½"	50	-	-	66	-	66	66

Flow rate: K_v value [m³/h] for elastomer diaphragms measured at 20 °C and 1 bar pressure drop at mean operating pressure

Approvals

Suitability for foodstuffs / sterile applications



- The composition of the EPDM (AB), EPDM (AD), PTFE/EPDM (EA), Gylon®/EPDM laminated (ER) and advanced PTFE/EPDM (EU) diaphragms corresponds to the Code of Federal Regulations, published by the FDA (Food and Drug Administration, USA).



- The composition of the EPDM (AB), EPDM (AD), PTFE/EPDM (EA), Gylon®/EPDM laminated (ER) and advanced PTFE/EPDM (EU) diaphragms is suitable for the application with food and beverage (acc. to EC-Regulation 1935/2004/EC)
- The composition of the EPDM (AB), EPDM (AD), PTFE/EPDM (EA), Gylon®/EPDM laminated (ER) and advanced PTFE/EPDM (EU) diaphragms are approved acc. USP Class VI



- Approval according to TA-air (Port size DN4-50)
- Diaphragm valve according to 3-A approved on request (3-A Sanitary Standards Symbol Administrative Council)

Installation for self-draining operation

α = see dimensions, body label (Marking must face upwards, 12 o'clock position) plus 3° to 5° inclination to the pipe axis.
 Drain marks permanently marked on both sides of the valve body show the correct mounting position to optimise drain ability.

Materials

Ground terminal	Stainless steel 1.4301/1.4305 <i>Only for the ATEX version</i>
Optical position indicator	Transparent cap polysulfone PSU
Pilot air ports	Push-in connector Ø 6 mm (¼") PP (standard) <i>On request: Thread G ⅛" stainless steel 1.4305</i>
Actuator	PPS
Cover	Stainless steel 1.4561 (316Ti)
Piston seal	FKM
Interface	PPS (Standard) Stainless steel 1.4308 (360° rotatable on request)
Diaphragm	EPDM (AB), PTFE/EPDM (EA) EPDM (AD), advanced PTFE/EPDM (EU), Gylon®/EPDM laminated (ER) and FKM (FF) on request
Valve body	Forged stainless steel 316L/1.4435/BN2

Body label

company logo

material

nominal pressure

serial/order no. (F-part)

Self-drain angle

code surface finish (optional)

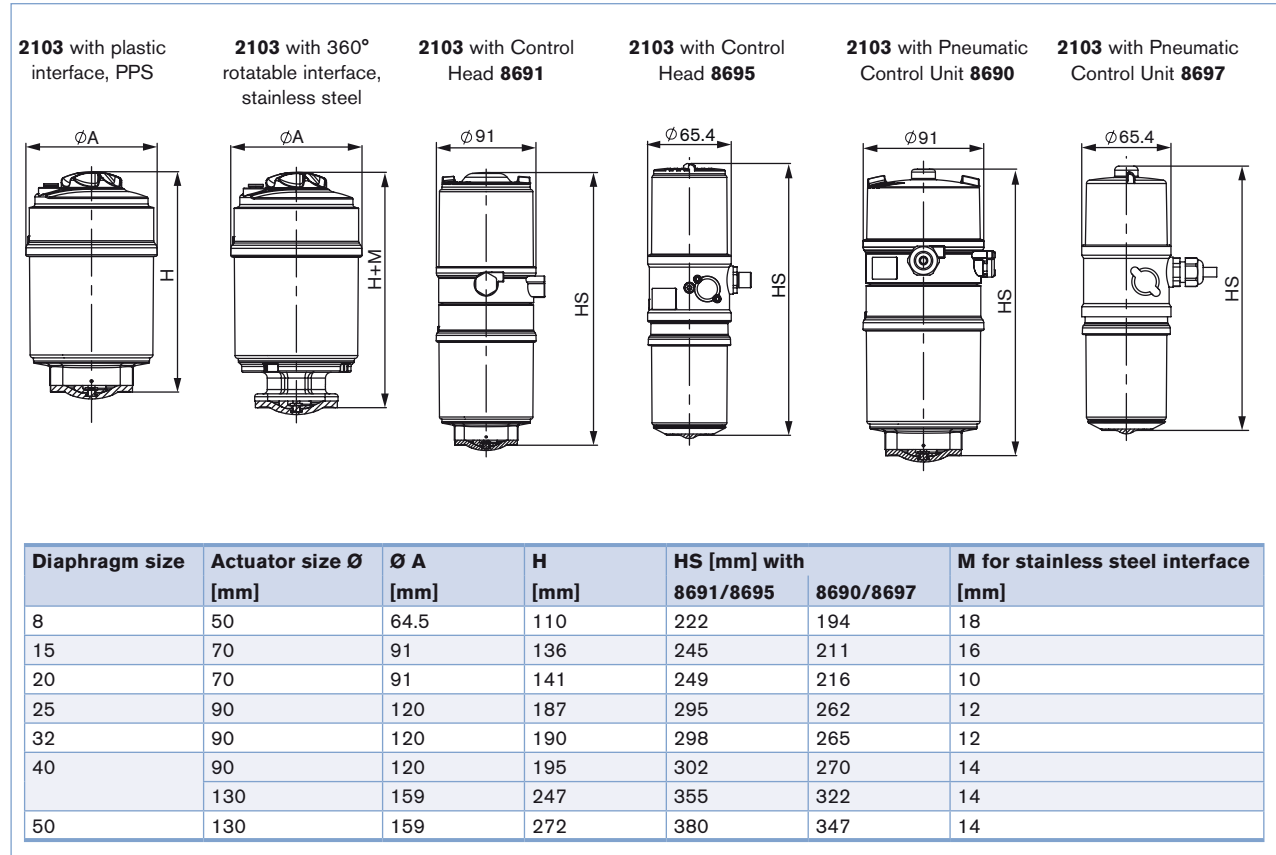
customized text (optional)

