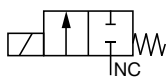




## 2/2 or 3/2 way Whisper Valve with media separation

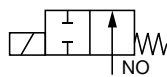
- Highest chemical resistance
- Compact design with 8.9 mm width
- Orifice size 0.8 mm (vacuum up to 5 bar [72.52 psi]) and 1.2 mm (vacuum up to 3 bar [43.51 psi])
- Very fast, almost silent switching with <20 dB (A) and <1 W power consumption
- High back pressure tightness, excellent cleanability and 100 % duty cycle

### Circuit function A



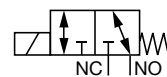
2/2 way direct-acting solenoid valve, normally closed

### Circuit function B



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

### Circuit function T



3/2 way direct-acting solenoid valve, flow direction optional

Many fluidic processes come closer to the point of interest. For example medical devices like dialysis machines become homecare devices and operate close to the patient. Washing units in analytical equipment are positioned on the pipetting arm or directly on the print head in printing applications. This requires special components. Solenoid valves need to switch without noise. They need to be smaller and lighter. Nevertheless it is essential to guarantee a long lifetime and excellent switching characteristics. All this is concerted in the Whisper Valve type 6724 and thanks to the modular structure and the range of available materials this valve is almost universal.

<sup>1</sup> Technical vacuum (-0.8 bar); connection only to NC or NO; do not apply vacuum at the valve outlet (COM /OUT).

<sup>2</sup> With optional boost electronics, see accessories: Vacuum<sup>1</sup> to 7 bar at NC connection, back pressure max. 3 bar permissible.

<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> Please order socket with flying leads separately → see ordering chart for accessories. (other suitable connectors are e.g. W + P: 521 series (Socket 521S-02-1; Contact 521S-01-2-00) or JST (Socket PHR-2; Contact SPH-002GW-P0.5S); Stand 04/2015

<sup>5</sup> No further power reduction possible.

<sup>6</sup> <20 dB(A) with optional soft-close electronics possible, see accessories

Technical data	
<b>Orifice size / pressure range</b>	DN0.8 mm / vacuum <sup>1</sup> to 5 bar <sup>2</sup> DN1.2 mm, 2/2 way / vacuum to 3 bar <sup>2</sup> DN1.2 mm, 3/2 way / vacuum to 2 bar <sup>2</sup>
<b>Body material</b>	PEEK, PPS
<b>Seal material</b>	FFKM, EPDM and FKM
<b>Medium</b>	Resistant to neutral and aggressive gases and liquids (see Bürkert resistance chart)
<b>Media temperature</b>	FFKM: +15 ... +50 °C (59 ... 122 °F)   FKM: 0 ... +50 °C (32 ... 122 °F) EPDM: 0 ... +50 °C (32 ... 122 °F)
<b>Ambient temperature</b>	FFKM: +15 ... +50 °C (59 ... 122 °F)   FKM: 0 ... +50 °C (32 ... 122 °F) EPDM: 0 ... +50 °C (32 ... 122 °F)
<b>Typical service life</b>	10.000.000 (acc. to laboratory duration tests <sup>3</sup> )
<b>Internal volume</b>	Fluid chamber 28 µl / Total (incl. connection) 38 µl
<b>Viscosity</b>	max. 21 mm <sup>2</sup> /s
<b>Port connection</b>	flange; UNF ¼-28
<b>Electrical connection</b>	Plug Raster 2 mm <sup>4</sup>
<b>Power supply</b>	12 V DC; 24 V DC (other voltages on request)
<b>Voltage tolerance</b>	±10 % (incl. Residual ripple)
<b>Power consumption</b>	1 W <sup>5</sup>
<b>Duty cycle</b>	100 % continuous operation
<b>Installation</b>	As required, preferably with actuator upright
<b>Protection class</b>	IP40 acc. to IEC 60144
<b>Switching frequency</b>	-
<b>Switching noise</b>	30 dB (A) / <20 dB (A) on request <sup>6</sup>
<b>Response times</b>	Measurement at valve output with 2 bar and 20 °C acc. to DIN ISO 12238:2001 Opening 3 ms (pressure build-up 0 ... 10 %) Closing 3 ms (pressure build-up 100 ... 90 %)
<b>Approvals and compliance (on request)</b>	Suitable for food industry: FDA Suitable for drinking water: KTW (W270) Oxygen application: BAM

# 6724 Whisper Valve



## Materials

Description	Material
1. Cap	LCP
2. Coil housing	nickel-plated
3. Diaphragm (medium contact)	FFKM, FKM or EPDM
4. Flange seal (medium contact)	FFKM, FKM or EPDM
5. Valve body	LCP
6. Fluid housing (medium contact)	PEEK or PPS (UNF-connection only in PEEK available)

