





2/2 or 3/2-way Whisper Valve with media separation

- Highest chemical resistance
- Compact design with 8.9 mm installation width
- DN 0.8 mm (vacuum up to 5 bar) and 1.2 mm (vacuum up to 3 bar)
- Very fast, almost silent switching with <20 dB (A) and very low power consumption
- High back-pressure tightness, excellent cleanability and 100 % duty cycle

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

Can be combined with

- | | |
|---|--|
|  | Type 2503 ▶
Cable plug for whisper valve Types 6712 and 6724 |
|  | Type 8763 ▶
Pressure controller for precise time-pressure dosing |

Type description

Many fluidic processes moving closer to where they are actually required. In the field of medical devices, for example, treatments such as dialysis can be provided to patients in convenient surroundings at home. Washing units in analytical equipment are positioned on the pipetting arm or directly on the print head in printing applications. This imposes different requirements on the components used. Solenoid valves must be able to switch without being heard. They need to be smaller and lighter to be used in mobile devices. However, their ability to achieve a long service life and excellent switching characteristics is every bit as important. The Whisper Valve Type 6724 combines all of these traits and, thanks to its modular structure and range of available material variants, this valve is universally applicable.

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1. General technical data

Product properties	
Dimensions	Detailed information can be found in chapter "5. Dimensions" on page 5.
Materials	
Body	PEEK or PPS
Seal	FFKM, EPDM or FKM
Typical product service life	10 million switching cycles (acc. to laboratory duration tests) ¹⁾
Internal volume	Bürkert flange (9 x 26): approx. 38 µl Bürkert flange (26 x 57) horizontal: approx. 79 µl Threaded version UNF ¼"-28: approx. 59 µl Tube connector: approx. 68 µl
Nominal diameter	DN 0.8 or DN 1.2
Circuit functions	Detailed information can be found in chapter "3. Circuit functions" on page 4.
Performance data	
Pressure range	Detailed information can be found in chapter "6.1. Medium pressure" on page 10.
Switching noise	30 dB (A) (<20 dB (A) on request ²⁾)
Switching times ³⁾	Opening: approx. 3 ms (Pressure build-up 0...10 %) Closing: approx. 3 ms (Pressure reduction 100...90 %)
Duty cycle	100 % continuous operation
Electrical data	
Power supply	12 V DC, 24 V DC (other voltages on request)
Voltage tolerance	± 10 % (incl. residual ripple)
Power consumption	1 W ⁴⁾
Medium data	
Operating medium	Resistant to neutral and aggressive gases and liquids. For more detailed information, see the chapter "4.1. Chemical Resistance Chart – Bürkert resistApp" on page 4.
Viscosity (max.)	21 mm ² /s
Medium temperature	FFKM: + 15 °C...+ 50 °C (59 °F...122 °F) FKM: 0 °C...+ 50 °C (32 °F...122 °F) EPDM: 0 °C...+ 50 °C (32 °F...122 °F)
Approvals and Certificates	
Suitable for food industry	FDA – on request, only with sealing material EPDM
Suitable for drinking water	KTW (W270) – on request, only with sealing material EPDM
Oxygen application	Oxygen suitability of materials in contact with fluid (BAM) – on request, only with sealing material FKM
Protection class	IP40 acc. to IEC 60144
Process/Port connection & communication	
Port connection	Bürkert flange (9 x 26) Bürkert flange (26 x 57) horizontal Threaded version UNF ¼"-28 Tube connector version
Electrical connection ⁵⁾	Plug with detent, pin spacing 2 mm, see data sheet Type 2503 ▶
Environment and installation	
Installation	As required, preferably with actuator upright
Ambient temperature	FFKM: + 15 °C...+ 50 °C (59 °F...122 °F) FKM: 0 °C...+ 50 °C (32 °F...122 °F) EPDM: 0 °C...+ 50 °C (32 °F...122 °F)

1.) Service life depends on the type of medium, the temperature, the pressure, the seal material and the specific operational conditions.

