

Zero Deadleg T-Valve, manually operated, stainless steel block material, DN 8-50

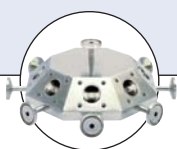


- Fully integrated in Burkert's Process Control Systems
- Zero dead volume
- Monoblock – no welds
- Quality certifications FDA

Type 3234 can be combined with...



Type 8034
Flow meter



Multi-Port Block



Type 3233/2031
Tandem valve

The Burkert Zero Deadleg T Valve system is designed for control of ultra pure, sterile, aggressive or abrasive fluids. Enables especially optimal sampling, draining or diverting of critical process fluids. The valve body is machined from a single piece of block material (monoblock – no weld seam).

The high quality diaphragms separate hermetically critical fluids from the actuator. The manual actuator in PPS or stainless steel can be sterilized.

Technical data

Body materials	<ul style="list-style-type: none"> ▪ Monoblock stainless steel ▪ 316 L/1.4435/BN2 Fe < 0.5%/C ≤ 0.03%
Actuator materials Actuator and bonnet	PPS, stainless steel 1.4581
Seal material	EPDM, PTFE/EPDM, advanced PTFE/EPDM
Media	Neutral gases and liquids, high purity, sterile, aggressive or abrasive
Viscosity	Up to viscous
Surface finish (others on request) <ul style="list-style-type: none"> ▪ inside mechanical polished ▪ inside electro polished 	<ul style="list-style-type: none"> ▪ Ra ≤ 0,5 µm (ASME BPE SF1) (external Ra ≤ 1.6 µm) ▪ Ra ≤ 0,38 µm (ASME BPE SF4 / DIN HE4) (external Ra ≤ 1.6 µm)
Temperatures Media Ambient	-10°C to +130°C (briefly up to +150°C) +5°C to +140°C
Port connections Weld end acc. to Clamp acc. to	<ul style="list-style-type: none"> ▪ EN ISO 1127/ISO 4200 ▪ DIN 11850 Series 0 to 3 ▪ ASME BPE ▪ SMS 3008 ▪ BS 4825 ▪ ISO 2852 ▪ ASME BPE ▪ DIN 32676
Installation	As required
Option (on request, not for DN 8/10)	Locking function

¹⁾ Internal Ra < 0.1 µm/4 µlnch/500 Grit: on request

Applications

- Pharma
- Biotechnology
- Food Industry

Technical data, continued**Specifications**

Orifice diaphragm [mm]	Kv value water (m ³ /h)	Max. operating pressure (medium) for seal material EPDM and PTFE/EPDM [bar]
8	1.0	10
10	1.0	10
15	6.0	10
20	11.0	10
25	16.0	10
40	29.0	10
50	50.0	10 ¹⁾

¹⁾ Max. operating pressure 7 bar for bonnet and manual actuator in PPS

Orifice DN 65, DN 80 and DN 100 on request

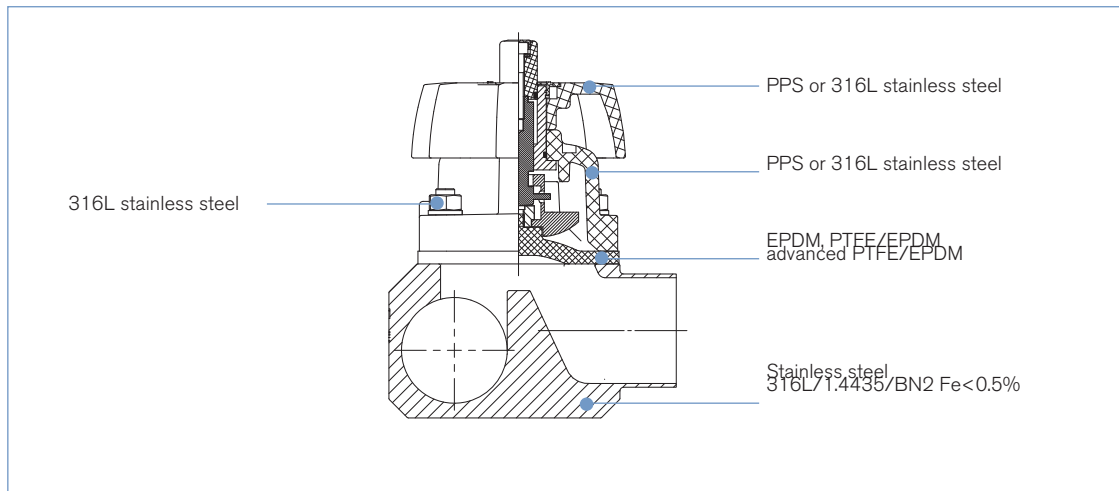
► Various other Clamp and Sterile threaded end connection combination are available, please consult for advice.

