



Tank bottom diaphragm valve with manually operated actuator

- Valve body and diaphragm are available in various materials and variants
- Product wetted surfaces in $Ra \leq 0.38 \mu\text{m} \dots 1.6 \mu\text{m}$ (optionally electropolished)
- Available in all common connection sizes and variants

Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with

	Type 2933 2/2-way diaphragm valve with manually operated actuator	▶
	Type 2934 T-diaphragm valve with manually operated actuator	▶
	Type 2031 2/2-way diaphragm valve with pneumatic plastic actuator (Type CLASSIC)	▶
	Type 2034 Multifunction block and weld solution	▶
	Type 2103 2/2-way diaphragm valve with pneumatic stainless steel actuator (Type ELEMENT) for decentralised automation	▶
	Type 2063 2/2-way diaphragm valve with pneumatic actuator in stainless steel (Type INOX)	▶

Type description

The manually operated diaphragm valve Type 2935 consists of a manually operated actuator, a diaphragm and a tank bottom valve body. The manual actuator with a plastic handwheel, ensures use in hygienic or aggressive ambient conditions. The flow-efficient valve bodies with little dead space enable high flow rates and a wide range of possible uses. The valve body and the diaphragm are available in all common materials and variants. The actuator has a compact, autoclavable design and is compatible with all other Bürkert diaphragm valves. An explosion-proof ATEX / IECEx device variant is available. The add-on body and the handwheel are optionally available in plastic or stainless steel and are equipped with an integrated optical position indicator. The manual actuator is equipped with an integrated visual position indicator, a reproducible stroke scale and an adjustable closing limiter. As an option, the manual actuator can be equipped with proximity switches for position feedback.

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1. General technical data

Product properties	
Dimensions	Further information can be found in chapter "4. Dimensions" on page 6.
Material^{1.)}	
Block body (VH) ^{1.)}	Stainless steel 1.4435/316 L
Block body (VI) ^{1.)}	Stainless steel 1.4435/BN2/ASME BPE, Fe <0.5%/C ≤0.03 %
Diaphragm	EPDM (AD) ^{1.)} , PTFE/EPDM (EA) ^{1.)} , advanced PTFE/EPDM (EU) ^{1.)} , GYLON®/laminated EPDM (ER) ^{1.)}
Actuator (Actuator/handwheel)	Stainless steel/PPS
Diaphragm size	8...50 (65...100 see Type 3235 ▶)
Standard surface quality^{2.)}	
Block body (VH/VI) ^{1.)}	Internal electrically polished: Ra ≤0.38 µm (NO17) ^{1.)} (ASME BPE SF4/DIN HE4) (external: Ra ≤1.6 µm) Internal mechanically polished: Ra ≤0.5 µm (NO14) ^{1.)} (ASME BPE SF1) (external: Ra ≤1.6 µm)
Medium data	
Process medium	Neutral gases and fluids, highly purified, sterile, aggressive or abrasive medium (see resistance chart ▶)
Medium temperature	
EPDM (AD) ^{1.)}	-10...+143 °C (steam sterilization +150 °C for 60 min)
PTFE/EPDM (EA) ^{1.)}	-10...+130 °C (steam sterilization +140 °C for 60 min)
Advanced PTFE/EPDM (EU) ^{1.)}	-5...+143 °C (steam sterilization +150 °C for 60 min)
GYLON®/laminated EPDM (ER) ^{1.)}	-5...+130 °C (steam sterilization +140 °C for 60 min)
Process/Port connection & communication	
Nominal diameter	DN 06...DN 65 (1/8" ...2 1/2")
Port connection^{2.)}	
For stainless steel body^{2.)}	
Welded connection ^{2.)}	DIN EN ISO 1127/ISO 4200/DIN 11866 series B DIN 11850 series 2/DIN 11866 series A/DIN EN 10357 series A ASME BPE/DIN 11866 series C
Clamp connection ^{2.)}	DIN 32676 series A (DIN pipe) DIN 32676 series B (ISO pipe) ASME BPE
Environment and installation	
Installation position	See operating manual Type 2935 ▶
Ambient temperature	
Stainless steel/PPS	-10...+130 °C (short-term up to +150 °C), autoclavable




1.) This information is part of the product key (see "6.3. Bürkert Product Enquiry Form" on page 11).

2.) Further versions on request

2. Approvals

Note:

If you need one of these certificates, please contact your Bürkert sales company.

