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Астана (7172)727-132	Красноярск (391)204-63-61	Самара (846)206-03-16
Белгород (4722)40-23-64	Курск (4712)77-13-04	Санкт-Петербург (812)309-46-40
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Владивосток (423)249-28-31	Магнитогорск (3519)55-03-13	Смоленск (4812)29-41-54
Волгоград (844)278-03-48	Москва (495)268-04-70	Сочи (862)225-72-31
Вологда (8172)26-41-59	Мурманск (8152)59-64-93	Ставрополь (8652)20-65-13
Воронеж (473)204-51-73	Набережные Челны (8552)20-53-41	Тверь (4822)63-31-35
Екатеринбург (343)384-55-89	Нижний Новгород (831)429-08-12	Томск (3822)98-41-53
Иваново (4932)77-34-06	Новокузнецк (3843)20-46-81	Тула (4872)74-02-29
Ижевск (3412)26-03-58	Новосибирск (383)227-86-73	Тюмень (3452)66-21-18
Казань (843)206-01-48	Орел (4862)44-53-42	Ульяновск (8422)24-23-59
Калининград (4012)72-03-81	Оренбург (3532)37-68-04	Уфа (347)229-48-12
Калуга (4842)92-23-67	Пенза (8412)22-31-16	Челябинск (351)202-03-61
Кемерово (3842)65-04-62	Пермь (342)205-81-47	Череповец (8202)49-02-64
Киров (8332)68-02-04	Ростов-на-Дону (863)308-18-15	Ярославль (4852)69-52-93

**Единый адрес:** [btk@nt-rt.ru](mailto:btk@nt-rt.ru) **Веб-сайт:** [www.burkert.nt-rt.ru](http://www.burkert.nt-rt.ru)

## **МЕМБРАННЫЕ КЛАПАНЫ**






## 2/2 way diaphragm valve with (ON/OFF) electric linear actuator (Type EVA)

- Safety position through energy storage
- Adjustable driving force
- Diagnostic functions and fieldbus connection
- Surfaces in contact with the product from  $Ra \leq 0.38 \mu m \dots 1.6 \mu m$  (optionally electropolished)
- Available in connection sizes DN 06...DN 40



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

### Can be combined with

	<b>Type 3363</b> 2/2 way diaphragm valve with (Positioner) electric linear actuator (Type EVA)	▶
	<b>Type 3361</b> Electromotive 2 way globe control valve	▶
	<b>Type 8098</b> FLOWave SAW flowmeter	▶

### Type description

The externally controlled diaphragm valve Type 3323 consists of an electricaly controlled linear actuator (open/close), of a diaphragm and a 2 way valve housing. The electric actuator with recirculating ball screw ensures use under hygienic or aggressive environmental conditions. The flow-favorable and dead space-free valve housings enable high flow values and a wide range of possible uses. In the event of a power failure, the safety position is guaranteed by an optional energy storage device. The position is displayed by means of a 360° LED light ring. To protect the diaphragm the actuator has a drive force adjustment. A correspondingly high IP protection IP65/IP67 ensures adequate splash protection. In addition to a fast actuating speed of 1.5 to 4.5 seconds, the actuator is also equipped with a mechanical position indicator and a corresponding explosion protection ATEX/II 3G Ex ec IIC T4 Gc/II 3D Ex tc IIIC T135 °C Dc.

## 1. General technical data

Product properties	
Dimensions	Detailed information can be found in chapter "4. Dimensions" on page 7.
<b>Material</b>	
Forged body (VS) <sup>1,3</sup>	Forged stainless steel 316L/1.4435/BN2, Fe < 0.5 %/C ≤ 0.03 %
Tube valve body (VP) <sup>1,3</sup>	Stainless steel 316L/1.4435/BN2
Cast body (VG) <sup>1,3</sup>	Cast stainless steel 316L/1.4435
Plastic body (PV; PD; PP) <sup>1,3</sup>	PVC (PVC-U); PVDF; PP
Diaphragm	EPDM (AD) <sup>1,3</sup> , PTFE/EPDM (EA) <sup>1,3</sup> , advanced PTFE/EPDM (EU) <sup>1,3</sup> , Gylon®/EPDM laminated (ER) <sup>1,3</sup>
Diaphragm size	8...40; for plastic body 15...40
<b>Standard surface quality<sup>2,3</sup></b>	
Forged body (VS) <sup>1,3</sup>	Internal electrically polished: Ra ≤ 0.38 µm (NO17) <sup>1,3</sup> (ASME BPE SF4/DIN HE4) (external forged surface electrically polished) Internal mechanically polished: Ra ≤ 0.5 µm (NO14) <sup>1,3</sup> (ASME BPE SF1) (external forged surface)
Tube valve body (VP) <sup>1,3</sup>	Internal electrically polished: Ra ≤ 0.38 µm (NO17) <sup>1,3</sup> (ASME BPE SF4/DIN HE4) External glass bead blasted: Ra ≤ 1.6 µm (NO01) <sup>1,3</sup> Internal glass bead blasted: Ra ≤ 1.6 µm (NO05) <sup>1,3</sup>
Cast body (VG) <sup>1,3</sup>	Internal electrically polished: Ra ≤ 0.6 µm (NO16) <sup>1,3</sup> (ASME BPE SF6) (external cast surface electrically polished) Internal mechanically polished: Ra ≤ 0.76 µm (NO06) <sup>1,3</sup> (ASME BPE SF3/DIN H2) (external cast surface)
Safety setting in case of power failure	With SAFEPOS energy-pack: opened, closed or free programm-able Without SAFEPOS energy-pack: blocked in last position
Lifelong energy storage SAFEPOS energy-pack	Up to 10 years (depending on operating conditions)
<b>Performance data</b>	
Closing time	< 1.5 sec. to 4.5 sec. depending on diaphragm size
Travel speed	4 mm/s
<b>Electrical data</b>	
Operating voltage	24 V DC ± 10 % (max. residual ripple 10 %)
Electronic without actuator	Min. 2 W, max. 4.5 W
Protection class	IP65/IP67
Duty cycle	100 %
Operating current	Max. 3 A including actuator at max. load and charging current of the optional SAFEPOS energy-pack (charging current approx. 1 A)
<b>Communication and control</b>	
Standard signals (binary)	0...5 V (log. 0) 10...30 V (log. 1)
Fieldbus (digital)	EtherNet IP, Modbus TCP, PROFINET (optional) and CANopen
<b>Medium data</b>	
Operating medium	Neutral gases and fluids, highly purified, sterile, aggressive or abrasive medium (see <b>Chemical Resistance Chart</b> ▶)
<b>Medium temperature</b>	
EPDM (AD) <sup>1,3</sup>	- 10...+ 143 °C (steam sterilisation + 150 °C for 60 min)
PTFE/EPDM (EA) <sup>1,3</sup>	- 10...+ 130 °C (steam sterilisation + 140 °C for 60 min)
Advanced PTFE/EPDM (EU) <sup>1,3</sup>	- 5...+ 143 °C (steam sterilisation + 150 °C for 60 min)
GYLON®/EPDM laminated (ER) <sup>1,3</sup>	- 5...+ 130 °C (steam sterilisation + 140 °C for 60 min)
Plastic body	See "3.2. Pressure temperature diagram for plastic body" on page 5

Process/Port connection & communication	
Port connection size	DN 06...DN 40 (1/8" ... 1 1/2")
Port connections <sup>2.)</sup>	
<b>For stainless steel body<sup>3.)</sup></b>	
Welded connection <sup>2.)</sup>	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 <sup>2.)</sup>	DIN 32676 series A (DIN pipe) DIN 32676 series B (ISO pipe) ASME BPE
<b>For plastic body</b>	
Spigot connection	DN 15...DN 40
True union	DN 15...DN 40
Loose flange	DN 15...DN 40
Electrical connection	
Actuator	Terminal strip with cable gland, 2 x M20 or 2 M12 circular plugs, 5 pin and 8 pin
Fieldbus gateway	2 M12 circular sockets, 4 pin (only with Industrial Ethernets)
Approvals and certificates	
Ignition protection class	II 3G Ex ec IIC T4 Gc II 3D Ex tc IIIC T135 °C Dc
Environment and installation	
Installation position	As required, preferably with actuator upright
Vibration and shock resistance	
Vibration, sinusoidal	5 g (IEC 60068-2-6 Test Fc)
Shock, mechanical	50 g (IEC 60068-2-27 Test Ea)
Ambient temperature	- 10 °C...+65°C <sup>3.)</sup> (without SAFEPOS energy storage) - 10 °C...+55°C <sup>3.)</sup> (with SAFEPOS energy storage)

1.) This information is part of the product key (see Product Enquiry Form at the end of this data sheet)





2.) Further port connections on request

3.) Depends on media temperature, see chapter "5.3. Ambient and medium temperature" on page 22

## 2. Approvals

### Note:

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

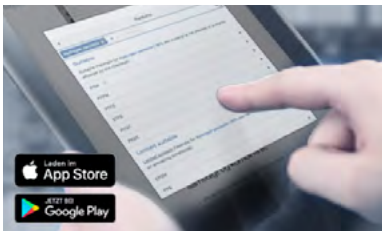
Approvals/ Conformity/ Certificate <sup>1.)</sup>	Description
	<b>ATEX/IECEx<sup>2.)</sup></b> BVS 17 ATEX E 117 X II 3G Ex ec IIC T4 Gc/II 3D Ex tc IIIC T135 °C Dc IECEx BVS 17.0100X Ex ec IIC T4 Gc/Ex tc IIIC T135 °C Dc
	3-A (3-A Sanitary Standards Symbol Administrative Council) <sup>4.)</sup>
	EHEDG (European Hygienic Engineering & Design Group) <sup>5.) 6.)</sup>
	The diaphragms made of EPDM (AD), PTFE/EPDM (EA), advanced PTFE/EPDM (EU) and GYLON®/EPDM laminated (ER) are suitable for use with food and beverages (acc. to EC Regulation 1935/2004/EC).

