



### Tank bottom diaphragm valve with pneumatic actuator in stainless steel (Type INOX)

- Valve body and diaphragm are available in various materials and variants
- Wetted surfaces from  $Ra \leq 0.38 \mu m \dots \leq 1.6 \mu m$  (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

	<b>Type SV02</b> Diaphragms	▶
	<b>Type 2034</b> Multifunction block solutions	▶
	<b>Type 2933</b> 2/2-way diaphragm valve with manually operated actuator (basic)	▶
	<b>Type 2036</b> Robolux multiway diaphragm valve, pneumatically operated	▶
	<b>Type 8652</b> AirLINE – the valve island optimised for process automation	▶
	<b>Type 8697</b> Pneumatic control unit for decentralised automation of process valves ELEMENT	▶
	<b>Type 8098</b> FLOWave SAW flowmeter	▶

#### Type description

The externally controlled diaphragm valve Type 2065 consists of a pneumatically operated stainless steel piston actuator, a diaphragm and a tank bottom valve body. The proven and robust actuator with stainless steel housing 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 with a large stainless steel housing, high temperature resistance and gap-free seals. The integration of the automation units Type 8697 is possible in all configuration levels (can be retrofitted). The actuator is equipped with an integrated, optical position indicator as standard.

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## 1. General technical data

Product properties	
Dimensions	Further information can be found in chapter <b>"4. Dimensions"</b> on page 6.
Material	
Block body (VH) <sup>1)</sup>	Bloc material 1.4435 according to DIN EN 10088 and 316 I according to ASTM A479 / A479M
Block body (VI) <sup>1)</sup>	Bloc material 1.4435 according to BN2 and 316L according to ASME BPE table DT- 3
Diaphragm	EPDM (AD) <sup>1)</sup> , PTFE/EPDM (EA) <sup>1)</sup> , Advanced PTFE/EPDM (EU) <sup>1)</sup> , laminate of GYLON® and EPDM (ER) <sup>1)</sup>
Actuator cover	1.4404
Diaphragm socket	1.4308
Diaphragm size	8...50
Standard surface quality	
Block body (VH/VI) <sup>1)</sup>	Internally electrically polished: Ra ≤ 0.38 µm (NO17) <sup>1)</sup> (ASME BPE SF4 / DIN HE4) (external Ra ≤ 1.6 µm) Internally mechanically polished: Ra ≤ 0.5 µm (NO14) <sup>1)</sup> (ASME BPE SF1) (external Ra ≤ 1.6 µm)
Performance data	
Maximum pilot pressure CF A	10.5 bar 7.5 bar for actuator size 130 <sup>1)</sup> See <b>"5.1. Medium pressure"</b> on page 10
Pilot air port	Thread G 1/8
Medium data	
Process medium	Neutral gases and fluids, highly purified, sterile, aggressive or abrasive mediums (see <b>resistance chart</b> ▶)
Medium temperature	
EPDM (AD) <sup>1)</sup>	- 10...+ 143 °C (steam sterilisation + 150 °C for 60 min)
PTFE/EPDM (EA) <sup>1)</sup>	- 10...+ 130 °C (steam sterilisation + 140 °C for 60 min)
PTFE/EPDM (EU) <sup>1)</sup>	- 5...+ 143 °C (steam sterilisation + 150 °C for 60 min)
Laminate of GYLON® and EPDM (ER) <sup>1)</sup>	- 5...+ 130 °C (steam sterilisation + 140 °C for 60 min)
Control medium	Neutral gases, air
Process/Port connection & communication	
Nominal diameter (port connection)	DN 08...DN 65
Port connection <sup>2)</sup>	
Welded connection <sup>2)</sup>	DIN EN ISO 1127 / ISO 4200 / DIN 11866 series B DIN 11850 - 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
Environment and installation	
Installation position	See <b>operating manual Type 2065</b> ▶
Ambient temperature	0 °C...+ 60 °C, autoclavable (according to technical clarification)

1.) This information is part of the product key (see **"8.3. Bürkert Product Enquiry Form"** on page 12).

2.) Other variants are available on request.

## 2. Approvals and conformities

### 2.1. General notes

- The approvals and conformities listed below must be stated when making enquiries. This is the only way to ensure that the product complies with all required specifications.
- Not all available versions can be supplied with the below mentioned approvals or conformities.



