



Micro diaphragm pump for continuous pumping

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



Product variants described in the data sheet may differ from the product presentation and description.

Can be combined with



Type 2505

Socket for 10 mm for
Bürkert Solenoid Valves

Type description

The Bürkert series 7604 is a unique, selfpriming, 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 Bürkert“ ensures the user the same high quality products and proven reliability they have depended on in today's innovative market.

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1. General technical data

Product properties	
Dimensions	Detailed information can be found in chapter "4. Dimensions" on page 5.
Materials	
Fluid housing	PEEK
Seals	FFKM
Reproducibility	± 5 % ^{1.)}
Mounting pitch	11 mm
Pump frequency	8...40 Hz
Life cycle (max.)	>1 billion (10 ⁹)
Performance data	
Flow rate	Min. 1 ml/min ^{1.)2.)} Max. >5 ml/min ^{1.)2.)}
Flow rate at 35 Hz	≥ 4.5 ml/min ^{1.)2.)}
Output pressure	>200 mbar ^{3.)}
Suction pressure (dry pump)	>100 mbar
Electrical data	
Nominal voltage	12/24 V DC, pulsating with max. 40 Hz (use impulse generator) Duty cycle 50:50
Voltage tolerance	± 10 %
Power consumption (max.)	1.5 W (P _{eff} = 400 mW)
Medium data	
Medium	Resistant to neutral and aggressive liquids (see "3.1. Chemical Resistance Chart – Bürkert resistApp" on page 4) Suitable for particles <20 µm ^{4.)}
Mediumtemperature	+10 °C...+60 °C
Product connections	
Port connection	Bürkert flange Hose connector Ø 2.8 mm UNF ¼"-28
Electrical connection	Rectangular plug Type 2505 ▶, flying leads
Environment and installation	
Installation position	As required, preferably with flange downwards
Ambient temperature	+10 °C...+55 °C
Protection class	IP40 (IP30 with rectangular plug Type 2505)




1.) At 22 °C, purified water, related to the individual pump

2.) The flow rate depends on the individual operating conditions

3.) Pressure: overpressures with respect to atmospheric pressure


4.) The use of a suitable filter is recommended.

2. Product versions

Rectangular plug device with flange	Flying leads device with UNF connection	Rectangular plug device with hose connection
		

3. Materials

3.1. Chemical Resistance Chart – Bürkert resistApp



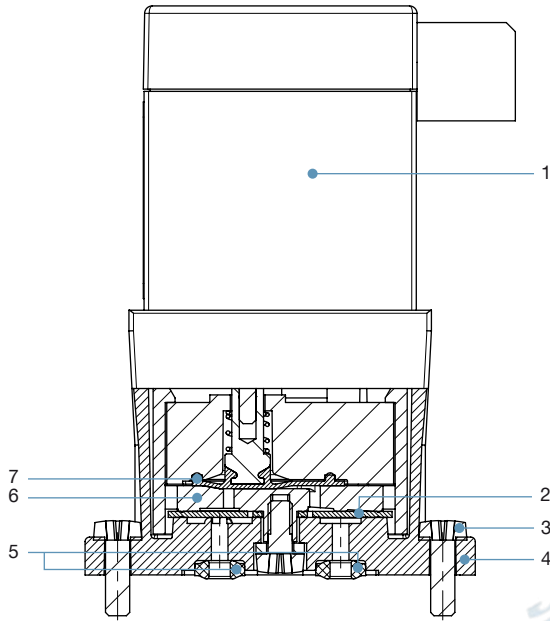
Bürkert resistApp – Chemical Resistance Chart

You want to ensure the reliability and durability of the materials in your individual application case? Verify your combination of media and materials on our website or in our resistApp.

[Start Chemical Resistance Check](#)

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3.2. Material specifications