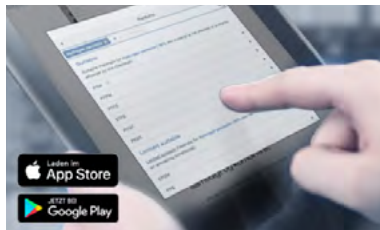
Approvals/ Conformity/ Certificate ^{1.)}	Description
	ATEX/IECEX^{2.)} EPS 18 ATEX 2 008 X II 2G Ex h IIC T4 Gb/II 2D Ex h IIIC T135 °C Db IECEX EPS 18.0007X Ex h IIC T4 Gb/Ex h IIIC T135 °C Db
	Diaphragms made of EPDM (AD), PTFE/EPDM (EA), advanced PTFE/EPDM (EU) and GYLON®/laminated EPDM (ER) are suitable for use with food and beverages (acc. to EC Regulation 1935/2004/EC).
	Diaphragms made of EPDM (AD), PTFE/EPDM (EA), advanced PTFE/EPDM (EU) and GYLON®/laminated EPDM (ER) are according to USP Class VI tested.
FDA	Diaphragms made of EPDM (AD), PTFE/EPDM (EA), advanced PTFE/EPDM (EU) and GYLON®/laminated EPDM (ER) comply with the Code of Federal Regulations published by the FDA (Food and Drug Administration, USA).

1.) Further approvals/conformity clarification on request

2.) Only in combination with variable code "PX51" (see "6.3. Bürkert Product Enquiry Form" on page 11)

3. Materials

3.1. Bürkert resistApp



Bürkert resistApp – Chemical resistance chart

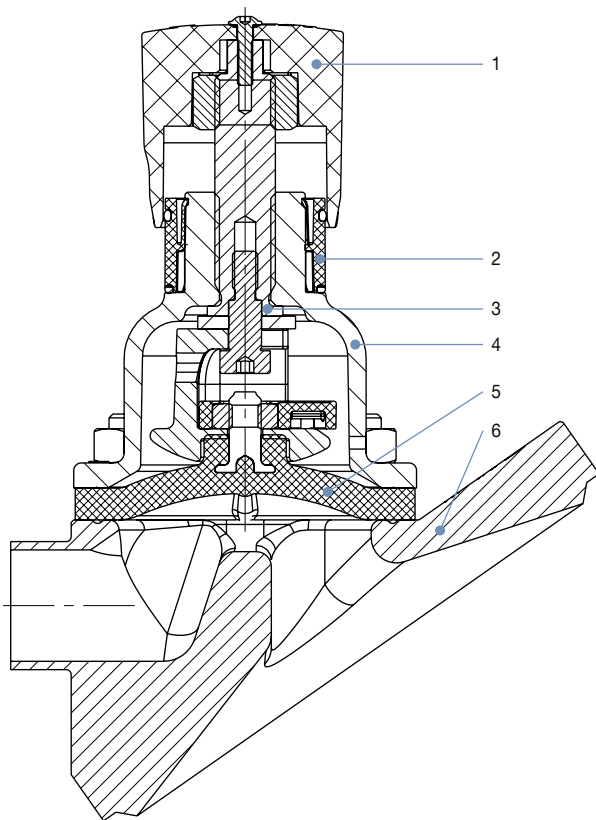
You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

[Start chemical resistance check](#)

3.2. Material specifications

Note:

Your product variant may differ from this illustration depending on the housing and interface options.



No.	Element	Material
1	Handwheel	Polyphenylene sulphide (PPS)
2	Visual position indicator	Polyamide (PA)
3	Valve spindle	Stainless steel 1.4305
4	Bonnet	Stainless steel 1.4308
5	Diaphragm	EPDM (AD), PTFE/EPDM (EA), advanced PTFE/EPDM (EU), GYLON®/laminated EPDM (ER)
6	Valve body	See "1. General technical data" on page 3.

3.3. Example of available diaphragm materials

The diaphragms have been developed to meet the unique challenges of hygienic and sterile requirements. Bürkert offers diaphragms with precise material composition and high accuracy. Bürkert diaphragms are available in a wide range of materials which have been tested and proven in applications in the food and beverage, biotechnology, pharmaceutical and cosmetics industries. The diaphragms are tested during development and production to ensure reliability under difficult process conditions.



- EPDM (AD)
- PTFE/EPDM (EA)
- Advanced PTFE/EPDM (EU)
- GYLON®/laminated EPDM (ER)

For further information please refer to our flyer "Diaphragm competence for hygienic applications" on our [website](#) ►.