Approvals/certifications

- Certification of Conformity for Raw Material EN-ISO 10204 3.1
- Attestation of compliance with the order EN-ISO 10204 2.1
- Test report EN-ISO 10204 2.2
- 3A Certification on request
- Certification of Conformity for Pickling and Electropolishing Processes
- Certification of Conformity for the Surface Quality DIN4762-DIN4768-ISO/4287/1
- Attestation of compliance with FDA CFR No. 21.177.1550 for PTFE/EPDM and advanced PTFE/EPDM and 21.177.2600 for EPDM
- USP CLASS VI certification for EPDM, PTFE and advanced PTFE diaphragm
- Test Certification and Conformity Certification for the Final Assembly of Diaphragm Valves
- ISO 9001 Certification

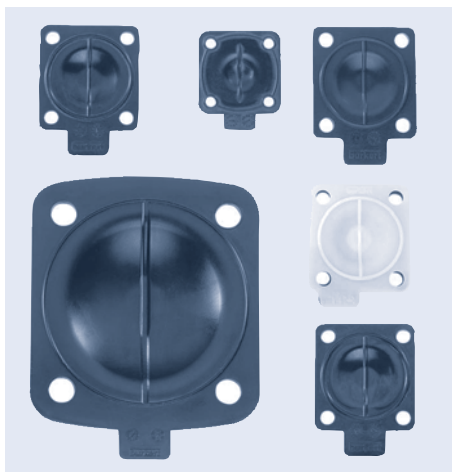
Note: Retrospective manufacturing certification for process diaphragm valves can not be made, therefore please notify when ordering.

Materials



Example of available diaphragm materials

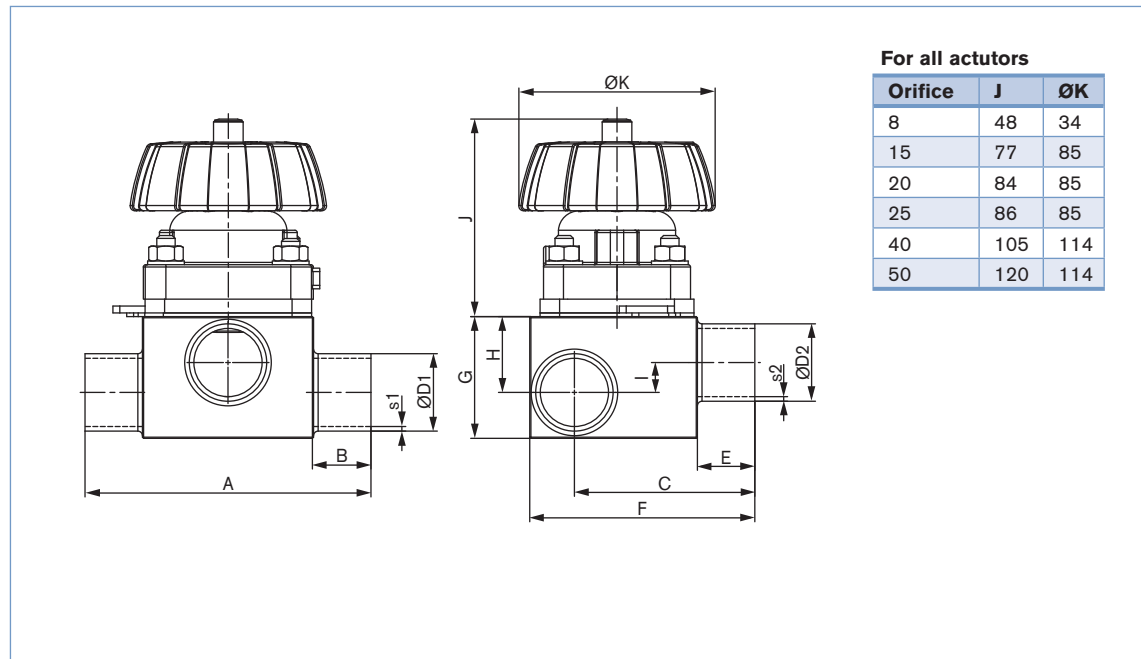
Developed to handle the unique challenges of hygienic and sterile applications, Bürkert offers diaphragms with precise material formula and physical tolerances. Bürkert diaphragms are available in a wide range of materials which have been proven in food & beverage, biotechnology, pharmaceutical and cosmetic industry applications. Diaphragms are tested during development and production to ensure reliability in critical processing environments.



