

## 2/2 way Whisper Valve with media separation



- Highest chemical resistance with minimal internal volume
- Compact design with 7 mm width
- Orifice size 0.8 mm (3 bar) and 0.4 mm (5 bar)
- Switching noise < 36 dB
- For dosing applications with excellent flush ability

Fluidical „point-of-care“ applications, as dialysis or artificial respiration, and applications at the „point-of-use“ for example at pipetting arms in biological analysis have special requirements. The new media separated Whisper Valve type 6712 was particularly developed for these applications. Especially the reduced switching noise and the good flush ability set a new benchmark. But also in industrial applications like inkjet printers, the type 6712 is the first choice due to the high lifecycle and the excellent switching dynamic.

With the modular design and the available material variants this valve is applicable with virtually all liquids and gases in life science and industrial applications.

A valve that combines dosing accuracy and flush ability.

### Circuit function A



2/2 way direct-acting solenoid valve, normally closed

Technical data	
<b>Orifice sizes and pressure ranges</b>	DN0.8 mm / 0 to 3 bar <sup>1)</sup> DN0.4 mm / 0 to 5 bar <sup>1)</sup>
<b>Pressure output (Back pressure)</b>	DN0.8 mm: max. 1.2 bar <sup>2)</sup> DN0.4 mm: max. 1.8 bar <sup>2)</sup>
<b>Tightness to outside</b>	8 bar <sup>2)</sup>
<b>Body material</b>	PEEK, PPS
<b>Seal material</b>	FFKM, FKM and EPDM
<b>Medium</b>	Resistant to neutral and aggressive gases and liquids (acc. to Bürkert resistance chart)
<b>Medium temperature</b>	EPDM: 0 to +55 °C FFKM: +10 to +55 °C FKM: +15 to +55 °C
<b>Ambient temperature</b>	EPDM: 0 to +55 °C FFKM: +10 to +55 °C FKM: +15 to +55 °C
<b>Typical service life</b>	30.000.000 (acc. to laboratory duration tests) <sup>3)</sup>
<b>Internal volume</b>	Fluid chamber: 2 µl Total (incl. connections): 5 µl
<b>Viscosity</b>	Max. 21 mm <sup>2</sup> /s
<b>Port connection</b>	Bürkert flange (7 × 18.2 mm)
<b>Electrical connection</b>	Single flying leads, AWG 26, 500 mm Dimension plug grid 2 mm (solder pin on request)
<b>Power supply</b>	12 V DC, 24 V DC
<b>Voltage tolerance</b>	± 10 %
<b>Power consumption</b>	0.9 W <sup>4)</sup>
<b>Duty cycle</b>	100% continuous operation
<b>Installation</b>	As required, preferably with actuator upright
<b>Protection class</b>	IP40 acc. IEC 60144
<b>Response times</b>	see response time table on page 2
<b>Switching frequency</b>	50 Hz
<b>Switching noise</b>	36 dB(A) <sup>5)</sup>
<b>Approvals and compliance on request<sup>6)</sup></b>	Suitability for drinking water: KTW (W270) Suitability for foodstuffs: FDA

<sup>1)</sup> Maximum tightened relative pressure at the seat.

<sup>2)</sup> Relative pressure

<sup>3)</sup> Service life depends on the type of medium, the temperature, the pressure, the seal material and the specific operational conditions.

<sup>4)</sup> No further power reduction possible.

<sup>5)</sup> Tested under Bürkert test conditions. The value may vary with conditions.