Approvals/ Conformity/ Certificate <sup>1.)</sup>	Description
	Diaphragms made of EPDM (AD), PTFE/EPDM (EA), advanced PTFE/EPDM (EU) and GYLON®/EPDM laminated (ER) are acc. to USP Class VI tested.
<b>FDA</b>	Diaphragms made of EPDM (AD), PTFE/EPDM (EA), advanced PTFE/EPDM (EU) and GYLON®/EPDM laminated (ER) comply with the Code of Federal Regulations published by the FDA (Food and Drug Administration, USA).
	<b>Safety requirements</b> UL-listed cULus Cert. No. 238179 (optional)

- 1.) Further approvals/conformity clarification on request
- 2.) Only in combination with variable code «PX48» (see Product Enquiry Form at the end of this data sheet)
- 3.) Only in combination with variable code «PM01» (see Product Enquiry Form at the end of this data sheet)
- 4.) Only in combination with variable code «PE05» (see Product Enquiry Form at the end of this data sheet)
- 5.) For forged bodies only in connection with variable code «PI01» (see Product Enquiry Form at the end of this data sheet)
- 6.) For all versions of the pipe forming body with EPDM or PTFE diaphragm

### 3. Materials

#### 3.1. Chemical Resistance Chart – 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.

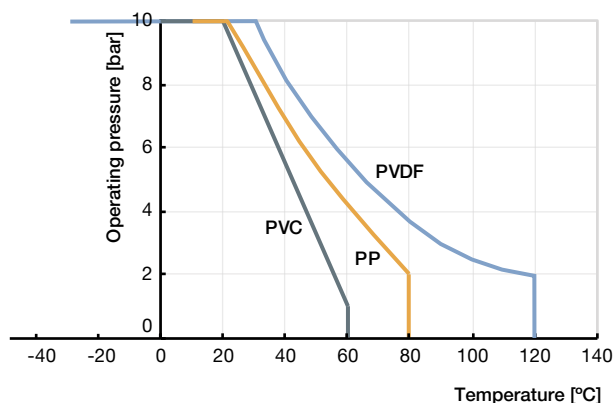
[Start Chemical Resistance Check](#)

#### 3.2. Pressure temperature diagram for plastic body

**Note:**

This information is important for material selection. Observe the permissible operating pressure depending on the medium temperature.

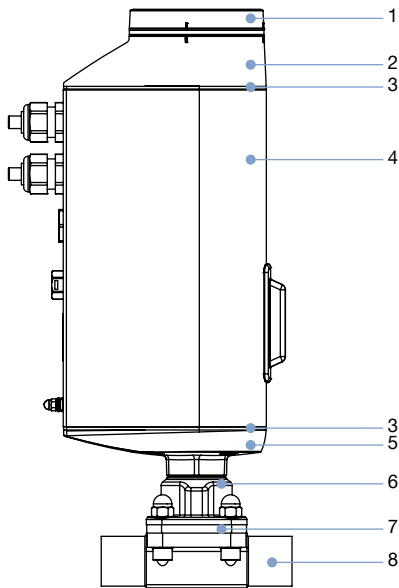
DN15...50



### 3.3. Material specifications

**Note:**

The depiction of the products may differ from the actual specific design (e.g. body material, and port connection)



No.	Element	Material
1	Display housing/ Blind cover	<ul style="list-style-type: none"> <li>• PPS (standard)</li> <li>• Stainless steel 1.4301 (for ATEX/IECEX)</li> </ul>
2	Actuator cover	PPS
3	Seal	EPDM
4	Actuator housing	Aluminium powder coated
5	Actuator base	PPS
6	Interface	Stainless steel 1.4308
7	Diaphragm	<ul style="list-style-type: none"> <li>• EPDM (AD)</li> <li>• PTFE/EPDM (EA)</li> <li>• Advanced PTFE/EPDM (EU)</li> <li>• Gylon(R)/EPDM laminated (ER)</li> </ul>
8	Valve body	See "1. General technical data" on page 3

### 3.4. Example of available membrane 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®/EPDM laminated (ER)

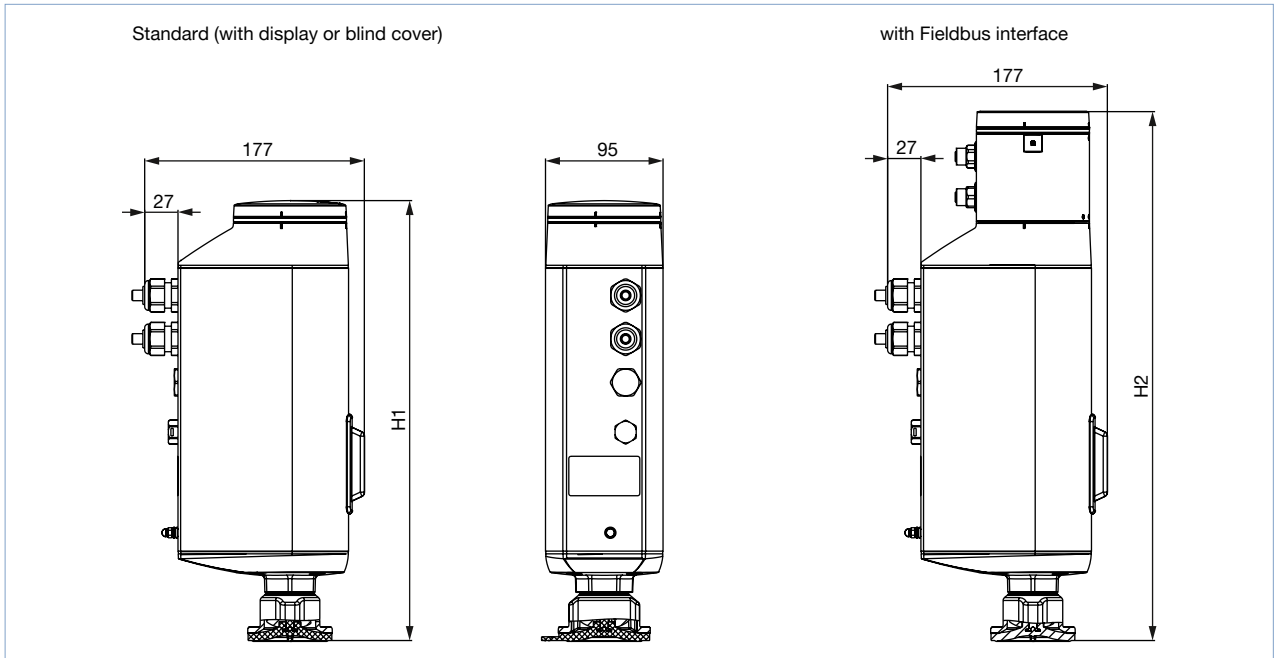
For further information please refer to our flyer "Diaphragm competence for hygienic applications" on our [website](#) ▶.

## 4. Dimensions

### 4.1. EVA actuator

**Note:**

Dimensions in mm, unless otherwise stated

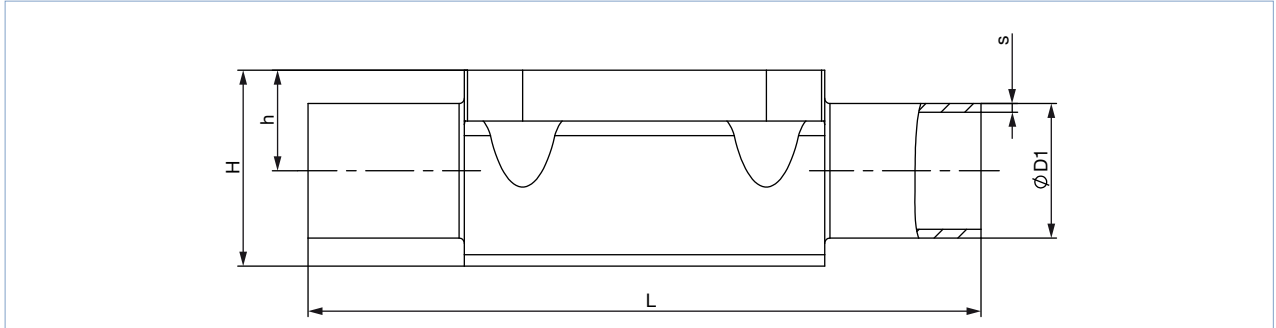


Diaphragm size	Height	
	H1 [mm]	H2 [mm]
8	342	414
15	345	418
20	350	422
25	355	426
32	365	436
40	370	442

## 4.2. Forged body (VS) with welded connection

### Note:

- Dimensions in mm, unless otherwise stated
- For detailed information on the draining angle, please refer to the “Additional manual Type 2xxx 3xxx” on our website (see [operating instructions](#) ▶).



