

## 2/2 way Whisper Valve with media separation



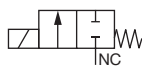
- Highest chemical resistance with minimal internal volume
- Compact design with 7 mm width
- Orifice size 0.8 mm (3 bar) and 0.4 mm (5 bar)
- Switching noise < 36 dB
- For dosing applications with excellent flush ability

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>	DN 0.8 mm / 0 to 3 bar <sup>1)</sup> DN 0.4 mm / 0 to 5 bar <sup>1)</sup>
<b>Pressure output (Back pressure)</b>	DN 0.8 mm: max. 1.2 bar <sup>2)</sup> DN 0.4 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 x 18.2 mm)
<b>Electrical connection</b>	Single flying leads, AWG26, 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

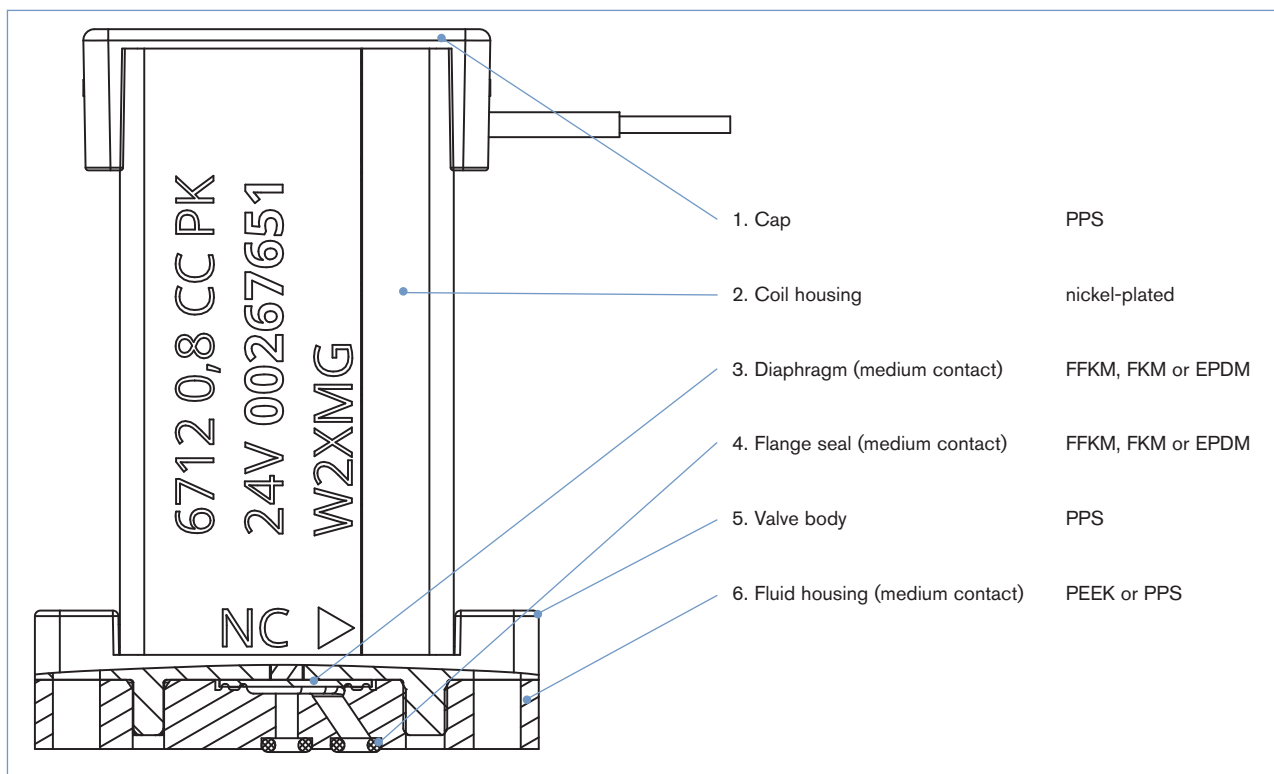
Seal material		DN = 0.8 mm at 3 bar <sup>1)</sup>	DN = 0.4 mm at 5 bar <sup>1)</sup>
EPDM	Opening <sup>2)</sup>	0.5 ms	0.8 ms
	Closing <sup>3)</sup>	0.9 ms	1.2 ms
FFKM	Opening <sup>2)</sup>	0.7 ms	0.9 ms
	Closing <sup>3)</sup>	1.0 ms	1.8 ms
FKM	Opening <sup>2)</sup>	0.8 ms	0.9 ms
	Closing <sup>3)</sup>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