### 2.2. Conformity

In accordance with the Declaration of Conformity, the product is compliant with the EU Directives.


### 2.3. Standards

The applied standards which are used to demonstrate compliance with the EU Directives are listed in the EU-Type Examination Certificate and/or the EU Declaration of Conformity.

### 2.4. Explosion protection

Approval	Description																
 	<p><b>Optional: Explosion protection (valid for the variable code PX51)</b> As a category 2 device suitable for zone 1/21 and zone 2/22.</p> <p><b>ATEX:</b> EPS 18 ATEX 2 008 X II 2G Ex h IIC T4...T2 Gb II 2D Ex h IIC T135 °C...T300 °C Db</p> <p><b>IECEx:</b> IECEx EPS 18.0007X Ex h IIC T4...T2 Gb Ex h IIC T135 °C...T300 °C Db</p> <table border="1"> <thead> <tr> <th>Temperature class</th> <th>T2</th> <th>T3</th> <th>T4</th> </tr> </thead> <tbody> <tr> <td>Permissible surface temperature</td> <td>+ 300 °C</td> <td>+ 200 °C</td> <td>+ 135 °C</td> </tr> <tr> <td>Ambient temperature</td> <td>- 40...+ 130 °C</td> <td>- 40...+ 130 °C</td> <td>- 40...+ 100 °C</td> </tr> <tr> <td>Maximum medium temperature</td> <td>+ 285 °C</td> <td>+ 185 °C</td> <td>+ 125 °C</td> </tr> </tbody> </table>	Temperature class	T2	T3	T4	Permissible surface temperature	+ 300 °C	+ 200 °C	+ 135 °C	Ambient temperature	- 40...+ 130 °C	- 40...+ 130 °C	- 40...+ 100 °C	Maximum medium temperature	+ 285 °C	+ 185 °C	+ 125 °C
Temperature class	T2	T3	T4														
Permissible surface temperature	+ 300 °C	+ 200 °C	+ 135 °C														
Ambient temperature	- 40...+ 130 °C	- 40...+ 130 °C	- 40...+ 100 °C														
Maximum medium temperature	+ 285 °C	+ 185 °C	+ 125 °C														

### 2.5. Foods and beverages/Hygiene

Conformity	Description
FDA	<p><b>FDA – Code of Federal Regulations</b> The diaphragms made of EPDM (AD), PTFE/EPDM (EA), Advanced PTFE/EPDM (EU) and laminate of GYLON® and EPDM (ER) comply with the Code of Federal Regulations published by the FDA (Food and Drug Administration, USA).</p>
USP	<p><b>United States Pharmacopeial Convention (USP)</b> The diaphragms made of EPDM (AD), PTFE/EPDM (EA), Advanced PTFE/EPDM (EU) and laminate of GYLON® and EPDM (ER) are tested according to USP Class VI.</p>
	<p><b>EC Regulation 1935/2004 of the European Parliament and of the Council</b> The diaphragms made of EPDM (AD), PTFE/EPDM (EA), Advanced PTFE/EPDM (EU) and laminate of GYLON® and EPDM (ER) are suitable for use with food and beverages (according to EC Regulation 1935/2004/EC).</p>

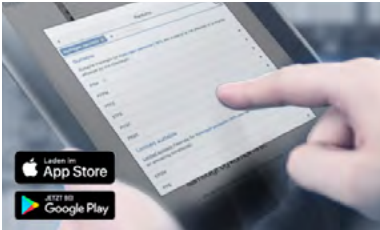
### 2.6. Others

Conformity	Description
TA Luft	<b>Technical instruction on air quality control (valid for the variable code PM01)</b>

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### 3. Materials

#### 3.1. Bürkert resistApp



**Bürkert resistApp – Chemical resistance chart**

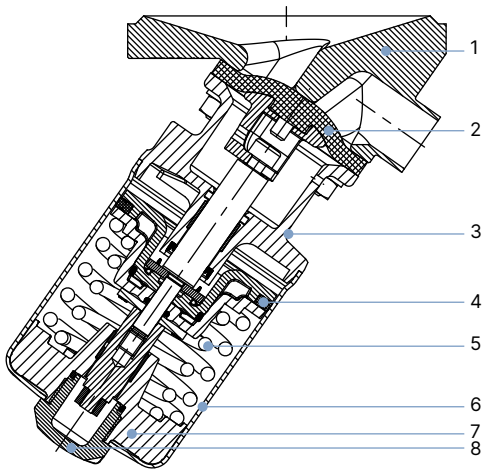
You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

[Start chemical resistance check](#)

#### 3.2. Material specifications

**Note:**

The exemplary representation may differ from the actual product.