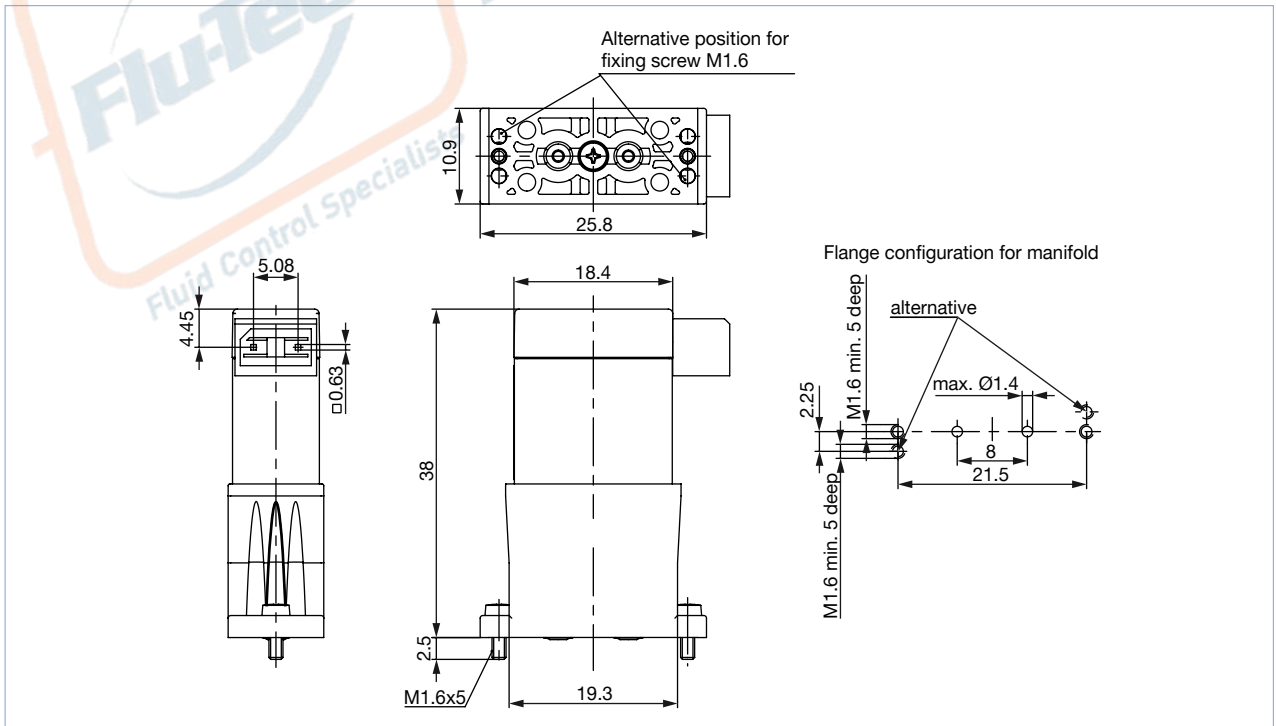
No.	Element	Material
1	Coil	PA
2	Check valve (medium contact)	FFKM
3	Fixing screw	Steel (hardened and tempered)
4	Fluid housing (medium contact)	PEEK
5	Moulded seal (medium contact)	FFKM
6	Fluidic (medium contact)	PEEK
7	Diaphragm (medium contact)	FFKM

