







## Micro Pump 11 mm

- self-priming
- nearly pulsation free
- for continuous pump applications
- diaphragm pump

The Burkert series 7604 is a unique, self-priming, adjustable, diaphragm pump with a long service life and quiet operation that is ideally qualified for aggressive media. The pump is perfectly suited for continuous liquid low flow applications. Variations in flow rate are achieved by simply varying the frequency input. With a maximum frequency input of about 40 Hz, the fluid flows virtually pulsation free. Perfluorelastomer seals and a PEEK body are the only wetted parts, allowing the pump to be used for a wide range of aggressive fluids, organic and inorganic solvents and other difficult to handle media. The compact design (only 11 mm wide) allows for ease of mounting with standard bodies designed for surface mount (manifold) or tube connections. The low power consumption allows the device to be easily incorporated into mobile devices, and virtually eliminates any heat transfer passed from the actuator to the fluid. „Manufactured by Burkert“ ensures the user the same high quality products and proven reliability they have depended on in today's innovative market.

### Applications

-  continuous pumping
-  Probe preparation e.g. for HPLC
-  Replacement of peristaltic pumps
-  Lubricant dosing

Technical data	
<b>Body material</b>	PEEK
<b>Seal material</b>	FFKM
<b>Fluids</b>	resistance to a wide range of organic and inorganic solvents (see chemical resistance chart) suitable for particles < 20 µm <sup>1)</sup>
<b>Fluids temperature</b>	+10 to +60 °C
<b>Ambient temperature</b>	+10 to +55 °C
<b>Max. life cycle</b>	> 1 milliard (10 <sup>9</sup> )
<b>Max. flow rate</b>	> 5 ml/min <sup>2)</sup>
<b>Min. flow rate</b>	1 ml/min <sup>2)</sup>
<b>Flowrate at 35Hz</b>	≥ 4,5 ml/min <sup>2)</sup>
<b>Reproducibility</b>	± 5 % <sup>2)</sup>
<b>Pressure</b>	>200 mbar <sup>3)</sup>
<b>Suction pressure (pump dry)</b>	>100 mbar
<b>Pump frequency</b>	8–40 Hz
<b>Nominal voltage</b>	12, 24 V/DC, pulsing by max. 40 Hz (use impulse generator, pulse duty factor 50:50)
<b>Voltage tolerance</b>	± 10 %
<b>Power consumption</b>	1.5 W (P <sub>eff</sub> = 400 mW)
<b>Elec. connections</b>	Rectangular plug, flying leads
<b>Fluid connections</b>	Bürkert-Flange Barb tubes Ø 2.8 mm und Ø 1.7 mm UNF 1/4"-28
<b>Installation position</b>	as required
<b>Mounting pitch</b>	11 mm
<b>Protection class</b>	IP40

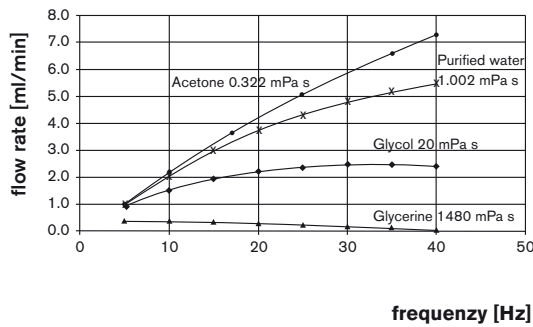
<sup>1)</sup> Please use an appropriate filter.

