

Manually operated 2 way Diaphragm Valve



- Light tube valve body
- Flow optimised body in stainless steel
- Zero dead volume
- Easy to weld

Type 3233 can be combined with...



Type 2031

Tube Valve Body



Type 8041

Electromagnetic
Flowmeter



Type 8801

ELEMENT
On/Off System

The manually-operated diaphragm valve consists of a manual actuator, a diaphragm and a 2 way tube valve body.

Bürkert's patented hydroforming technology allows the manufacturing of a flow optimized stainless steel valve body with high surface quality. A laser-welded mounting interface ensures robustness and hygienic design.

The reliable actuator is made of PPS, a very resistant polymer, also a version in stainless steel is available. The different Bürkert diaphragms are optimized for a high lifetime.

The diaphragm valve with tube body is perfect for hygienic application in the food and beverage, pharma, and cosmetic industries. It is designed with zero dead leg and a high cleanability certified by EHEDG.



Technical data	
Port connection size	DN08-50 (1/4" - 2")
Diaphragm size	8-50
Port connections	ASME BPE/DIN 11866 Series C DIN EN ISO 1127/ISO 4200/DIN11866 Series B DIN 11850 2/DIN 11866 Series A
Weld ends	
Materials	Stainless steel 316L PPS (Stainless steel on request) EPDM (AB), PTFE/EPDM (EA), EPDM (AD), advanced PTFE/EPDM (EU), GYLON®/EPDM laminated (ER) and FKM (FF) on request
Body	
Actuator (Hand wheel and bonnet) Seal	
Fluid	Neutral gases and liquids, high purity, sterile, aggressive or abrasive fluids
Viscosity	up to viscous
Surface finishes (inner surface)	Ra ≤ 0.38 µm (ASME BPE SF4)
Electro polished	
Media temperature	-10 to +130 °C (steam sterilisation +140 °C for 60 min) -5 to +143 °C (steam sterilisation +150 °C for 60 min) -5 to +130 °C (steam sterilisation +140°C for 60 min) 0 to +130 °C (not recommended for steam)
EPDM (AB), PTFE/EPDM (EA)	
EPDM (AD), advanced PTFE/EPDM (EU)	
GYLON®/EPDM laminated (ER)	
FKM (FF)	
Ambient temperature	Up to +130°C (briefly up to +150°C)
Installation	As required, preferably with actuator in upright position
Options	Locking function

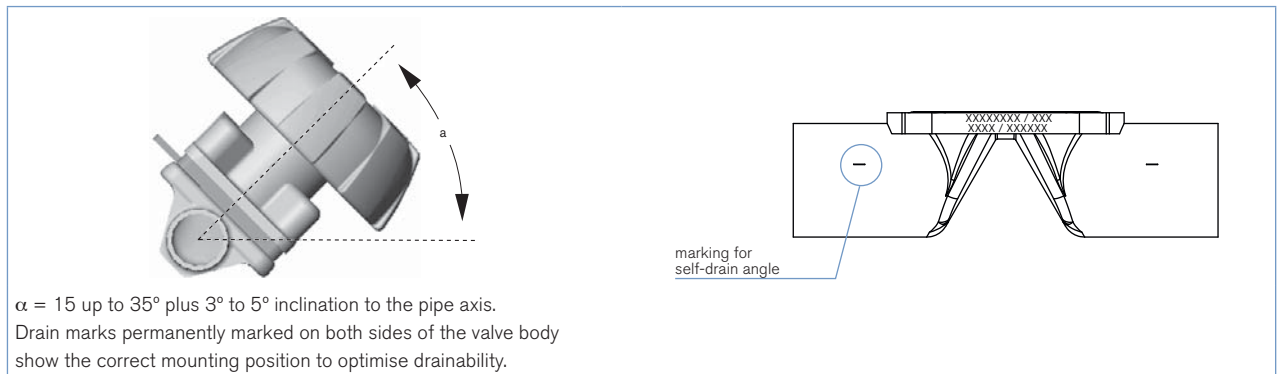
Technical data, continued

Port size (tube)		Diaphragm size	Operating pressure max. [bar]	Kv values [m ³ /h]		
[mm]	[inch]			DIN EN ISO 1127 ISO 4200 DIN 11866 RB	DIN 11850 2 DIN 11866 RA	ASME BPE DIN 11866 RC
8	1/4"	8	10	2.1	-	-
10	3/8"	8	10	-	2.1	-
15	1/2"	8	10	-	-	2
		15	10	6.7	6.5	-
20	3/4"	15	10	-	6.5	6.5
		20	10	13	-	-
25	1"	20	10	-	14	12.5
		25	10	17.5	-	-
32	1 1/4"	25	10	-	20	-
		32	10	36	-	-
40	1 1/2"	32	10	-	35	30
		40	10	47	-	-
50	2"	40	10	-	44	40
		50	7/10 ¹⁾	70	-	-

