

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	
Orifice sizes and pressure ranges	DN 0.8 mm / 0 to 3 bar ¹⁾ DN 0.4 mm / 0 to 5 bar ¹⁾
Pressure output (Back pressure)	DN 0.8 mm: max. 1.2 bar ²⁾ DN 0.4 mm: max. 1.8 bar ²⁾
Tightness to outside	8 bar ²⁾
Body material	PEEK, PPS
Seal material	FFKM, FKM and EPDM
Medium	Resistant to neutral and aggressive gases and liquids (acc. to Bürkert resistance chart)
Medium temperature	EPDM: 0 to +55 °C FFKM: +10 to +55 °C FKM: +15 to +55 °C
Ambient temperature	EPDM: 0 to +55 °C FFKM: +10 to +55 °C FKM: +15 to +55 °C
Typical service life	30.000.000 (acc. to laboratory duration tests) ³⁾
Internal volume	Fluid chamber: 2 µl Total (incl. connections): 5 µl
Viscosity	Max. 21 mm ² /s
Port connection	Bürkert flange (7 x 18.2 mm)
Electrical connection	Single flying leads, AWG26, 500 mm Dimension plug grid 2 mm (solder pin on request)
Power supply	12 V DC, 24 V DC
Voltage tolerance	±10 %
Power consumption	0.9 W ⁴⁾
Duty cycle	100 % continuous operation
Installation	As required, preferably with actuator upright
Protection class	IP40 acc. IEC 60144
Response times	see response time table on page 2
Switching frequency	50 Hz
Switching noise	36 dB(A) ⁵⁾
Approvals and compliance on request ⁶⁾	Suitability for drinking water: KTW (W270) Suitability for foodstuffs: FDA

¹⁾ Maximum tightened relative pressure at the seat.

²⁾ Relative pressure

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

⁴⁾ No further power reduction possible.

⁵⁾ Tested under Bürkert test conditions. The value may vary with conditions.

⁶⁾ Other versions on request

Response times

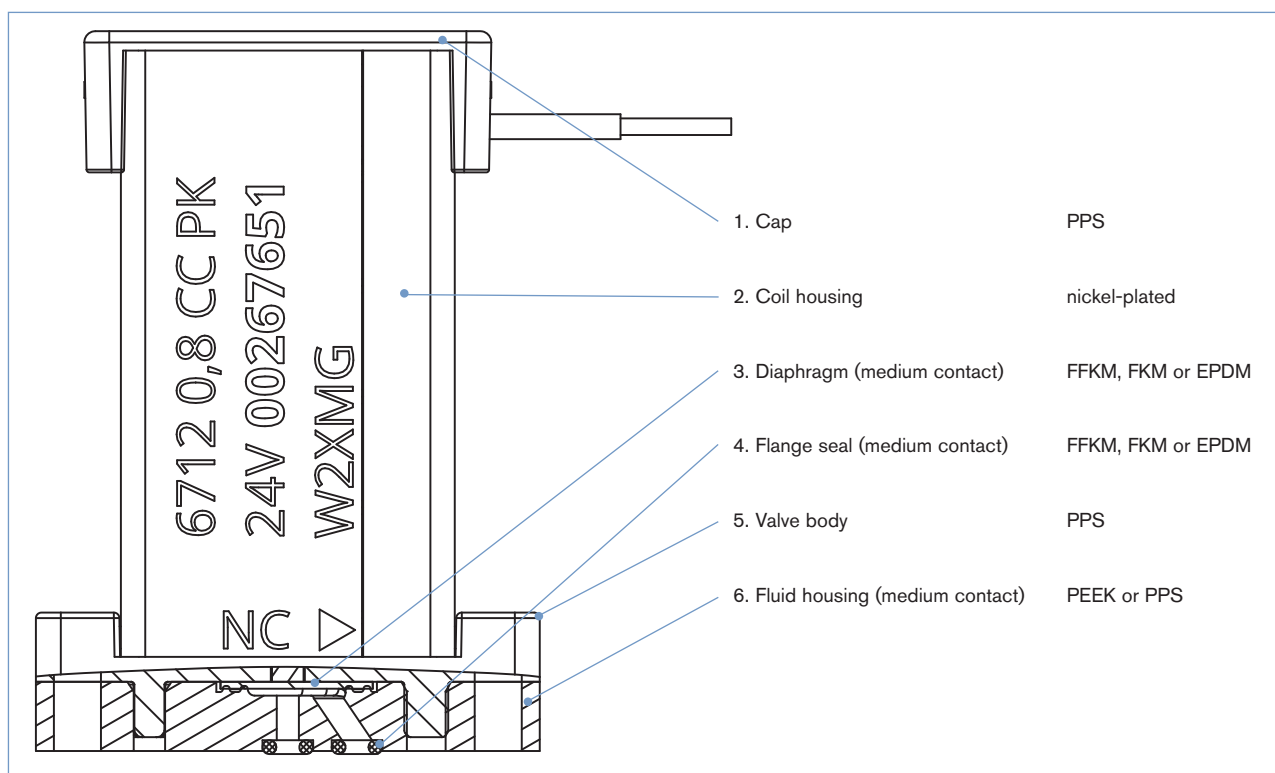
Seal material		DN = 0.8 mm at 3 bar ¹⁾	DN = 0.4 mm at 5 bar ¹⁾
EPDM	Opening ²⁾	0.5 ms	0.8 ms
	Closing ³⁾	0.9 ms	1.2 ms
FFKM	Opening ²⁾	0.7 ms	0.9 ms
	Closing ³⁾	1.0 ms	1.8 ms
FKM	Opening ²⁾	0.8 ms	0.9 ms
	Closing ³⁾	1.0 ms	3.2 ms

¹⁾ 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.