Diaphragm size	Port connection DN	ØD1	s	L	h	H	Product key <sup>1.)</sup>
<b>DIN EN ISO 1127/ISO 4200/DIN 11866 series B</b>							
8	8	13.5	1.6	90	9.3	18.8	SA40
15	8	13.5	1.6	108	8.15	19.85	SA40
8	10	17.2	1.6	90	9.3	18.8	SA41
15	10	17.2	1.6	110	12.05	23.75	SA41
15	15	21.3	1.6	110	12.05	23.75	SA42
20	15	21.3	1.6	119	16	30.3	SA42
20	20	26.9	1.6	119	16	30.3	SA43
25	20	26.9	1.6	119	19	37	SA43
25	25	33.7	2.0	129	19	37	SA44
40	25	33.7	2.0	161	27.6	52.4	SA44
40	32	42.4	2.0	161	27.6	52.4	SA45
40	40	48.3	2.0	161	27.6	52.4	SA46
<b>DIN 11850 series 2/DIN 11866 series A/DIN EN 10357 series A</b>							
8	10	13	1.5	90	9.3	18.8	SD40
15	10	13	1.5	110	8.15	19.85	SD40
15	15	19	1.5	110	12.05	23.75	SD42
20	20	23	1.5	119	16.0	30.3	SD43
25	25	29	1.5	129	19.0	37.0	SD44
40	32	35	1.5	161	27.6	52.4	SD45
40	40	41	1.5	161	27.6	52.4	SD46
<b>ASME BPE/DIN 11866 series C</b>							
8	1/4"	6.35	0.89	78	5.7	15.2	SA90
8	3/8"	9.53	0.89	89	5.7	15.2	SA91
8	1/2"	12.7	1.65	89	9.3	18.8	SA92
15	1/2"	12.7	1.65	108	8.15	19.85	SA92
15	3/4"	19.05	1.65	108	12.05	23.75	SA93
20	3/4"	19.05	1.65	117	16.0	30.3	SA93
25	1"	25.4	1.65	127	19.0	37.0	SODF
40	1 1/2"	38.1	1.65	159	27.6	52.4	SODH



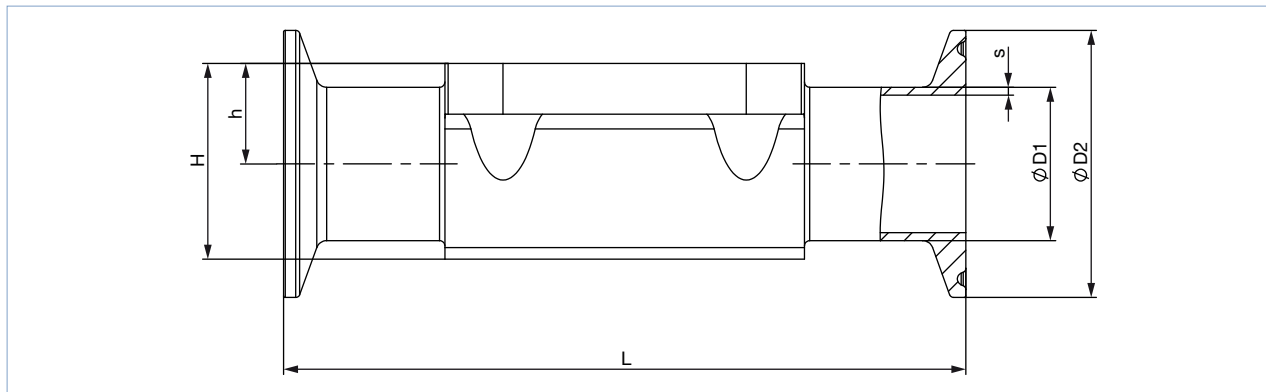
Diaphragm size	Port connection DN	ØD1	s	L	h	H	Product key <sup>1.)</sup>
<b>BS 4825</b>							
8	8	6.35	1.20	78	5.7	15.2	SODB
8	10	9.53	1.20	89	5.7	15.2	SODC
15	15	12.7	1.20	108	8.15	19.85	SODD
20	20	19.05	1.20	117	16.0	30.3	SODE
25	25	25.4	1.65	127	19.0	37.0	SODF
40	40	38.1	1.65	159	27.6	52.4	SODH
<b>SMS 3008</b>							
25	25	25	1.2	129	19	37	SA60
40	40	38	1.2	161	27.6	52.4	SA62
<b>DIN 11850 series 0</b>							
8	6	8	1.0	90	5.7	15.2	SC41
8	8	10	1.0	90	5.7	15.2	SC42

1.) This information is part of the product key (see Product Enquiry Form at the end of this data sheet)

### 4.3. Forged body (VS) with clamp connection

**Note:**

- Dimensions in mm, unless otherwise stated
- For detailed information on the draining angle, please refer to the “Additional manual Type 2xxx 3xxx” on our website (see **operating instructions** ▶).



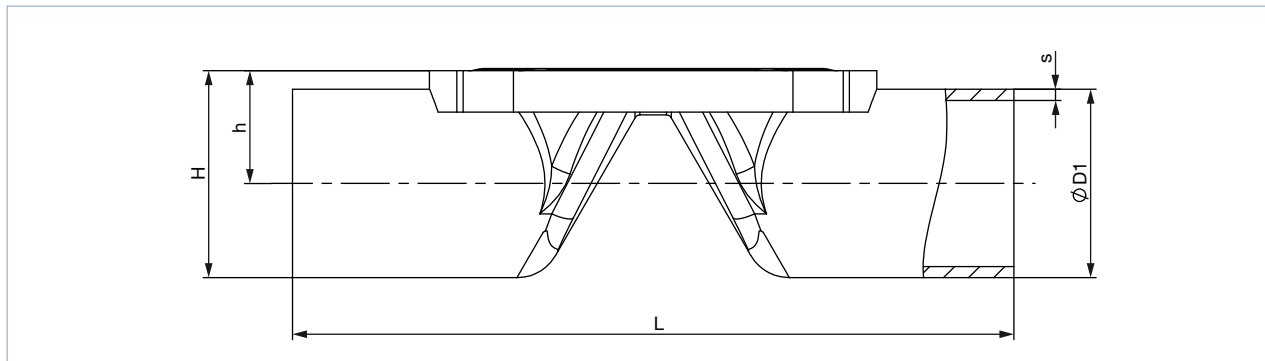
Diaphragm size	Port connection DN	ØD1	s	ØD2	L	h	H	Product key <sup>1.)</sup>	Variable code <sup>1.)</sup>
<b>DIN 32676 series B (ISO pipe)</b>									
15	15	21.3	1.6	50.5	167	12.05	23.75	TC53	–
20	20	26.9	1.6	50.5	114	16.0	30.3	TC43	–
25	25	33.7	2	50.5	129	19	37	TC44	–
40	40	48.3	2	64.0	161	27.6	52.4	TC46	–
<b>DIN 32676 series A (DIN pipe)</b>									
8	10	13	1.5	34.0	126	9.3	18.8	TD41	–
15	10	13	1.5	34.0	110	8.15	19.85	TD41	–
15	15	19	1.5	34.0	110	12.05	23.75	TD42	–
20	20	23	1.5	34.0	119	16	30.3	TD43	–
25	25	29	1.5	50.5	129	19	37	TD44	–
40	40	41	1.5	50.5	161	27.6	52.4	TD46	–
<b>ASME BPE</b>									
8	¼"	6.35	0.89	25.0	64.5	5.7	15.2	TG50	–
8	⅜"	9.53	0.89	25.0	89	5.7	15.2	TG01	AF34
8	½"	12.7	1.65	25.0	64	9.3	18.8	TG02	–
8	½"	12.7	1.65	25.0	89	9.3	18.8	TG02	AF34
15	½"	12.7	1.65	25.0	89	8.15	19.85	TG02	–
15	½"	12.7	1.65	25.0	108	8.15	19.85	TG02	AF34
15	¾"	19.05	1.65	25.0	89	12.05	23.75	TG03	–
20	¾"	19.05	1.65	25.0	102	16	30.3	TG03	–
20	¾"	19.05	1.65	25.0	117	16	30.3	TG03	AF34
25	1"	25.4	1.65	50.5	114	19	37	TG04	–
25	1"	25.4	1.65	50.5	127	19	37	TG04	AF34
40	1½"	38.1	1.65	50.5	140	27.6	52.4	TG05	–
40	1½"	38.1	1.65	50.5	159	27.6	52.4	TG05	AF34

1.) This information is part of the product key (see Product Enquiry Form at the end of this data sheet)

#### 4.4. Tube valve body (VP) with welded connection

**Note:**

- Dimensions in mm, unless otherwise stated
- For detailed information on the draining angle, please refer to the “Additional manual Type 2xxx 3xxx” on our website (see [operating instructions](#) ▶).