- EPDM (Ethylene Propylene Rubber)
- PTFE/EPDM
- Advanced PTFE/EPDM
- FKM
- PTFE/FKM
- NBR

Dimensions [mm]

Welded body acc. to EN ISO 1127/ISO 4200



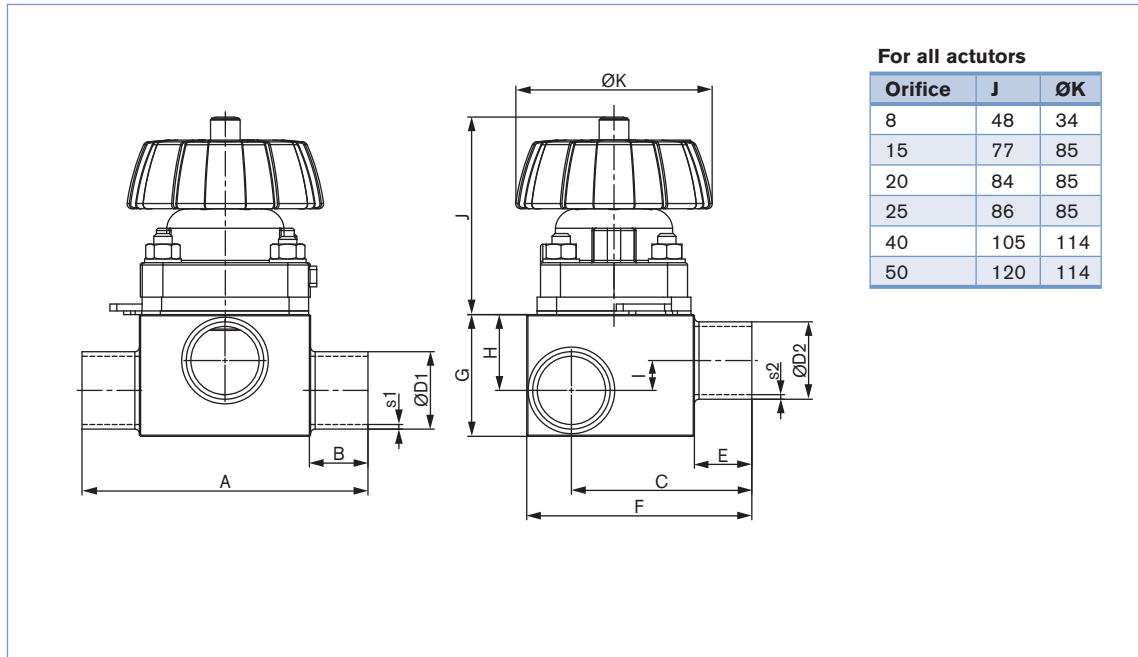
For all actuators

Orifice	J	ØK
8	48	34
15	77	85
20	84	85
25	86	85
40	105	114
50	120	114

Orifice	ØD1	s1	ØD2	s2	A	B	C	E	F	G	H	I
8	17.2	1.6	17.2	1.6	78.0	20	49.00	20	60	29	18	8.0
	21.3	1.6	17.2	1.6	78.0	20	51.05	20	64	34	21	11.0
	26.9	1.6	13.5	1.6	88.0	25	53.85	20	70	38	23	13.0
	33.7	2.0	13.5	1.6	88.0	25	56.85	20	76	45	26	16.0
	42.4	2.0	13.5	1.6	88.0	25	61.20	20	84	52	29	19.0
	42.4	2.0	17.2	1.6	88.0	25	61.20	20	84	52	29	19.0
15	48.3	2.0	13.5	1.6	88.0	25	64.15	20	90	57	31	21.0
	13.5	1.6	13.5	1.6	93.0	20	52.05	20	70	27	17	4.5
	17.2	1.6	13.5	1.6	93.0	20	53.90	20	70	31	18	4.5
	21.3	1.6	21.3	1.6	93.0	20	55.95	20	71	35	21	6.5
	26.9	1.6	21.3	1.6	103.0	25	58.75	20	78	42	25	11.5
	33.7	2.0	21.3	1.6	103.0	25	62.75	20	82	47	28	14.5
	42.4	2.0	21.3	1.6	103.0	25	67.10	20	91	56	32	18.5
	48.3	2.0	13.5	1.6	103.0	25	69.05	20	97	61	34	20.5
	48.3	2.0	21.3	1.6	103.0	25	69.05	20	97	63	35	21.5
	60.3	2.0	13.5	1.6	113.0	30	76.05	20	109	71	38	24.5
20	60.3	2.0	21.3	1.6	113.0	30	76.05	20	109	72	38	24.5
	76.1	2.0	13.5	1.6	113.0	30	83.95	20	125	85	44	30.5
	76.1	2.0	21.3	1.6	113.0	30	83.95	20	125	85	44	30.5
	88.9	2.3	13.5	1.6	113.0	30	90.05	20	140	99	52	38.5
	26.9	1.6	26.9	1.6	114.0	25	70.25	25	88	42	24	6.0
	33.7	2.0	26.9	1.6	114.0	25	73.25	25	94	48	28	10.0
	42.4	2.0	26.9	1.6	114.0	25	78.60	25	102	57	33	15.0
	48.3	2.0	26.9	1.6	114.0	25	80.55	25	108	63	35	17.0
25	60.3	2.0	26.9	1.6	124.0	30	86.55	25	121	74	40	22.0
	76.1	2.0	26.9	1.6	124.0	30	94.45	25	136	86	45	27.0
	33.7	2.0	33.7	2.0	124.5	25	78.55	25	98	53	33	13.0
	42.4	2.0	33.7	2.0	124.5	25	82.90	25	107	62	38	18.0
40	76.1	2.0	33.7	2.0	134.5	30	99.75	25	142	94	52	32.0
	42.4	2.0	42.4	2.0	152.0	25	97.00	25	122	62	37	8.4
	48.3	2.0	48.3	2.0	152.0	25	99.95	25	128	68	41	12.4
	60.3	2.0	48.3	2.0	162.0	30	105.95	25	140	82	48	19.4
50	76.1	2.0	48.3	2.0	162.0	30	113.85	25	155	97	55	26.4
	60.3	2.0	60.3	2.0	188.0	30	120.15	30	154	82	48	12.5
	76.1	2.0	60.3	2.0	188.0	30	128.05	30	172	100	56	20.5
	88.9	2.3	60.3	2.0	188.0	30	134.15	30	183	110	61	25.5