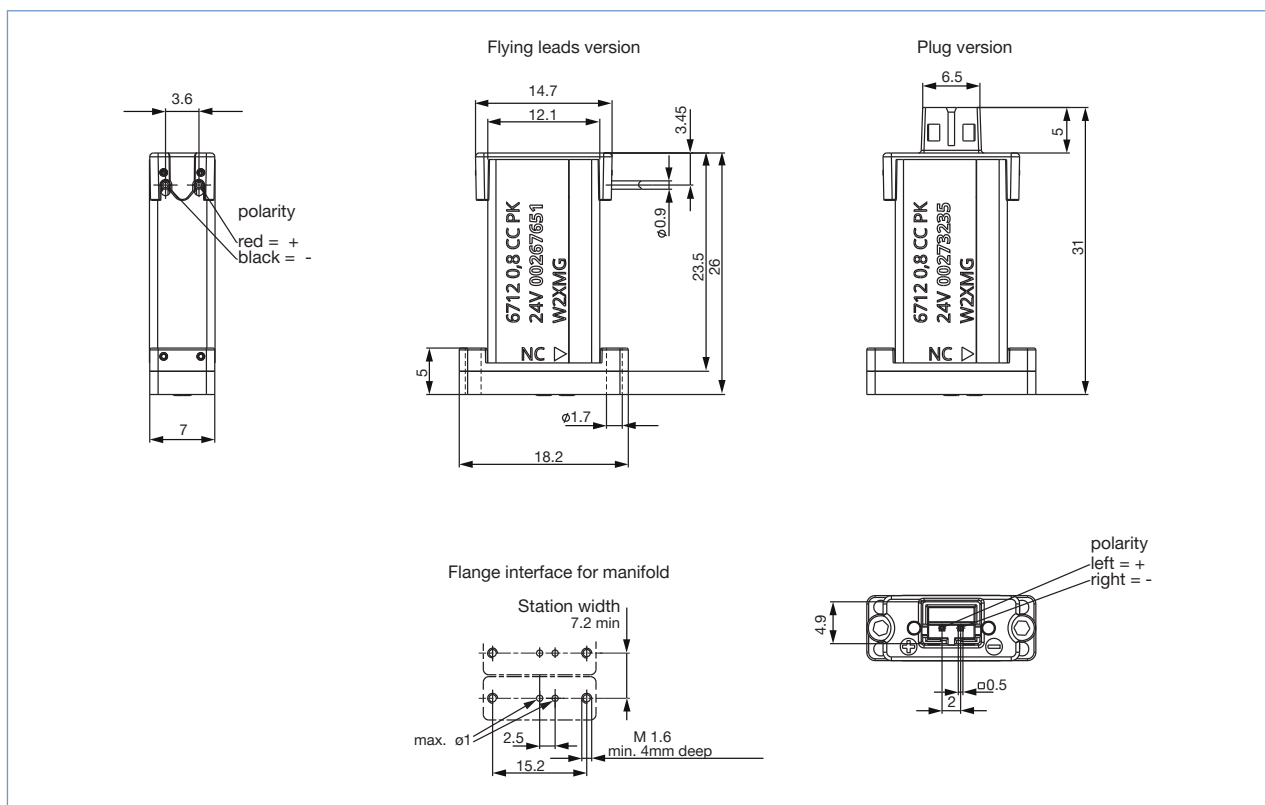
²⁾ Pressure rise 0-10 %

³⁾ Pressure rise 100-90 % against maximum back pressure

Materials



Dimensions [mm]



Ordering chart for valves

Circuit function	Orifice [mm]	Port connection ¹⁾	K_v value water [m^3/h] ²⁾	C_v value water [gpm]	C_{Nv} value air [l/min] ⁴⁾	Pressure range [bar]	Max. back pressure at output [bar]	Seal material	Body material	Electrical connection ³⁾	Voltage/frequency [V/Hz]	Item no.							
A 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	Plug	24 V DC	273 236						
	FKM								273 237										
	FFKM								273 235										
	EPDM								PPS	Strand	0.012	0.014	13.1	0-3	1.2	EPDM	PEEK	Strand	24 V DC
FKM	273 191																		
FFKM	267 651																		

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

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

³⁾ 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.

⁴⁾ 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>Description</p> <p>Plug with flying leads AWG24 with length of 500 mm</p>	<p>Item no.</p> <p>689 974</p>
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In case of special application conditions,
please consult for advice.

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