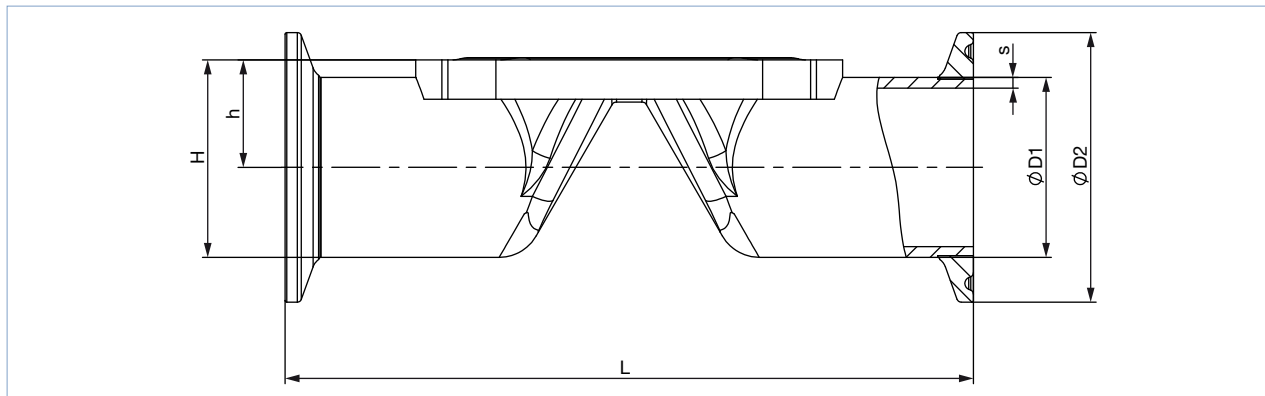
Diaphragm size	Port connection DN	ØD1	s	L	h	H	Product key <sup>1.)</sup>
<b>DIN EN ISO 1127/ISO 4200/DIN 11866 series B</b>							
8	8	13.5	1.6	90.0	9.85	16.6	SA40
8	10	17.2	1.6	90.0	11.70	20.3	SA41
15	15	21.3	1.6	110.0	14.35	25.0	SA42
20	20	26.6	1.6	119.0	17.15	30.45	SA43
25	25	33.7	2.0	129.0	20.55	37.4	SA44
32	32	42.4	2.0	148.0	25.10	46.3	SA45
40	40	48.3	2.0	161.0	29.35	53.5	SA46
<b>DIN 11850 series 2/DIN 11866 series A/DIN EN 10357 series A</b>							
8	10	13	1.5	90	9.85	16.35	SD40
15	15	19	1.5	110	13.20	22.70	SD42
15	20	23	1.5	119	15.20	26.70	SD43
20	25	29	1.5	129	18.20	32.70	SD44
25	32	35	1.5	148	21.20	38.70	SD45
32	40	41	1.5	161	24.40	44.90	SD46
40	50	53	1.5	192	31.70	58.20	SD47
<b>ASME BPE/DIN 11866 series C</b>							
8	½"	12.7	1.65	90.0	9.45	21.95	SA92
15	¾"	19.05	1.65	117.0	13.23	25.73	SA93
20	1"	25.4	1.65	127.0	16.40	41.65	SODF
32	1½"	38.1	1.65	159.0	22.95	48.20	SODH
40	2"	50.8	1.65	190	30.60	62.60	SODI

1.) This information is part of the product key (see Product Enquiry Form at the end of this data sheet)

#### 4.5. Tube valve body (VP) with clamp connection

##### Note:

- Dimensions in mm, unless otherwise stated
- For detailed information on the draining angle, please refer to the “Additional manual Type 2xxx 3xxx” on our website (see [operating instructions](#) ▶).



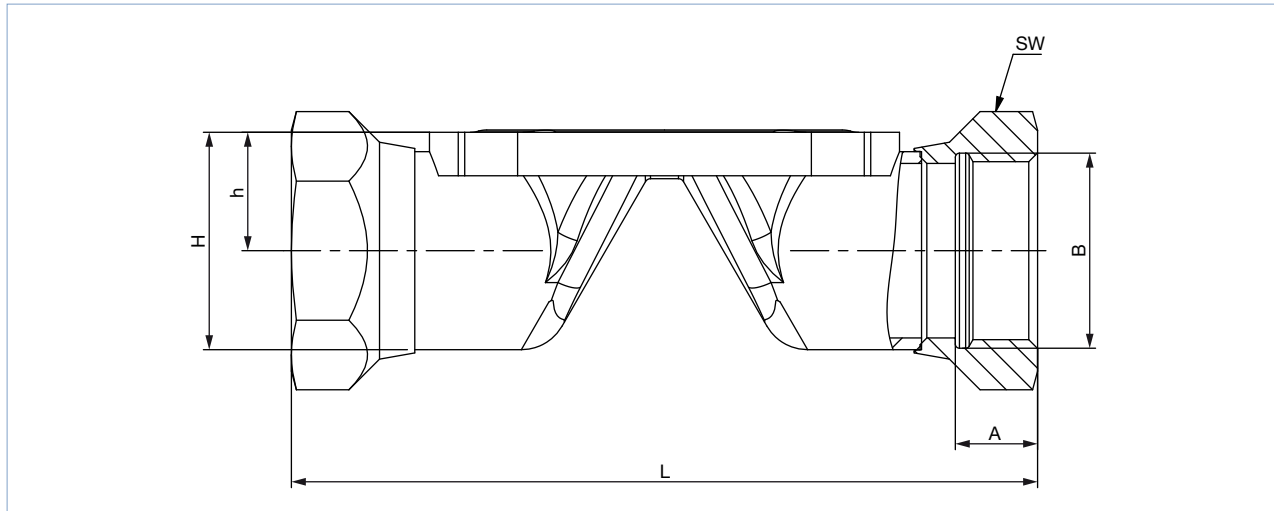
Diaphragm size	Port connection DN	ØD1	s	ØD2	L	h	H	Product key <sup>1.)</sup>
<b>DIN 32676 series B (ISO pipe)</b>								
8	8	13.5	1.6	25.0	89	9.85	22.35	TC40
8	10	17.2	1.6	25.0	89	11.70	24.20	TC53
15	15	21.3	1.6	50.5	110	14.35	39.60	TC52
20	20	26.6	1.6	50.5	119	17.15	42.40	TC43
25	25	33.7	2.0	50.5	129	20.55	45.80	TC44
32	32	42.4	2.0	64.0	148	25.10	57.10	TC55
40	40	48.3	2.0	64.0	161	29.35	61.35	TC46
<b>DIN 32676 series A (DIN pipe)</b>								
8	10	13.0	1.5	34.0	89	9.85	26.85	TD41
15	15	19.0	1.5	34.0	110	13.2	30.20	TD42
15	20	23.0	1.5	34.0	119	15.20	32.20	TD43
20	25	29.0	1.5	50.5	129	18.20	43.45	TD44
25	32	35.0	1.5	50.5	148	21.20	46.45	TD45
32	40	41.0	1.5	50.5	161	24.40	49.65	TD46
40	50	53.0	1.5	64.0	192	31.70	63.70	TD47
<b>ASME BPE</b>								
8	½"	12.7	1.65	25.0	89	9.45	21.95	TG02
15	¾"	19.05	1.65	25.0	102	13.20	25.73	TG03
20	1"	25.4	1.65	50.5	114	16.40	41.65	TG04
32	1½"	38.10	1.65	50.5	140	22.95	48.20	TG05
40	2"	50.80	1.65	64.0	159	30.60	62.60	TG06

1.) This information is part of the product key (see Product Enquiry Form at the end of this data sheet)

#### 4.6. Tube valve body (VP) with threaded connection

##### Note:

- Dimensions in mm, unless otherwise stated
- For detailed information on the draining angle, please refer to the “Additional manual Type 2xxx 3xxx” on our website (see [operating instructions](#) ▶).