Dimensions [mm], continued

Welded body acc. to ASME BPE



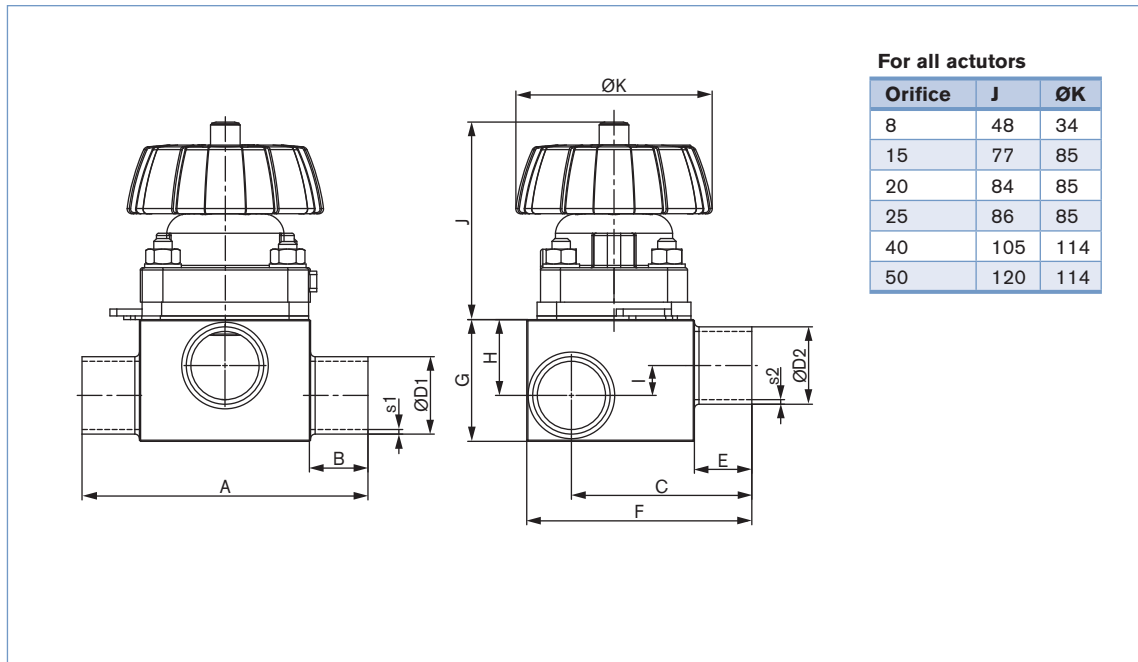
For all actuators

Orifice	J	ØK
8	48	34
15	77	85
20	84	85
25	86	85
40	105	114
50	120	114

Orifice	ØD1	s1	ØD2	s2	A	B	C	E	F	G	H	I
15	12.70	1.65	12.70	1.65	93.0	20	51.60	20	70	27	13.5	0.0
	19.05	1.65	12.70	1.65	103.0	20	54.78	20	70	31	18.5	5.0
	25.40	1.65	12.70	1.65	103.0	20	57.95	20	75	40	24	10.5
	38.10	1.65	12.70	1.65	103.0	25	64.30	20	88	54	31	17.5
	50.80	1.65	12.70	1.65	113.0	30	71.65	20	100	64	35	21.5
	63.50	1.65	12.70	1.65	113.0	30	78.80	20	113	73	38	24.5
	76.20	1.65	12.70	1.65	113.0	30	84.35	20	125	85	44	30.5
20	19.05	1.65	19.05	1.65	114.0	25	66.28	25	85	36	18	0.0
	25.40	1.65	19.05	1.65	114.0	25	69.45	25	90	40	24	6.0
	38.10	1.65	19.05	1.65	114.0	25	75.80	25	98	53	31	13.0
	50.80	1.65	19.05	1.65	124.0	30	82.15	25	111	66	37	19.0
	63.50	1.65	19.05	1.65	124.0	30	88.50	25	123	75	40	22.0
	76.20	1.65	19.05	1.65	124.0	30	94.85	25	137	87	45	27.0
25	25.40	1.65	25.40	1.65	124.5	25	74.75	25	95	42	26	6.0
	38.10	1.65	25.40	1.65	124.5	25	81.10	25	103	58	36	16.0
	50.80	1.65	25.40	1.65	134.5	30	87.45	25	120	75	44	24.0
	63.50	1.65	25.40	1.65	134.5	30	93.80	25	130	83	48	28.0
	76.20	1.65	25.40	1.65	134.5	30	100.15	25	142	94	52	32.0
40	38.10	1.65	38.10	1.65	152.0	25	95.20	25	121	58	35	6.4
	50.80	1.65	38.10	1.65	162.0	30	101.55	25	131	72	43	14.4
50	50.80	1.65	50.80	1.65	188.0	30	115.75	30	145	71	42	6.5
	63.50	1.65	63.50	1.65	188.0	30	122.10	30	158	86	50	14.5