2.) <20 dB(A) with the optional possibility of soft close electronics

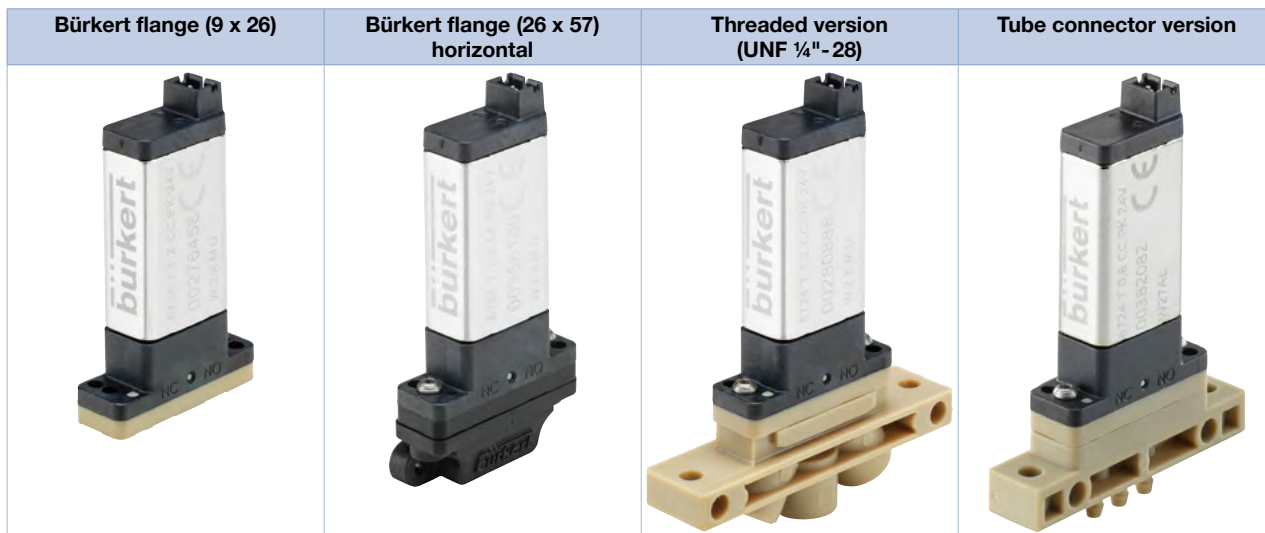
3.) Measurement at valve output at 2 bar and 20 °C acc. to DIN ISO 12238:2001

4.) No further power reduction possible

5.) Please order socket with flying leads separately (see "7.4. Ordering chart accessories" on page 12).

Other suitable connectors are, for example W+P: Series 521 (socket 521S-02-1; contact 521S-01-2-00) or JST (socket PHR-2; contact SPH-002GW-P0.5S), version 04/2015). As a PCB connector we recommend a pin size of 0.5 x 0.5 mm, grid size 2 mm and a maximum size of the connector of 4.9 x 2.5 mm. E.g. Samtec SQT-102-01-x-S (x=L or F) or W+P Series 257 Part No. 257-002-1-1-50-00-6.

2. Product versions



3. Circuit functions

Circuit functions	Description
	Type: A, Solenoid valve 2/2 way Direct acting Normally closed
	Type: B, Solenoid valve 2/2 way Direct acting Normally open
	Type: T, Solenoid valve 3/2 way Direct acting Flow direction optional

4. Materials

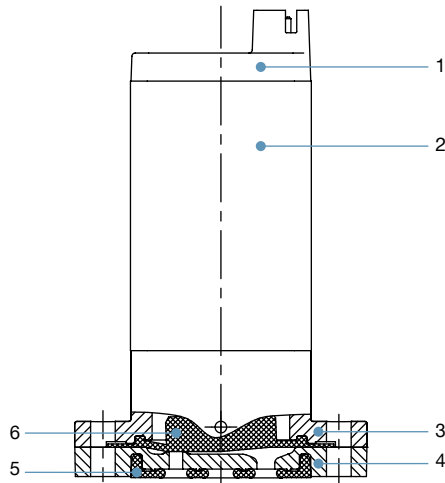
4.1. Chemical Resistance Chart – Bürkert resistApp

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](#)

