



## 2/2-way WhisperValve with media separation

- Highest chemical resistance combined with minimum internal volume
- Compact design with 7 mm installation width
- Orifice 0.8 mm
- Switching noise < 36 dB
- For dosing applications with excellent cleanability

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

### Can be combined with

	<p><b>Type 8763</b> ▶ Pressure controller for precise time-pressure dosing</p>
	<p><b>Type 2503</b> ▶ Cable plug for whisper valve Types 6712 and 6724</p>

### Type description

Fluidic “point-of-care” applications, such as dialysis or artificial respiration, and “point-of-use” applications, such as at pipetting arms in biological analysis, present special requirements. The media-separated Whisper Valve Type 6712 was developed for precisely these applications. It sets new benchmarks particularly with low switching noise and excellent cleanability. The Type 6712 is also the first choice in industrial applications, such as inkjet printers. The valve’s modular design and available material variants means that it can be used with practically all liquids and gases in the fields of life sciences and industrial applications. This is a valve that combines dosing accuracy and cleanability.

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## 1. General technical data

Product properties	
Dimensions	Further information can be found in chapter "5. Dimensions" on page 6.
Material	
Seal	FFKM or EPDM
Fluidic housing	PEEK or PPS
Internal volume	Fluid chamber: approx. 2 µl Total (including connections): approx. 5 µl
Orifice	DN 0.8 DN 0.4 (on request)
Circuit function	A Further information can be found in chapter "2. Circuit functions" on page 4.
Typical product service life	30 million switching cycles (according to laboratory endurance test) <sup>1)</sup>
Performance data	
Pressure ranges	
DN 0.8	FFKM 0...3 bar <sup>2)</sup> EPDM 0...2.5 bar <sup>2)</sup>
DN 0.4 (on request)	FFKM 0...5 bar <sup>2)</sup> EPDM 0...5 bar <sup>2)</sup>
Pressure at the outlet (back pressure)	
DN 0.8	FFKM 0...1.2 bar <sup>2)</sup> EPDM 0...0.8 bar <sup>2)</sup>
DN 0.4 (on request)	FFKM 0...1.8 bar <sup>2)</sup> EPDM 0...1.5 bar <sup>2)</sup>
Duty cycle	100 % continuous operation
Switching noise	36 dB(A) <sup>3)</sup>
Switching time <sup>4)</sup>	Opening: approx. 0.9 ms (pressure build-up 0...10 %) Closing: approx. 1.8 ms (pressure release 100...90 %)
Electrical data	
Operating voltage	12 V DC or 24 V DC
Nominal power	0.9 W <sup>5)</sup>
Switching frequency	50 Hz
Voltage tolerance	± 10 % (including residual ripple)
Medium data	
Operating medium	Resistant to neutral and aggressive gases and liquids Further information can be found in chapter "4.1. Bürkert resistApp" on page 5.
Medium temperature	FFKM: + 10 °C...+ 55 °C EPDM: 0 °C...+ 55 °C
Viscosity	Max. 21 mm <sup>2</sup> /s
Process/Port connection & communication	
Electrical connection	Cable plug <b>Type 2503</b> ▶ with grid dimension 2 mm <sup>6)</sup> (see chapter "Cable plug Type 2503" on page 9) Single flying leads, AWG 26, 500 mm
Port connection	Bürkert flange (7 × 18.2 mm) (on request)
Approvals and conformities	
Degree of protection	IP10 with cable plug <b>Type 2503</b> ▶ IP40 with flying leads (on request)
Foods and beverages/Hygiene	FDA (on request only with seal material EPDM) Further information can be found in chapter "3.4. Foods and beverages/Hygiene" on page 4.
Environment and installation	
Installation position	As required, preferably with actuator upright
Ambient temperature	FFKM: + 10 °C...+ 55 °C EPDM: 0 °C...+ 55 °C

1.) Service life depends on the type of medium, the temperature, the pressure, the seal material, control and the specific operational conditions. The use of a freewheeling diode is recommended to extend the service life.

2.) Relative pressure; no vacuum possible. With optional boost electronics (see "6.4. Ordering chart accessories" on page 9) pressure ranges increase.

3.) Tested under Bürkert test conditions. The value may deviate under different conditions.

4.) Typical switching time measured between valve outlet and a flow resistance according to DIN ISO 12238:2001 at 25 °C; switching time depends on temperature, pressure and sealing material.

