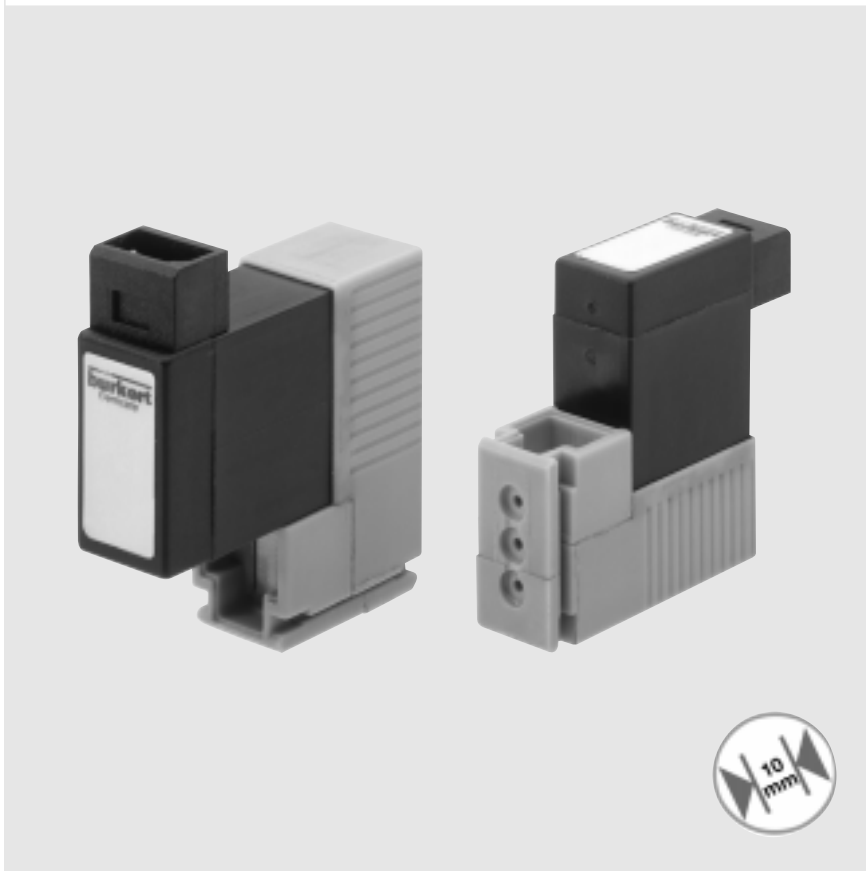


Sub-base



Advantages/Benefits

- ▶ Design of smaller, lighter and more complex analytical instruments
- ▶ Hermetic isolation of fluid from the actuator
- ▶ Body material: PEEK
Seal material: FFKM (Simriz)
- ▶ High back-pressure rating
- ▶ Low internal volume
- ▶ Normally closed, normally opened and 3-way universal functions
- ▶ Impulse version on request
- ▶ Flow diagnosis on request

Design/Function

A unique flipper designed actuating mechanism operates an isolating diaphragm that separates the actuator itself and the coil from the fluid.

No friction, no risk of sticking and a strong and rugged diaphragm provide a high reliability and long service life.

The valve has a minimal internal volume that is easily purged. No cross-contamination occurs and the control of critical fluids are possible.

Heat transfer is virtually eliminated as the coil is not directly in contact with the diaphragm.

A high accuracy and the control of critical fluids are possible.

With the 10 mm micro valve with separating diaphragm smaller, lighter and more complex analytical instruments can be designed.

The valves are ideal for compact manifold mounting. Custom manifolds are available to satisfy specific application requirements, including dead volume free designs.