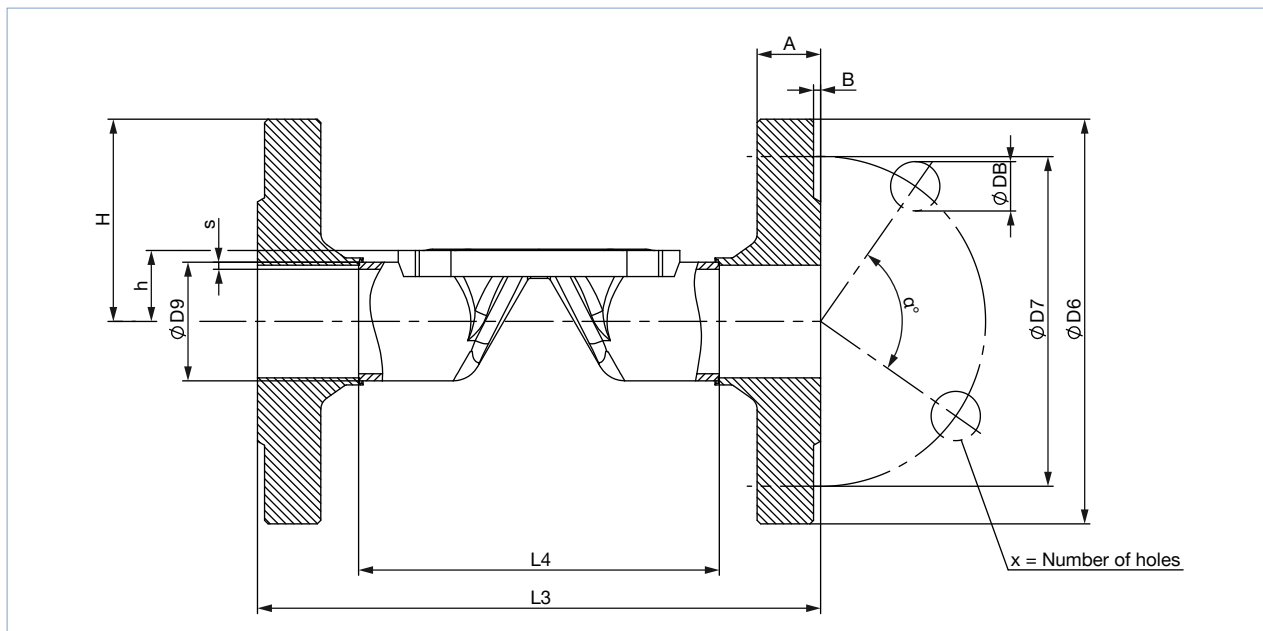
Diaphragm size	L	A	B	h	H	Spanner width of threaded ports	Product key <sup>1.)</sup>
08	85	9	G ¼	11.70	20.3	17	GM82
15	102	14	G ½	14.35	25.0	27	GM84
20	118	12	G ¾	17.15	30.45	32	GM85
25	127	14	G 1	20.55	37.4	41	GM86
32	146	16	G 1¼	25.10	46.3	50	GM87
40	159	18	G 1½	29.35	53.5	60	GM88
Diaphragm size	L	A	B	h	H	Spanner width of threaded ports	Product key <sup>1.)</sup>
08	85	9.7	Rc ¼	11.70	20.3	17	RC82
15	102	13.2	Rc ½	14.35	25.0	27	RC84
20	118	14.5	Rc ¾	17.15	30.45	32	RC85
25	127	16.8	Rc 1	20.55	37.4	41	RC86
32	146	19.1	Rc 1¼	25.10	46.3	50	RC87
40	159	19.1	Rc 1½	29.35	53.5	60	RC88
Diaphragm size	L	A	B	h	H	Spanner width of threaded ports	Product key <sup>1.)</sup>
08	85	10	NPT ¼	11.70	20.3	17	NM82
15	102	13.7	NPT ½	14.35	25.0	27	NM84
20	118	14	NPT ¾	17.15	30.45	32	NM85
25	127	16.8	NPT 1	20.55	37.4	41	NM86
32	146	17.3	NPT 1¼	25.10	46.3	50	NM87
40	159	17.3	NPT 1½	29.35	53.5	60	NM88

1.) This information is part of the product key (see Product Enquiry Form at the end of this data sheet)

#### 4.7. Tube valve body (VP) with flange connection

##### Note:

- Dimensions in mm, unless otherwise stated
- For detailed information on the draining angle, please refer to the “Additional manual Type 2xxx 3xxx” on our website (see [operating instructions](#) ▶).



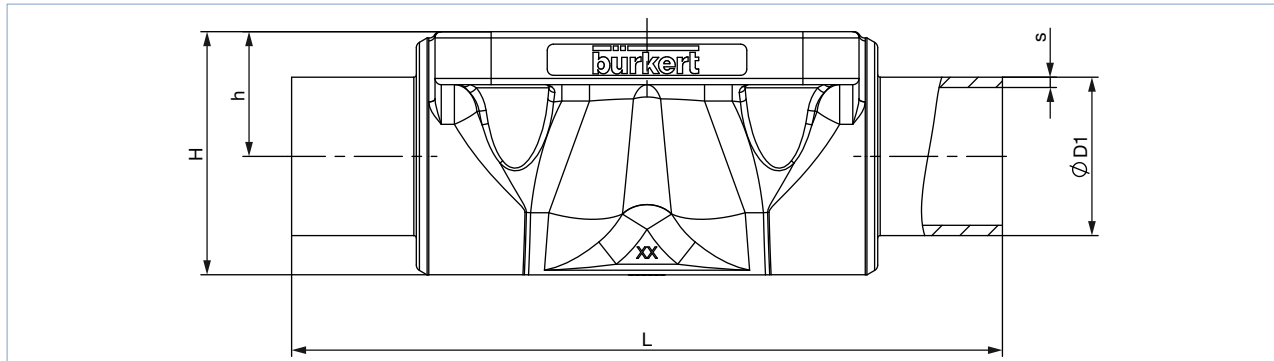
Diaphragm size	L4	L3	s3	ØD9	ØD6	ØD7	a°	ØDB	A	B	X	Product key <sup>1.)</sup>
<b>DIN EN 1092-1</b>												
15	76.5	130	1.6	21.3	76.5	65.0	90	14	16	2	4	FD22
20	92.5	150	1.6	26.9	92.5	75.0	90	14	18	2	4	FD23
25	102.5	160	2.0	33.7	102.5	85.0	90	14	18	2	4	FD24
32	122.5	180	2.0	42.4	122.5	100.0	90	18	18	2	4	FD25
40	136.5	200	2.0	48.3	136.5	110.0	90	18	18	3	4	FD26
<b>ANSI B16.5</b>												
15	67.0	130	1.6	21.3	89	60.5	90	15.7	11.2	1.6	4	FA02
25	106.0	160	2.0	33.7	108	79.2	90	15.7	14.2	1.6	4	FA04
40	128.0	200	2.0	48.3	127	98.6	90	15.7	17.5	1.6	4	FA06
<b>JIS 10K</b>												
15	89	130	1.6	21.3	95	70	90	15	12	1	4	FJ02
20	103	150	1.6	26.9	100	75	90	15	14	1	4	FJ02
25	116	160	2.0	33.7	125	90	90	19	14	1	4	FJ03
40	147	200	2.0	48.3	140	105	90	19	16	2	4	FJ05

1.) This information is part of the product key (see Product Enquiry Form at the end of this data sheet)

#### 4.8. Cast body (VG) with welded connection

##### Note:

- Dimensions in mm, unless otherwise stated
- For detailed information on the draining angle, please refer to the “Additional manual Type 2xxx 3xxx” on our website (see [operating instructions](#) ▶).



Diaphragm size	Port connection DN	ØD1	s	L	h	H	Product key <sup>1)</sup>
<b>DIN EN ISO 1127/ISO 4200/DIN 11866 series B</b>							
8	8	13.5	1.6	90	9.6	18.5	SA40
8	10	17.2	1.6	90	9.6	18.6	SA41
15	15	21.3	1.6	110	13.5	25.0	SA42
20	15	21.3	1.6	119	18.0	32.9	SA42
20	20	26.9	1.6	119	18.0	32.7	SA43
25	25	33.7	2.0	129	20.0	39.0	SA44
40	32	42.4	2.0	161	28.6	55.0	SA45
40	40	48.3	2.0	161	28.6	55.0	SA46
<b>DIN 11850 series 2/DIN 11866 series A/DIN EN 10357 series A</b>							
8	10	13	1.5	90	9.6	18.6	SD40
15	15	19	1.5	110	13.5	25.0	SD42
20	20	23	1.5	119	18.0	32.8	SD43
25	25	29	1.5	129	20.0	39.0	SD44
40	40	41	1.5	161	28.6	55.0	SD46
<b>ASME BPE/DIN 11866 series C</b>							
8	1/4"	6.35	0.89	64.5	9.6	18.6	SA90
8	3/8"	9.53	0.89	89	9.6	18.6 (18.9)	SA91
8	1/2"	12.7	1.65	89	9.6	18.6	SA92
15	3/4"	19.05	1.65	102	13.5	25.0	SA93
20	3/4"	19.05	1.65	119	18.0	32.8	SA93
20	1"	25.4	1.65	119	18.0	32.7	SODF
25	1"	25.4	1.65	114	20.0	39.0	SODF
40	1 1/2"	38.1	1.65	140	28.6	55.0	SODH

Diaphragm size	Port connection DN	ØD1	s	L	h	H	Product key <sup>1.)</sup>
<b>BS 4825</b>							
8	8	6.35	1.20	64.5	9.6	18.6	SODB
8	10	9.53	1.20	89	9.6	18.6	SODC
8	15	12.7	1.20	89	9.6	18.6	SODD
15	20	19.05	1.20	102	14.0	25.5	SODE
20	25	25.4	1.65	119	18.0	32.8	SODF
25	25	25.4	1.65	114	20.0	39.0	SODF
40	40	38.1	1.65	140	28.6	55.0	SODH
<b>SMS 3008</b>							
20	25	25	1.2	119	18.0	32.8	SA60
25	25	25	1.2	129	20.0	39.0	SA60
40	40	38	1.2	161	28.6	55.0	SA62
<b>DIN 11850 series 0</b>							
8	4	6	1.0	90	9.6	18.6	SC40
8	6	8	1.0	90	9.6	18.6	SC41
8	8	10	1.0	90	9.6	18.6	SC42
15	15	18	1.5	110	13.5	25.0	SC43
20	20	22	1.5	119	18.0	32.8	SC44
25	25	28	1.5	129	20.0	39.0	SC45
25	32	34	1.5	129	20.0	39.0	SC46
40	40	40	1.5	161	28.6	56.0	SC47