Dimensions [mm], continued

Welded body acc. to DIN 11850 Series 0 and 2



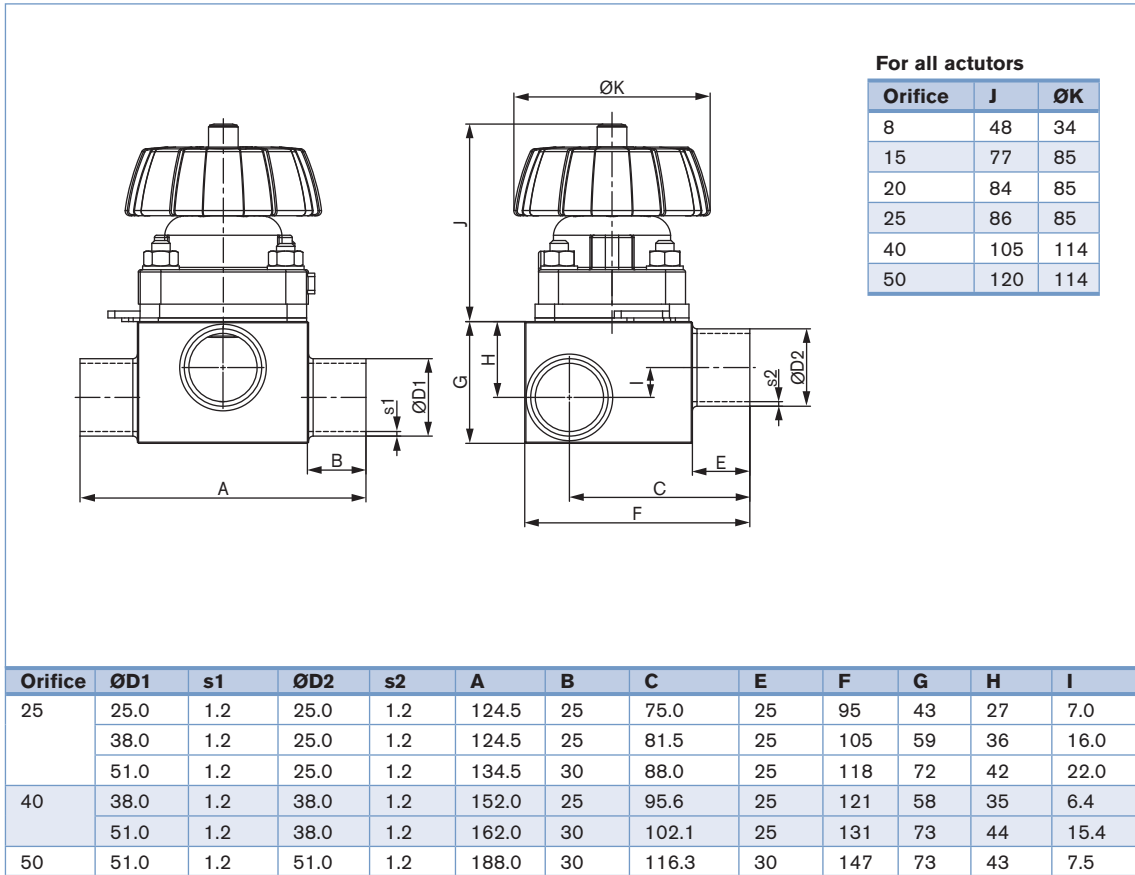
For all actuators

Orifice	J	ØK
8	48	34
15	77	85
20	84	85
25	86	85
40	105	114
50	120	114

Orifice	ØD1	s1	ØD2	s2	A	B	C	E	F	G	H	I
Series 0												
08	6.0	1.0	6.0	1.0	78.0	20	43.0	20	60	17	6.5	0.0
	40.0	1.5	6.0	1.0	88.0	25	60.5	20	83	51	29	19.0
	40.0	1.5	10.0	1.0	88.0	25	60.5	20	83	51	29	19.0
	52.0	1.5	6.0	1.0	98.0	30	66.5	20	95	60	32	22.0
25	28.0	1.5	28.0	1.5	124.5	25	76.2	25	95	46	29	9.0
	52.0	1.5	28.0	1.5	134.5	30	88.2	25	117	71	42	22.0
40	28.0	1.5	34.0	1.5	152.0	25	90.3	25	122	58	32	3.4
	52.0	1.5	34.0	1.5	162.0	30	102.3	25	132	75	45	16.4
50	52.0	1.5	52.0	1.5	188.0	30	116.5	30	147	73	43	7.5
Series 2												
15	19.0	1.5	19.0	1.5	93.0	20	54.9	20	70	33	20	6.5
	23.0	1.5	19.0	1.5	103.0	20	56.9	20	72	37	22.5	8.5
	35.0	1.5	19.0	1.5	103.0	25	62.9	20	84	50	29	14.5
	41.0	1.5	19.0	1.5	103.0	25	65.9	20	91	56	32	18.5