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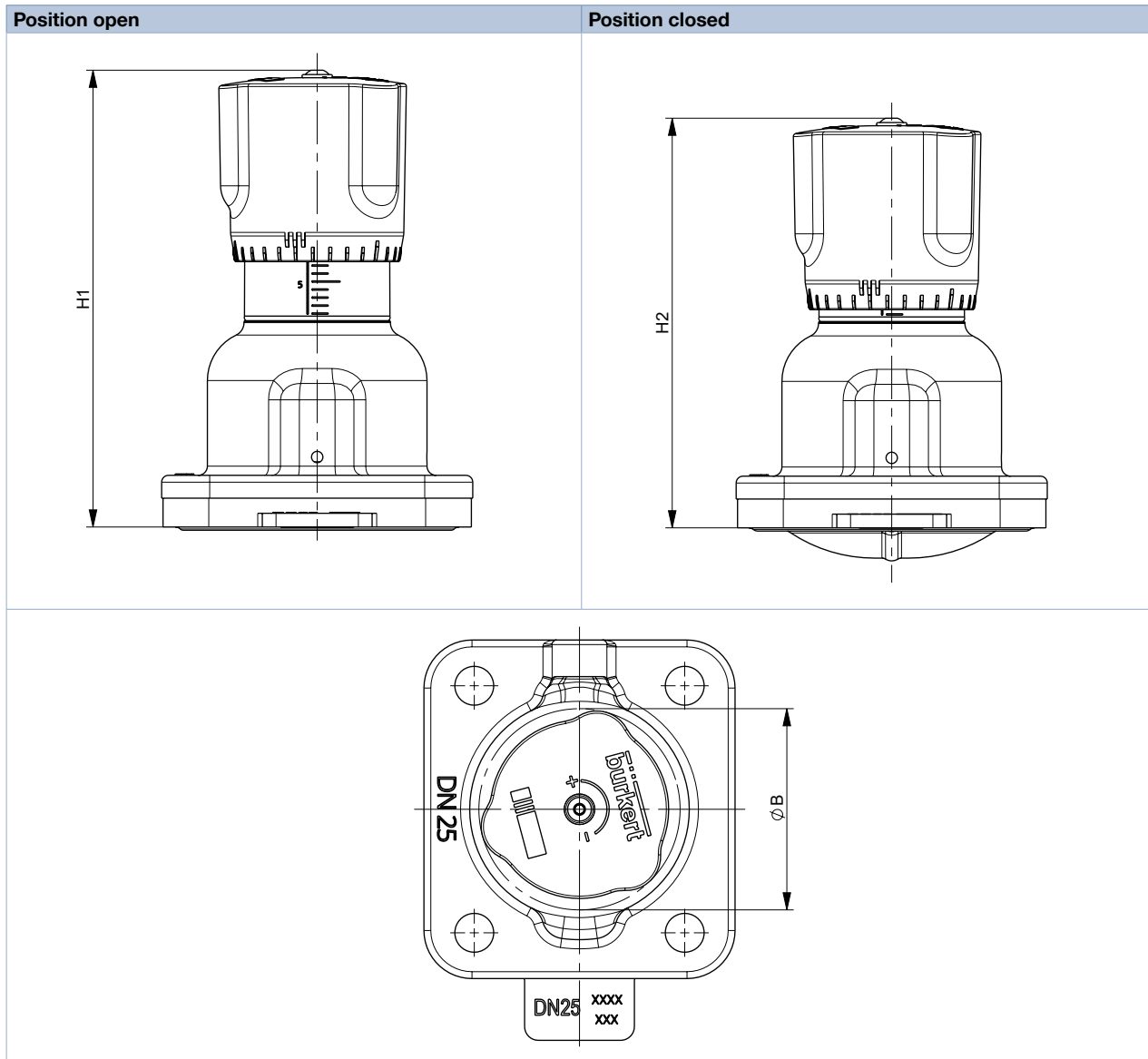
4. Dimensions

4.1. Manual actuator

Diaphragm size 8...25

Note:

