



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.

FLU-TECH CO. LTD.



Email: sales@flutech.co.th **Website:** https://flutech.co.th

Tel: 02-384-6060, 086-369-5871-3 **Fax:** 02-384-5701 **LINE OA:** @flutech.co.th

Address (HQ): 845/3-4, Moo 3, Theparak Rd., T. Theparak, A. Mueang Samut Prakan, Samut Prakan, 10270, Thailand

Table of contents

1. General technical data	3
1.1. General data	3
1.2. Medium pressure	4
2. Product versions	5
3. Circuit functions	5
4. Approvals and conformities	6
4.1. General notes	6
4.2. Conformity	6
4.3. Standards	6
4.4. Foods and beverages/Hygiene	6
5. Materials	7
5.1. Bürkert resistApp	7
5.2. Material specifications	7
6. Dimensions	8
6.1. Bürkert sub-base (9 × 26) – PPS or PEEK	8
6.2. Bürkert sub-base (9 × 26) – PVDF	9
6.3. Flange pattern (Bürkert sub-base 9 × 26)	10
6.4. Bürkert sub-base (26 × 57) horizontal	11
6.5. Flange pattern (Bürkert sub-base 26 × 57)	11
6.6. Threaded port version (UNF 1/4" - 28)	12
6.7. Tube connector version	13
7. Device/Process connections	13
7.1. Pin assignment	13
8. Ordering information	14
8.1. Bürkert eShop	14
8.2. Bürkert product filter	14
8.3. Ordering chart	15
Standard version	15
Impulse version	16
8.4. Ordering chart accessories	17
Manifolds	17
Cable plug Type 2503	17
Fittings and hoses	17

1. General technical data

1.1. General data

Product properties	
Dimensions	Further information can be found in chapter "6. Dimensions" on page 8.
Material	
Seal	FFKM, EPDM, FKM or FFKM HCR (High Chemical Resistance)
Fluidic housing	PEEK, PPS, PVDF
Internal volume	Bürkert sub-base (9 × 26): approx. 38 µl Bürkert sub-base (26 × 57) horizontal: approx. 93 µl Threaded version UNF ¼"-28: approx. 59 µl Tube connector: approx. 68 µl
Orifice	
Standard version	DN 0.8 or DN 1.2
Impulse version	DN 1.2
FFKM HCR version	DN 1.2
Circuit function	Further information can be found in chapter "3. Circuit functions" on page 5.
Typical product service life	10 million switching cycles (acc. to laboratory duration tests) ¹⁾
Performance data	
Pressure range	Further information can be found in chapter "1.2. Medium pressure" on page 4.
Duty cycle ⁴⁾	100 % continuous operation
Switching noise	30 dB (A) (< 20 dB (A) on request ²⁾)
Switching time ³⁾	Opening: approx. 3 ms (Pressure build-up 0...10 %) Closing: approx. 3 ms (Pressure reduction 100...90 %)
Electrical data	
Operating voltage	12 V/DC, 24 V/DC (other voltages on request)
Nominal power	
Standard version	1.25 W ⁵⁾
Impulse version	Switching 1.25 W ⁵⁾ (pulse length minimum 500 ms), holding power 0 W
Voltage tolerance	
Standard version	- 10 %/+ 5 % (including residual ripple)
Impulse version	± 5 % (including residual ripple)
Medium data	
Operating medium	Resistant to neutral and aggressive gases and liquids. Further information can be found in chapter "5.1. Bürkert resistApp" on page 7.
Medium temperature	
Standard version	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)
Impulse version	FFKM: + 15 °C...+ 40 °C (59 °F...104 °F) FKM: 0 °C...+ 40 °C (32 °F...104 °F) EPDM: 0 °C...+ 40 °C (32 °F...104 °F) (Higher temperature range on request)
Viscosity	Max. 21 mm ² /s
Process/Port connection & communication	
Electrical connection ⁶⁾	Plug with detent, pin spacing 2 mm, see data sheet Type 2503 ► Two PVC strands 0.22 mm ² (AWG24), pre-assembled, for non-detachable push-on installation by the customer
Port connection	Bürkert sub-base (9 × 26) Bürkert sub-base (26 × 57) horizontal Threaded version UNF ¼"-28 Tube connector version
Approvals and conformities	
Degree of protection	IP10 (IP40 for stranded wire version with correctly installed connection cable)
Foods and beverages/Hygiene	Further information can be found in chapter "4.4. Foods and beverages/Hygiene" on page 6.