## Dimensions [mm]

**Flange version**

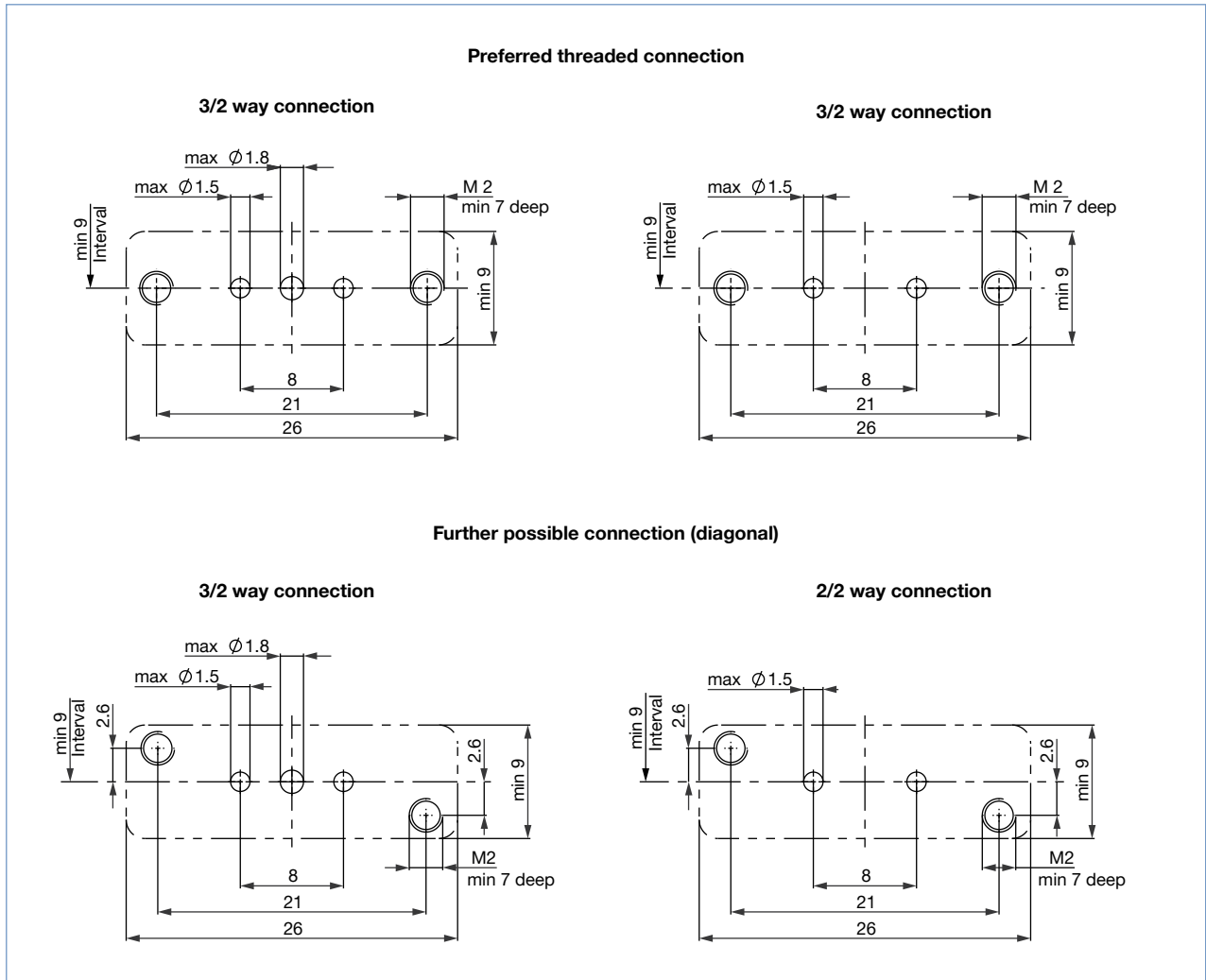
**Threaded port version (UNF 1/4-28)**

Dimensions shown include: 16.1, 41.9, 38.1, 26, 4.9, 6.5, 8.9 (+0.1/-0.2), 152, 41.7, 56.4, 52.6, 5.1±0.5, 6, 3.2±0.1, 40±0.1, 46, 5.8, 11±0.5, 2.6, 2, 2.6, 21, 21, 40, 46, 8.9, 11, 21, 40, 46.