port connection & tube dimensions

Label content: **bürkert** XXXXXXXX/XXX, 1.4435/316L(VS) XXX XXXXXXXX, PN16/CWP150 XXXXXXXXXXXX

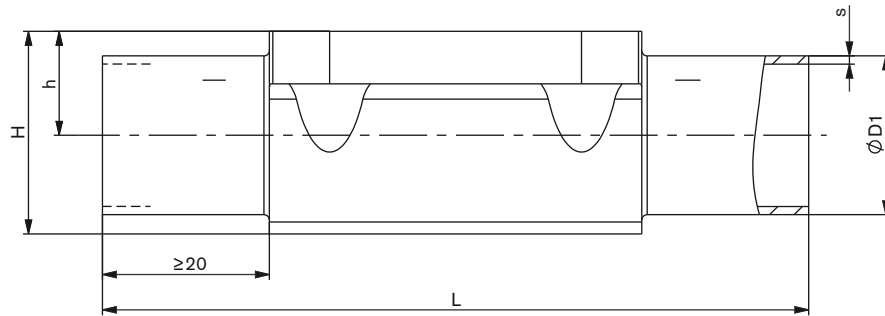
Dimensions Type 2103 forged diaphragm valve [mm]

Actuator



Dimensions Type 2103 forged diaphragm valve [mm], *continued*

Forged body - weld end

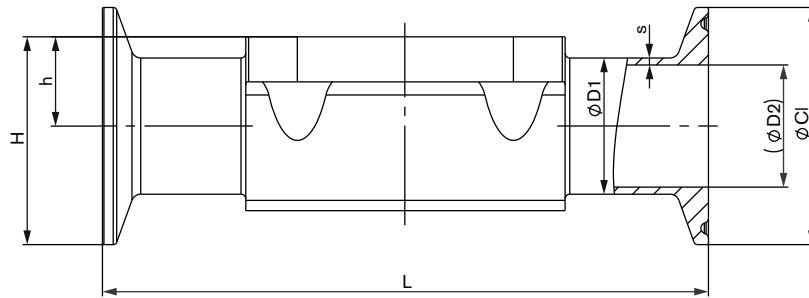


Port Connection DN		Diaphragm Size	ØD1	s	h	H	L	Self-drain angle α
[mm]	[inch]		[mm]	[mm]	[mm]	[mm]	[mm]	[°]
DIN EN ISO 1127 / ISO 4200 / DIN 11866 B								
8	¼"	8	13.5	1.6	9	19	90	24
10	⅜"	8	17.2	1.6	9	19	90	13
10	⅜"	15	17.2	1.6	12	24	110	25
15	½"	15	21.3	1.6	12	24	110	18
20	¾"	20	26.9	1.6	16	30	119	17
25	1"	25	33.7	2.0	19	37	129	19
40	1 ½"	40	48.3	2.0	28	52	161	14
50	2"	50	60.3	2.0	36	68	192	14
DIN 11850 2 / DIN 11866 A								
10	⅜"	8	13.0	1.5	9	19	90	24
10	⅜"	15	13.0	1.5	8	20	110	40
15	½"	15	19.0	1.5	12	24	110	22
20	¾"	20	23.0	1.5	16	30	119	22
25	1"	25	29.0	1.5	19	37	129	23
32	1 ¼"	40	35.0	1.5	28	52	161	26
40	1 ½"	40	41.0	1.5	28	52	161	20
50	2"	50	53.0	1.5	36	68	192	18
ASME BPE / DIN 11866 C								
8	¼"	8	6.35	0.89	6	15	78	48
10	⅜"	8	9.53	0.89	6	15	89	39
15	½"	8	12.70	1.65	9	19	89	26
15	½"	15	12.70	1.65	8	20	108	41
20	¾"	15	19.05	1.65	12	24	108	22
20	¾"	20	19.05	1.65	16	30	117	29
25	1"	25	25.40	1.65	19	37	127	27
40	1 ½"	40	38.10	1.65	28	52	159	24
50	2"	50	50.80	1.65	36	68	190	20
65	2 ½"	50	63.50	1.65	36	68	192	11
BS 4825								
8	¼"	8	6.35	1.20	6	15	78	50
10	⅜"	8	9.53	1.20	6	15	89	42
15	½"	15	12.70	1.20	8	20	108	40
20	¾"	20	19.05	1.20	16	30	117	28
25	1"	25	25.40	1.65	19	37	127	27
40	1 ½"	40	38.10	1.65	28	52	159	24
50	2"	50	50.80	1.65	36	68	190	20
65	2 ½"	50	63.50	1.65	36	68	192	11
SMS 3008								