Environment and installation

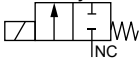
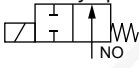
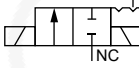
Installation position As required, preferably with actuator upright

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, control and the specific operational conditions. The use of a freewheeling diode is recommended to extend the service life.
- 2.) The maximum body temperature must not exceed + 110 °C. In continuous operation, care must be taken to ensure sufficient heat dissipation (convection) on the metal surface of the valve. Overheating of the valve can lead to damage.
- 3.) May be higher with impulse version. < 20 dB(A) with optional soft-close electronics only possible in conjunction with standard valve.
- 4.) Measurement at + 20 °C, 2 bar at the valve outlet acc. to DIN ISO 12238:2001
- 5.) No further power reduction possible
- 6.) Please order socket with flying leads separately (see "8.4. Ordering chart accessories" on page 17).
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 × 0.5 mm, grid size 2 mm and a maximum size of the connector of 4.9 × 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 - 50 - 00 - 6.

1.2. Medium pressure

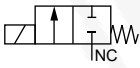
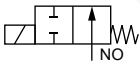
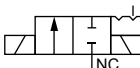
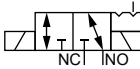
Circuit function	Orifice [mm]	Pressure range at the connection			Max. differential pressure [bar]
		NC [bar]	COM [bar]	NO [bar]	
CF A 2/2-way solenoid valve Direct-acting Normally closed 	0.8	Vac...5 ^{1) 2.)}	N/A	— ^{2) 3.)}	5
	1.2	Vac...3 ¹⁾	N/A	— ^{2) 3.)}	3
	1.2 (with boost electronics ^{4.)})	Vac...7 ¹⁾	N/A	— ^{2) 3.)}	7
	1.2 (with seal material FFKM HCR)	Vac...2 ¹⁾	N/A	— ^{2) 3.)}	2
CF B 2/2-way solenoid valve Direct-acting Normally open 	0.8	0...3 ^{1) 3.)}	N/A	Vac...5	5
	1.2	— ^{1) 2) 3.)}	N/A	Vac...2	2
CF P 2/2-way impulse solenoid valve Direct-acting 	1.2	Vac...2 ¹⁾	N/A	— ^{2) 3.)}	2
CF S 3/2-way impulse solenoid valve Direct-acting Flow direction unrestricted 	1.2	Vac...2 ¹⁾	0...2 ^{3.)}	Vac...2 ¹⁾	2
CF T 3/2-way solenoid valve Direct-acting Flow direction optional Universal 	0.8	Vac...5 ¹⁾	0...3 ^{3.)}	Vac...5 ¹⁾	5
	1.2	Vac...3 ¹⁾	0...3 ^{3.)}	Vac...3 ¹⁾	3
	1.2 (with boost electronics ^{4.)})	Vac...7 ¹⁾	0...5 ^{3.)}	Vac...2 ¹⁾	7
	1.2 (with seal material FFKM HCR)	Vac...2 ¹⁾	0...2 ^{3.)}	Vac...2 ¹⁾	2

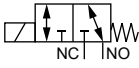
- 1.) Connect technical vacuum (- 0.8 bar) to NC or NO. If vacuum is connected to (COM/OUT), significantly reduced flow must be expected.
- 2.) Up to 2 bar, the flow direction is permissible even against the specification.
- 3.) Low vacuum due to back pressure at media flow permissible. In case of continuous 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 the optional boost electronics see chapter "8.4. Ordering chart accessories" on page 17.

2. Product versions

Bürkert sub-base (9 × 26)	Bürkert sub-base (26 × 57) horizontal	Threaded version (UNF ¼"- 28)	Tube connector version
			
Electrical connection stranded wire, Bürkert sub-base (9 × 26) – PVDF	Electrical connection stranded wire Bürkert sub-base (9 × 26)	Electrical connection stranded wire Bürkert sub-base (9 × 26)	
			

3. Circuit functions

Symbol	Description
	Circuit function A (CF A) 2/2-way solenoid valve Direct-acting Normally closed
	Circuit function B (CF B) 2/2-way solenoid valve Direct-acting Normally open
	Circuit function P (CF P) 2/2-way impulse solenoid valve Direct-acting
	Circuit function S (CF S) 3/2-way impulse solenoid valve Direct-acting Flow direction unrestricted

Symbol	Description
	Circuit function T (CF T) 3/2-way solenoid valve Direct-acting Flow direction optional Universal

4. Approvals and conformities

4.1. 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.