Applications

- Medical technology
- Bio technology
- Analytical instruments
- Disinfectants and solvents
- Strong acid and bases, oxidizing solutions

bürkert
Easy Fluid Control Systems

10 mm Micro Flipper Solenoid Valve with Isolating Diaphragm for Analytical Applications

Type 6603/6604
(2/2- 3/2-way)

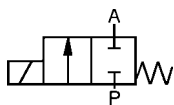
Technical Data

type 6603: 2/2-Way

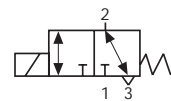
type 6604: 3/2-Way

Circuit Function

A 2/2-way valve,
normally closed



T 3/2-way valve, direct acting,
universal function, any flow direction



Valve specification

Pressure range max.	Vacuum -3 bar (see specifications)
Body material	PEEK
Seal material	FFKM (SIMRIZ Perfluorelastomer)
Fluids	Aromatics, ethers, esters, ketones, solvents
Fluid temperature	0 to +50 °C
Ambient temperature	max. +55 °C
Max. viscosity	approx. 21 mm ² /s
Response time	approx. 20 ms
Internal volume:	approx 15 µl

Solenoid specification

Nominal voltages	DC 12, 24 V/=
Voltage tolerance	±10 %
Power consumption	1.5 W
Duty cycle	
single valve:	100% continuously rated
multiple valve on manifold:	if temperature of fluid or ambient >40°C intermittent operation 40% (10 min.)
Cycling rate	approx. 1000 c.p.m.
Protection class	IP 65 with leads, IP 40 with rectangular plug

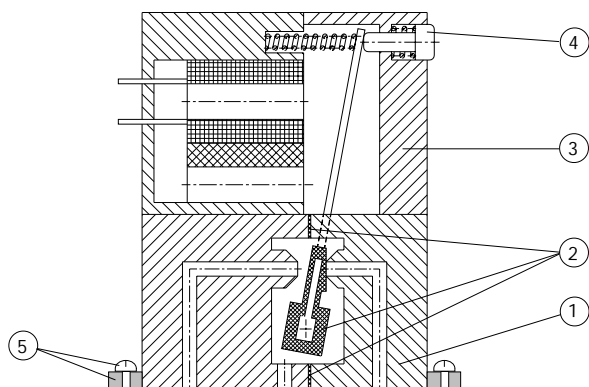
Manifolds

Manifolds according to specific application demands are available including dead volume free valves and manifolds.

Installation / Accessories

Installation	as required, but preferably with solenoid system upright.
Fixation	M1.6 x 5 from the top, 2 mounting clips and screws supplied as standard
Electrical connection	• rectangular connector • flying leads
Cable plug	Rectangular plug

Materials

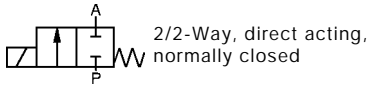


1 Valve body:	PEEK
2 Diaphragm:	FFKM (Simriz)
3 Coil body:	PA (Polyamide)
4 Manual override:	PEEK
5 Mounting clip:	PA with stainless steel screw

10 mm Micro Flipper Solenoid Valve with Isolating Diaphragm for Analytical Applications

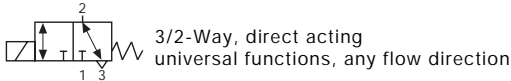
Type 6603/6604
(2/2- 3/2-way)

Specifications - Ordering Chart (other versions on request)