5.) No further power reduction possible

6.) Please order cable plug with flying leads separately (see "Cable plug Type 2503" on page 9). For other suitable push-in connectors see data sheet **Type 2503** ▶

## 2. Circuit functions

Symbol	Description
	<b>Circuit function A (CF A)</b> 2/2-way solenoid valve Direct-acting Normally closed

## 3. Approvals and conformities

### 3.1. 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.

### 3.2. Conformity

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

### 3.3. 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.


### 3.4. Foods and beverages/Hygiene

Conformity	Description
FDA	<b>FDA – Code of Federal Regulations (valid for the variable code PL02, PL03)</b> All wetted materials are compliant with the Code of Federal Regulations published by the FDA (Food and Drug Administration, USA) according to the manufacturer's declaration.

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## 4. Materials

### 4.1. Bürkert resistApp



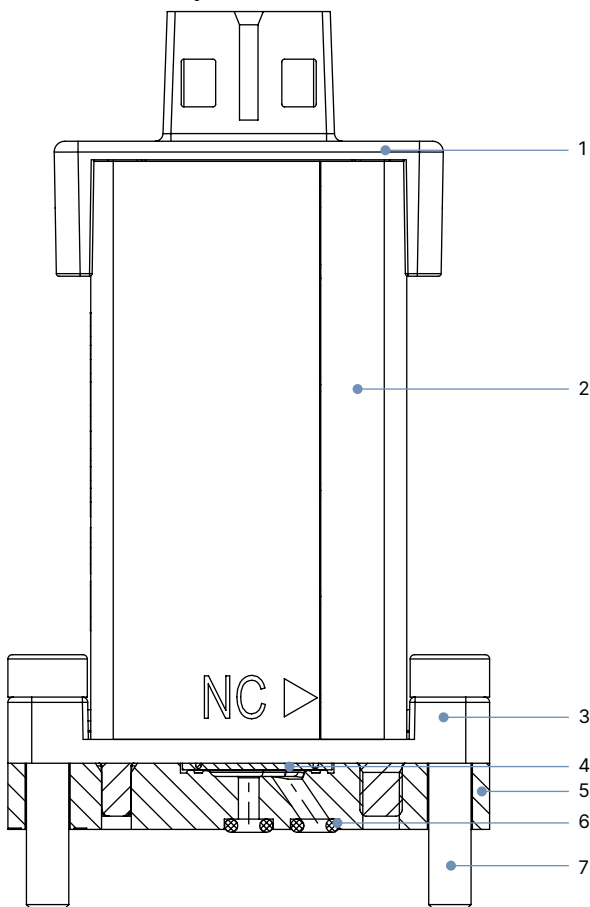
**Bürkert resistApp – Chemical resistance chart**

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**

a

### 4.2. Material specification



No.	Element	Material
1	Cover	PPS
2	Coil housing	Nickel-plated
3	Valve body	PPS
4	Diaphragm <sup>1.)</sup>	FFKM or EPDM
5	Fluidic housing <sup>1.)</sup>	PEEK or PPS
6	Flange seal <sup>1.)</sup>	FFKM or EPDM
7	Fixing screw	Stainless steel