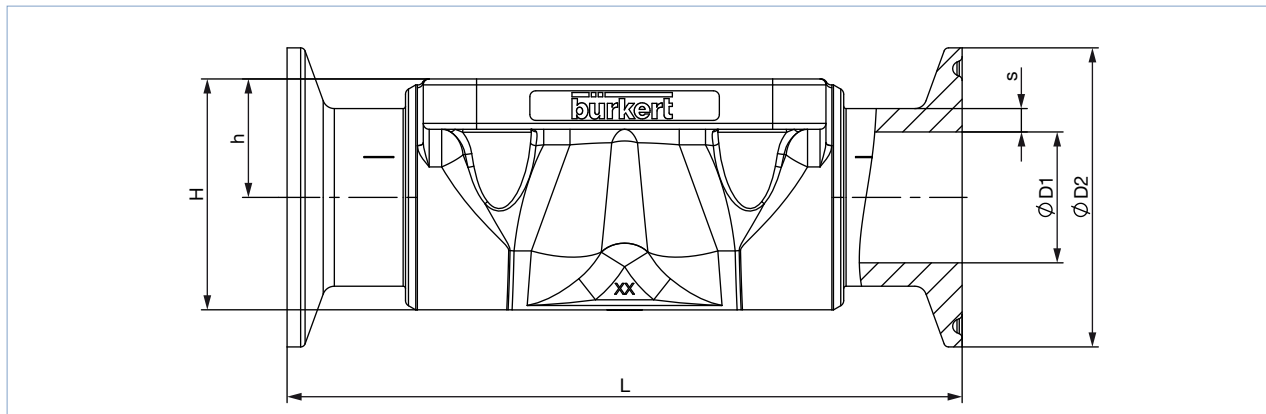
1.) This information is part of the product key (see Product Enquiry Form at the end of this data sheet)



### 4.9. Cast body (VG) with clamp connection

**Note:**

- Dimensions in mm, unless otherwise stated
- For detailed information on the draining angle, please refer to the “Additional manual Type 2xxx 3xxx” on our website (see [operating instructions](#) ▶).



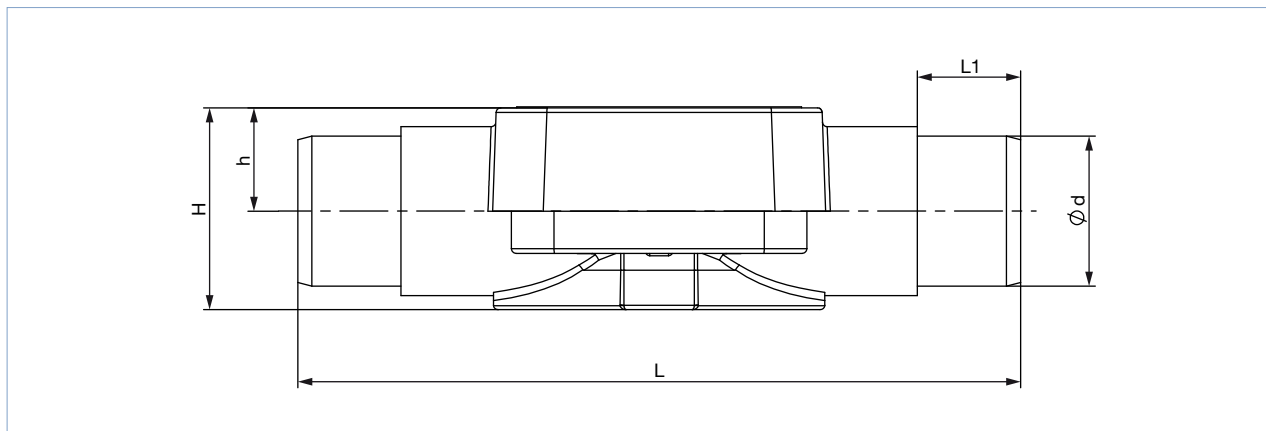
Diaphragm size	Port connection DN	ØD1	s	ØD2	L	h	H	Product key <sup>1.)</sup>
<b>DIN 32676 series B (ISO pipe)</b>								
25	25	33.7	2	50.5	129	20.0	39.0	TC44
40	40	48.3	2	64.0	161	28.6	55.0	TC46
<b>DIN 32676 series A (DIN pipe)</b>								
15	15	19	1.5	34.0	110	13.5	25.0	TD42
20	20	23	1.5	34.0	119	18.0	32.8	TD43
25	25	29	1.5	50.5	129	20.0	39.0	TD44
40	40	41	1.5	50.5	161	28.6	55.0	TD46
<b>ASME BPE</b>								
8	3/8"	9.53	0.89	25.0	89	9.6	18.6	TG01
8	1/2"	12.7	1.65	25.0	89	9.6 (9.3)	18.6	TG02
15	3/4"	19.05	1.65	25.0	102	13.5	23.0	TG03
20	3/4"	19.05	1.65	25.0	117	18.0	25.0	TG03
25	1"	25.4	1.65	50.5	114	18.0	40.0	TG04
40	1 1/2"	38.1	1.65	50.5	140	28.6	55.0	TG05
<b>BS 4825: Clamp BS 4825 -3/pipe BS 4825 - 1</b>								
8	15	12.7	1.2	25	89	9.6	18.9	TH42
15	20	19.05	1.2	25	102	13.5	25.0	TH43
25	25	25.4	1.65	50.5	114	20.0	39.0	TG04
40	40	38.1	1.65	50.5	140	28.6	55.0	TG05
<b>Clamp 34.0 similar to DIN 32676 series B (ISO pipe)</b>								
15	15	21.3	1.6	34	110	13.5	25.0	TC42

1.) This information is part of the product key (see Product Enquiry Form at the end of this data sheet)

#### 4.10. Plastic body (PV; PD; PP) with spigot connections

**Note:**

Dimensions in mm, unless otherwise stated



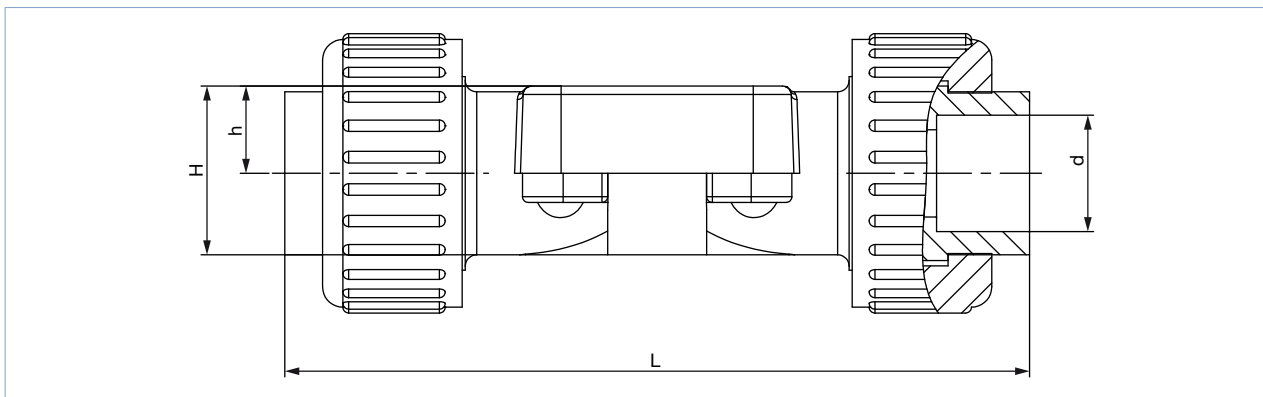
Diaphragm size	Ød	Wall thickness	h	H	L	L1	Product key <sup>1.)</sup>
<b>PVC-U (PV)</b>							
15	20	2.5	15	29	124	16	KS25
20	25	2.5	18.5	36	144	19	KS26
25	32	3.5	22	43	154	22	KS27
32	40	4	27	52.5	174	26	KS28
40	50	5	33	65.5	194	31	KS29
<b>PVDF (PD) and PP (PP)</b>							
15	20	2.5	15	29	124	16	SS25
20	25	2.5	18.5	36	144	19	SS26
25	32	3.5	22	43	154	22	SS27
32	40	4	27	52.5	174	26	SS28
40	50	5	33	65.5	194	31	SS29

1.) This information is part of the product key (see Product Enquiry Form at the end of this data sheet)