25	1"	25	25.0	1.2	19	37	129	27
40	1 ½"	40	38.0	1.2	28	52	161	22
50	2"	50	51.0	1.2	36	68	192	19
65	2 ½"	50	63.5	1.6	36	68	192	11
DIN 11850 0								
6	⅛"	8	8.0	1.0	6	15	90	44
8	¼"	8	10.0	1.0	6	15	90	39

DTS 1000097545 EN Version: P Status: RL (released | freigegeben | valide) printed: 16.01.2018

Dimensions Type 2103 forged diaphragm valve [mm], *continued*

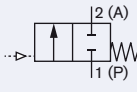
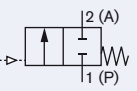
Forged body - clamp



Port Connection		Diaphragm Size	ØD1 [mm]	s [mm]	CI [mm]	ØD2 [mm]	h [mm]	H [mm]	L [mm]	Self-drain angle α [°]
[mm]	[inch]									
DIN 32676 B with pipe EN ISO 4200										
15	½"	15	21.3	1.6	50.5	18.1	12	37	167	18
20	¾"	20	26.9	1.6	50.5	23.7	16	41	114	17
25	1"	25	33.7	2.0	50.5	29.7	19	44	129	19
40	1 ½"	40	48.3	2.0	64.0	44.3	28	60	161	14
50	2"	50	60.3	2.0	77.5	56.3	36	74	190	14
DIN 32676 A with pipe DIN 11850 2										
10	⅜"	15	13.0	1.5	34.0	10.0	8	25	110	40
15	½"	15	19.0	1.5	34.0	16.0	12	29	110	22
20	¾"	20	23.0	1.5	34.0	20.0	16	33	119	22
25	1"	25	29.0	1.5	50.5	26.0	19	44	129	23
40	1 ½"	40	41.0	1.5	50.5	38.0	28	53	161	20
50	2"	50	53.0	1.5	64.0	50.0	36	68	192	18
ASME BPE										
8	¼"	8	6.35	0.89	25.0	4.57	6	18	64	48
10	⅜"	8	9.53	0.89	25.0	7.75	6	18	89	39
15	½"	8	12.70	1.65	25.0	9.4	9	22	89	26
15	½"	15	12.70	1.65	25.0	9.4	8	21	89	41
20	¾"	20	19.05	1.65	25.0	15.75	16	29	102	29
25	1"	25	25.40	1.65	50.5	22.1	19	44	114	27
40	1 ½"	40	38.10	1.65	50.5	34.8	28	53	140	24
50	2"	50	50.80	1.65	64.0	47.5	36	68	159	20
65	2 ½"	50	63.50	1.65	77.5	60.2	36	74	190	11

Ordering chart Type 2103 forged diaphragm valve, weld end

Inspection Certificate 3.1 acc. to EN 10204 - Material Test Report (included in delivery)