<sup>2)</sup> 22 °C, purified water

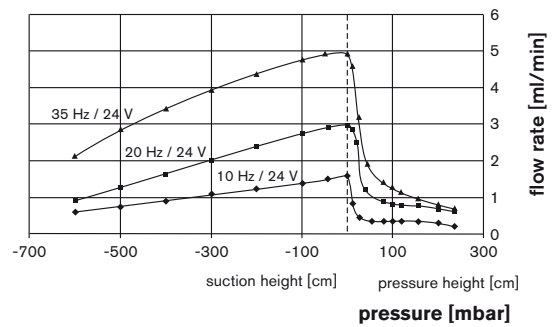
<sup>3)</sup> [bar]: overpressures with respect to atmospheric pressure

## Restart points

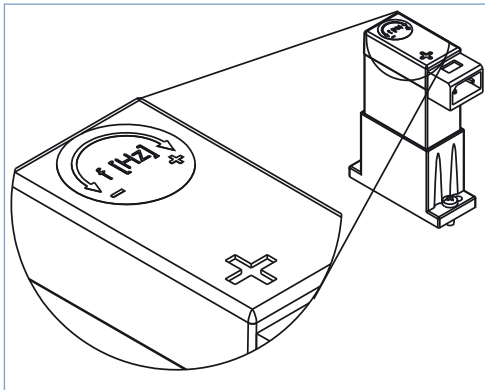
### Flow rate against frequency for different viscosities



### Flow rate against suction and pressure height (pump wet)



## Integrated impulse generator



The optional integrated impulse generator is built in the cover of the pump. To change the frequency turn the pre-set potentiometer.

### Technical Data

Frequency range	5 to 40 Hz
Nominal voltage	24 V/DC, 12 V/DC
Voltage tolerance	± 10 %

## Ordering chart Accessoires

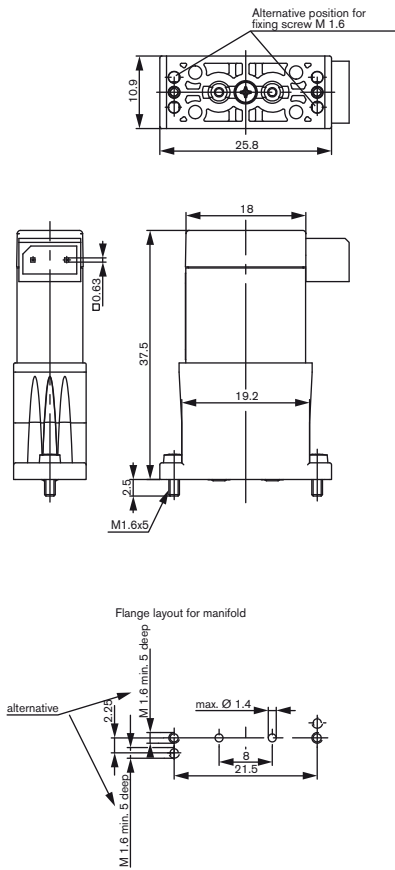
Port connection	Seal material	Body material	Electrical connection	Voltage/V	Item no.
Flange	FFKM	PEEK	Rectangular plug	24V	156 992
Flange	FFKM	PEEK	Rectangular plug with integrated Clock generator	24V	161 399
Flange	FFKM	PEEK	Rectangular plug	12V	169 489
Flange	FFKM	PEEK	Rectangular plug with integrated Clock generator	12V	208 104
Tube spigot Øa=2.8mm	FFKM	PEEK	Rectangular plug	24V	156 993
Tube spigot Øa=2.8mm	FFKM	PEEK	Rectangular plug with integrated Clock generator	24V	161 398
Tube spigot Øa=2.8mm	FFKM	PEEK	Flying leads	24V	176 635
Tube spigot Øa=2.8mm	FFKM	PEEK	Rectangular plug	12V	171 568
Tube spigot Øa=2.8mm	FFKM	PEEK	Rectangular plug with integrated Clock generator	12V	246 567
Tube spigot Øa=1.7mm	FFKM	PEEK	Flying leads	24V	234 668
UNF	FFKM	PEEK	Rectangular plug	24V	155 781
UNF	FFKM	PEEK	Rectangular plug with integrated Clock generator	24V	163 782
UNF	FFKM	PEEK	Flying leads	24V	189 519
UNF	FFKM	PEEK	Rectangular plug	12V	164 991
UNF	FFKM	PEEK	Rectangular plug with integrated Clock generator	12V	183 561
UNF	FFKM	PEEK	Flying leads	12V	210 613