4.2. Conformity

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

4.3. Standards

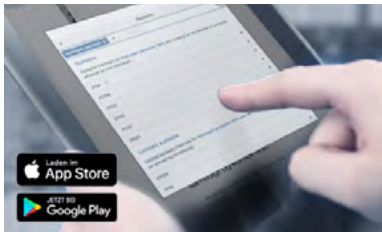
The applied standards which are used to demonstrate compliance with the EU Directives are listed in the EU-Type Examination Certificate and/or the EU Declaration of Conformity.

4.4. Foods and beverages/Hygiene

Conformity	Description
FDA	FDA – Code of Federal Regulations (valid for the variable code PL03) 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.

5. Materials

5.1. Bürkert resistApp

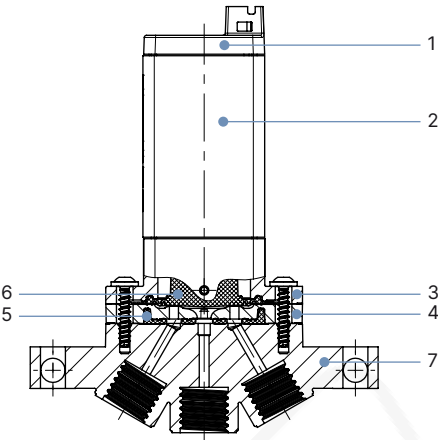


Bürkert resistApp – Chemical resistance chart

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](#)

5.2. Material specifications



No.	Element	Material
1	Cover	LCP
2	Coil housing	nickel-plated
3	Valve housing	PPS
4	Fluidic housing ^{1.)}	PEEK, PPS or PVDF
5	Sub-base seal ^{1.)}	FFKM, EPDM or FKM
6	Diaphragm ^{1.)}	FFKM, EPDM, FKM or FFKM HCR (High Chemical Resistance)
7	Additional connection housing ^{1.) 2.)}	PEEK or PPS

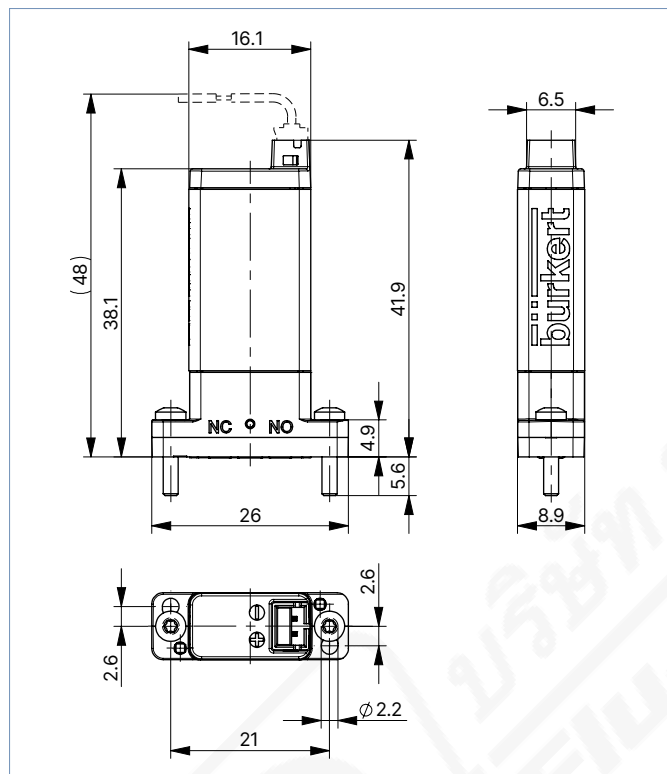
1.) in contact with medium
2.) not available for flange connection

6. Dimensions

6.1. Bürkert sub-base (9 × 26) – PPS or PEEK

Note:

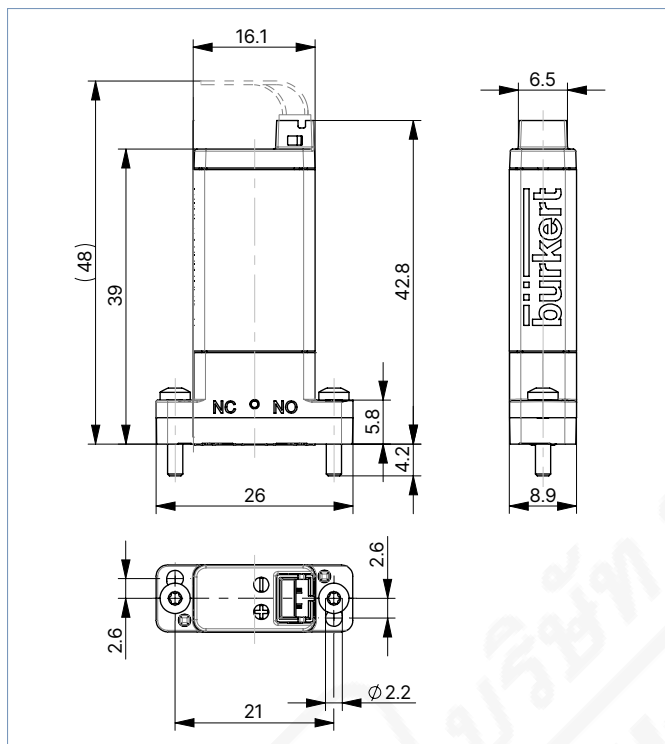
- Dimensions in mm
- Including fastening screws M2 × 10



6.2. Bürkert sub-base (9 × 26) – PVDF

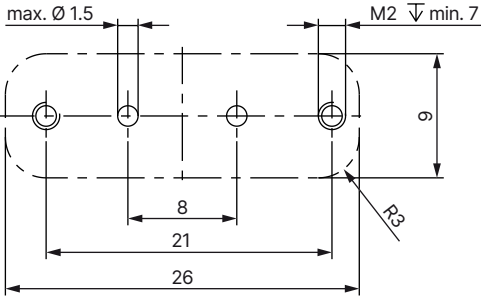
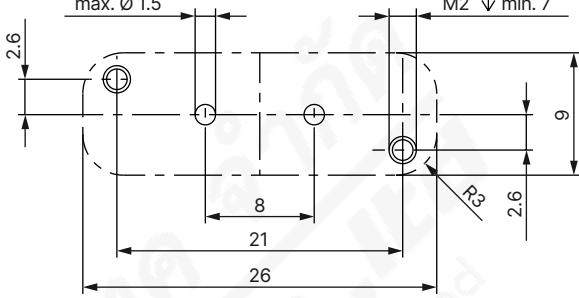
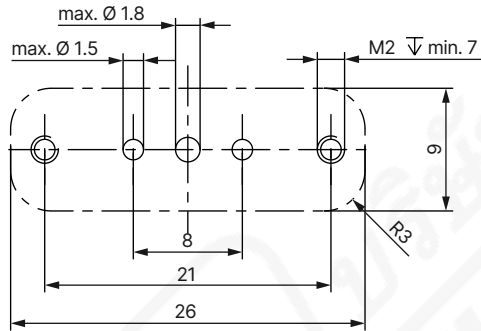
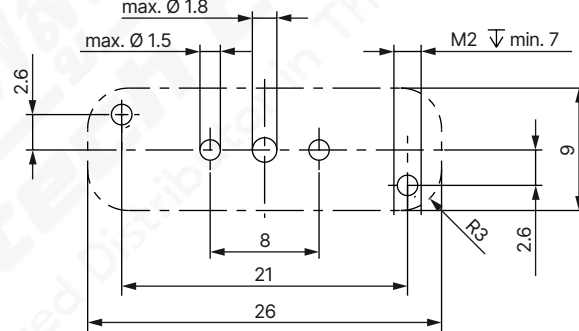
Note:

- Dimensions in mm
- Including fastening screws M2 × 10



6.3. Flange pattern (Bürkert sub-base 9 × 26)

Note:
Dimensions in mm

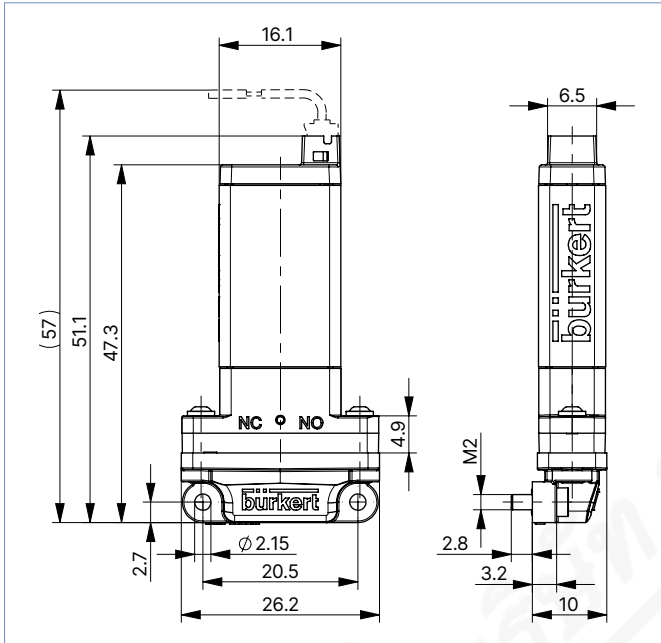
Preferred threaded connection	Further possible connection (diagonal)
2/2-way (version A1)	
	
3/2-way (version A2)	
	

DTS 1000262565 EN Version: V Status: RL (released | freigegeben | valide) printed: 09.01.2025

6.4. Bürkert sub-base (26 × 57) horizontal

Note:

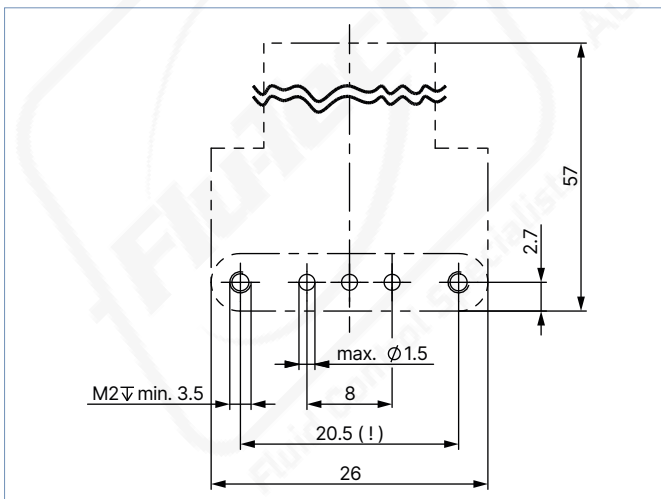
- Dimensions in mm
- Optional: Sub-base can be turned by 180°
- Including fastening screws M2 × 6



6.5. Flange pattern (Bürkert sub-base 26 × 57)

Note:

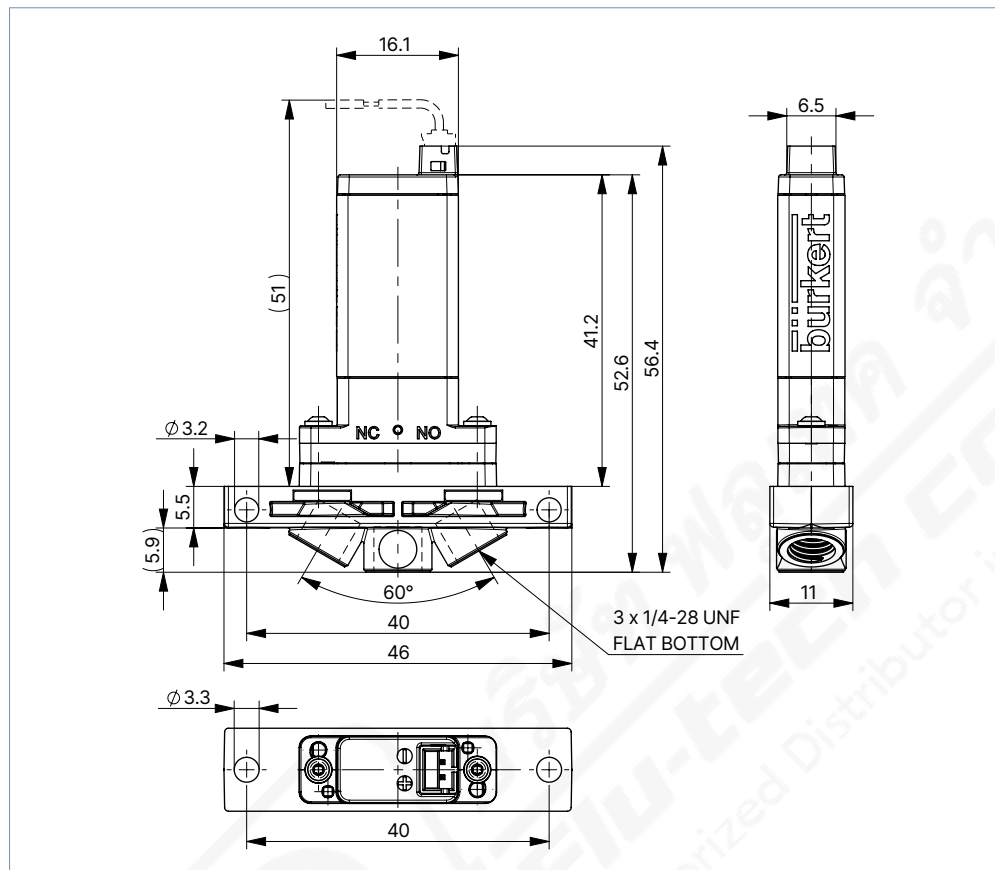
Dimensions in mm



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

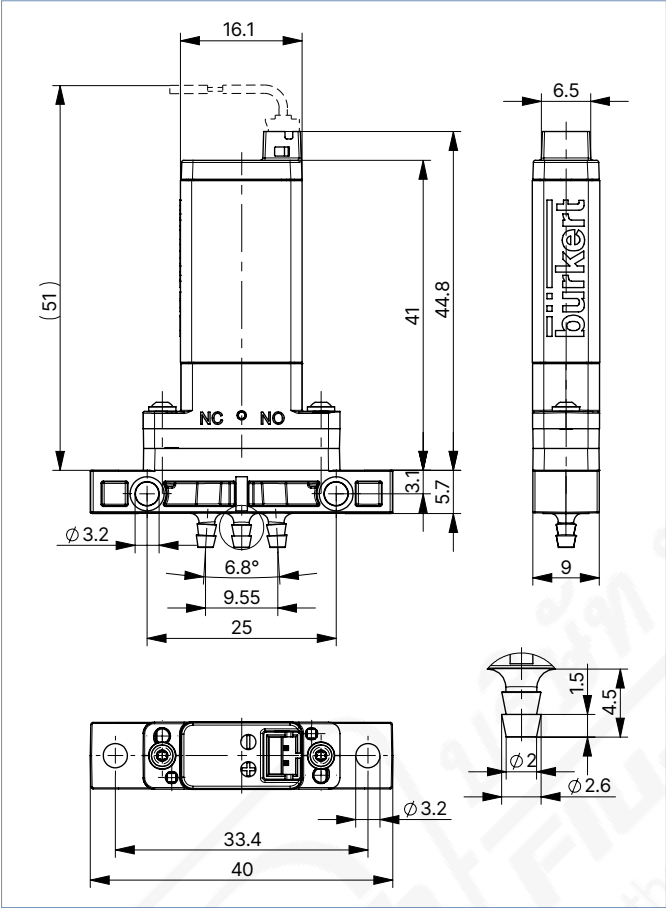
Note:

Dimensions in mm



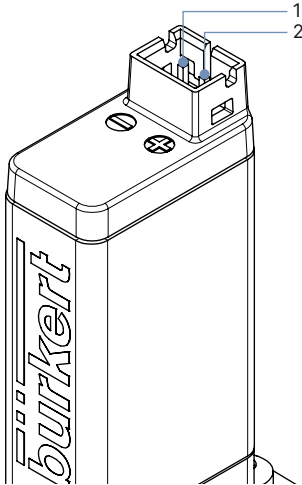
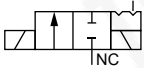
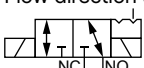
6.7. Tube connector version

Note:
Dimensions in mm



7. Device/Process connections

7.1. Pin assignment

Electrical control for impulse versions		Impulse 500 ms		
		1	2	
CFP 2/2-way impulse solenoid valve Direct-acting 	NC (open)	-	+	
	NC (closed)	+	-	
CFS 3/2-way impulse solenoid valve Direct-acting Flow direction unrestricted 	NC ↔ COM (open)	-	+	
	NO ↔ COM (open)	+	-	

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.