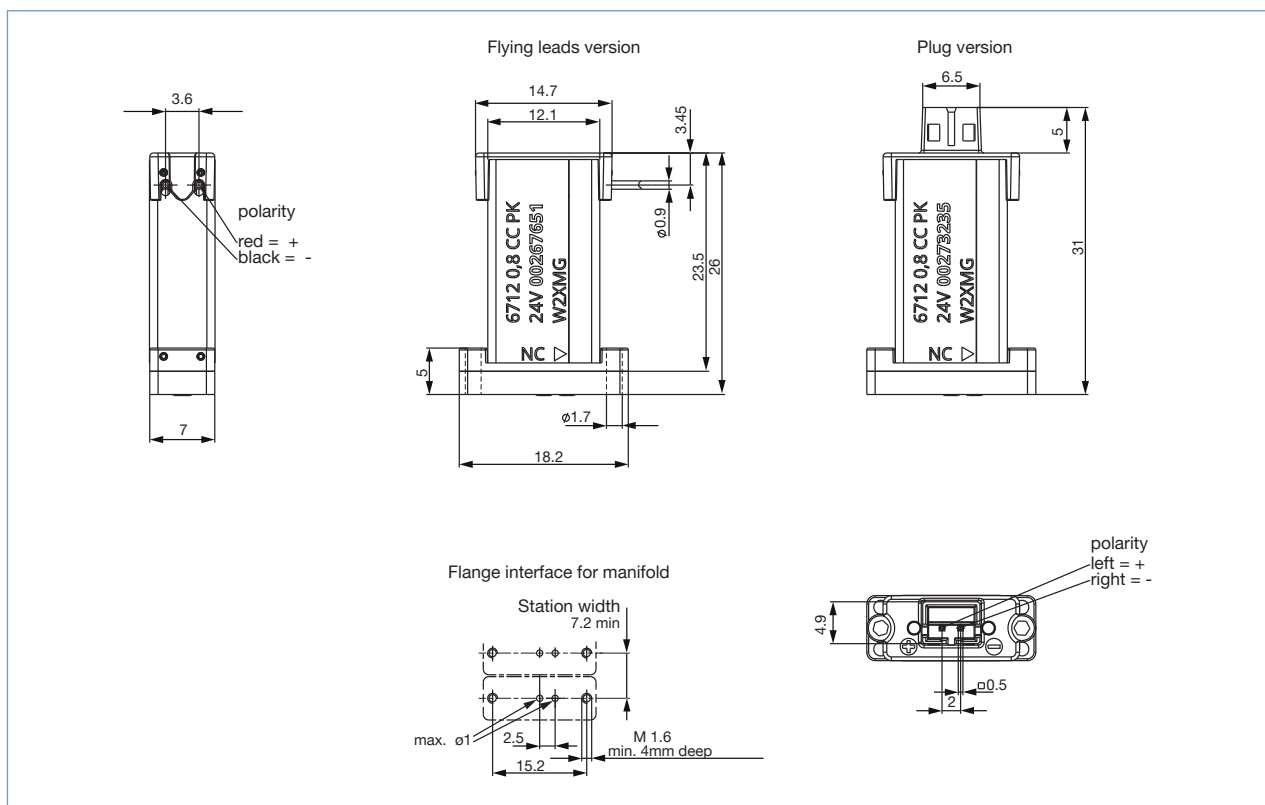
<sup>2)</sup> Pressure rise 0-10 %

<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]	Item no.		
<b>A</b> 2/2 way direct-acting solenoid valve, normally closed 	0.4	Bürkert flange	0.005	0.006	5.8	0-5	1.8	EPDM	PPS	Plug	12 V DC	273 226		
								FFKM	PEEK	Strand	24 V DC	273 206		
								EPDM	PPS	Plug	12 V DC	273 232		
								FKM				273 233		
								FFKM				273 231		
								EPDM	PPS	Strand	0-3	1.2	273 188	
	FKM		273 189											
	FFKM		273 187											
	EPDM		PPS	Plug	0.012	0.014	13.1	0-3	1.2	EPDM	PEEK	24 V DC	273 236	
	FKM												273 237	
	FFKM												273 235	
	EPDM												PPS	Strand
FKM	273 191													
FFKM	267 651													

<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	Item no.
Manifold UNF 1/4 - 28 PEEK	694 895

Description	Item no.
Manifold UNF 1/4 - 28 PEEK (low internal volume)	695 956

Ordering chart accessories

	<p><b>Description</b></p> <p>Plug with flying leads AWG24 with length of 500 mm</p>	<p><b>Item no.</b></p> <p>689 974</p>
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In case of special application conditions, please consult for advice.

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