4.2. Material specifications



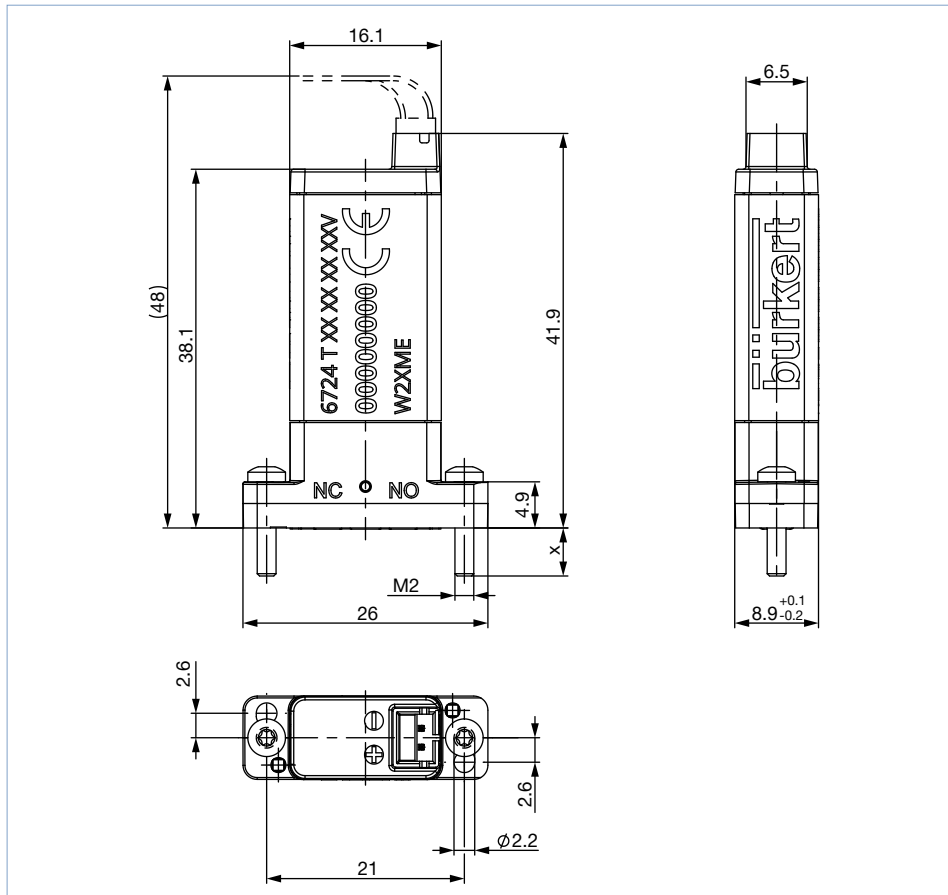
No.	Element	Material
1	Cap	LCP
2	Coil housing	nickel-plated
3	Valve body	LCP or PPS
4	Fluid housing (medium contact)	PEEK or PPS
5	Flange seal (medium contact)	FFKM, FKM or EPDM
6	Diaphragm (medium contact)	FFKM, FKM or EPDM

5. Dimensions

5.1. Bürkert flange (9 x 26)

Note:

- Dimensions in mm
- Including fastening screws M2 x 10

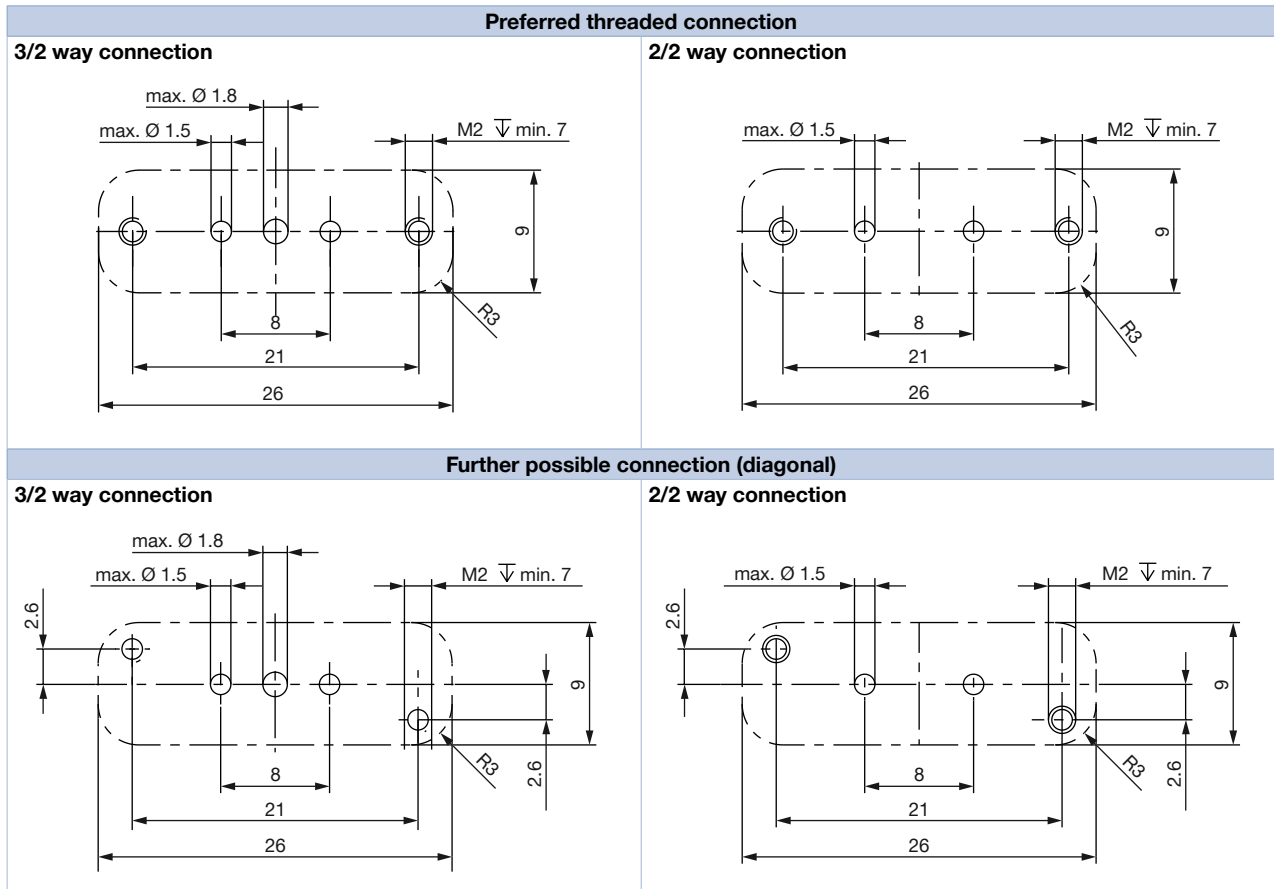


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5.2. Bürkert flange (9 x 26) interface

Note:

Dimensions in mm

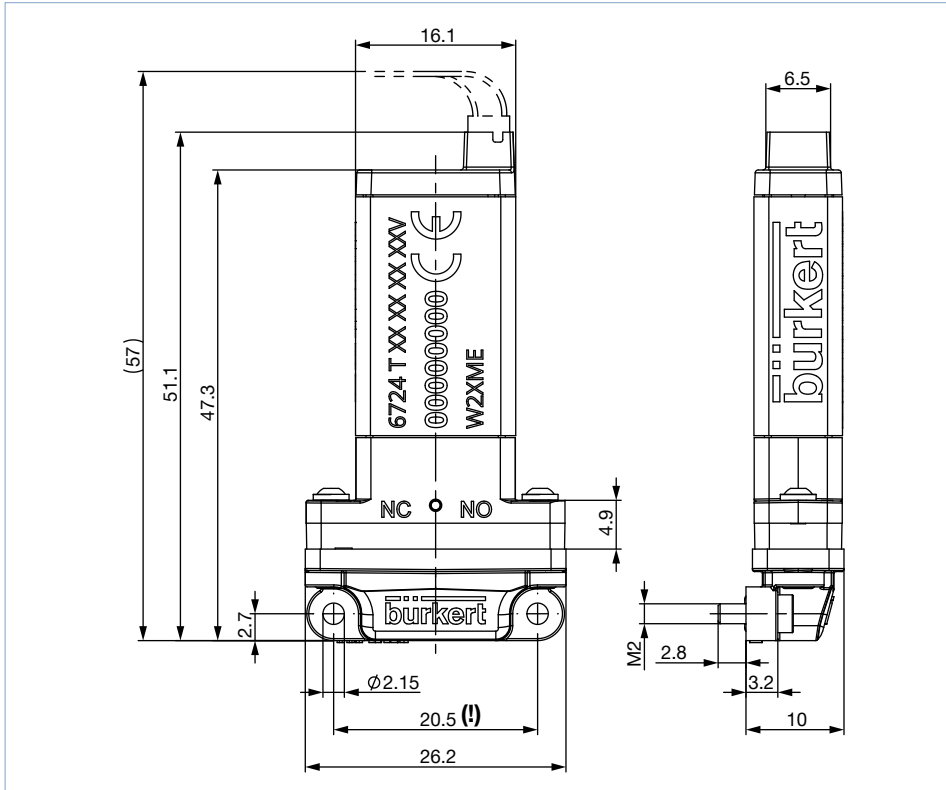


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5.3. Bürkert flange (26 x 57) horizontal

Note:

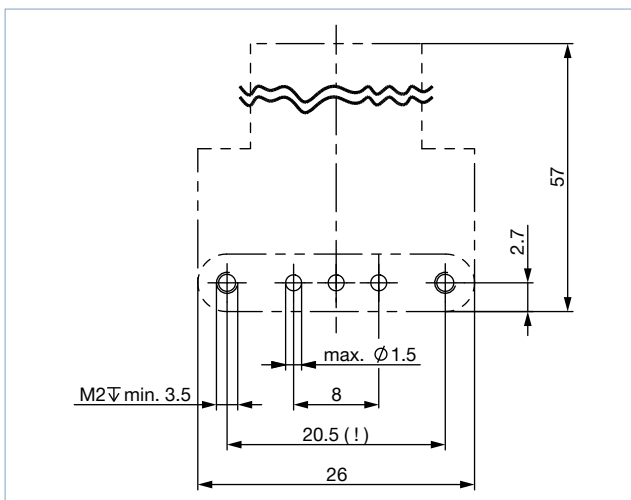
- Dimensions in mm
- Optional: Flange can be turned by 180°
- Including fastening screws M2 x 6



5.4. Bürkert flange (26 x 57) interface

Note:

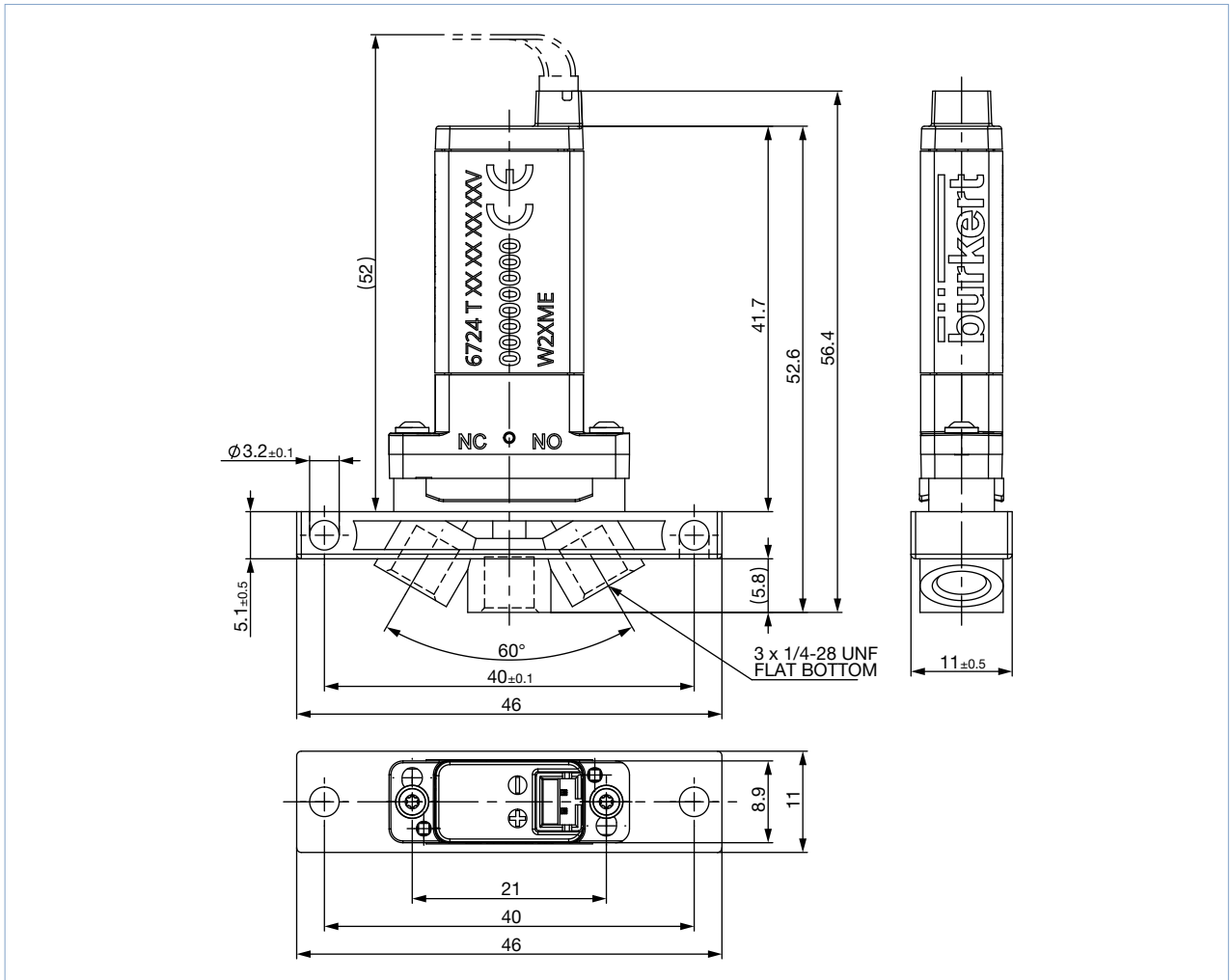
Dimensions in mm



5.5. Threaded port version (UNF 1/4"-28)

Note:

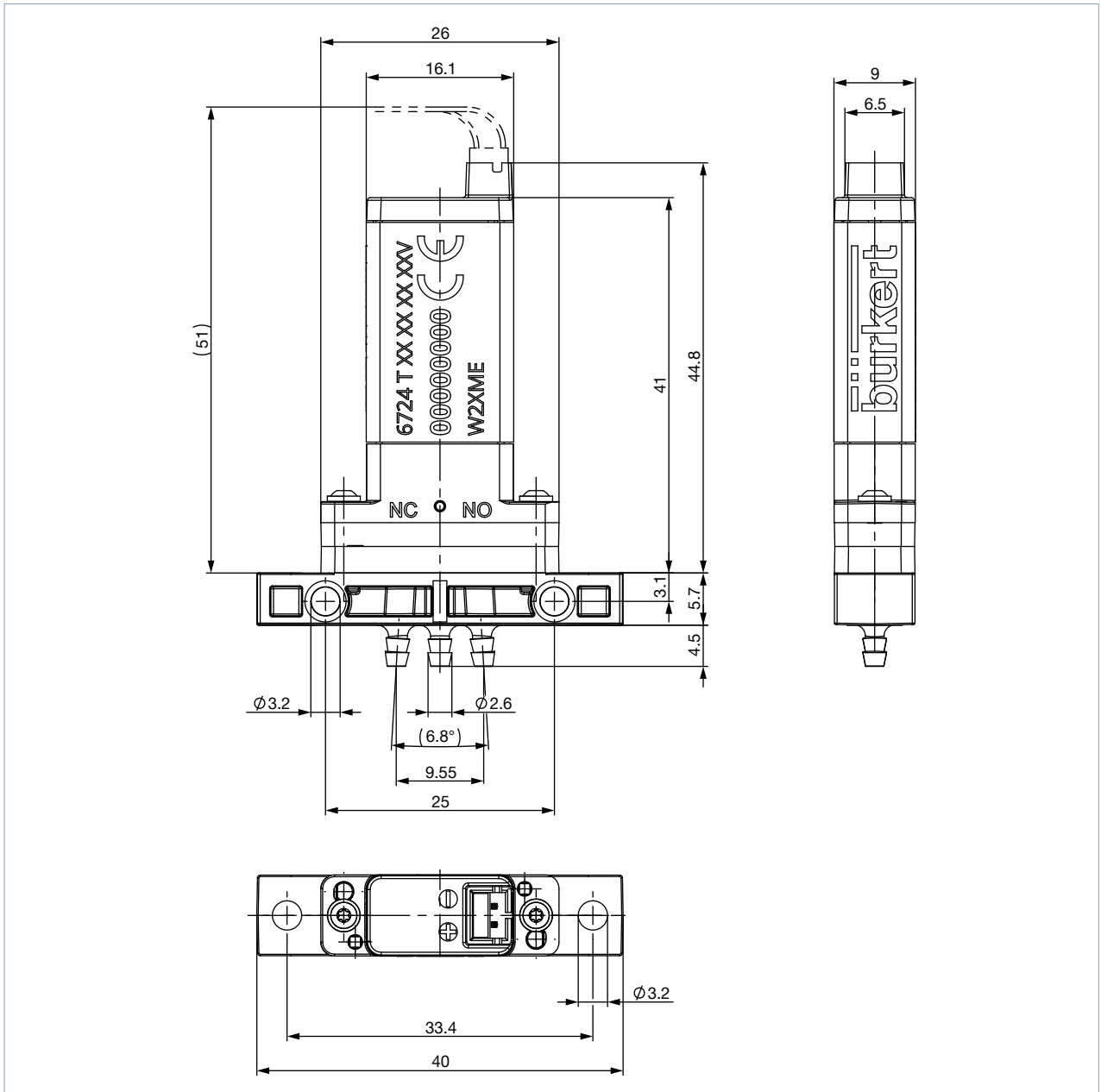
Dimensions in mm



5.6. Tube connector version

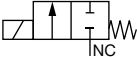
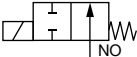

Note:

Dimensions in mm



6. Performance specifications

6.1. Medium pressure

Circuit function	Orifice [mm]	Pressure range under [bar]			Max. differential pressure [bar]
		NC	COM	NO	
Type: A, Solenoid valve 2/2 way Direct acting Normally closed 	0.8	Vac...5 ²⁾	N/A	0...3 ^{2),3)}	5
	1.2	Vac...3	N/A	0...3 ³⁾	3
	1.2 (with boost electronics ⁴⁾)	Vac...7	N/A	0...5 ³⁾	7
Type: B, Solenoid valve 2/2 way Direct acting Normally open 	0.8	0...3 ³⁾	N/A	Vac...5	5
	1.2	0...2 ³⁾	N/A	Vac...2	2
Type: T, Solenoid valve 3/2 way Direct acting Flow direction optional 	0.8	Vac...5	0...3 ³⁾	Vac...5	5
	1.2	Vac...2	0...2 ³⁾	Vac...2	2
	1.2 (with boost electronics ⁴⁾)	Vac...7	0...5 ³⁾	Vac...2	7

1.) Connect technical vacuum (-0.8 bar) to NC or NO. Do not apply a vacuum at the valve outlet (COM/OUT), otherwise the flow rate may be considerably reduced.

2.) Up to 2 bar, the flow direction is permissible even against the specification.

3.) Low vacuum due to back pressure at media flow permissible. In case of continuous operation with higher vacuum, there is a risk of flow reduction. In case of doubt, please contact your Bürkert sales office.

4.) For information on optional boost electronics see chapter "7.4. Ordering chart accessories" on page 12.

7. Ordering information

7.1. Bürkert eShop – Easy ordering and quick delivery



Bürkert eShop – Easy ordering and fast 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](#)

7.2. 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.


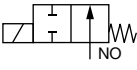

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7.3. Ordering chart

Standard version

Note:

- Please order plug connector with lead or electronic separately (see "7.4. Ordering chart accessories" on page 12).
- Including mounting screws for the following port connections:
Bürkert flange (9 x 26): M2x10-TORX T6-A2
Bürkert flange (26 x 57) horizontal: M2x6-TORX T6-A2
- Mounting screws M1.6x8-ISK for replacing Type 6604 with Type 6724 available on request.