Control function	Port Connection DN		Diaphragm size	Actuator size Ø [mm]	K _v -Wert [m ³ /h]	Pilot pressure [bar]	Max. operating pressure [bar]	Article no. mechanically polished Ra ≤ 0.5 µm	Article no. electro-polished Ra ≤ 0.38 µm	
	[mm]	[inch]								
Welded connection acc. DIN EN ISO 1127 / ISO 4200 / DIN11866 B										
A Single-acting actuator for pneumatically activated open/closed valve, normally closed by spring force 	Diaphragm material EPDM (AB)									
	8	1/4"	8	50	1.5	5 - 10	10	211133	225546	
	10	3/8"	8	50	1.5	5 - 10	10	299608	250296	
	10	3/8"	15	70	5.5	5 - 10	10	299624	299562	
	15	1/2"	15	70	6.5	5 - 10	10	211134	225547	
	20	3/4"	20	70	12.5	5 - 10	10	211135	225548	
	25	1"	25	90	18	5 - 10	10	211137	225550	
	40	1 1/2"	40	90	41	5 - 10	5.5	299649	299584	
	40	1 1/2"	40	130	41	5 - 7	10	211138	225551	
	50	2"	50	130	66	5 - 7	8	211139	225552	
		Diaphragm material PTFE/EPDM (EA)								
	8	1/4"	8	50	2	5 - 10	10	211140	225553	
	10	3/8"	8	50	2	5 - 10	10	299609	299554	
	10	3/8"	15	70	5.2	5 - 10	10	299625	299563	
	15	1/2"	15	70	6	5 - 10	10	211141	225554	
	20	3/4"	20	70	12	5 - 10	10	211142	225555	
	25	1"	25	90	16	5 - 10	8	211144	225557	
40	1 1/2"	40	90	40	5 - 10	5	299650	299585		
40	1 1/2"	40	130	40	5 - 7	10	211145	225558		
50	2"	50	130	67	5 - 7	7	211146	225559		
Welded connection acc. DIN 11850 2 / DIN 11866 A										
A Single-acting actuator for pneumatically activated open/closed valve, normally closed by spring force 	Diaphragm material EPDM (AB)									
	10	3/8"	8	50	1.5	5 - 10	10	211147	225560	
	10	3/8"	15	70	3.5	5 - 10	10	299622	299560	
	15	1/2"	15	70	6.5	5 - 10	10	211148	225561	
	20	3/4"	20	70	12.4	5 - 10	10	211149	225562	
	25	1"	25	90	20	5 - 10	10	211151	225564	
	32	1 1/4"	40	90	34	5 - 10	5.5	299642	299576	
	40	1 1/2"	40	90	40	5 - 10	5.5	299644	299579	
	32	1 1/4"	40	130	34	5 - 7	10	299656	299591	
	40	1 1/2"	40	130	40	5 - 7	10	211152	225565	
	50	2"	50	130	66	5 - 7	8	211153	225566	
		Diaphragm material PTFE/EPDM (EA)								
	10	3/8"	8	50	1.9	5 - 10	10	211154	225567	
	10	3/8"	15	70	3.4	5 - 10	10	299623	299561	
	15	1/2"	15	70	6	5 - 10	10	211155	225568	
	20	3/4"	20	70	12	5 - 10	10	211156	225569	
	25	1"	25	90	17	5 - 10	8	211158	225571	
32	1 1/4"	40	90	34	5 - 10	5	299643	299578		
40	1 1/2"	40	90	40	5 - 10	5	299646	299580		
32	1 1/4"	40	130	34	5 - 7	10	299657	299592		
40	1 1/2"	40	130	40	5 - 7	10	211159	225572		
50	2"	50	130	66	5 - 7	7	211160	225573		

i Further versions on request



Control function B



Material

Diaphragms for sterilization with steam EPDM (AD), advanced PTFE/EPDM (EU) and GYLON®/EPDM laminated (ER)



Additional

Versions with reduced spring force

Versions with interface 360° rotatable, stainless steel

Ordering chart Type 2103 forged diaphragm valve, weld end, continued

Inspection Certificate 3.1 acc. to EN 10204 - Material Test Report (included in delivery)