#### 4.11. Plastic body (PV, PD, PP) with true union

**Note:**

Dimensions in mm, unless otherwise stated



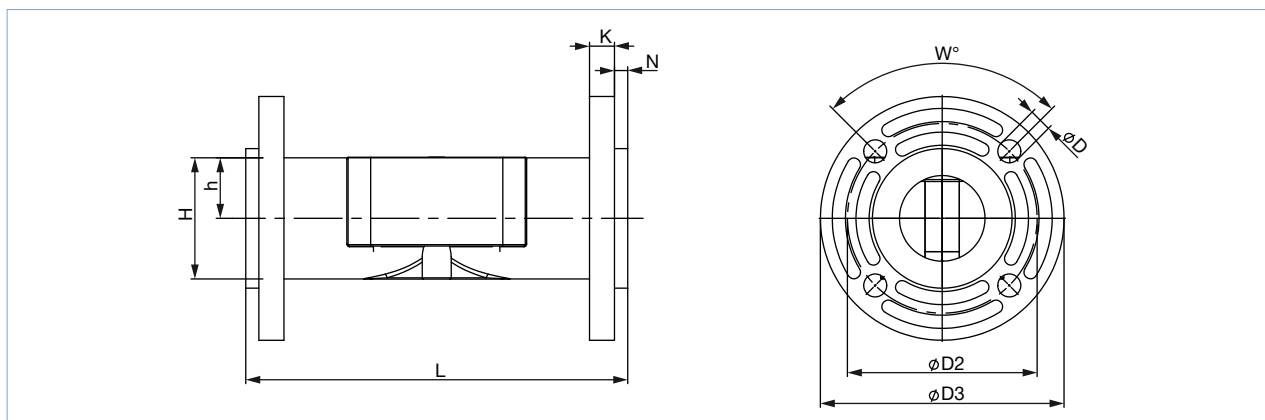
Diaphragm size	L	h	H	Ød	Product key <sup>1.)</sup>
<b>PVC-U (PV)</b>					
15	128	15	29	20	KM25
20	152	18.5	36	25	KM26
25	166	22	43	32	KM27
32	192	27	52.5	40	KM28
40	222	33	65.5	50	KM29
<b>PVDF (PD)</b>					
15	129	15	29	20	SM25
20	150	18.5	36	25	SM26
25	162	22	43	32	SM27
32	184	27	52.5	40	SM28
40	210	33	65.5	50	SM29
<b>PP (PP)</b>					
15	125	15	29	20	SM25
20	146	18.5	36	25	SM26
25	158	22	43	32	SM27
32	181	27	52.5	40	SM28
40	207	33	65.5	50	SM29

1.) This information is part of the product key (see Product Enquiry Form at the end of this data sheet)

### 4.12. Plastic body (PV, PD, PP) with flange connection

**Note:**

Dimensions in mm, unless otherwise stated



Diaphragm size	L	ØD2	ØD3	K	H	h	ØD	W	N	Product key <sup>1.)</sup>
<b>PVC-U (PV), PVDF (PD) and PP (PP)</b>										
15	130	65.5	96	12	–	–	14	4x90°	5.9	FL24
20	150	75	105	14	–	–	14	4x90°	6.9	FL25
25	160	85	115	15	–	–	14	4x90°	6.9	FL26
32	180	100	140	17	–	–	18	4x90°	7.9	FL27
40	200	110	150	17	–	–	18	4x90°	8	FL28

1.) This information is part of the product key (see Product Enquiry Form at the end of this data sheet)

## 5. Performance specifications

### 5.1. Flow characteristics

**Note:**

- The  $K_v$  values may vary slightly with different actuator sizes and diaphragm materials.
- Further  $K_v$  values on request
- Flow rate:  $K_v$  value water (m<sup>3</sup>/h) for elastomer diaphragm
- Measurement at +20 °C, 4 bar at valve inlet and 3 bar at valve outlet

### Forged body (VS)

Dia-phragm size	Port connection		$K_v$ value [m <sup>3</sup> /h]					
	[mm]	[inch]	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	DIN 11850 series 0	BS4825	SMS3008
DN	[mm]	[inch]	[m <sup>3</sup> /h]	[m <sup>3</sup> /h]	[m <sup>3</sup> /h]	[m <sup>3</sup> /h]	[m <sup>3</sup> /h]	[m <sup>3</sup> /h]
8	6	1/8"	–	–	–	1.1	–	–
8	8	1/4"	1.5	–	0.7	1.7	0.5	–
8	10	3/8"	1.5	1.5	1.6	–	1.4	–
8	15	1/2"	–	–	1.5	–	–	–
15	10	3/8"	5.5	3.5	–	–	–	–
15	15	1/2"	6.5	6.5	3.1	–	3.7	–
15	20	3/4"	–	–	6.5	–	–	–
20	20	3/4"	12.5	12.4	8.4	–	8.9	–
25	25	1"	18	20	15.5	–	15.5	16
40	32	1 1/4"	–	34	–	–	–	–
40	40	1 1/2"	41	40	37	–	37	38

## Tube valve body (VP)

Diaphragm size DN	Port connection		K <sub>v</sub> value [m <sup>3</sup> /h]		
	[mm]	[inch]	DIN EN ISO 1127 ISO 4200 DIN 11866 series B [m <sup>3</sup> /h]	DIN 11850 series 2 DIN 11866 series A DIN EN 10357 series A [m <sup>3</sup> /h]	ASME BPE DIN 11866 series C [m <sup>3</sup> /h]
8	8	¼"	1.9	–	–
8	10	⅜"	–	1.9	–
8	15	½"	–	–	1.8
15	10	⅜"	–	–	7.1
15	15	½"	7.2	7.4	–
15	20	¾"	–	7.4	–
20	20	¾"	13.5	–	–
20	25	1"	–	14.9	12.8
25	32	1¼"	–	22.3	–
25	25	1"	20.8	–	–
32	40	1½"	–	34.8	31
40	40	1½"	47.9	–	–
40	50	2"	–	46.2	43

## Cast body (VG)

Diaphragm size DN	Port connection		K <sub>v</sub> value [m <sup>3</sup> /h]
	[mm]	[inch]	
8	8	¼"	1
15	15	½"	5.6
20	20	¾"	10.7
25	25	1"	14.6
40	40	1½"	35

## Plastic body (PV; PD; PP)

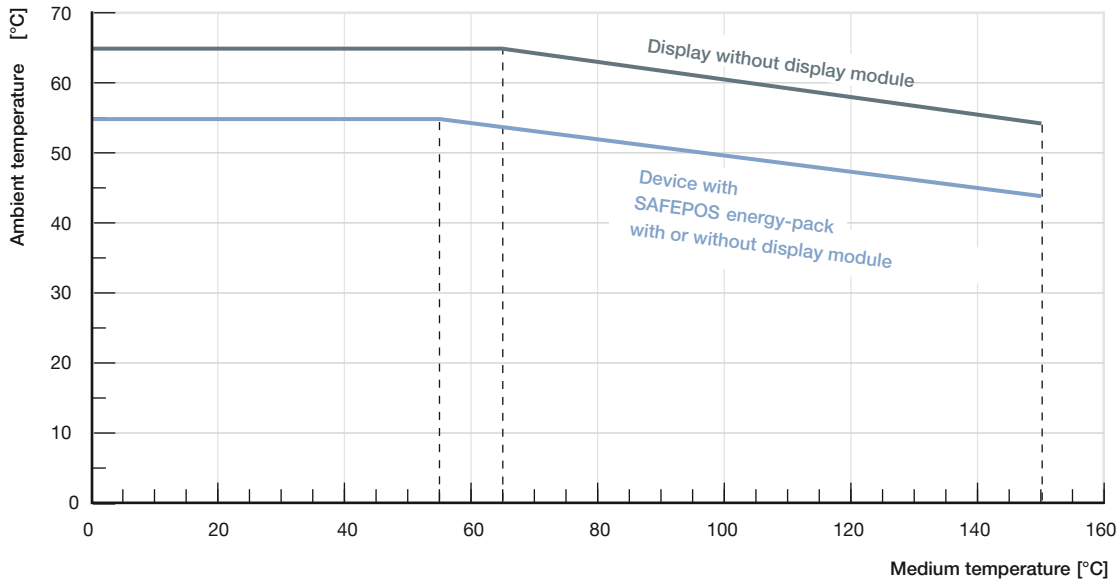
Diaphragm size DN	Port connection		K <sub>v</sub> value [m <sup>3</sup> /h]
	[mm]	[inch]	
15	15	½"	3
20	20	¾"	7
25	25	1"	11.4
32	32	1¼"	17
40	40	1½"	24.5

## 5.2. Medium pressure

Diaphragm size DN	Max. operating pressure for seal material	
	EPDM, FKM [bar]	PTFE/EPDM, advanced PTFE/EPDM, GYLON®/EPDM laminated [bar]
8	10	10
15	10	10
20	10	10
25	10	10
32	8	5.5
40	4	2.5

### 5.3. Ambient and medium temperature

The maximum permissible temperature for the environment and the medium are dependent on each other. The maximum allowable temperature curves of different device variants can be seen in the temperature chart.



### 5.4. Electrical control and interfaces

#### Interface diagram

The position of the actuator is regulated according to the position setpoint. The position setpoint value is specified either by an external standard signal (digital) or via a field bus (digital).