4. Dimensions

4.1. Flange version (FB05) with rectangular plug

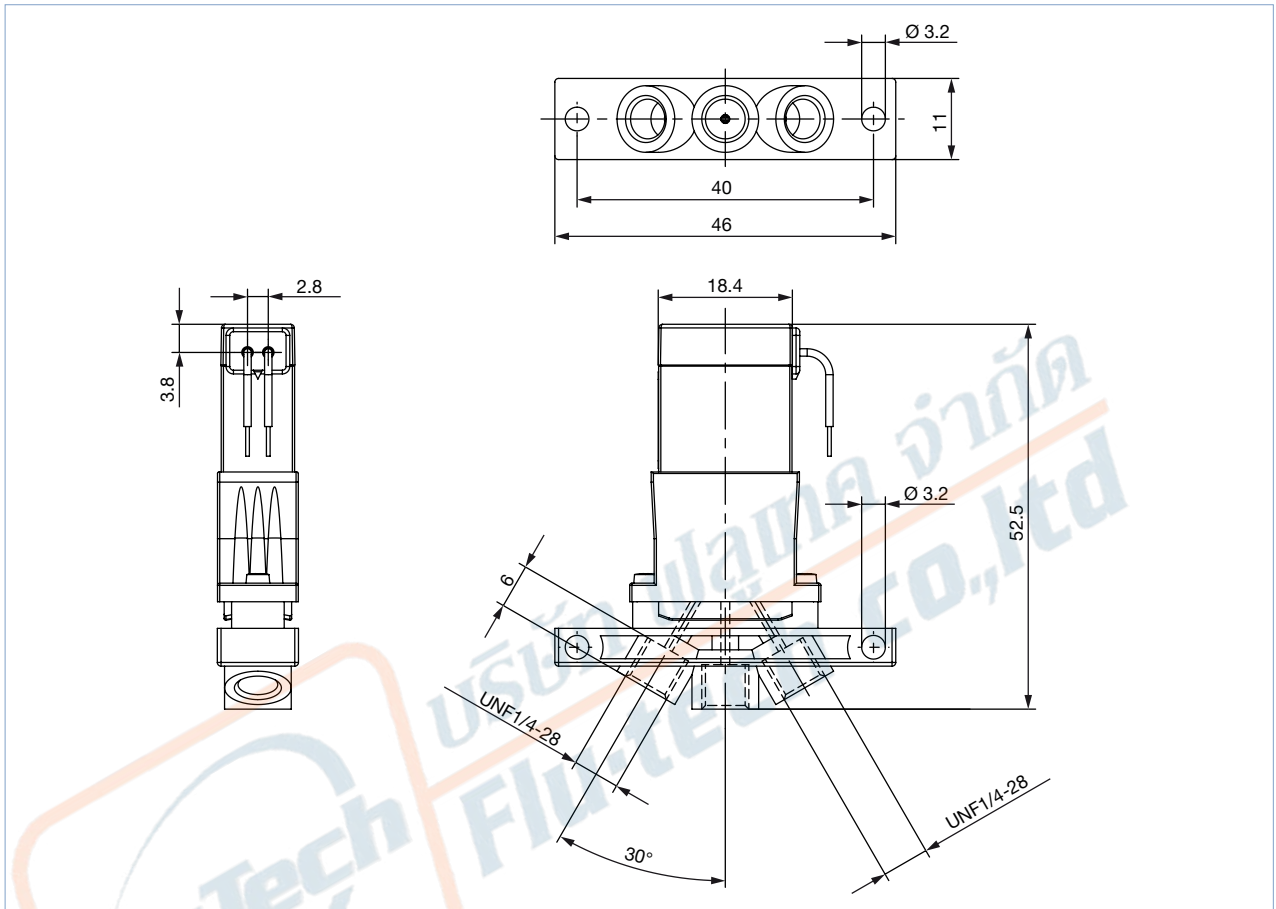
Note:

Dimensions in mm

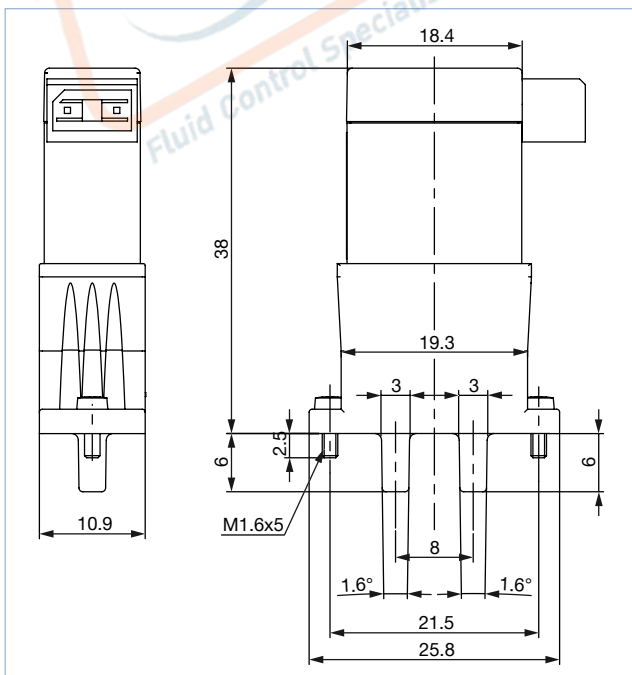


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4.2. UNF version (UNFB) with flying leads