Control function	Port Connection DN		Diaphragm size	Actuator size Ø [mm]	K _v -Wert [m³/h]	Pilot pressure [bar]	Max. operating pressure [bar]	Article no. mechanically polished Ra ≤ 0.5 µm	Article no. electro-polished Ra ≤ 0.38 µm	
	[mm]	[inch]								
Welded connection acc. ASME BPE / DIN 11866 C										
A Single-acting actuator for pneumatically activated open/closed valve, normally closed by spring force 	Diaphragm material EPDM (AB)									
	8	1/4"	8	50	0.7	5 - 10	10	211161	225574	
	10	3/8"	8	50	1.6	5 - 10	10	211162	225575	
	15	1/2"	8	50	1.5	5 - 10	10	282355	299540	
	15	1/2"	15	70	3.1	5 - 10	10	211163	225576	
	20	3/4"	15	70	6.5	5 - 10	10	299617	299555	
	20	3/4"	20	70	8.4	5 - 10	10	211164	225577	
	25	1"	25	90	15.5	5 - 10	10	211166	225221	
	40	1 1/2"	40	90	37	5 - 10	5.5	299637	299572	
	40	1 1/2"	40	130	37	5 - 7	10	211167	225223	
	50	2"	50	130	66	5 - 7	8	211168	225579	
	65	2 1/2"	50	130	66	5 - 7	8	299662	228117	
	Diaphragm material PTFE/EPDM (EA)									
	8	1/4"	8	50	0.7	5 - 10	10	211169	225580	
	10	3/8"	8	50	1.8	5 - 10	10	211170	225581	
	15	1/2"	8	50	1.9	5 - 10	10	299614	256010	
	15	1/2"	15	70	3.1	5 - 10	10	211171	225582	
	20	3/4"	15	70	6	5 - 10	10	299618	299556	
	20	3/4"	20	70	8.5	5 - 10	10	211172	225583	
	25	1"	25	90	14.5	5 - 10	8	211174	225585	
40	1 1/2"	40	90	37.5	5 - 10	5	299638	299573		
40	1 1/2"	40	130	37.5	5 - 7	10	211175	225586		
50	2"	50	130	66	5 - 7	7	211176	225587		
65	2 1/2"	50	130	66	5 - 7	7	299663	299600		
Welded connection acc. BS4825										
A Single-acting actuator for pneumatically activated open/closed valve, normally closed by spring force 	Diaphragm material EPDM (AB)									
	8	1/4"	8	50	0.5	5 - 10	10	211177	225588	
	10	3/8"	8	50	1.4	5 - 10	10	211178	225589	
	15	1/2"	15	70	3.7	5 - 10	10	211179	225590	
	20	3/4"	20	70	8.9	5 - 10	10	211180	225591	
	25	1"	25	90	15.5	5 - 10	10	211166	225221	
	40	1 1/2"	40	90	37	5 - 10	5.5	299637	299572	
	40	1 1/2"	40	130	37	5 - 7	10	211167	225223	
	50	2"	50	130	66	5 - 7	8	211168	225579	
	65	2 1/2"	50	130	66	5 - 7	8	299662	228117	
	Diaphragm material PTFE/EPDM (EA)									
	8	1/4"	8	50	0.5	5 - 10	10	211181	225592	
	10	3/8"	8	50	1.6	5 - 10	10	211182	225593	
	15	1/2"	15	70	3.6	5 - 10	10	211183	225594	
	20	3/4"	20	70	8.8	5 - 10	10	211184	225595	
	25	1"	25	90	14.5	5 - 10	8	211174	225585	
	40	1 1/2"	40	90	37.5	5 - 10	5	299638	299573	
	40	1 1/2"	40	130	37.5	5 - 7	10	211175	225586	
	50	2"	50	130	66	5 - 7	7	211176	225587	
	65	2 1/2"	50	130	66	5 - 7	7	299663	299600	

DTS 1000097545 EN Version: P Status: RL (released | freigegeben | valide) printed: 16.01.2018

i Further versions on request

Control function B

Material

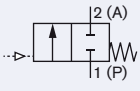

Diaphragms for sterilization with steam EPDM (AD), advanced PTFE/EPDM (EU) and GYLON®/EPDM laminated (ER)

Additional

Versions with reduced spring force
 Versions with interface 360° rotatable, stainless steel

Ordering chart Type 2103 forged diaphragm valve, weld end, continued

Inspection Certificate 3.1 acc. to EN 10204 - Material Test Report (included in delivery)

Control function	Port Connection DN		Diaphragm size	Actuator size Ø [mm]	K _v -Wert [m ³ /h]	Pilot pressure [bar]	Max. operating pressure [bar]	Article no. mechanically polished Ra ≤ 0.5 µm	Article no. electro-polished Ra ≤ 0.38 µm
	[mm]	[inch]							
Welded connection acc. SMS 3008									
A Single-acting actuator for pneumatically activated open/closed valve, normally closed by spring force 	Diaphragm material EPDM (AB)								
	25	1"	25	90	16	5 - 10	10	299634	250300
	40	1 1/2"	40	90	37.8	5 - 10	5.5	299654	299589
	40	1 1/2"	40	130	37.8	5 - 7	10	299660	250299
	50	2"	50	130	66	5 - 7	8	299668	250301
	65	2 1/2"	50	130	66	5 - 7	8	299670	299602
	Diaphragm material PTFE/EPDM (EA)								
	25	1"	25	90	14.8	5 - 10	8	299635	299571
	40	1 1/2"	40	90	38	5 - 10	5	299655	299590
	40	1 1/2"	40	130	38	5 - 7	10	299661	299595
	50	2"	50	130	66	5 - 7	7	299669	299601
65	2 1/2"	50	130	66	5 - 7	7	299671	299603	
Welded connection acc. DIN 11850 0									
A Single-acting actuator for pneumatically activated open/closed valve, normally closed by spring force 	Diaphragm material EPDM (AB)								
	8	1/4"	8	50	1.1	5 - 10	10	299610	299548
	10	3/8"	8	50	1.7	5 - 10	10	299612	299549
	Diaphragm material PTFE/EPDM (EA)								
	8	1/4"	8	50	1.1	5 - 10	10	299611	299552
10	3/8"	8	50	1.9	5 - 10	10	299613	299553	

i Further versions on request



Control function B



Material

Diaphragms for sterilization with steam EPDM (AD), advanced PTFE/EPDM (EU) and GYLON®/EPDM laminated (ER)

