

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



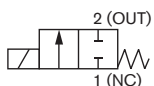
- Highest chemical resistance
- Compact design with 8.9 mm width
- Orifice size 0.8 mm (vacuum up to 5 bar [72.52psi]) and 1.2 mm (vacuum up to 3 bar [43.51psi])
- Very fast, almost silent switching with < 20 dB (A) and < 1 W power consumption
- High back pressure tightness, excellent cleanability and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

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.

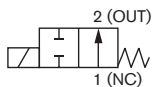
All this is concerted in the Whisper Valve type 6724 and thanks to the modular structure and the range of available materials this valve is almost universal.

Circuit function A



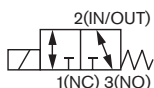
2/2 way valve,
direct-acting,
normally closed

Circuit function B



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

Circuit function T



3/2 way valve,
direct-acting,
Universal function

Technical data	
Orifice size / pressure range	DN 0.8 mm / vacuum to 5bar DN 1.2 mm / vacuum to 3bar
Body material	PEEK, PPS
Seal material	FFKM, EPDM and FKM
Medium	Resistant to neutral and aggressive gases and liquids (see Bürkert resistance chart)
Media temperature	FFKM: +15...+50°C (59...122°F) FKM: 0...+50°C (32...122°F) EPDM: 0...+50°C (32...122°F)
Ambient temperature	FFKM: +15...+50°C (59...122°F) FKM: 0...+50°C (32...122°F) EPDM: 0°C...+50°C (32... 22°F)
Typical service life	10.000.000 (acc. to laboratory duration tests) ¹⁾
Internal volume	Fluid chamber 28 µl / Total (incl. connection) 38 µl
Viscosity	max. 21 mm ² /s
Port connection	flange; UNF 1/4-28
Electrical connection	Plug Raster 2 mm ²⁾
Power supply	12V DC; 24V DC (other voltages on request)
Voltage tolerance	±10% (incl. Residual ripple)
Power consumption	1 W ³⁾
Duty cycle	100 % continuous operation
Installation	As required, preferably with actuator upright
Protection class	IP40 acc. to IEC 60144
Switching frequency	-
Switching noise	30 dB (A) / <20 dB (A) on request ⁴⁾
Schaltzeiten	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 %)
Approvals and compliance (on request)	Suitable for food industry: FDA Suitable for drinking water: KTW (W270) Oxygen application: BAM

¹⁾ Service life depends on the type of medium, the temperature, the pressure, the seal material and the specific operational conditions.

²⁾ 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) orJST (Socket PHR-2; Contact SPH-002GW-P0.5S); Stand 04/2015

³⁾ No further power reduction possible.

⁴⁾ Tested under Bürkert test conditions. The switching noise may vary with conditions.

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

Dimensions: 41.8, 38, 6.5, 8.9, 21, 2.6, 2, 2.6, Ø 2.2, 0.5, 4.9, 26, 16.1, NC, NO

Threaded port version (UNF1/4-28)

Dimensions: 16.1, 3.8, 31.5, 41.6, 56.3, Ø 3.2, 5.1, 6, 60°, 5.8, 8.9, 11, 26, 40, 46, NC, NO

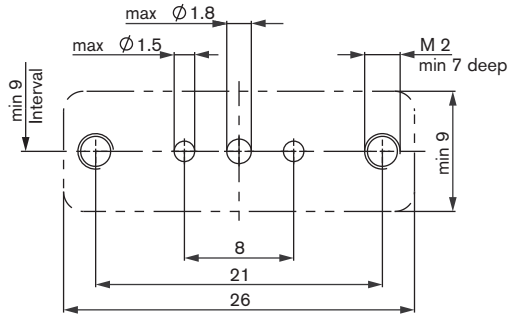
3x 1/4-28 UNF flat bottom

Dimensions [mm] (continued)

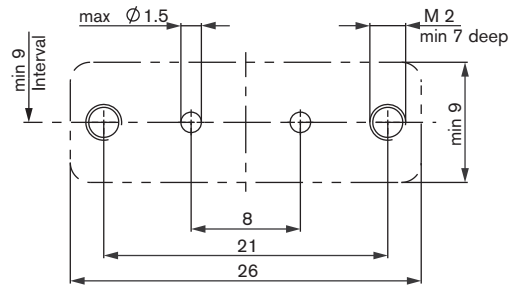
Flange interface (hole)