20	23.0	1.5	23.0	1.5	114.0	25	68.4	25	88	42	21	3.0
	35.0	1.5	23.0	1.5	114.0	25	74.4	25	95	50	29	11.0
	41.0	1.5	23.0	1.5	114.0	25	77.4	25	101	56	32	14.0
25	29.0	1.5	29.0	1.5	124.5	25	76.7	25	98	48	30	10.0
40	41.0	1.5	41.0	1.5	152.0	25	96.8	25	121	62	37	8.4
50	53.0	1.5	53.0	1.5	188.0	30	117.0	30	147	74	44	8.5

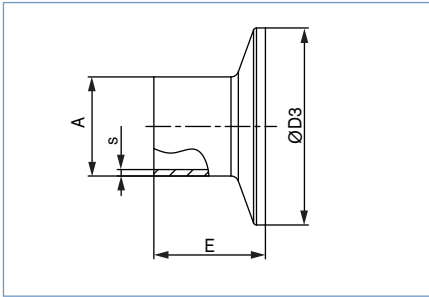
Dimensions [mm], continued

Welded body acc. to SMS 3008



Dimensions [mm], continued

Clamp body



ASME BPE

Orifice [mm]	Orifice [inch]	A	s	ØD3	E
08	1/4"	6.35	0.89	25.0	28.6
10	3/8"	9.53	0.89	25.0	28.6
15	1/2"	12.7	1.65	25.0	28.6
20	3/4"	19.05	1.65	25.0	28.6
25	1"	25.4	1.65	50.5	28.6
40	1 1/2"	38.1	1.65	50.5	28.6
50	2"	50.8	1.65	64.0	28.6
65	2 1/2"	63.5	1.65	77.5	28.6
80	3"	76.2	1.65	91.0	28.6
100	4"	101.6	2.11	119.0	28.6

DIN 32676

Orifice [mm]	A	s	ØD3	E
10	1.5	34.0	18	18
15	19	1.5	34.0	18
20	23	1.5	34.0	18
25	29	1.5	50.5	21.5
32	35	1.5	50.5	21.5
40	41	1.5	50.5	21.5
50	53	1.5	64.0	21.5
65	70	2.0	91.0	28