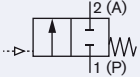
























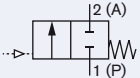






























Additional

Versions with reduced spring force
Versions with interface 360° rotatable, stainless steel

Ordering chart Type 2103 forged diaphragm valve, clamp

Inspection Certificate 3.1 acc. to EN 10204 - Material Test Report (included in delivery)

Control function	Port Connection DN		Diaphragm size	Actuator size Ø [mm]	K _v -Wert [m ³ /h]	Pilot pressure [bar]	Max. operating pressure [bar]	Article no. mechanically polished Ra ≤ 0.5 µm	Article no. electro-polished Ra ≤ 0.38 µm
	[mm]	[inch]							
Clamp connection acc. DIN 32676 B (with pipe ISO 4200)									
A Single-acting actuator for pneumatically activated open/closed valve, normally closed by spring force 	Diaphragm material EPDM (AB)								
	15	1/2"	15	70	6.5	5 - 10	10	299626 	299564 
	20	3/4"	20	70	12.5	5 - 10	10	299629 	299566 
	25	1"	25	90	18	5 - 10	10	299631 	299568 
	40	1 1/2"	40	90	41	5 - 10	5.5	299652 	299586 
	40	1 1/2"	40	130	41	5 - 7	10	299658 	299593 
	50	2"	50	130	66	5 - 7	8	299666 	299598 
	Diaphragm material PTFE/EPDM (EA)								
	15	1/2"	15	70	6	5 - 10	10	299628 	299565 
	20	3/4"	20	70	12	5 - 10	10	299630 	299567 
	25	1"	25	90	16	5 - 10	8	299633 	299570 
	40	1 1/2"	40	90	40	5 - 10	5	299653 	299588 
	40	1 1/2"	40	130	40	5 - 7	10	299659 	299594 
	50	2"	50	130	67	5 - 7	7	299667 	299599 
Clamp connection acc. DIN 32676 A (with pipe DIN 11850 2)									
A Single-acting actuator for pneumatically activated open/closed valve, normally closed by spring force 	Diaphragm material EPDM (AB)								
	10	3/8"	15	70	3.5	5 - 10	10	299606 	299550 
	15	1/2"	15	70	6.5	5 - 10	10	211185 	225596 
	20	3/4"	20	70	12.4	5 - 10	10	211186 	225597 
	25	1"	25	90	20	5 - 10	10	211188 	225599 
	40	1 1/2"	40	90	34	5 - 10	5.5	299647 	299582 
	40	1 1/2"	40	130	34	5 - 7	10	211189 	225600 
	50	2"	50	130	40	5 - 7	8	211190 	225601 
	Diaphragm material PTFE/EPDM (EA)								
	10	3/8"	15	70	3.4	5 - 10	10	299607 	299551 
	15	1/2"	15	70	6	5 - 10	10	211191 	225602 
	20	3/4"	20	70	12	5 - 10	10	211192 	225603 
	25	1"	25	90	17	5 - 10	8	211194 	225605 
	40	1 1/2"	40	90	34	5 - 10	5	299648 	299583 
40	1 1/2"	40	130	34	5 - 7	10	211195 	225606 	
50	2"	50	130	40	5 - 7	7	211196 	225607 	

i Further versions on request**Control function B****Material**

Diaphragms for sterilization with steam EPDM (AD), advanced PTFE/EPDM (EU) and GYLON®/EPDM laminated (ER)

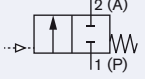
**Additional**

Versions with reduced spring force

Versions with interface 360° rotatable, stainless steel

Ordering chart Type 2103 forged diaphragm valve, clamp, continued

Inspection Certificate 3.1 acc. to EN 10204 - Material Test Report (included in delivery)