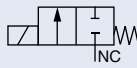
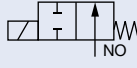
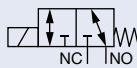
Notes: (48), 3x 1/4-28 UNF FLAT BOTTOM 60°

**Dimensions [mm]** (continued)

**Flange interface (hole)**



**Ordering chart for valves**

Circuit function	Orifice [mm]	Port connection	K <sub>v</sub> value water [m <sup>3</sup> /h] <sup>1)</sup>	C <sub>v</sub> value water [gpm]	Q <sub>Nn</sub> value air [l/min]	Pressure range [bar] <sup>2) 3)</sup>	Max. pressure difference [bar]	Seal material	Body material	Voltage/frequency [V/Hz]	Article no.
<b>A</b> 2/2 way valve, (NC) <sup>4)</sup> 	0.8	Subbase	0.01	0.012	10.7	Vac-5	5	FFKM	PEEK	24 V DC	299245
	1.2		0.026	0.03	28	Vac-3	3				281506
		UNF	0.026 <sup>5)</sup>	0.03 <sup>5)</sup>	28 <sup>5)</sup>	Vac-3	3	281933			
	0.8	UNF	0.01	0.012	10.7	Vac-5	5	299246			
		Subbase	0.01	0.012	10.7	Vac-5	5	EPDM	PPS	299247	
	1.2		0.026	0.03	28	Vac-3	3			281934	
		Subbase	0.01	0.012	10.7	Vac-5	5	FKM	PPS	299248	
	1.2		UNF	0.026 <sup>5)</sup>	0.03 <sup>5)</sup>	28 <sup>5)</sup>	Vac-3			3	PEEK
	Subbase	0.026	0.03	28	Vac-3	3	PPS	24 V DC	281936		
<b>B</b> 2/2 way valve, (NO) 	1.2	Subbase	0.026	0.03	28	Vac-2	2	FFKM	PEEK	24 V DC	281507
<b>T</b> 3/2 way valve, universal function 	0.8	Subbase	0.01	0.012	10.7	Vac-5	5	FFKM	PEEK	24 V DC	299249
	1.2		0.026	0.03	28	Vac-2	2			12 V DC	295322
		Subbase	0.026	0.03	28	Vac-2	2	24 V DC	276458		
	0.8	UNF	0.01	0.012	10.7	Vac-5	5	FFKM	PEEK	299250	
	1.2	UNF	0.026 <sup>5)</sup>	0.03 <sup>5)</sup>	28 <sup>5)</sup>	Vac-2	2			280888	
	0.8	Subbase	0.01	0.012	10.7	Vac-5	5	EPDM	PPS	12 V DC	299279
			0.01	0.012	10.7	Vac-5	5			24 V DC	299251
		Subbase	0.026	0.03	28	Vac-2	2	EPDM	PPS	281935	
	1.2		0.026	0.03	28	Vac-2	2			299252	
		Subbase	0.01	0.012	10.7	Vac-5	5	FKM	PPS	299252	
1.2	0.026		0.03	28	Vac-2	2	281937				

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

<sup>2)</sup> Gauge pressures with respect to the prevailing atmospheric pressure

<sup>3)</sup> Technical vacuum (-0.8 bar); Connection only to NC or NO; At the valve outlet (COM /OUT) do not apply low pressure.

<sup>4)</sup> With the new Boost Close Electronics Type 2503 (689998) the valve can also be operated in reverse flow direction.

<sup>5)</sup> K<sub>v</sub> 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<sub>v</sub>=0.015 m<sup>3</sup>/h; C<sub>v</sub>=0,017gpm ; QNn=21,8l/min



**Ordering information**


Please order plug connector with lead or electronic separately (see ordering chart for accessories)

Attachment for flange pipe connection: 2 stainless steel screws, M2 x 10 (included)

Type 6724 with 2 stainless steel screws M1.6 x 8 for exchanging with type 6604 on request

**i Further versions on request**

**Ordering chart for accessories**

Description	Article no.
 Connector <sup>1)</sup> with flying leads AWG 24, 500 mm length	689974
Plug connectors with 500 mm flying leads and soft-close electronics for noise reduction - For further information refer to the operating instructions for the Type 2503 SoftClose.	689999
Plug connector with 500 mm flying lead and boost electronics to increase the permissible pressure under NC - For further information refer to the operating instructions for the Type 2503 BoostClose.	689998

<sup>1)</sup> Connector comparable with JST PHR-2

For UNF connectors and hoses see data TVU003 - Customised for connecting plates, on request

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

Subject to alteration.  
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