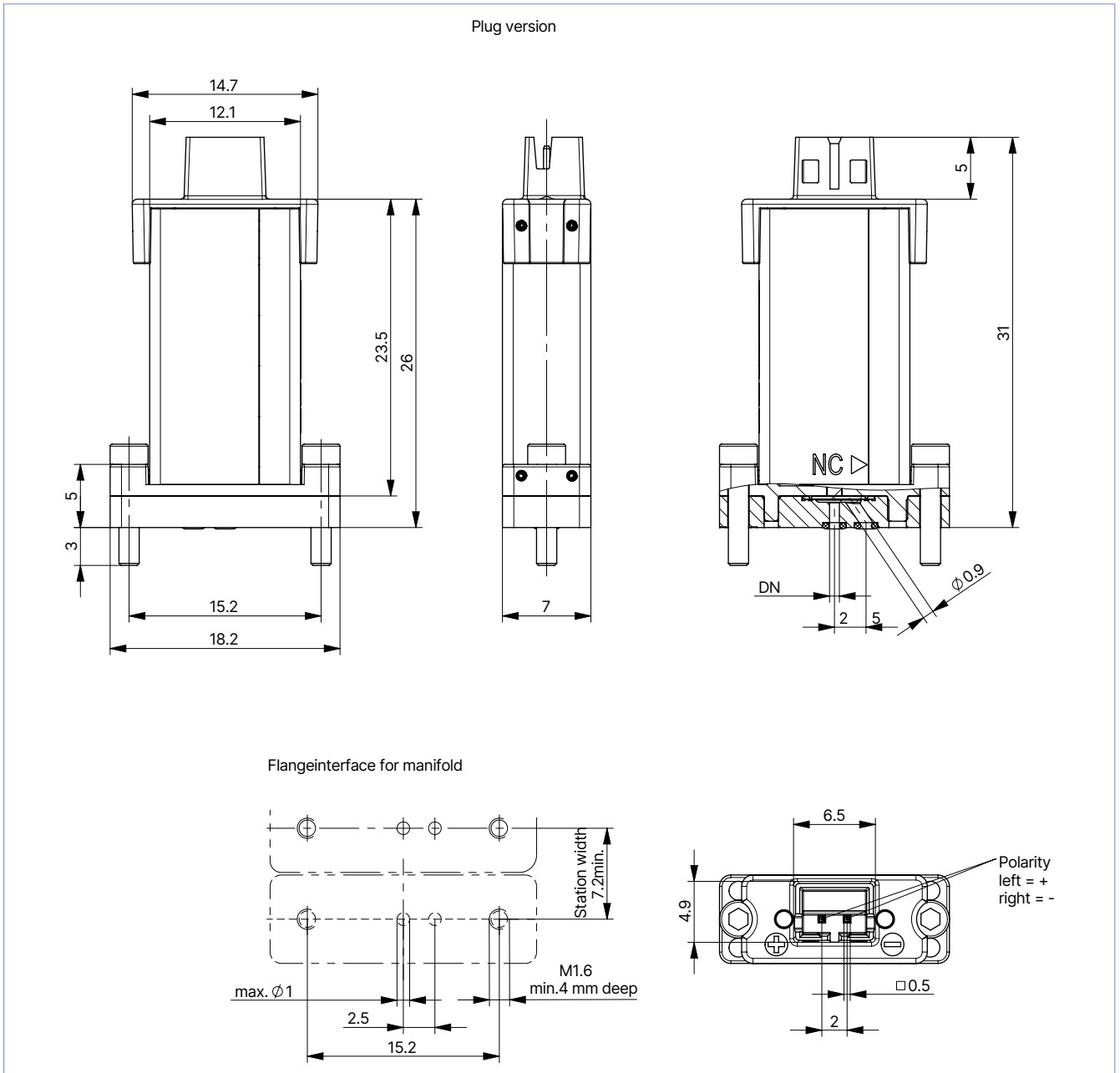
1.) in contact with medium

## 5. Dimensions

### 5.1. Valve with plug

**Note:**

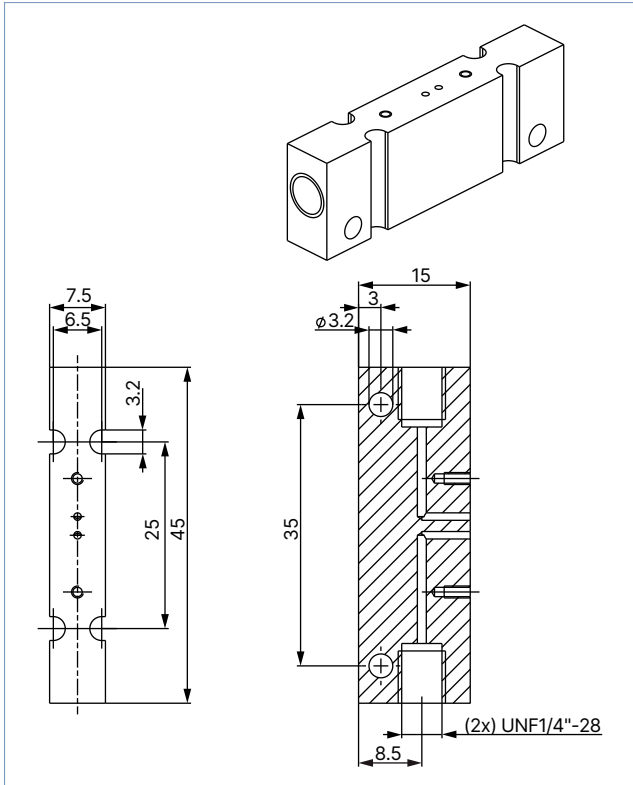
Dimensions in mm



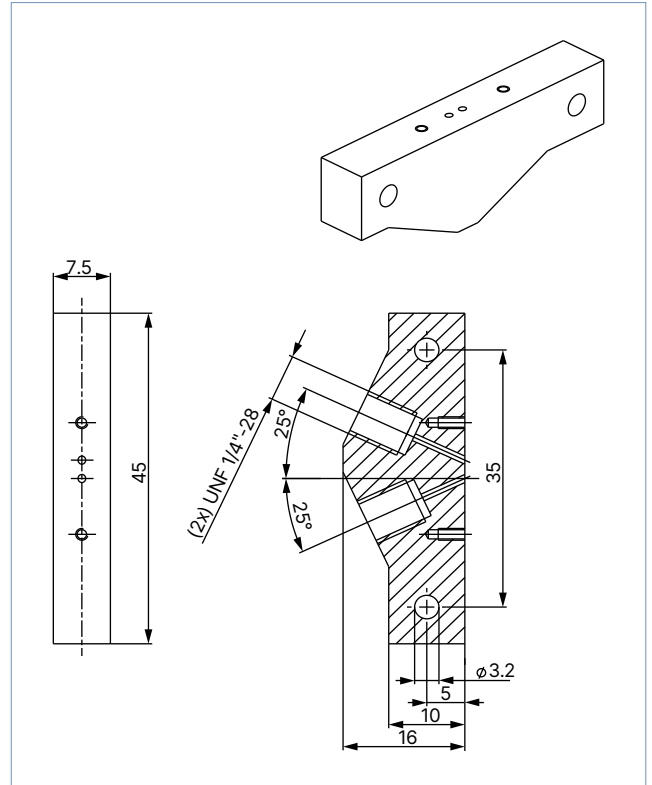
### 5.2. Manifolds

**Note:**

- Dimensions in mm
- 1x manifold with UNF 1/4"- 28 working ports
- Delivery without valve
- Customised manifolds on request



Description	Article no.
Manifold UNF 1/4"- 28 PEEK	694895




Description	Article no.
Manifold UNF 1/4"- 28 PEEK (low internal volume)	695956

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## 6. Ordering information

### 6.1. Bürkert eShop

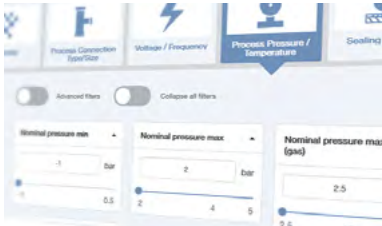


**Bürkert eShop – Easy ordering and quick delivery**

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**

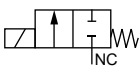
You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

Try out our product filter

### 6.3. Ordering chart

**Note:**

- Connectors with stranded wire or electronics type 2503 are not included in the scope of delivery and must be ordered separately (see “6.4. Ordering chart accessories” on page 9).
- Including fixing screws for flange connection: 2 stainless steel cylinder screws ISO 4762 M1.6 × 8

Circuit function	Port connection	Orifice	Q <sub>Nn</sub> value air <sup>1)</sup>	K <sub>v</sub> value water <sup>2)</sup>	C <sub>v</sub> value water	Voltage/ Frequency	Pressure range	Max. back pressure at the outlet	Body material	Seal material	Electrical connection	Article no.					