4.3. Hose connector version (DA14) with rectangular plug



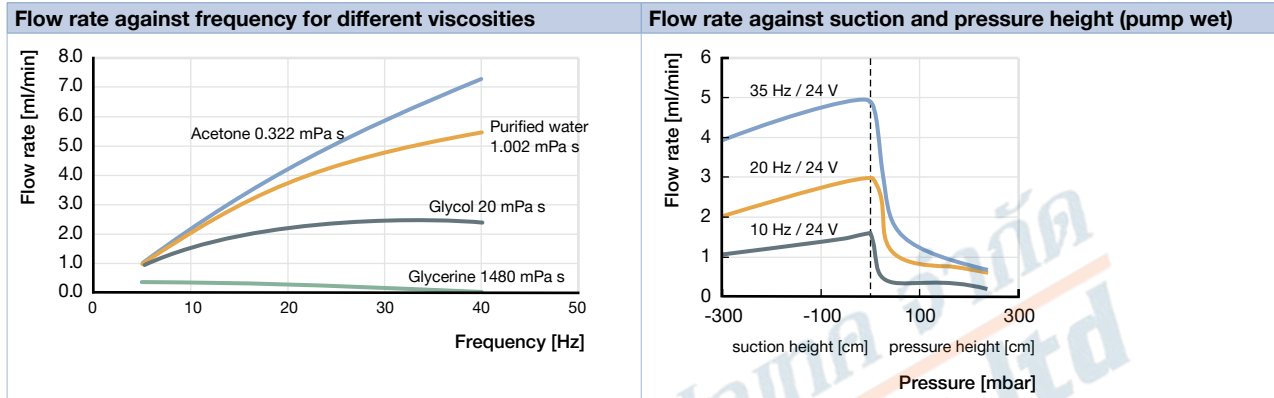
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5. Performance specifications

5.1. Flow characteristic

Flow rate diagram

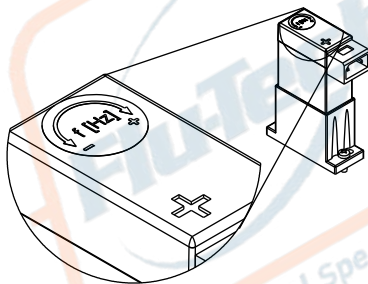
The following flow rate diagrams are examples only. The flow rate depends on the individual operating conditions.



6. Product accessories

6.1. Integrated impulse generator


The optional integrated impulse generator is built in the cover of the pump. The desired frequency can be set via a rotary potentiometer.



Technical data	
Frequency range	8...40 Hz
Nominal voltage	24 V DC, 12 V DC
Voltage tolerance	± 10 %

7. Ordering information

7.1. Bürkert eShop – Easy ordering and quick delivery



Bürkert eShop – Easy ordering and fast delivery

You want to find your desired Bürkert product or spare part quickly and order directly? Our online shop is available for you 24/7. Sign up and enjoy all the benefits.

[Order online now](#)

7.2. Bürkert product filter



Bürkert product filter – Get quickly to the right product

You want to select products comfortably based on your technical requirements? Use the Bürkert product filter and find suitable articles for your application quickly and easily.

[Try out our product filter](#)

7.3. Ordering chart

Note:

The scope of delivery for rectangular plug devices is without plug connector, see “7.4. Ordering chart accessories” on page 9





Port connection	Seal material	Body material	Electrical connection	Voltage	Article no.
Flange	FFKM	PEEK	Rectangular plug	24 V	156992 ☒
			Rectangular plug with integrated impulse generator	24 V	161399 ☒
			Rectangular plug	12 V	169489 ☒
			Rectangular plug with integrated impulse generator	12 V	208104 ☒
Hose connector $\text{Ø}a=2.8$ mm	FFKM	PEEK	Rectangular plug	24 V	156993 ☒
			Rectangular plug with integrated impulse generator	24 V	161398 ☒
			Rectangular plug	12 V	171568 ☒
			Rectangular plug with integrated impulse generator	12 V	246567 ☒
UNF 1/4-28	FFKM	PEEK	Rectangular plug	24 V	155781 ☒
			Rectangular plug with integrated impulse generator	24 V	163782 ☒
			Flying leads	24 V	189519 ☒
			Rectangular plug	12 V	164991 ☒
			Rectangular plug with integrated impulse generator	12 V	183561 ☒
			Flying leads	12 V	210613 ☒

7.4. Ordering chart accessories

Rectangular plug Type 2505, fittings and hoses

Note:

For further rectangular plug versions see separate data sheet for **Type 2505** ▶.

Accessories	Description	Article no.
	Rectangular plug grid 5.08 mm with 300 mm flying leads	644068 ☒
	Rectangular plug grid 5.08 mm with 3 m cable	252572 ☒
	Rectangular plug grid 5.08 mm with 2 separate contacts	644067 ☒
	Fittings and hoses	see data sheet TVU003 ▶