Control function	Port Connection DN		Diaphragm size	Actuator size Ø [mm]	K _v -Wert [m ³ /h]	Pilot pressure [bar]	Max. operating pressure [bar]	Article no. mechanically polished Ra ≤ 0.5 µm	Article no. electro-polished Ra ≤ 0.38 µm	
	[mm]	[inch]								
Clamp connection acc. ASME BPE										
A Single-acting actuator for pneumatically activated open/closed valve, normally closed by spring force 	Diaphragm material EPDM (AB)									
	8	1/4"	8	50	0.7	5 - 10	10	211197	225608	
	10	3/8"	8	50	1.6	5 - 10	10	211198	225609	
	15	1/2"	8	50	1.5	5 - 10	10	282353	299545	
	15	1/2"	15	70	3.1	5 - 10	10	211199	225610	
	20	3/4"	20	70	8.4	5 - 10	10	211200	225611	
	25	1"	25	90	15.5	5 - 10	10	211202	225222	
	40	1 1/2"	40	90	37	5 - 10	5.5	299640	299574	
	40	1 1/2"	40	130	37	5 - 7	10	211203	225613	
	50	2"	50	130	66	5 - 7	8	211204	225614	
	65	2 1/2"	50	130	66	5 - 7	8	299664	299596	
	Diaphragm material PTFE/EPDM (EA)									
	8	1/4"	8	50	0.7	5 - 10	10	211205	225615	
	10	3/8"	8	50	1.8	5 - 10	10	211206	225616	
	15	1/2"	8	50	1.9	5 - 10	10	299616	299547	
	15	1/2"	15	70	3.1	5 - 10	10	211207	225617	
	20	3/4"	20	70	8.5	5 - 10	10	211208	225618	
	25	1"	25	90	14.5	5 - 10	8	211210	225620	
	40	1 1/2"	40	90	37.5	5 - 10	5	299641	299575	
40	1 1/2"	40	130	37.5	5 - 7	10	211211	225621		
50	2"	50	130	66	5 - 7	7	211212	225622		
65	2 1/2"	50	130	66	5 - 7	7	299665	299597		

Further versions on request



Control function B



Material

Diaphragms for sterilization with steam EPDM (AD), advanced PTFE/EPDM (EU) and GYLON®/EPDM laminated (ER)



Additional

Versions with reduced spring force
Versions with interface 360° rotatable, stainless steel

Valve features, specification key - Request for quotation

Example



Specification key

(Please make a choice)

CONTROL FUNCTION

A	normally closed by spring action
B	normally open by spring action
I	double acting

DIAPHRAGM SIZE [mm]

08
10
15
20
25
32
40
50

SEAL MATERIAL

AB	EPDM
AD	EPDM
EA	PTFE/EPDM
ER	GYLON®/EPDM laminated
EU	advanced PTFE/EPDM

BODY MATERIAL

VS	Stainless steel 316L/1.4435/BN2
----	---------------------------------

VARIABLE CODES

NO14	Int. mechanically polished Ra ≤ 0.5 µm (ASME BPE SF1)
NO17	Int. electropolished Ra ≤ 0.38 µm (ASME BPE SF4)
EC04	Reduced spring force



Port connection - weld end						
Port Connection DN	DIN EN ISO 1127	DIN 11850 2	ASME BPE	BS4825	SMS 3008	DIN 11850 0
[mm]	ISO 4200	DIN11866 A	DIN 11866 C			
	DIN11866 B					
	[inch]					
6	1/8"					SC41-8.0 × 1.0
8	1/4"	SA40 - 13.5 × 1.6		SA90 - 6.35 × 0.89	SODB - 6.35 × 1.2	SC42 - 10.0 × 1.0
10	3/8"	SA41 - 17.2 × 1.6	SD40 - 13.0 × 1.5	SA91 - 9.53 × 0.89	SODC - 9.53 × 1.2	
15	1/2"	SA42 - 21.3 × 1.6	SD42 - 19.0 × 1.5	SA92 - 12.7 × 1.65	SODD - 12.7 × 1.2	
20	3/4"	SA43 - 26.9 × 1.6	SD43 - 23.0 × 1.5	SA93 - 19.05 × 1.65	SODE - 19.05 × 1.2	
25	1"	SA44 - 33.7 × 2.0	SD44 - 29.0 × 1.5	SODF - 25.4 × 1.65	SODF - 25.4 × 1.65	SA60 - 25.0 × 1.2
32	1 1/4"	SA45 - 42.4 × 2.0	SD45 - 35.0 × 1.5			
40	1 1/2"	SA46 - 48.3 × 2.0	SD46 - 41.0 × 1.5	SODH - 38.1 × 1.65	SODH - 38.1 × 1.65	SA62 - 38.0 × 1.2
50	2"	SA47 - 60.3 × 2.0	SD47 - 53.0 × 1.5	SODI - 50.8 × 1.65	SODI - 50.8 × 1.65	SA63 - 51.0 × 1.2
65	2 1/2"			SODJ - 63.5 × 1.65	SODJ - 63.5 × 1.65	SA64 - 63.5 × 1.6