#### Digital control

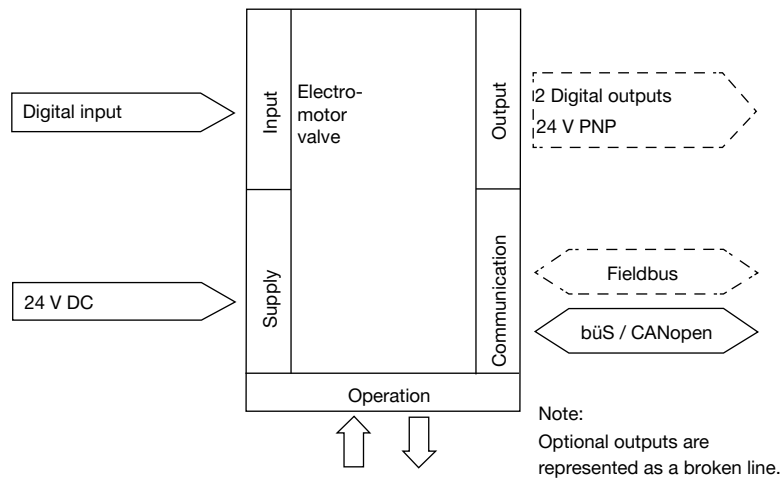
For digital control 2 variants are available for the inputs and outputs and the connection interface.

#### Inputs and outputs:

- 1 digital input, 2 digital outputs

#### Interface:

- Cable gland with connection terminal
- M12 circular plug-in connectors (optional)



Note:  
Optional outputs are represented as a broken line.

Control data	
Digital input	0...5 V = log "0", 10...30 V = log "1" inverted input reversed accordingly
Digital output (optional)	Current limitation 100 mA
Communication	
Communication interface (bÜS)	Connection to PC via USB bÜS interface set
Communication software (bÜS)	Bürkert Communicator, see <b>Type 8920</b> ▶

## 6. Product design and assembly

### 6.1. Product features

**Note**

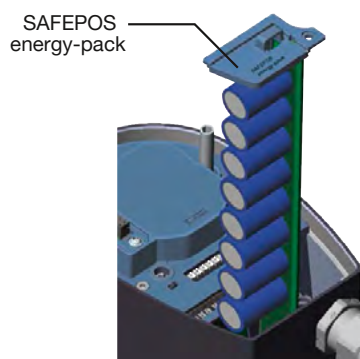
More detailed information can be found in the **operating instructions** ▶.

<p><b>User interface</b></p> <p>Devices without display module: The basic functions are operated by 4 DIP switches and 2 push buttons. These are located under the blind cover which can be removed manually by turning. Through the būs service access, the device can also be configured in detail with the Bürkert Communicator software. For this, the optional USB-būs interface kit is required.</p>	<p><b>Blind cover dismantled</b></p>
<p><b>Actuation</b></p> <p>Mechanical manual override: The manual override for mechanical movement of the valve is located under the blind cover.</p> <p>Electrical manual override: Electrical manual override for the procedure is carried out directly on the touch screen, or in the version without a display by two buttons below the dummy cover.</p>	
<p><b>Display elements</b></p> <p><b>Display</b> 360° LED light ring: A clearly visible 360° LED light ring is attached to the blind cover or display module to indicate the device status, the valve end position and the operating status. The LED light ring lights up, blinks or flashes into one or changing colours, depending on the LED mode set.</p> <p>Mechanical position indicator: The mechanical position indicator shows the current valve position even if the supply voltage fails.</p>	
<p><b>Data transmission (optional)</b></p> <p>SIM card (optional): With the optionally available SIM card, device-specific values and user settings can be stored and quickly transferred to another device.</p>	
<p>būs service interface: The būs service interface connects the device with the Communicator software on a PC, laptop or smartphone. From there a configuration of the device or an error diagnosis can be carried out.</p>	

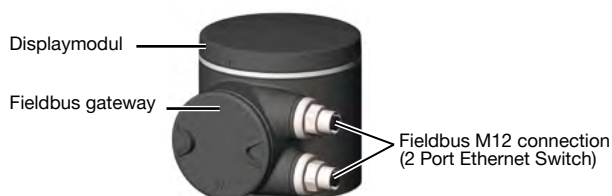
DTS 1000303513 EN Version: L Status: RL (released | freigegeben | valide) printed: 15.04.2021

**Safety position via energy storage (optional)**

The safety starting positions in case of power interruption is realized with the optional energy storage SAFEPOS energy-pack. The desired position is set via the menu. In addition to the end positions (open/closed), any desired intermediate position can be defined here. The energy storage has a lifespan of up to 10 years, depending on the operating conditions. The power of the energy storage is monitored and a warning is displayed to indicate its life is coming to an end. The storage device is designed as a plug-in module to facilitate replacement. Without energy storage, the valve remains in the last position it was in. The energy storage device is fully charged and ready for operation after a maximum of 100 seconds (depending on the operating conditions). The energy storage device cannot be retrofitted in the field.

**Fieldbus: EtherNet/IP, PROFINET, Modbus TCP (optional)**

The fieldbus gateway for EtherNet/IP, PROFINET and Modbus TCP is integrated in an additional module. It has 2 fieldbus connections with 4 pin M12 circular sockets. The interfaces for the fieldbus connection and the status LEDs are located under the gateway housing cover. If there is a need for it to be included in a network then the configuration of the Ethernet can be performed via the web server. The gateway cannot be retrofitted in the field.

**6.2. Product assembly**

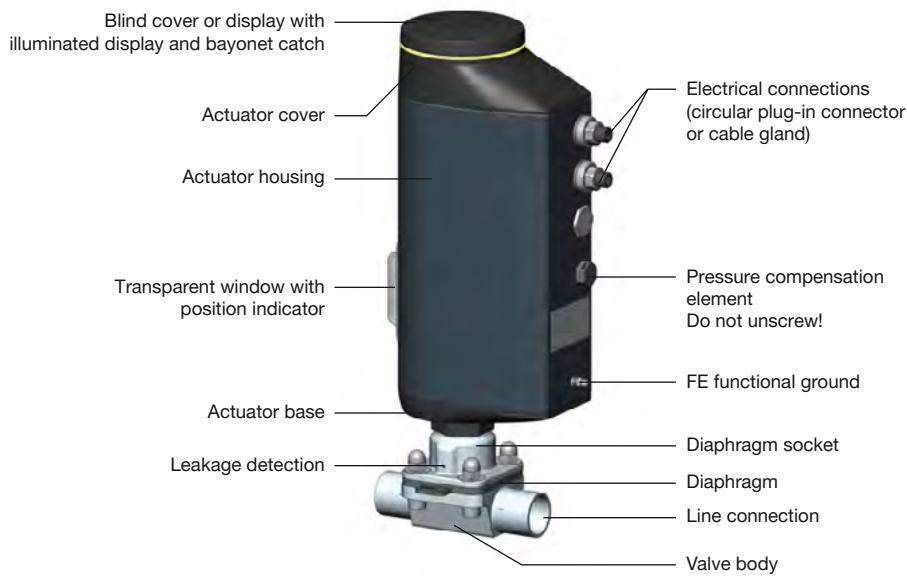
The electromotive linear actuator consists of a brushless direct current motor, gears and a threaded spindle. The valve spindle, which is connected to the threaded spindle, transfers the force to the diaphragm. The electronic control system is actuated either via a standard signal (digital) or via a fieldbus (digital). Optionally there is the energy pack (SAFEPOS energy-pack) for the device. If the supply voltage fails, the energy pack supplies the actuator with the required energy to move the valves into the required position which can be adjusted via a menu.

The valve position can be manually changed in 2 ways. Either over an electrical manual control or over mechanical manual control, if no supply voltage applied. The device can be set and operated either via 2 capacitive buttons and 4 DIP switches. There is also the option of setting the device via the bus Service interface and by using the PC software Bürkert-Communicator.

The intelligent process valve Type 3323 offers options for process monitoring, valve diagnostics and predictive maintenance. The state of the device is monitored and if necessary warnings or error messages for inadmissible environmental and operational conditions, disfunctional components or a critical state of the energy storage are displayed.

For a good diaphragm lifetime the actuator force is adjusted according to diaphragm size by default. It can even be adapted according to the operational conditions for an optimum diaphragm cycle life.





## 7. Ordering information

### 7.1. Bürkert eShop – Easy ordering and quick delivery



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### 7.2. Bürkert product filter



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### 7.3. Ordering chart accessories

**Note:**

For connection to a bus/CANopen network see **cabling guide** ►.

Description	Article no.
<b>Connection cable</b>	
Connection cable with M12 socket, 4 pin, (length 5 m) for operating voltage (without communication)	918038
Connection cable with M12 socket, 8 pin, (length 2 m) for input and output signals	919061
<b>USB-büS interface set</b>	
büS stick set 1 (including power supply unit, bus-stick, terminating resistor, Y-distributor, 0.7 m cable with M12 connector)	772426
büS stick set 2 (including bus-stick, terminating resistor, Y-distributor, 0.7 m cable with M12 connector)	772551
büS adapter for büS interface set (M12 on büS service interface Micro-USB)	773254
<b>büS cable extensions from M12 plug to M12 socket</b>	
Connecting cable, length 1 m	772404
Connecting cable, length 3 m	772405
Connecting cable, length 5 m	772406
Connecting cable, length 10 m	772407
<b>Miscellaneous</b>	
Software Bürkert Communicator	<b>LINK ►</b>
SIM card	291773
Holding device for port connection DN 08...DN 40 <sup>1.)</sup>	697473

1.) Diaphragm size DN 08 includes the bracket in the delivery.