		[mm]	[l/min]	[m³/h]	[gpm]												
<b>CF A</b> 2/2-way solenoid valve Direct-acting Normally closed 	Bürkert flange	0.8	13.1	0.012	0.014	12 V/DC	0...3	1.2	PEEK	FFKM	Plug	00273231					
						24 V/DC						00320504					
						12 V/DC						00273235					
						24 V/DC	0.8	PPS	EPDM	00394634							
																	20094500

1.) Measurement at +20 °C, 1 bar at the valve inlet and 1 bar differential pressure  
 2.) Measurement at +20 °C, 1 bar at the valve inlet and free outlet

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### 6.4. Ordering chart accessories

#### Manifolds



**Note:**

Refer to chapter "5.2. Manifolds" on page 7 for more order information.


#### Cable plug Type 2503

**Note:**

Special custom-built manifolds are available on request.

Accessories	Description	Article no.
	Cable plug with 500 mm flying leads AWG 24 For further information please refer to data sheet <a href="#">Type 2503</a> ▶.	689974
	Cable plug with 500 mm flying leads and boost-close electronics to increase the permissible pressure under NC. For further information refer to the operating instructions for <a href="#">Type 2503</a> ▶ <a href="#">BoostClose</a> or see data sheet <a href="#">Type 2503</a> ▶.	689998

#### Fittings and hoses

Accessories	Description	Article no.
	Fittings and hoses for UNF connections and hoses see type <a href="#">Type TVU003</a> ▶.	see data sheet <a href="#">TVU003</a> ▶

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