<sup>6)</sup> Other versions on request

## Response times

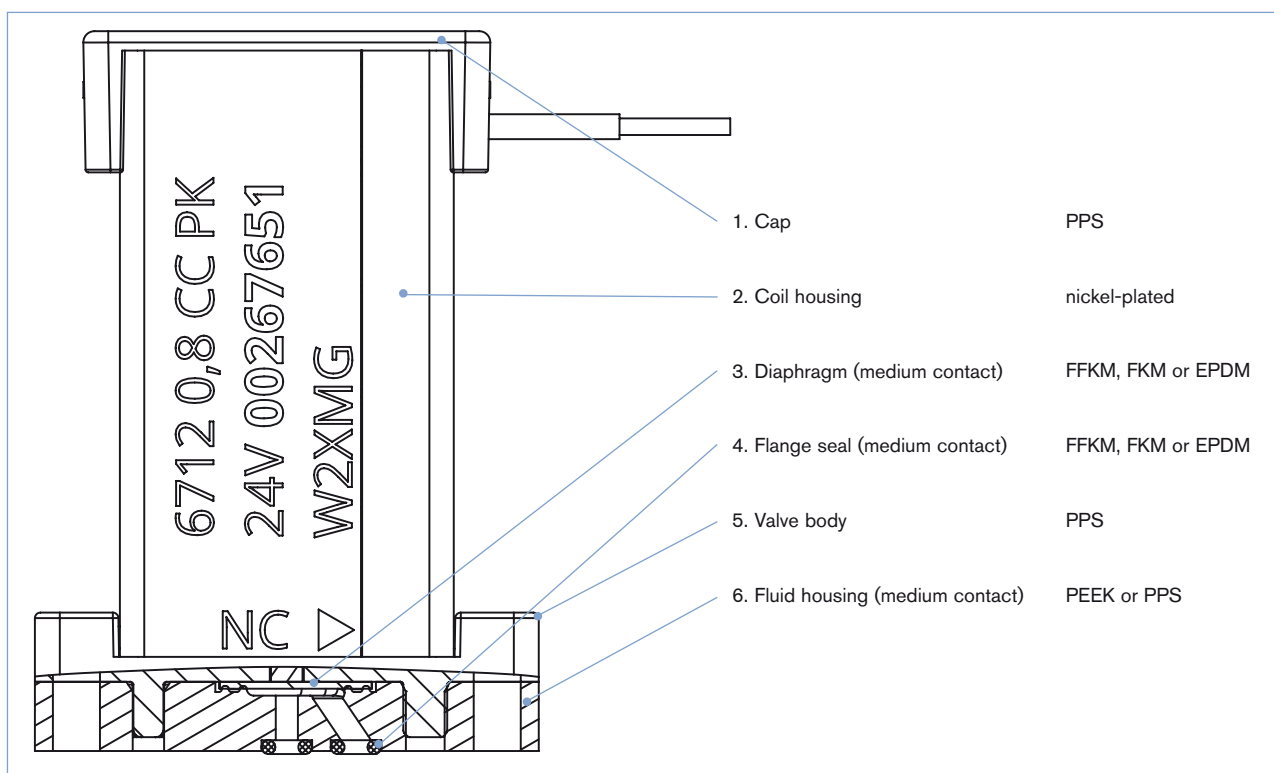
Seal material		DN = 0.8 mm at 3 bar <sup>1)</sup>	DN = 0.4 mm at 5 bar <sup>1)</sup>
EPDM	Opening <sup>2)</sup>	0.5 ms	0.8 ms
	Closing <sup>3)</sup>	0.9 ms	1.2 ms
FFKM	Opening <sup>2)</sup>	0.7 ms	0.9 ms
	Closing <sup>3)</sup>	1.0 ms	1.8 ms
FKM	Opening <sup>2)</sup>	0.8 ms	0.9 ms
	Closing <sup>3)</sup>	1.0 ms	3.2 ms

<sup>1)</sup> Response time is typically measured between valve output and flow resistance according to DIN ISO 12238: 2001 at 25 °C; the response time depends on temperature, pressure and sealing material. Electronics to further reduce the response time are available on request.