Dimensions in mm, unless otherwise stated

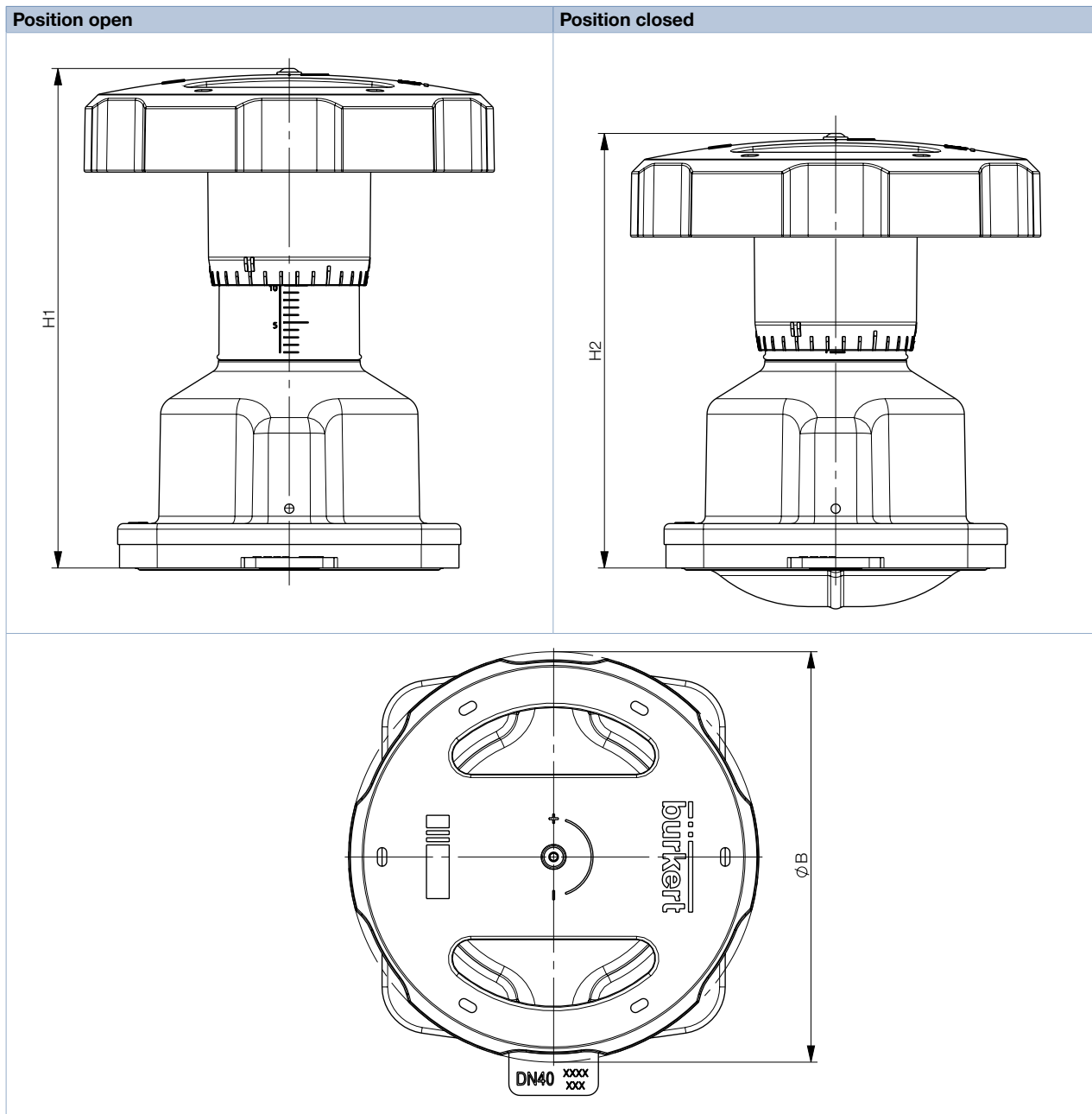


Diaphragm size	H1	H2	ØB
8	54.5	48.5	35
15	89.5	81.5	45
20	102	91	45
25	107.5	94.5	45

Diaphragm size 32...50

Note:

Dimensions in mm, unless otherwise stated

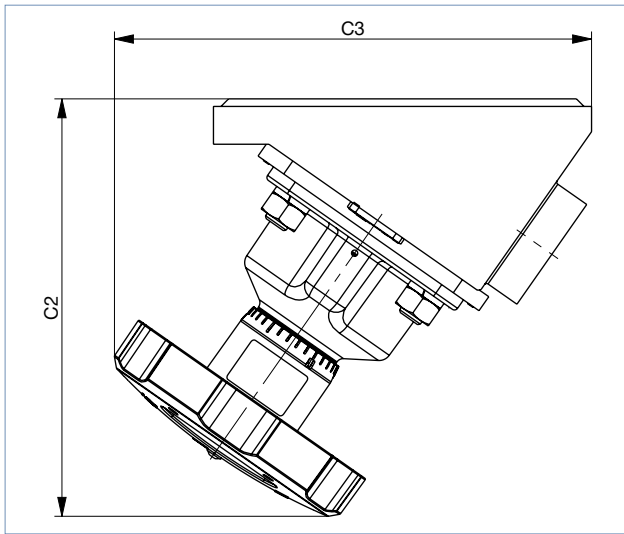


Diaphragm size	H1	H2	ØB
32	137	121	110
40	140	121	110
50	156	129	110

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Hand wheel with tank bottom body**Note:**