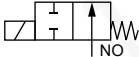
[Try out our product filter](#)

8.3. Ordering chart

Standard version

Note:

- Plug connectors with flying leads or electronics Type 2503 are not included in the scope of delivery and must be ordered separately, see ["8.4. Ordering chart accessories" on page 17](#)).
- Including mounting screws for the following port connections:
Bürkert sub-base (9 × 26): M2 × 10-TORX T6-A2, Bürkert sub-base (26 × 57) horizontal: M2 × 6-TORX T6-A2
- Mounting screws M1.6 × 8-ISK for replacing Type 6604 with Type 6724 are available on request.
- The 'stranded wire connection' variant includes a plug connector with pre-assembled strands. This can be installed by the customer and plugged into the device for commissioning.

Circuit function	Port connection	Orifice	Q _{in} value air ^{2.)}	K _v value water ^{1.)}	C _v value water	Voltage/ frequency	Pressure range ^{3.)}	Max. pressure difference	Body material	Seal material	Electrical connection	Article no.
		[mm]	[l/min]	[m³/h]	[gpm]							
CF A 2/2-way solenoid valve Direct-acting Normally closed 	Bürkert sub-base (9 × 26)	0.8	10.7	0.01	0.012	24	Vac...5	5	PEEK	FFKM	Plug	20034162 𐀀
									PPS	FKM		20071070 𐀀
										EPDM		20037617 𐀀
	UNF 1/4"-28		10.7	0.01	0.012	24	Vac...5	5	PEEK	FFKM		20071068 𐀀
	Tube connector	0.8	10.7	0.01	0.012	24	Vac...5	5	PEEK	FFKM		20071231 𐀀
										EPDM		20071233 𐀀
									PPS	EPDM		20071279 𐀀
	Bürkert sub-base (26 × 57) horizontal		10.7	0.01	0.012	24	Vac...5	5				
	Bürkert sub-base (9 × 26)	1.2	28	0.026	0.03	24	Vac...3	3	PEEK	FFKM		20027698 𐀀
											Strand 500 mm	20094654 𐀀
									PVDF		Plug	20071187 𐀀
									PPS	FKM		20071048 𐀀
										EPDM		20037618 𐀀
											Strand 500 mm	20095102 𐀀
	UNF 1/4"-28	1.2	28 ^{4.)}	0.026 ^{4.)}	0.03 ^{4.)}	24	Vac...3	3	PEEK	FFKM	Plug	20071047 𐀀
						12				FKM	Plug	20095105 𐀀
							Vac...2	2		FFKM		20071065 𐀀
							Vac...2	2		HCR		20075595 𐀀
	Bürkert sub-base (9 × 26)	1.2	28	0.026	0.03	24	Vac...2	2				20048280 𐀀
CF B 2/2-way solenoid valve Direct-acting Normally open 	Bürkert sub-base (9 × 26)		28	0.026	0.03	24	Vac...2	2	PEEK	FFKM	Plug	20071046 𐀀

Circuit function	Port connection	Orifice	Q _{lin} value air ^{2.)}	K _v value water ^{1.)}	C _v value water	Voltage/ frequency	Pressure range ^{3.)}	Max. pressure difference	Body material	Seal material	Electrical connection	Article no.						
		[mm]	[l/ min]	[m³/h]	[gpm]	[V]	[bar]	[bar]										
CF T 3/2-way solenoid valve Direct-acting Flow direction optional Universal 	Bürkert sub-base (9 × 26)	0.8	10.7	0.01	0.012	24	0...3 ^{5.)}	5	PEEK	FFKM	Plug	20030343 						
						12			PPS	FKM		20071074 						
												EPDM	20071081 					
	24							20035617 										
	UNF ¼"- 28					10.7	0.01	0.012	24	0...3 ^{5.)}	5	PEEK	FFKM		20071072 			
	Tube connector					10.7	0.01	0.012	24	0...3 ^{5.)}	5	PEEK	FFKM		20071230 			
												EPDM	20071234 					
	Bürkert sub-base (26 × 57) horizontal					10.7	0.01	0.012	24	0...3 ^{5.)}	5	PPS	FKM		20071281 			
												EPDM	20071280 					
	Bürkert sub-base (9 × 26)	1.2	28	0.026	0.03	12	Vac...3	3	PEEK	FFKM		20071063 						
						24				FFKM		20027694 						
											Strand 500 mm	20094659 						
									PVDF		Plug	20094666 						
						PPS			FKM			20071049 						
									EPDM	20035624 								
										Strand 500 mm	20094663 							
						UNF ¼"- 28			28 ^{4.)}	0.026 ^{4.)}	0.03 ^{4.)}	24	Vac...3	3	PEEK	FFKM		Plug
																Strand 500 mm		20084556 
														Vac...2	2		FFKM HCR	Plug
Bürkert sub-base (9 × 26)	28 ^{4.)}	0.026 ^{4.)}	0.03 ^{4.)}	24	Vac...2	2				20075596 								