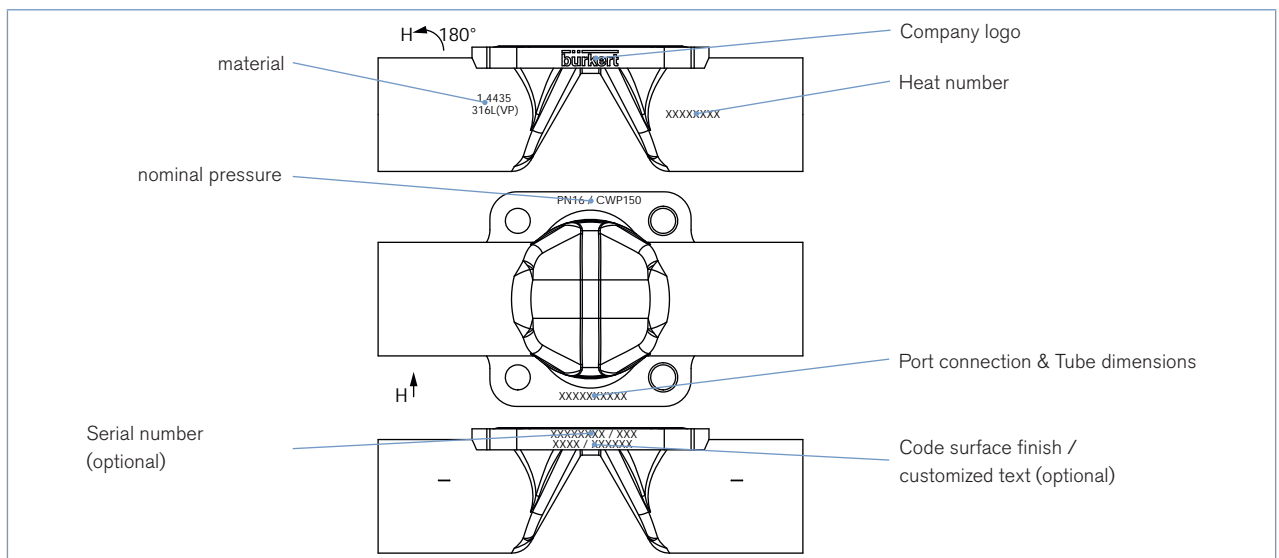
Flow rate: Kv value water [m³/h]: Measured at +20°C, 1 bar pressure at valve inlet and free outlet. ¹⁾ 10 bar with stainless steel actuator on request

Pressure valves [bar]: Overpressure to the atmospheric pressure

Installation for self-draining operation



Body label



Approvals

Suitability for foodstuffs / sterile applications



- The composition of the EPDM, PTFE/EPDM and advanced PTFE/EPDM diaphragms corresponds to the *Code of Federal Regulations, published by the FDA* (Food and Drug Administration, USA).



- The composition of the EPDM, PTFE/EPDM and advanced PTFE/EPDM diaphragms is suitable for the application with food and beverage (acc. to EC-Regulation 1935/2004/EC)