Dimensions in mm, unless otherwise stated

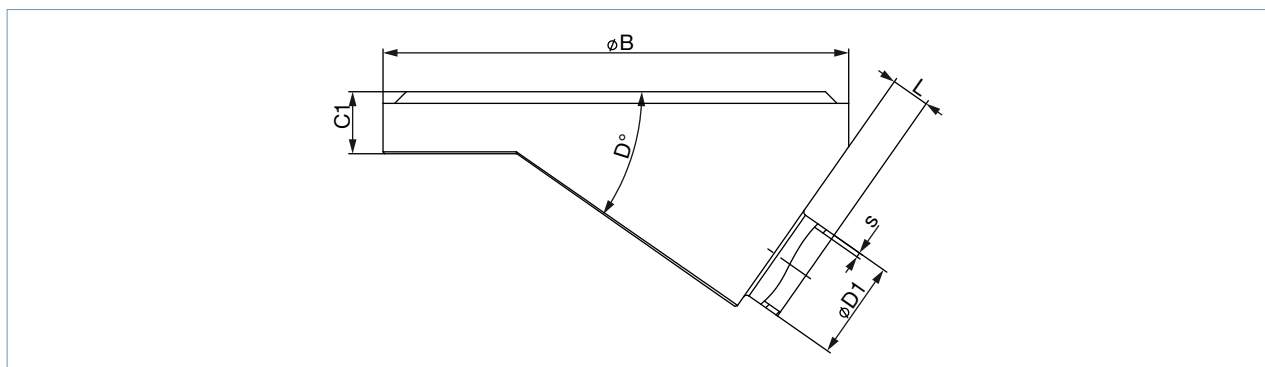


Diaphragm size	C2	C3
8	69	71
15	103	101
20	116	115
25	127	129
40	182	201
50	203	217

4.2. Tank bottom body with welded connection

Note:

Dimensions in mm, unless otherwise stated



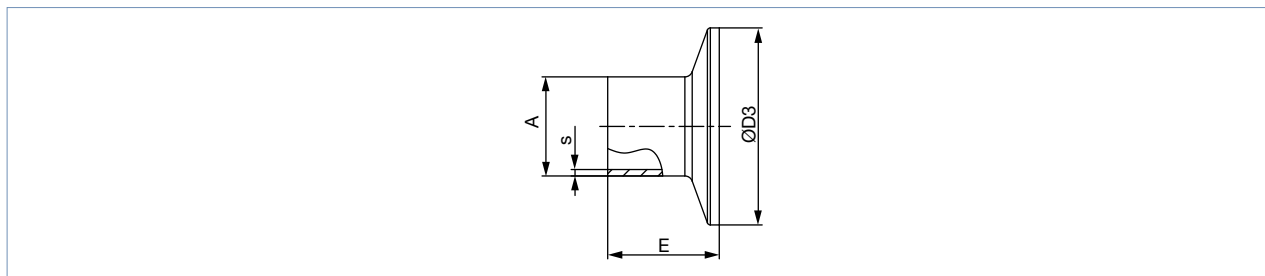
Diaphragm size	Port connection DN	ØB	C1	D	ØD1	s	L	Product key ^{1.)}
DIN EN ISO 1127/ISO 4200/DIN 11866 series B								
8	8	50	8	35°	13.5	1.6	5	SA40
15	15	65	12	35°	21.3	1.6	4	SA42
		85					8	SA42
20	20	85	12	35°	26.9	1.6	5.6	SA43
25	25	120	16	35°	33.7	2	8	SA44
40	32	150	18	35°	42.4 (Port 32)	2	20	SA45
	40				48.3		15	SA46
50	50	180	22	35°	60.3	2	12	SA47
DIN 11850 series 2/DIN 11866 series A/DIN EN 10357 series A								
8	10	50	8	35°	13	1.5	5	SD40
15	15	85	12	35°	19	1.5	8	SD42
20	20	85	12	35°	23	1.5	7	SD43
25	25	120	16	35°	29	1.5	8	SD44
40	40	150	18	35°	41	1.5	20	SD46
50	50	180	22	35°	53	1.5	15	SD47
ASME BPE/DIN 11866 series C								
8	¼"	50	8	35°	6.35	0.89	6	SA90
15	½"	85	12	35°	12.7	1.65	10	SA92
20	¾"	85	12	35°	19.05	1.65	8	SA93
25	1"	120	16	35°	25.4	1.65	12	SODF
40	1½"	150	18	35°	38.1	1.65	15	SODH
50	1½"	180	22	35°	38.1	1.65	25	SODH
	2"				50.8		15	SODI
	2½"				63.5		11	SODJ
SMS 3008								
25	25	120	16	35°	25	1.2	8	SA60
40	40	150	18	35°	38	1.2	20	SA62
50	50	180	22	35°	51	1.2	15	SA63