Port connection - clamp			
Port Connection DN	DIN 32676 B	DIN 32676 A	ASME BPE
[mm]	(with pipe ISO 4200)	(with pipe DIN 11850 2)	
8			TG50 - 6.35 × 0.89 Cl: 25.0
10		TD41 - 13.0 × 1.5 Cl: 34.0	TG01 - 9.53 × 0.89 Cl: 25.0
15	TC52 - 21.3 × 1.6 Cl: 50.5	TD42 - 19.0 × 1.5 Cl: 34.0	TG02 - 12.7 × 1.65 Cl: 25.0
20	TC43 - 26.9 × 1.6 Cl: 50.5	TD43 - 23.0 × 1.5 Cl: 34.0	TG03 - 19.05 × 1.65 Cl: 25.0
25	TC44 - 33.7 × 2.0 Cl: 50.5	TD44 - 29.0 × 1.5 Cl: 50.5	TG04 - 25.4 × 1.65 Cl: 50.5
40	TC46 - 48.3 × 2.0 Cl: 64.0	TD46 - 41.0 × 1.5 Cl: 50.5	TG05 - 38.1 × 1.65 Cl: 50.5
50	TC47 - 60.3 × 2.0 Cl: 77.5	TD47 - 53.0 × 1.5 Cl: 64.0	TG06 - 50.8 × 1.65 Cl: 64.0
65			TG07 - 63.5 × 1.65 Cl: 77.5

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

Valve system On/Off ELEMENT 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 PN

Pipe material

Process medium

Type of media Liquid Steam Gas

Valve features

Specification key

2103

(automatically transferred from p. 15)





Surface finish (if not standard) internal µm external µm

Pilot pressure min. max.

ATEX II 2GD Mechanical

Automation unit features

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

Control Head		Pneumatic Control Unit / Feedback	
<input type="checkbox"/> Type 8691 More info. For actuator size Ø 70/90/130 mm  <ul style="list-style-type: none"> Inductive position sensor with automatic Teach function Coloured high power LEDs With/without pilot valve for single or double-acting actuators Fieldbus communication Hygienic stainless steel design <p>Pneumatic function</p> <input type="checkbox"/> Single-acting <input type="checkbox"/> Double-acting <input type="checkbox"/> Without pilot valve	<input type="checkbox"/> Type 8695 More info. For actuator size Ø 50 mm  <p>Electrical connection</p> <input type="checkbox"/> Cable gland <input type="checkbox"/> M12 connector	<input type="checkbox"/> Type 8690 More info. For actuator size Ø 70/90/130 mm  <ul style="list-style-type: none"> visual status indicator Micro- or proximity switches for end position feedback With/ without pilot valve for single or double-acting actuators Optional intrinsically safe version acc. to ATEX / IECEx <p>Pneumatic function</p> <input type="checkbox"/> Single-acting <input type="checkbox"/> Double-acting (only with 8690) <input type="checkbox"/> Without pilot valve	<input type="checkbox"/> Type 8697 More info. For actuator size Ø 50 mm  <p>Number of Position feedback switches</p> <input type="checkbox"/> 1x <input type="checkbox"/> 2x
<p>Communication</p> <input type="checkbox"/> AS-Interface <input type="checkbox"/> DeviceNet <input type="checkbox"/> Without	<p>Approvals</p> <input type="checkbox"/> ATEX cat. 3GD, IECEx <input type="checkbox"/> Without	<p>Position feedback switches</p> <input type="checkbox"/> Micro-switch 24 V DC <input type="checkbox"/> Micro-switch 50 – 225 V DC/AC (only 8697) <input type="checkbox"/> Inductive switch 3-wire PNP <input type="checkbox"/> Inductive switch 2-wire NAMUR <input type="checkbox"/> Inductive switch 2-wire 24 V DC <input type="checkbox"/> Without	<p>Electrical connection</p> <input type="checkbox"/> Cable gland <input type="checkbox"/> M12 connector
		<p>Approvals</p> <input type="checkbox"/> ATEX cat. 3GD, IECEx <input type="checkbox"/> ATEX cat. 2DG, IECEx <input type="checkbox"/> Without	

Continued on next page →

Valve system On/Off Classic Type 8801-DF – request for quotation, *continued*

Certifications

- Test Report 2.2 acc. to EN 10204 (Article no. 803722)
- Inspection Certificate 3.1 acc. to EN 10204 - Material Test Report (included in delivery)
- Inspection Certificate 3.1 acc. to EN 10204 - Surface Roughness Measurement (Article no. 804175)
- FDA and USP compliance

Comment /sketch

DTS 1000097545 EN Version: P Status: RL (released | freigegeben | validé) printed: 16.01.2018

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

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