No.	Element	Material
1	Valve body	See "1. General technical data" on page 3
2	Diaphragm	EPDM (AD), PTFE/EPDM (EA), Advanced PTFE/EPDM (EU), laminate of GYLON® and EPDM (ER)
3	Actuator base (diaphragm socket)	Stainless steel 1.4308
4	Piston seal	FKM
5	Spring	EN10270 - 2 FDSiCr
6	Actuator cover	Stainless steel 1.4404 (316L)
7	Spring support	Stainless steel 1.4308
8	Transparent cap	Polysulfone PSU

#### 3.3. 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)
- Laminate of GYLON® and EPDM (ER)

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

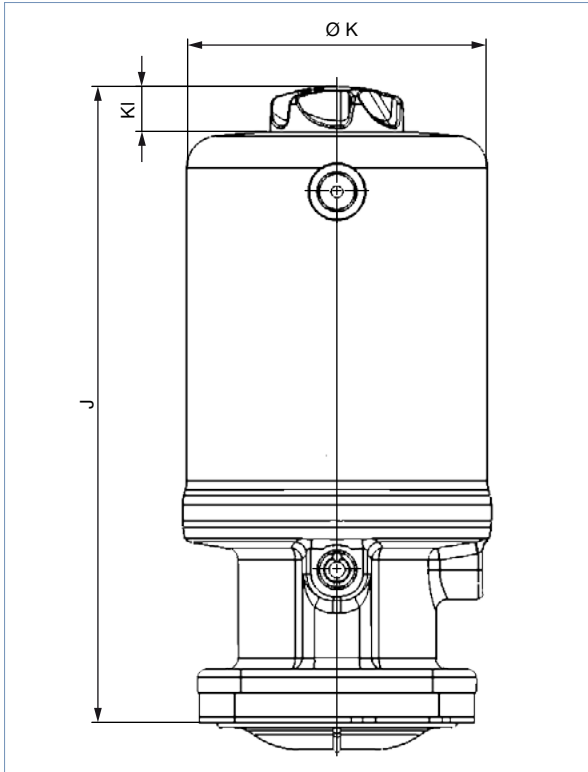
## 4. Dimensions

### 4.1. Actuator

#### INOX actuator

**Note:**

Dimensions in mm, unless otherwise stated

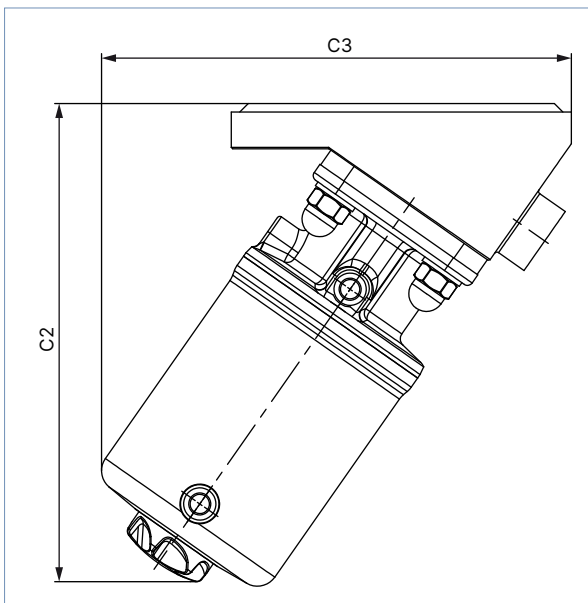


Diaphragm size	Actuator size	J	ØK	KI
15	50 (D)	130	55	11
	70 (M)	139	75	11
20	70 (M)	148	75	11
25	70 (M)	155	75	11
	90 (N)	182	96	14
40	90 (N)	192	96	14
	130 (P)	244	137	14
50	130 (P)	250	137	14