1.) This information is part of the product key (see "6.3. Bürkert Product Enquiry Form" on page 11).

4.3. Tank bottom body with clamp connection

Note:

Clamp dimensions must be added to the welded connection dimensions.



Port connection		A	s	D3	E	Product key ^{1.)}
[mm]	[inch]					
DIN 32676 series A (DIN pipe)						
10	–	13	1.5	34.0	18	TD41
15	–	19	1.5	34.0	18	TD42
20	–	23	1.5	34.0	18	TD43
25	–	29	1.5	50.5	21.5	TD44
32	–	35	1.5	50.5	21.5	TD45
40	–	41	1.5	50.5	21.5	TD46
50	–	53	1.5	64.0	21.5	TD47
DIN 32676 series B (ISO pipe)						
8	–	13.5	1.6	25.0	28.6	TC40
8	–	13.5	1.6	34.0 ^{2.)}	28.6	TC51 ^{2.)}
10	–	17.2	1.6	34.0 ^{2.)}	28.6	TC41 ^{2.)}
15	–	21.3	1.6	34.0 ^{2.)}	28.6	TC42 ^{2.)}
15	–	21.3	1.6	50.5	28.6	TC52
20	–	26.9	1.6	50.5	28.6	TC43
25	–	33.7	2	50.5	28.6	TC44
32	–	42.4	2	50.5 ^{2.)}	28.6	TC45 ^{2.)}
40	–	48.3	2	64.0	28.6	TC46
50	–	60.3	2	77.5	28.6	TC47
ASME BPE						
8	¼"	6.35	0.89	25.0	28.6	TG50
10	⅜"	9.53	0.89	25.0	28.6	TG01
15	½"	12.7	1.65	25.0	28.6	TG02
20	¾"	19.05	1.65	25.0	28.6	TG03
25	1"	25.4	1.65	50.5	28.6	TG04
40	1½"	38.1	1.65	50.5	28.6	TG05
50	2"	50.8	1.65	64.0	28.6	TG06

1.) This information is part of the product key (see "6.3. Bürkert Product Enquiry Form" on page 11).

2.) Deviating from standard, because of different clamp outer diameter

5. Performance specifications

5.1. Medium pressure

Diaphragm size	Actuator material	Max. operating pressure for seal material EPDM, PTFE/EPDM, advanced PTFE/ EPDM, GYLON®/laminated EPDM
DN		Max. [bar]
8...50	Stainless steel/PPS	10

6. Ordering information

6.1. Bürkert eShop



Bürkert eShop – Easy ordering and quick delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

[Order online now](#)

6.2. Bürkert product filter



Bürkert product filter – Get quickly to the right product

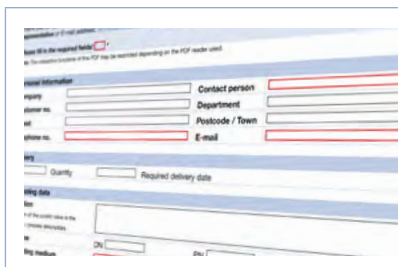
You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

[Try out our product filter](#)

6.3. Bürkert Product Enquiry Form

Note:

Please see our Product Enquiry Form for a full explanation of our specification key.



Bürkert Product Enquiry Form – Your enquiry quickly and compactly

Would you like to make a specific product enquiry based on your technical requirements? Use our Product Enquiry Form for this purpose. There you will find all the relevant information for your Bürkert contact. This will enable us to provide you with the best possible advice.

[Fill out the form now](#)

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