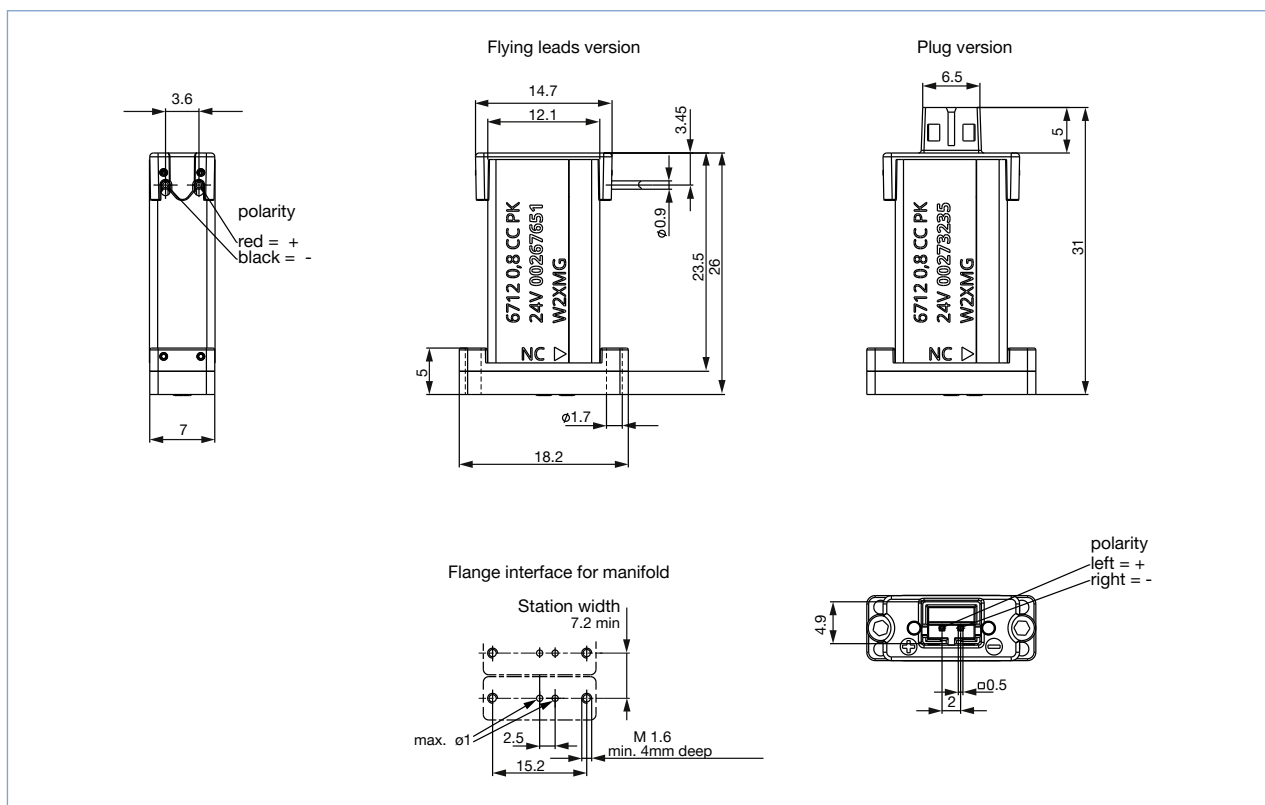
<sup>2)</sup> Pressure rise 0-10%

<sup>3)</sup> Pressure rise 100-90% against maximum back pressure

## Materials



Dimensions [mm]



Ordering chart for valves

Circuit function	Orifice [mm]	Port connection <sup>1)</sup>	K <sub>v</sub> value water [m <sup>3</sup> /h] <sup>2)</sup>	C <sub>v</sub> value water [gpm]	Q <sub>Nv</sub> value air [l/min] <sup>4)</sup>	Pressure range [bar]	Max. back pressure at output [bar]	Seal material	Body material	Electrical connection <sup>3)</sup>	Voltage/frequency [V/Hz]	Article no.	
<b>A</b> 2/2 way direct-acting solenoid valve, normally closed 	0.4		0.005	0.006	5.8	0 - 5	1.8	EPDM	PPS	Plug	12 V DC	273226	
								FFKM	PEEK	Strand	24 V DC	273206	
								EPDM	PPS	Plug	12 V DC	273232	
								FKM				273233	
	0.8	Bürkert flange		0.012	0.014	13.1	0 - 3	1.2	EPDM	PPS	Strand	24 V DC	273188
									FKM				273189
									FFKM	PEEK	Strand	24 V DC	273187
									EPDM				273236
									FKM	PPS	Plug	24 V DC	273237
									FFKM				273235
									EPDM	PPS	Strand	24 V DC	273190
									FKM				273191
FFKM	PEEK	Strand	24 V DC	267651									

<sup>1)</sup> 2 stainless steel cylinder head screws, ISO 4762, M1.6 x 8 A2 included in delivery.

<sup>2)</sup> Water flow rate measured at +20 °C and 1 bar pressure at valve input and free outlet

<sup>3)</sup> Plug delivered without plug connection. Please order connection socket with strand separately (see Ordering chart accessories). Other suitable plug connectors are: W+P series 521, JST series PHR-2 or Würth series ConWTB 2.00 mm. Other electrical assemblies on request.

<sup>4)</sup> Measurement at +20 °C, 1 bar pressure at valve inlet and 1 bar pressure difference

**i Further versions on request**

**Port connection**  
For UNF connections and tubes see Type TVU003

Ordering chart for manifolds with Dimensions [mm]

1 port manifold with UNF 1/4 - 28 working connections; delivered without valves

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

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

Ordering chart accessories

	<p style="text-align: center;"><b>Description</b></p> <p>Plug with flying leads AWG 24 with length of 500 mm</p>	<p style="text-align: center;"><b>Article no.</b></p> <p>689974 </p>
--	--	--

To find your nearest Bürkert facility, click on the orange box → [www.burkert.com](http://www.burkert.com)

In case of special application conditions,  
please consult for advice.

Subject to alteration.  
© Christian Bürkert GmbH & Co. KG

1803/7\_EU-en\_00895281