#### INOX actuator with tank bottom body

**Note:**

Dimensions in mm, unless otherwise stated



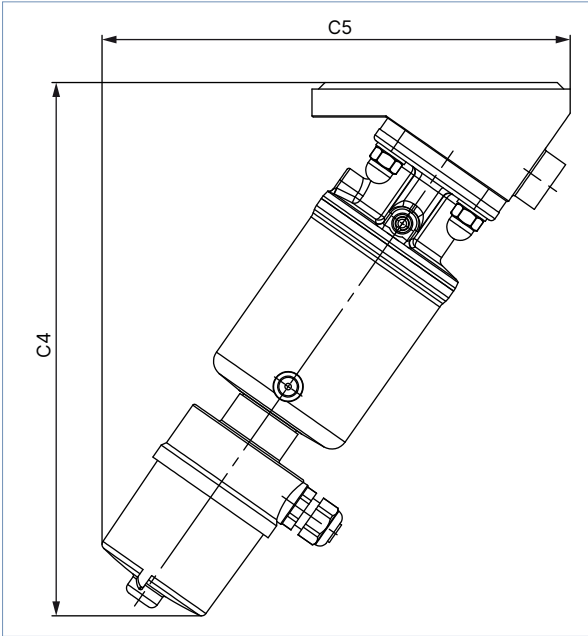
Diaphragm size	Actuator size	C2	C3
15	50 (D)	140	128
	70 (M)	148	140
20	70 (M)	148	166
25	70 (M)	171	166
	90 (N)	196	189
40	90 (N)	217	223
	130 (P)	271	268
50	130 (P)	281	284

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**INOX actuator with control Type 8697**

**Note:**

Dimensions in mm, unless otherwise stated

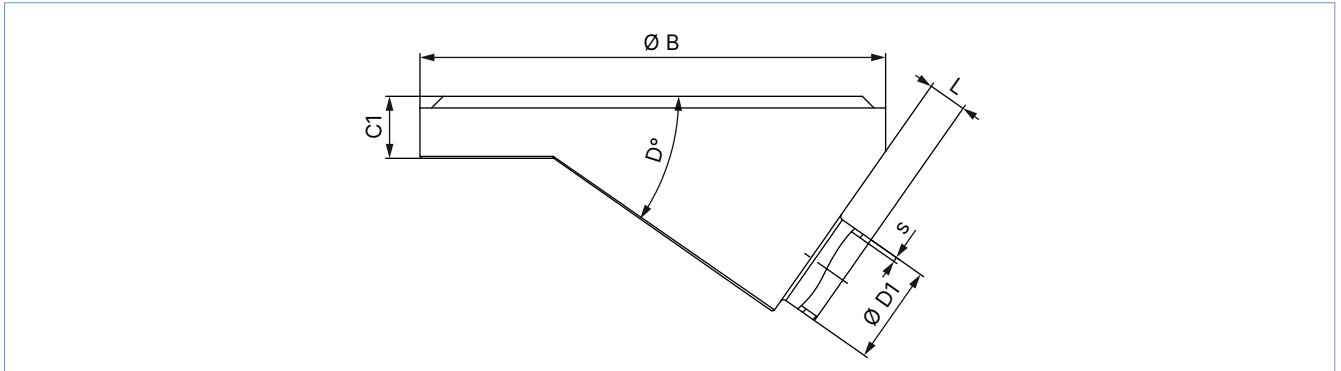


Diaphragm size	Actuator size	C4	C5
15	50 (D)	217.5	181.3
	70 (M)	225.1	186.6
20	70 (M)	236	203.8
	70 (M)	248.2	217.9
25	90 (N)	267.7	231.5
	90 (N)	288.2	265.6
40	130 (P)	331.1	295.7
	130 (P)	342.7	311