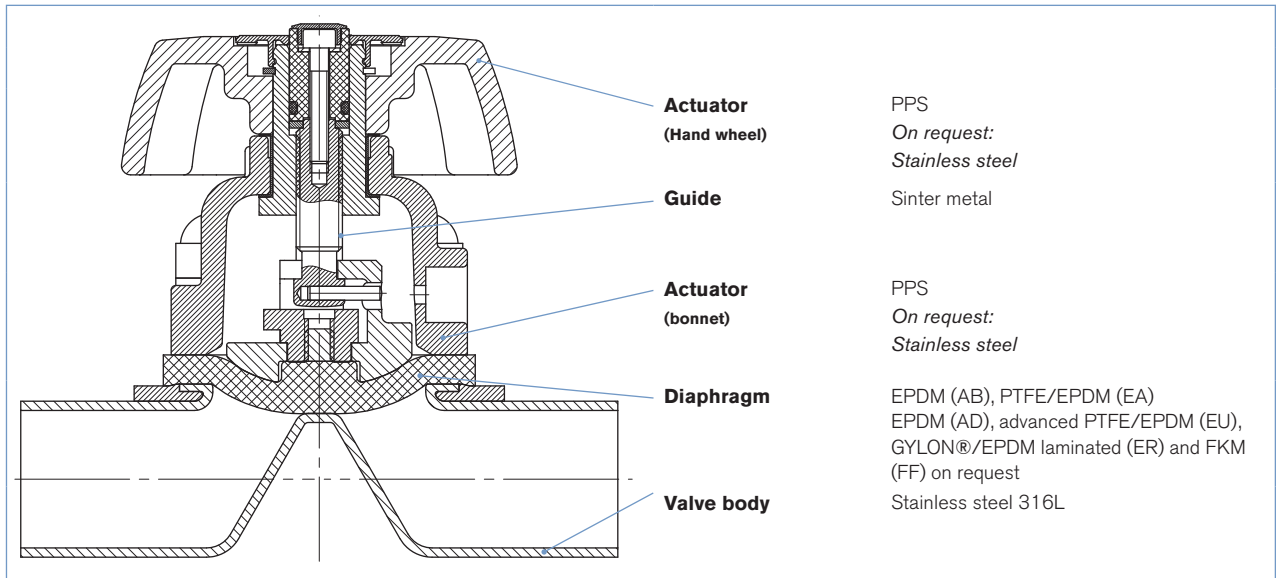


- The diaphragm valve with tube valve body and EPDM or PTFE has been evaluated for compliance with the *Hygienic Equipment Design Criteria* of the EHEDG



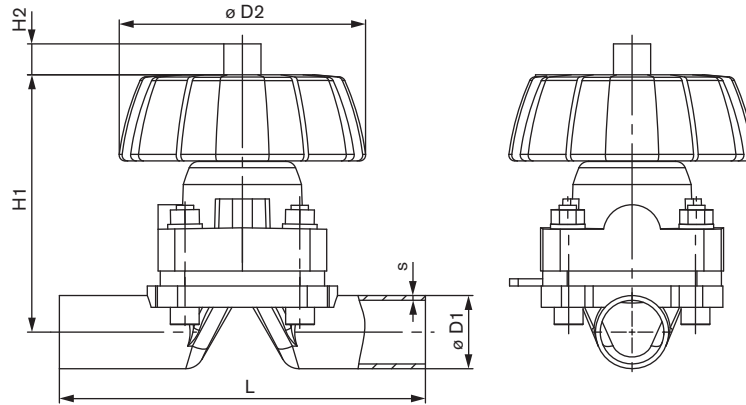
- The Diaphragm valve according to 3-A approved on request (3-A Sanitary Standards Symbol Administrative Council)

Materials



Dimensions [mm]

Weld ends port connection



Port Connection DN		Diaphragm size	L	H1	H2	ØD2	ØD1	s
[mm]	[inch]							
ASME BPE / DIN 11866 C								
1/2"	15	8	90	56	-	35	12.7	1.65
3/4"	20	15	117	83	7	80	19.1	1.65
1"	25	20	127	89	11	80	25.4	1.65
1 1/2"	40	32	159	113	19	114	38.1	1.65
2"	50	40	190	118	19	114	50.8	1.65
DIN EN ISO 1127/ ISO 4200/ DIN11866 B								
8	1/4"	8	90	56	-	35	13.5	1.6
15	1/2"	15	110	83	7	80	21.3	1.6
20	3/4"	20	119	91	11	80	26.6	1.6
25	1"	25	129	96	12	80	33.7	2.0
32	1 1/4"	32	148	116	19	114	42.4	2.0
40	1 1/2"	40	161	117	19	114	48.3	2.0
50	2"	50	192	133	25	114	60.3	2.0
DIN 11850 2 / DIN 11866 A								
10	3/8"	8	90	56	-	35	13	1.5
15	1/2"	15	110	83	7	80	19	1.5
20	3/4"	15	119	85	7	80	23	1.5
25	1"	20	129	95	11	80	29	1.5
32	1 1/4"	25	148	96	12	80	35	1.5
40	1 1/2"	32	161	115	19	114	41	1.5
50	2"	40	192	120	19	114	53	1.5