Preferred threaded connection

3/2 way connection

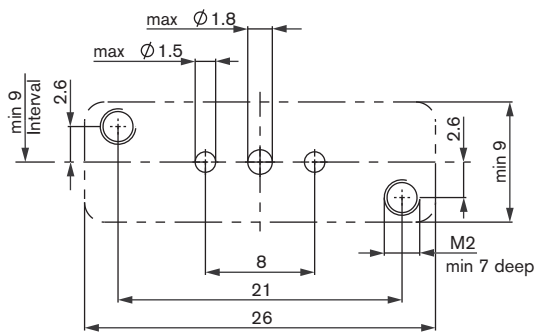


3/2 way connection

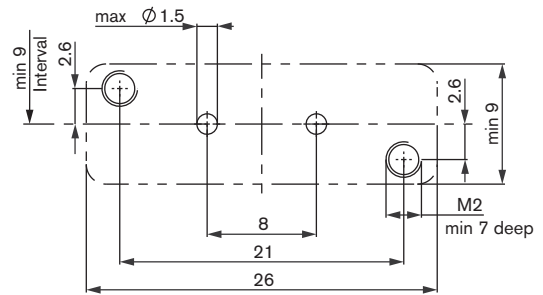


Further possible connection (diagonal)

3/2 way connection



2/2 way connection



Ordering chart for valves

Circuit function	Orifice [mm]	Port connection	Kv value water [m ³ /h] ¹⁾	Cv value water [gpm]	QNm value air [l/min]	Pressure range [bar] ²⁾	Max. pres- sure differ- ence [bar]	Seal mate- rial	Body mate- rial	Voltage/ frequency [V/Hz]	Item no.	
A 2/2 way valve, direct acting, Normally closed (NC)	0.8	Sub- base	0.01	0.012	10.7	Vac-5	5	FFKM	PEEK	24 V DC	299 245	
	1.2		0.026	0.03	28	Vac-3	3				281 506	
			UNF	0.026	0.03	28	Vac-3				3	281 933
	0.8	UNF	0.01	0.012	10.7	Vac-5	5	EPDM	PPS		299 246	
			0.01	0.012	10.7	Vac-5	5				299 247	
	1.2	Sub- base	0.026	0.03	28	Vac-3	3	FKM	PPS		281 934	
			0.01	0.012	10.7	Vac-5	5			299 248		
	1.2	UNF	0.026	0.03	28	Vac-3	3	PEEK	PPS	12 V DC	295 793	
			Sub- base	0.026	0.03	28	Vac-3			3	24 V DC	281 936
	B 2/2 way valve, direct acting, Normally open (NO)	1.2	Sub- base	0.026	0.03	28	Vac-2	2	FFKM	PEEK	24 V DC	281 507
T 3/2 way valve, direct acting, Universal function	0.8	Sub- base	0.01	0.012	10.7	Vac-5	5	FFKM	PEEK	24 V DC	299 249	
	1.2		0.026	0.03	28	Vac-2	2				12 V DC	295 322
			0.026	0.03	28	Vac-2	2				24 V DC	276 458
	0.8	UNF	0.01	0.012	10.7	Vac-5	5	EPDM	PPS	24 V DC	299 250	
			0.026	0.03	28	Vac-2	2				280 888	
	0.8	Sub- base	0.01	0.012	10.7	Vac-5	5	EPDM	PPS		12 V DC	299 279
			0.01	0.012	10.7	Vac-5	5				24 V DC	299 251
	1.2	Sub- base	0.026	0.03	28	Vac-2	2	FKM	PPS		281 935	
	0.8		0.01	0.012	10.7	Vac-5	5				299 252	
	1.2		0.026	0.03	28	Vac-2	2			281 937		

¹⁾ Measured at +20 °C, 1 bar pressure at valve inlet and free outlet.
²⁾ Gauge pressures with respect to the prevailing atmospheric pressure



Ordering information

Please order socket 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	Item no.
Connector ¹⁾ with flying leads AWG24, 500 mm length	689 974

¹⁾ Connector comparable with JST PHR-2
 For UNF connectors and hoses see data TVU003
 - Customised for connecting plates, on request