### 4.2. Tank bottom body with welded connection

**Note:**

Dimensions in mm, unless otherwise stated



Diaphragm size	Port connection DN	Ø B	C1	D	Ø D1	s	L	Product key <sup>1)</sup>
<b>DIN EN ISO 1127 / ISO 4200 / DIN 11866 series B</b>								
8	8	50	8	35°	13.5	1.6	5	SA40
15	15	65 (Actuator D)	12	35°	21.3	1.6	4	SA42
		85 (Actuator M)					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						15	SA46
50	50	180	22	35°	60.3	2	12	SA47
<b>DIN 11850 - 2 / DIN 11866 series A / DIN EN 10357 series A</b>								
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
<b>ASME BPE / DIN 11866 series C</b>								
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"				15		SODI	
	2½"				11		SODJ	
<b>SMS 3008</b>								
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

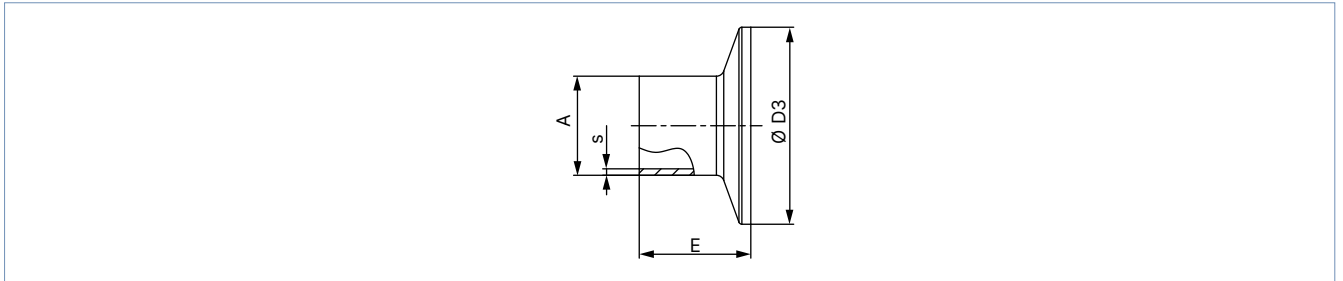
1) This information is part of the product key (see "8.3. Bürkert Product Enquiry Form" on page 12).



### 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 <sup>1.)</sup>
[mm]	[inch]					
<b>DIN 32676 series A (DIN pipe)</b>						
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
<b>DIN 32676 series B (ISO pipe)</b>						
8	–	13.5	1.6	25.0	28.6	TC40
8	–	13.5	1.6	34.0 <sup>2.)</sup>	28.6	TC51 <sup>2.)</sup>
10	–	17.2	1.6	34.0 <sup>2.)</sup>	28.6	TC41 <sup>2.)</sup>
15	–	21.3	1.6	34.0 <sup>2.)</sup>	28.6	TC42 <sup>2.)</sup>
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 <sup>2.)</sup>	28.6	TC45 <sup>2.)</sup>
40	–	48.3	2	64.0	28.6	TC46
50	–	60.3	2	77.5	28.6	TC47
<b>ASME BPE</b>						
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 "8.3. Bürkert Product Enquiry Form" on page 12).

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

## 5. Performance specifications

### 5.1. Medium pressure

#### Information for control function A

**Note:**

- For low operating pressures, optional variants with reduced spring force are recommended.
- Pressure data [bar]: Overpressure to atmospheric pressure. The valve closes dynamically against maximum operating pressure.
- Information for control function B and I is available on request.

Diaphragm size	Actuator size Ø	Pilot pressure	Maximum operating pressure for seal material	
			EPDM, FKM	PTFE/EPDM, advanced PTFE/EPDM, laminate of GYLON® and EPDM
DN	[mm]	[bar]	[bar]	[bar]
8	32 (B)	5.5...10.5	10	6
15	50 (D)	5.0...10.5	8.5	5
	70 (M)		10	10
20	70 (M)	5.0...10.5	10	10
25	70 (M)	5.0...10.5	6.5	4.5
	90 (N)		10	8
32	90 (N)	5.0...10.5	8	6
40	90 (N) <sup>1)</sup>	5.5...10.5	5.5	5
	130 (P)		10	10
50	130 (P)	5.0...7.5	8	7

1.) The Gylon variant is not available.

## 6. Product accessories

**Note:**

Further position feedbacks can be found on our [website](#) ▶.