ISO 2852 for pipe ISO 4200

Orifice [mm]	A	s	ØD3	E
8	13.5	1.6	25.0	28.6
8	13.5	1.6	34.0	28.6
10	17.2	1.6	34.0	28.6
15	21.3	1.6	34.0	28.6
15	21.3	1.6	50.5	28.6
20	26.9	1.6	50.5	28.6
25	33.7	2	50.5	28.6
32	42.4	2	50.5	28.6
40	48.3	2	64.0	28.6
50	60.3	2	77.5	28.6
65	76.1	2	91.0	28.6
100	114.3	2.3	130.0	28.6

SMS

Orifice [mm]	A	s	ØD3	E
25	25	1.2	50.5	21.5
40	38	1.2	50.5	28.6
50	51	1.2	64.0	28.6

Note

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

Diaphragm valves – 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 dimensions	Main tube øD1 x s1 <input type="text"/>	Outlet tube øD2 x s2 <input type="text"/>
	Clamp main tube <input type="text"/>	Clamp outlet <input type="text"/>
Pipe material	<input type="text"/>	
Surface finish Ra int.	<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
<input checked="" type="checkbox"/> Flow rate (Q, Q_N, W) ¹⁾	nominal <input type="text"/>	unit <input type="text"/>
<input checked="" type="checkbox"/> Temperature at valve inlet T1	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/> Absolute pressure at valve inlet P1	<input type="text"/>	<input type="text"/>
<input checked="" type="checkbox"/> Absolute pressure at valve outlet P2	<input type="text"/>	<input type="text"/>
Steam pressure P_v	<input type="text"/>	<input type="text"/>

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

Valve features

Specification key

automatically transferred from next page

3234

+

+

Certifications

- | | |
|--|--|
| <input type="checkbox"/> Attestation of compliance with the order EN-ISO 10204 2.1 | <input type="checkbox"/> Certification of Conformity for Pickling and Electropolishing Processes |
| <input type="checkbox"/> Test report EN-ISO 10204 2.2 | <input type="checkbox"/> FDA and USP compliance |
| <input type="checkbox"/> Certification of Conformity for Raw Material EN-ISO 10204 3.1 | <input type="checkbox"/> 3A certificate |
| <input type="checkbox"/> Certification of Conformity for the Surface Quality
DIN4762-DIN4768 ISO/4287/1 | |

Comment / sketch

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

Valve features

Example

15 AB B VH SA42 SA42 D050 NO15 + NO14 + HA24

Specification key

Please make a choice

ORIFICE [mm] (diaphragm)	
08	(only with DO58)
15	
20	
25	
40	
50	
80	
100	

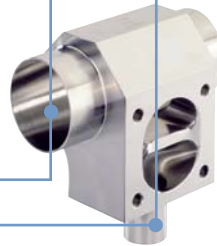
SEAL MATERIAL	
AB	EPDM in food quality
EA	PTFE
FF	FPM (FKM)
EU	advanced PTFE

PRODUCTION OF BODY	
B	Monoblock

BODY MATERIAL	
VH	AISI 316L
VI	1.4435 BN2/ASME

VARIABLE CODES		
Surface finish external		
-	clamped Ra ≤ 1.6 µm	standard
NO19	mechanical polished Ra ≤ 1.6 µm	
NO02	mechanical polished Ra ≤ 0.76 µm	
NO28	electro polished Ra ≤ 1.6 µm	
NO15	electro polished Ra ≤ 0.76 µm	
Surface finish, internal		
NO14	mechanical polished Ra ≤ 0.5 µm (ASME BPE SF1)	standard
NO06	mechanical polished Ra ≤ 0.76 µm (ASME BPE SF3 / DIN H2)	
NO17	electro polished Ra ≤ 0.38 µm (ASME BPE SF4 / DIN HE4)	standard
NO16	electro polished Ra ≤ 0.6 µm (ASME BPE SF6)	
Certificate		
NK52	3.1 Certificate	
Handwheel		
HA24	with locking function	

ACTUATOR VERSION		
D050	Top PPS Handwheel PPS	not possible with orifice 08
D058	Top stainless steel, Handwheel PPS for T-valve	