Ordering chart Accessoires

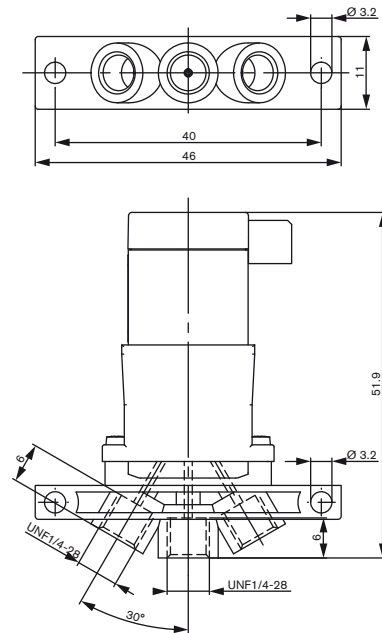
Accessory	Item no.
Rectangular plug 5.08 mm with 3 m cable	133 486
Rectangular plug 5.08 mm with 300 mm leads	644 068
Rectangular plug 5.08 mm with 2 single contacts	644 067
Fittings and Tubes	see data sheet TVU003

Dimension [mm]

Flange version (FB05)

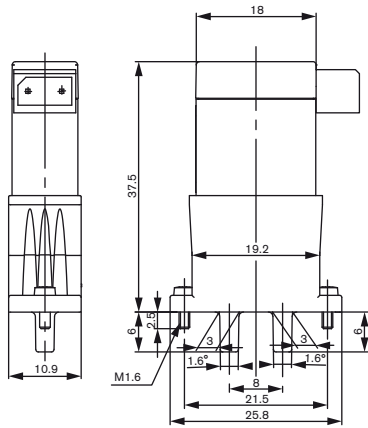


Standard version with UNF-Manifold (UNFB)

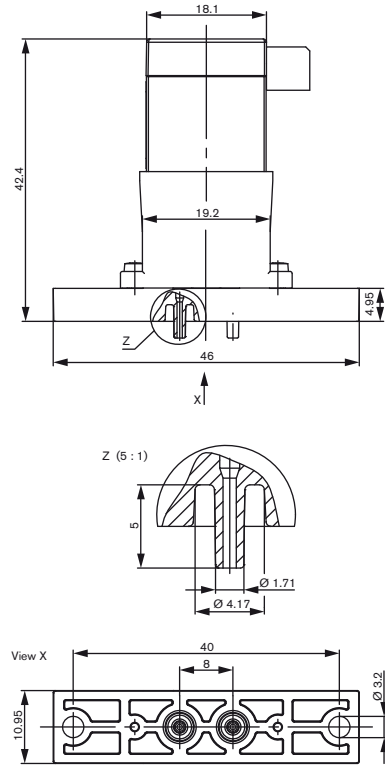


Dimension [mm]

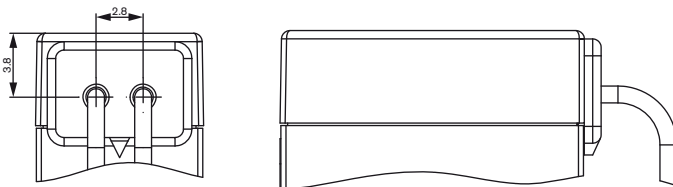
Variation with tube spigot (DA14)



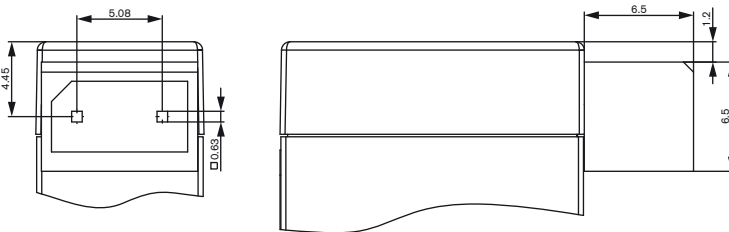
Variation with tube spigot (DA20)



Electrical connection: Flying leads (JC09)



Electrical connection: Rectangular plug (JF80)



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

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