Electric position feedback indicator	
Type 8697 ▶ Actuator size Ø 50...130 mm	
	<p>The position feedback Type 8697 is designed for integrated mounting on CLASSIC series 20XX process valves, suiting the requirements of hygienic process environments. Mechanical or inductive limit switches register the position of the valve.</p> <p><b>Features</b></p> <ul style="list-style-type: none"> <li>• Compact design</li> <li>• LED position indicator</li> <li>• Mechanical or inductive limit switches for end position registering</li> <li>• Easy-to-clean clean chemically resistant housing featuring IP65/IP67, 4X Rating</li> <li>• Optionally intrinsically safe variant according to IECEx</li> </ul> <p><b>Customer benefits</b></p> <ul style="list-style-type: none"> <li>• Easy and quick installation</li> <li>• High level of signal reliability thanks to self-adjusting limit switches</li> <li>• Minimised space requirement in the plant piping for more flexibility in plant design</li> </ul>

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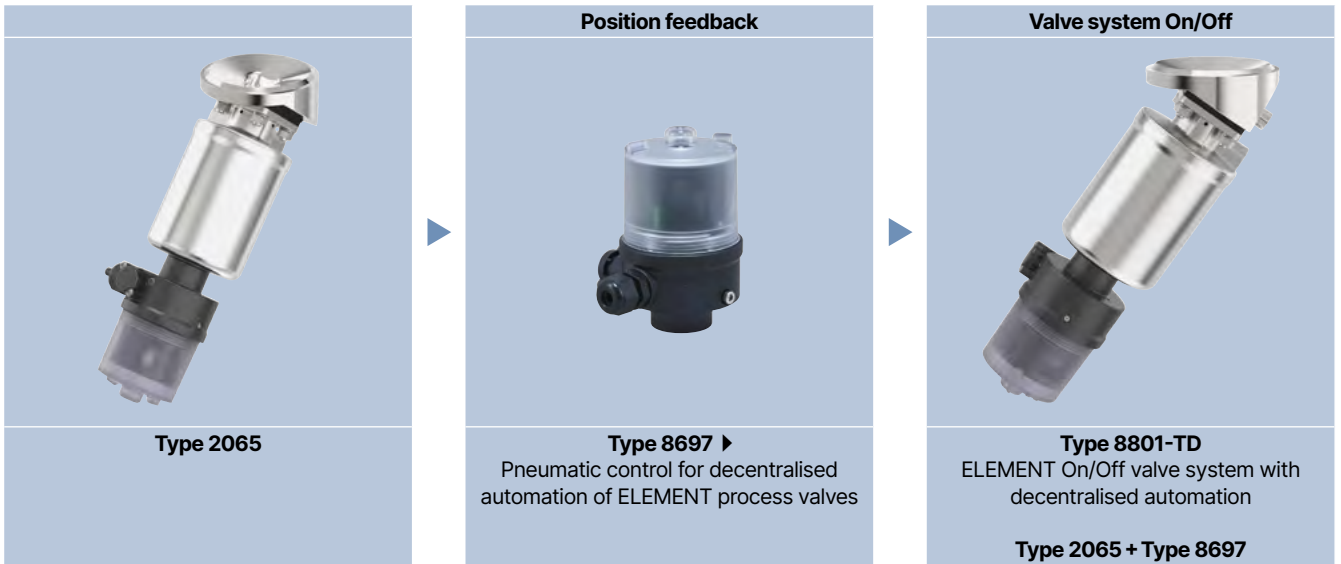
## 7. Networking and combination with other Bürkert products

**Note:**

The **On/Off valve system** with **stainless steel actuator Type 8801-TD**, consists of a **diaphragm valve Type 2065** and an **electrical position feedback Type 8697**.

You order two components and receive a completely assembled and tested valve.

**Example:**



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## 8. Ordering information

### 8.1. 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](#)

### 8.2. Bürkert product filter



#### Bürkert product filter – Get quickly to the right product

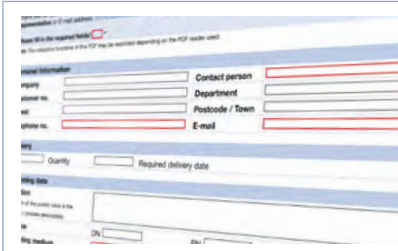
You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

[Try out our product filter](#)

### 8.3. 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](#)