Ordering chart diaphragm tube valve body Type 3233

Welded connection ASME BPE/DIN 11866 Series C

PPS Handwheel, electropolished Ra ≤ 0,38 µm and Inspection certificate 3.1 acc. to EN-ISO 10204 (included in delivery)

[mm]	Port connection DN		Diaphragm size	Kv value water [m ³ /h]	Max. operating pressure [bar]	Item no EPDM (AB) seal material	Item no PTFE/EPDM (EA) seal material
	[inch]						
15	1/2"		8	2	10	275 864	275 865
20	3/4"		15	6.5	10	275 866	275 867
25	1"		20	12.5	10	278 887	278 888
40	1 1/2"		32	30	10	278 889	278 890
50	2"		40	40	7	278 891	278 892

Welded connection EN ISO 1127 / ISO 4200 / DIN 11866 Series B

PPS Handwheel, electropolished Ra ≤ 0,38 µm and Inspection certificate 3.1 acc. to EN-ISO 10204 (included in delivery)

[mm]	Port connection DN		Diaphragm size	Kv value water [m ³ /h]	Max. operating pressure [bar]	Item no EPDM (AB) seal material	Item no PTFE/EPDM (EA) seal material
	[inch]						
8	1/4"		8	2.1	10	290 482	290 483
15	1/2"		15	6.7	10	290 487	290 488
20	3/4"		20	13	10	290 489	290 490
25	1"		25	17.5	10	290 491	290 492
32	1 1/4"		32	36	10	290 493	290 494
40	1 1/2"		40	47	10	290 495	290 497
50	2"		50	70	7	290 498	290 499

Welded connection DIN 11866 A / DIN 11850 2

PPS Handwheel, electropolished Ra ≤ 0,38 µm and Inspection certificate 3.1 acc. to EN-ISO 10204 (included in delivery)

[mm]	Port connection DN		Diaphragm size	Kv value water [m ³ /h]	Max. operating pressure [bar]	Item no EPDM (AB) seal material	Item no PTFE/EPDM (EA) seal material
	[inch]						
10	3/8"		8	2.1	10	290 468	290 469
15	1/2"		15	6.5	10	290 470	290 471
20	3/4"		15	6.5	10	290 472	290 473
25	1"		20	14	10	290 474	290 475
32	1 1/4"		25	20	10	290 476	290 477
40	1 1/2"		32	35	10	290 478	290 479
50	2"		40	44	7	290 480	290 481

Further versions on request



Materials

Diaphragms for sterilization with steam EPDM (AD), advanced PTFE/EPDM (EU) and GYLON®/EPDM laminated (ER)
Handwheel and bonnet in stainless steel

Tube Valve Body – 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 office* 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"/>
Process fluid	<input type="text"/>
Type of fluid	<input type="checkbox"/> Liquid <input type="checkbox"/> Steam <input type="checkbox"/> Gas
Flow rate (Q, Q _N , W) ¹⁾	standard. <input type="text"/> Unit <input type="text"/>
Temperature at valve inlet	<input type="text"/>
Absolute pressure at valve inlet	<input type="text"/>
Steam Sterilisation	Temperature <input type="text"/>

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

Valves features	
Diaphragm size (orifice)	DN <input type="text"/>
Type of connection	<input type="checkbox"/> Weld ends
Standard connection	<input type="checkbox"/> ASME BPE/DIN 11866 Series C <input type="checkbox"/> DIN 11850 2/DIN 11866 Series A <input type="checkbox"/> DIN EN ISO 1127/ISO 4200/DIN 11866 Series B
Surface finish	<input type="checkbox"/> Electropolished Ra ≤ 0.38 µm
Please specify item no. (if known): <input type="text"/>	

Certifications	
<input type="checkbox"/> Test report 2.2 acc. to EN-ISO 10204 (Item no. 803 722)	<input type="checkbox"/> EHEDG - TYPE EL-CLASS I
<input type="checkbox"/> Inspection certificate 3.1 acc. to EN-ISO 10204 (included in delivery)	<input type="checkbox"/> Food & beverage (acc. to EC-Regulation 1935/2004/EC)
<input type="checkbox"/> Certification of Conformity for the Surface Quality DIN4762-DIN4768-ISO/4287/1 (Item no. 804 175)	<input type="checkbox"/> FDA - USP certificate
<input type="checkbox"/> Certification of Conformity for Pickling and Electropolishing Processes (Item no. 444 900)	

Comments

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

Subject to alteration.
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