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

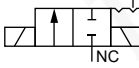
2.) Converted to standard conditions

3.) Connect technical vacuum (- 0.8 bar) to NC or NO. If vacuum is connected to (COM/OUT), significantly reduced flow must be expected.

4.) 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 $K_v = 0.015 \text{ m}^3/\text{h}$; $C_v = 0.017 \text{ gpm}$; $Q_{Nn} = 21.8 \text{ l/min}$.

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

Impulse version

Circuit function	Port connection	Orifice	Q_{Nn} value air ^{2.)}	K_v value water ^{1.)}	C_v value water	Voltage/ frequency	Pressure range ^{3.)4.)}	Max. pressure difference	Body material	Seal material	Article no.
		[mm]	[l/min]	[m³/h]	[gpm]	[V]	[bar]	[bar]			
CF P 2/2-way impulse solenoid valve Direct-acting 	Bürkert sub-base (9 × 26)	1.2	25	0.024	0.027	24	Vac...2	2	PPS	FKM	355749 
						24			PEEK	FFKM	355744 
						12					355750 
	UNF 1/4"-28		25 ^{5.)}	0.024 ^{5.)}	0.027 ^{5.)}	24	Vac...2	2			355745 
CF S 3/2-way impulse solenoid valve Direct-acting Flow direction unrestricted 	Bürkert sub-base (9 × 26)	1.2	28	0.026	0.03	24	Vac...2	2	PPS	FKM	355756 
						24			PEEK	FFKM	355754 
						12					20005293 
	UNF 1/4"-28		28 ^{5.)}	0.026 ^{5.)}	0.03 ^{5.)}	24	Vac...2	2			355755 

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

2.) Converted to standard conditions

3.) Pressure data: Overpressure to atmospheric pressure

4.) Connect technical vacuum (- 0.8 bar) to NC or NO. If vacuum is connected to (COM/OUT), significantly reduced flow must be expected.

5.) 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 $K_v = 0.015 \text{ m}^3/\text{h}$; $C_v = 0.017 \text{ gpm}$; $Q_{Nn} = 21.8 \text{ l/min}$.

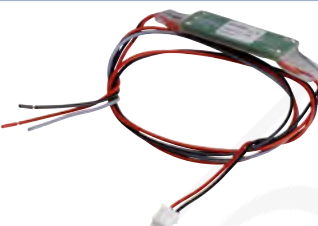
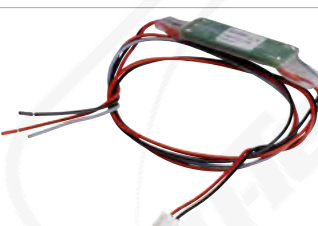
8.4. Ordering chart accessories

Manifolds

Note:

Customised for connecting plates, on request.

Cable plug Type 2503

Accessories	Description	Article no.
	Cable plug with 500 mm flying leads AWG 24 For further information please refer to data sheet Type 2503 ▶.	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 Type 2503 ▶ BoostClose or see data sheet Type 2503 ▶.	689998 
	Cable plug 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 
	The electronic accessory "Impulse" was specially developed for the impulse version of the solenoid valve Type 6724. With the help of the electronics, the impulse valve is activated by reversing the polarity of the voltage. The electronics automatically choose the correct polarity for the valve. This means that no polarity reversal logic needs to be provided in the control system. For further information refer to the operating instructions for Type 2503 ▶ Impulse or see data sheet Type 2503 ▶.	366210 

Fittings and hoses

Accessories	Description	Article no.
	Fittings and hoses for UNF connections and hoses see type Type TVU003 ▶.	see data sheet TVU003 ▶