Flange 1 (main tube) connection

Flange 2

Orifice	DIN EN ISO 1127 ISO 4200 DIN 11866 series B	SMS 3008	DIN 11850 series 0	DIN 11850 series 1 DIN EN 10357 series B	DIN 11850 series 2 DIN 11866 series A DIN EN 10357 series A	DIN 11850 series 3	BS 4825	ASME BPE DIN 11866 series C
DN 4			SC40 - 6.0x1.0					
DN 6	1/8"	SA78 - 10.2x1.6	SC41 - 8.0x1.0					SA89 - 3.17x0.56
DN 8	1/4"	SA40 - 13.5x1.6	SC42 - 10.0x1.0				SODB - 6.35x1.2	SA90 - 6.35x0.89
DN 10	3/8"	SA41 - 17.2x1.6		SF40 - 12.0x1.0	SD40 - 13.0x1.5	SE40 - 14.0x2.0	SODC - 9.53x1.2	SA91 - 9.53x0.89
DN 15	1/2"	SA42 - 21.3x1.6	SC43 - 18.0x1.5	SF41 - 18.0x1.0	SD42 - 19.0x1.5	SE42 - 20.0x2.0	SODD - 12.7x1.2	SA92 - 12.7x1.65
DN 20	3/4"	SA43 - 26.9x1.6	SC44 - 22.0x1.5	SF42 - 22.0x1.0	SD43 - 23.0x1.5	SE43 - 24.0x2.0	SODE - 19.05x1.2	SA93 - 19.05x1.65
DN 25	1"	SA44 - 33.7x2.0	SA60 - 25.0x1.2	SC45 - 28.0x1.5	SF43 - 28.0x1.0	SD44 - 29.0x1.5	SE44 - 30.0x2.0	SODF - 25.4x1.65
DN 32	1 1/4"	SA45 - 42.4x2.0	SA61 - 33.7x1.2	SC46 - 34.0x1.5	SF44 - 34.0x1.0	SD45 - 35.0x1.5	SE45 - 36.0x2.0	
DN 40	1 1/2"	SA46 - 48.3x2.0	SA62 - 38.0x1.2	SC47 - 40.0x1.5	SF45 - 40.0x1.0	SD46 - 41.0x1.5	SE46 - 42.0x2.0	SODH - 38.1x1.65
DN 50	2"	SA47 - 60.3x2.0	SA63 - 51.0x1.2	SC48 - 52.0x1.5	SF46 - 52.0x1.0	SD47 - 53.0x1.5	SE47 - 54.0x2.0	SODI - 50.8x1.65
DN 65	2 1/2"	SA48 - 76.1x2.0	SA64 - 63.5x1.6			SD48 - 70.0x2.0		SODJ - 63.5x1.65
DN 80	3"	SA49 - 88.9x2.3	SA65 - 76.1x1.6			SD49 - 85.0x2.0		SODK - 76.2x1.65
DN 100	4"	SA39 - 114.3x2.3	SA66 - 101.6x2.0			SD50 - 104.0x2.0		SODL - 101.6x2.11

Orifice	Clamp 34.0 similar DIN 32676 series B (ISO-tube)	DIN 32676 Reihe A (DIN-Rohr)	DIN 32676 Reihe B (ISO-Rohr)	ASME BPE	BS 4825 Clamp BS 4825-3 Rohr BS 4825-1
DN 8	1/4"	TC51 - 13.5x1.6 Ci: 34.0	TD40 - 10.0x1.0 Ci: 25.0	TC40 - 13.5x1.6 Ci: 25.0	TG50 - 6.35x0.89 Ci: 25.0
DN 10	3/8"	TC41 - 17.2x1.6 Ci: 34.0	TD41 - 13.0x1.5 Ci: 34.0	TC53 - 17.2x1.6 Ci: 25.0	TG01 - 9.53x0.89 Ci: 25.0
DN 15	1/2"	TC42 - 21.3x1.6 Ci: 34.0	TD42 - 19.0x1.5 Ci: 34.0	TC52 - 21.3x1.6 Ci: 50.5	TG02 - 12.7x1.65 Ci: 25.0
DN 20	3/4"		TD43 - 23.0x1.5 Ci: 34.0	TC43 - 26.9x1.6 Ci: 50.5	TG03 - 19.05x1.65 Ci: 25.0
DN 25	1"		TD44 - 29.0x1.5 Ci: 50.5	TC44 - 33.7x2.0 Ci: 50.5	TG04 - 25.4x1.65 Ci: 50.5
DN 40	1 1/2"		TD46 - 41.0x1.5 Ci: 50.5	TC46 - 48.3x2.0 Ci: 64.0	TG05 - 38.1x1.65 Ci: 50.5
DN 50	2"		TD47 - 53.0x1.5 Ci: 64.0	TC47 - 60.3x2.0 Ci: 77.5	TG06 - 50.8x1.65 Ci: 64.0
DN 65	2 1/2"		TD48 - 70.0x2.0 Ci: 91.0	TC48 - 76.1x2.0 Ci: 91.0	TG07 - 63.5x1.65 Ci: 77.5
DN 80	3"			TC49 - 88.9x2.3 Ci: 106.0	TG08 - 76.2x1.65 Ci: 91.0
DN 100	4"			TC50 - 114.3x2.3 Ci: 130.0	TG09 - 101.6x2.11 Ci: 119.0

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

Subject to alteration.
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