PEEK valve body

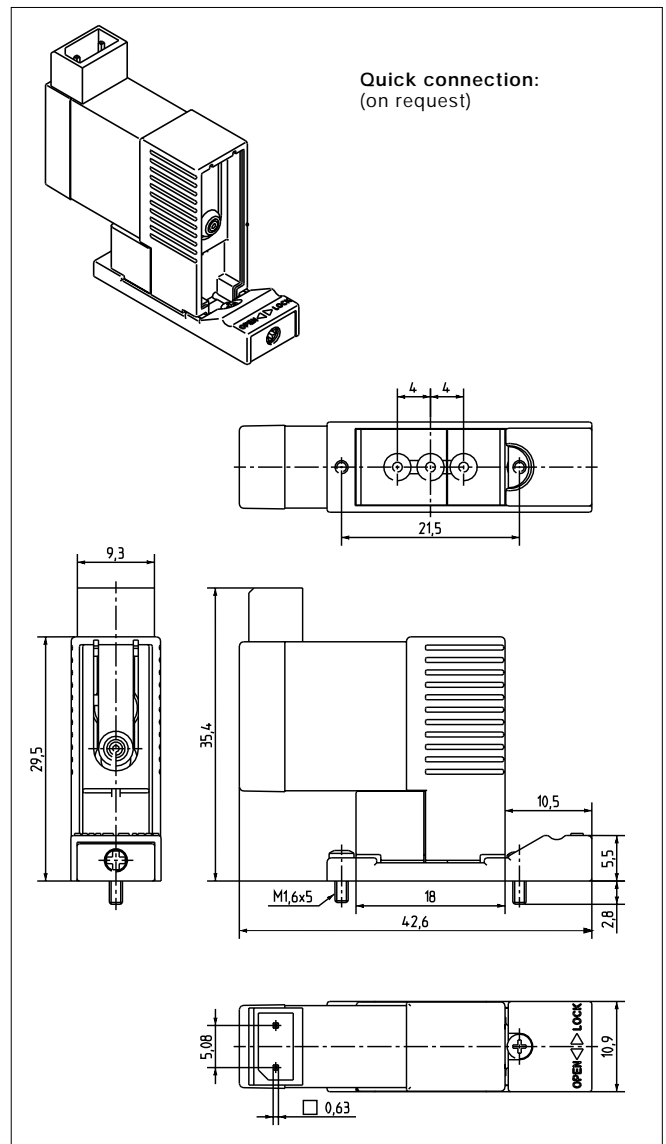
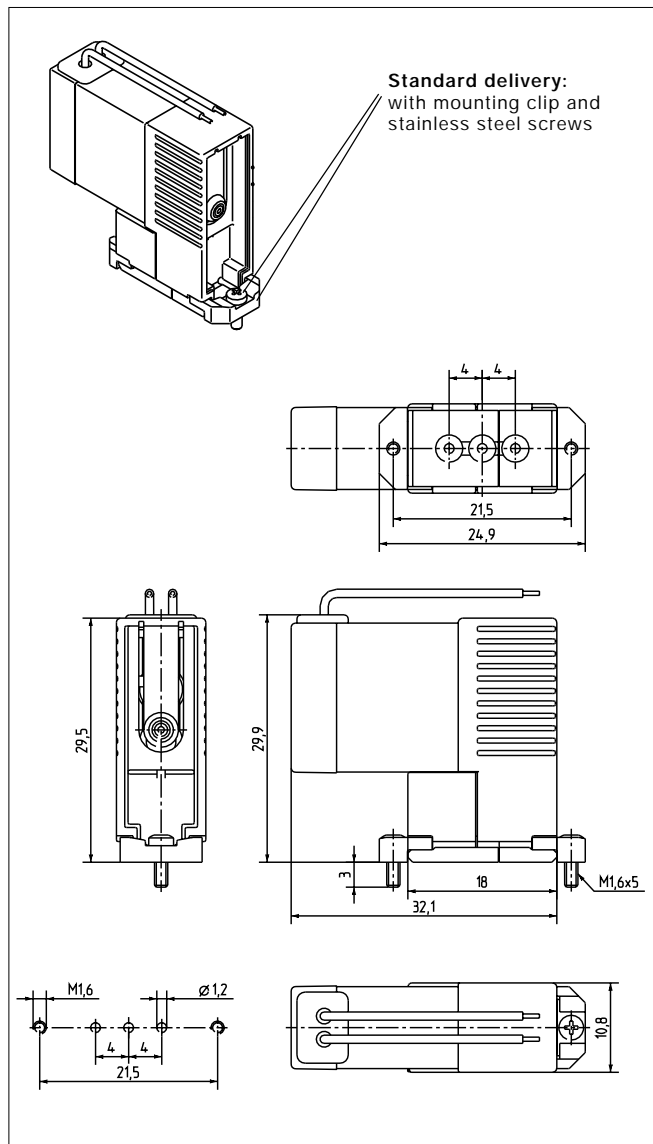
Port connection	Orifice DN [mm]	Kv-Value (water) [m³/h]	Q _{Nn} (air) [l/min]	Pressure Range [bar]	Back-pressure [bar]	Seal Material	Electrical Connection	Weight [g]	ITEM - No.	
									Voltage / Frequency [V/Hz]	12/DC
Sub-base	0.6	0.005	5	Vac.-3.0	3	FFKM	leads	12	140 465 C	140 466 D
Sub-base	0.6	0.005	5	Vac.-3.0	3	FFKM	rect. plug	12	140 463 A	140 646 B