Circuit function	Orifice	Port connection	K _v value water ^{1.)}	C _v value water	Q _{Nm} value air	Pressure range ^{2.)}	Max. pressure difference	Seal material	Body material	Voltage/frequency	Article no.	
	[mm]		[m ³ /h]	[gpm]	[l/min]	[bar]	[bar]			[V/Hz]		
A, solenoid valve 2/2 way Direct acting Normally closed 	0.8	Bürkert flange (9 x 26)	0.01	0.012	10.7	Vac...5	5	FFKM	PEEK	24/DC	299245	
								FKM	PPS		299248	
								EPDM			299247	
		UNF 1/4"-28	0.01	0.012	10.7	Vac...5	5	FFKM	PEEK	24/DC	299246	
		Tube connector	0.01	0.012	10.7	Vac...5	5	FFKM	PEEK	24/DC	382088	
								EPDM			382643	
	1.2	Bürkert flange (9 x 26)	0.026	0.03	28	Vac...3	3	FFKM	PEEK	24/DC	281506	
								FKM	PPS		281936	
								EPDM			281934	
		Bürkert flange (26 x 57) horizontal	0.026	0.03	28	Vac...3	3	EPDM	PPS	24/DC	356099	
UNF 1/4"-28	0.026 ^{3.)}	0.03 ^{3.)}	28 ^{3.)}	Vac...3	3	FFKM	PEEK	24/DC	281933			
						FKM		12/DC	295793			
B, solenoid valve 2/2 way Direct acting Normally open 	1.2	Bürkert flange (9 x 26)	0.026	0.03	28	Vac...2	2	FFKM	PEEK	24/DC	281507	
T, solenoid valve 3/2 way Direct acting Flow direction optional 	0.8	Bürkert flange (9 x 26)	0.01	0.012	10.7	0...3 ^{4.)}	5	FFKM	PEEK	24/DC	299249	
								FKM	PPS		299252	
								EPDM			12/DC	299279
				24/DC	299251							
		UNF 1/4"-28	0.01	0.012	10.7	0...3 ^{4.)}	5	FFKM	PEEK	24/DC	299250	
		Tube connector	0.01	0.012	10.7	0...3 ^{4.)}	5	FFKM	PEEK	24/DC	382082	
							EPDM			382644		
	1.2	Bürkert flange (9 x 26)	0.026	0.03	28	Vac...2	2	FFKM	PEEK	12/DC	295322	
								FKM	PPS		24/DC	276458
								EPDM				281937
										281935		
Bürkert flange (26 x 57) horizontal	0.026	0.03	28	Vac...2	2	FKM	PPS	24/DC	356102			
						EPDM			356100			
UNF 1/4"-28	0.026 ^{3.)}	0.03 ^{3.)}	28 ^{3.)}	Vac...2	2	FFKM	PEEK	24/DC	280888			

1.) Measured at +20 °C, 1 bar pressure at valve inlet and free outlet.

2.) Connect technical vacuum (-0.8 bar) to NC or NO. Do not apply a vacuum at the valve outlet (COM /OUT), otherwise the flow rate may be considerably reduced

3.) K_v value of the valve. The UNF connections have a diameter of 1.2 mm; in conjunction with conventional connection technology (10 cm hose each with ID=1.6 mm), this results in practical values of K_v=0.015 m³/h; C_v=0.017 gpm; Q_{Nm}=21.8 l/min.

4.) Applies to pressure connection to COM. For pressure connection to NC or NO Vac...5 bar applies.

7.4. Ordering chart accessories

Plug connector Type 2503

Note:

Customised for connecting plates, on request.

Accessories	Description	Article no.
	Connector with 500 mm flying leads AWG 24 For further information please refer to data sheet Type 2503 ▶.	689974 
	Plug connector 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 Type 2503 ▶ BoostClose or see data sheet Type 2503 ▶.	689998 
	Plug connector with 500 mm flying leads and Soft Close Elektronik for noise minimization. For further information refer to the operating instructions for Type 2503 ▶ SoftClose or see data sheet Type 2503 ▶.	689999 
	Fittings and hoses For UNF connections and hoses see type Type TVU003 ▶.	see data sheet TVU003 ▶

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