PEEK valve body

Port connection	Orifice DN [mm]	Kv-Value (water) [m³/h]	Q _{Nn} (air) [l/min]	Pressure Range [bar]	Back-pressure [bar]	Seal Material	Electrical Connection	Weight [g]	ITEM - No.	
									Voltage / Frequency [V/Hz]	12/DC
Sub-base	0.6	0.005	5	Vac.-3.0	3	FFKM	leads	12	140 472 B	140 471 A
Sub-base	0.6	0.005	5	Vac.-3.0	3	FFKM	rect. plug	12	140 469 Q	140 470 M

Dimensions [mm]



10 mm Micro Flipper Solenoid Valve with Isolating Diaphragm for Analytical Applications

Type 6603/6604
(2/2- 3/2-way)

Rectangular cable plug type 2505

Technical Data

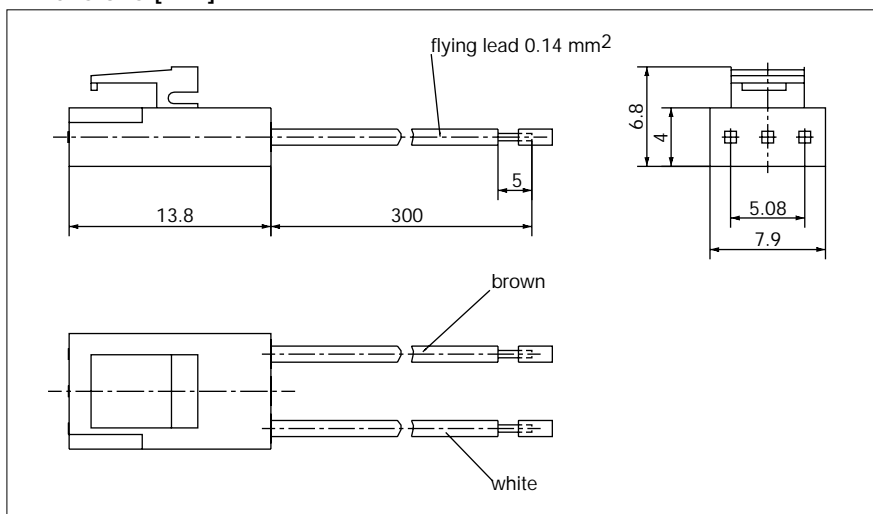
Protection class	IP 20
Operating voltage	24 V
Power consumption	3 W
Operating temperature	0-50 °C

Ordering¹⁾

	Item-No.
cable length 300 mm	644 068 N
cable length 3 m	133 486 F

¹⁾ Please order separately
(no standard delivery)

Dimensions [mm]



Diagnosis valve (available on request)

- Flow / low flow signal with adjustable level
- Valve position signal
- LED's and binary outputs
- for 2/2-way and 3/2-way valves

Dimensions [mm]

