

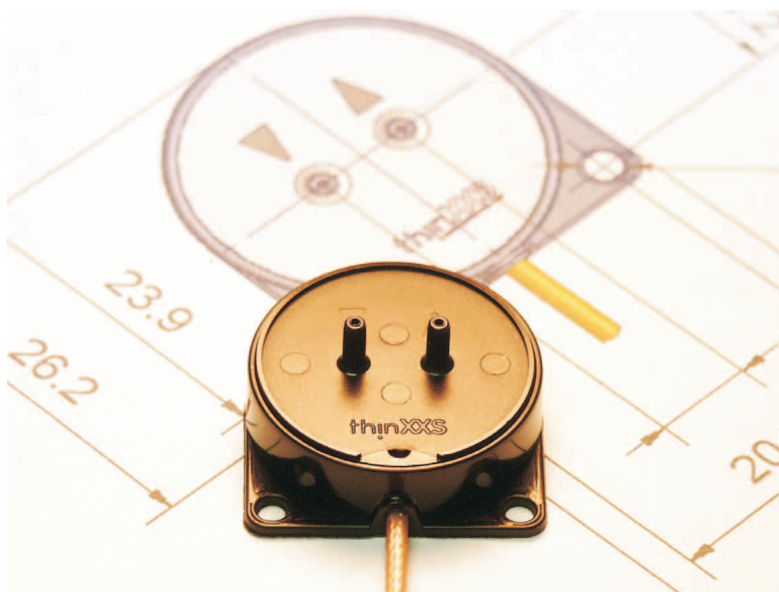
MDP1304

micro diaphragm pump



Main features

- small dimensions
- extremely light
- quiet operation
- low power consumption
- self-priming
- tolerant of gas bubbles
- dry running, long lifetime, and maintenance free
- precise flow rate control by frequency



The MDP1304 is a piezo-actuated micro diaphragm pump. It is ideally suited for applications in which reliable pumping of tiny amounts of

liquids or gases is required, but space and power are scarce. It may be easily adapted and even integrated (e.g. into the housing) to suit

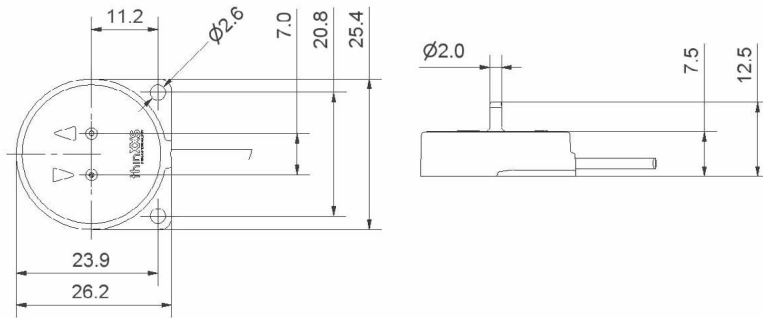
typical OEM requirements. Optimum control of the pump's flow rate is provided by the electronic pump controls of the EDP series.

Technical specifications

max. flow rate (at 22°C, no back pressure)		
water	7.0 ml/min (typ.)	
isopropanol	8.0 ml/min (typ.)	
methanol	10.0 ml/min (typ.)	
air	22.0 ml/min (typ.)	
max. back pressure (at 22°C, 25 Hz, no flow)		
water	35.0 kPa	(≈ 5.1 psi)
isopropanol	37.5 kPa	(≈ 5.4 psi)
methanol	40.0 kPa	(≈ 5.8 psi)
air (at 100 Hz)	10.0 kPa	(≈ 1.5 psi)
suction height (water)	1.0 m	
power consumption (at 5 V DC and operated with EDP0504)	0.23 W @ 25 Hz	
max. particle size	10 µm	
max. viscosity	~ 350 mPas	
lifetime	> 10 ⁸ strokes	
operating / media temperature	5° - 50° C	
storage temperature	0° - 55° C	
wetted parts	COC (Topas®)	
dimensions (w/o cover, inlet / outlet, and power cable)	∅ 23.1 mm x 3.3 mm	
weight	3 g	

Application areas

- medical / pharmaceutical
- environmental / water treatment
- food / toxicology
- fuel cells
- ink jet printing



(all dimensions in mm)

Connections

electronics

SMB-type, RF, coaxial,
crimp, plug (female),
Telegärtner J01161A0021

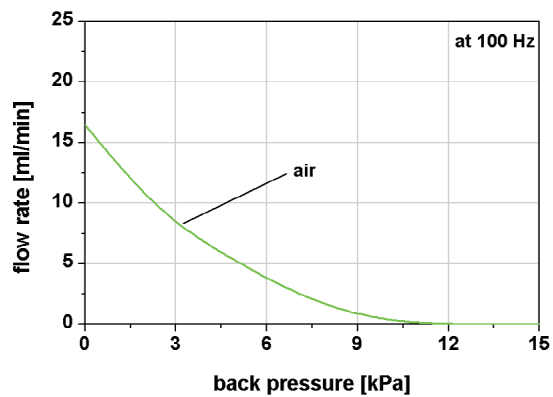
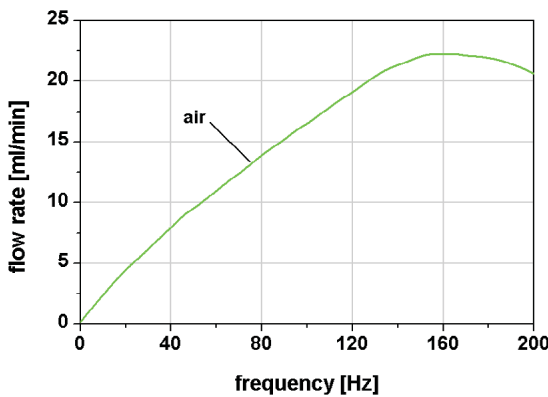
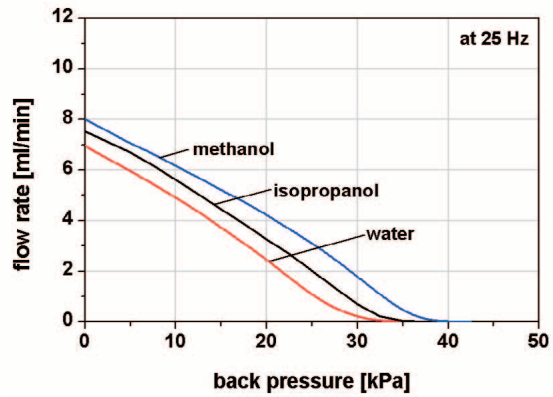
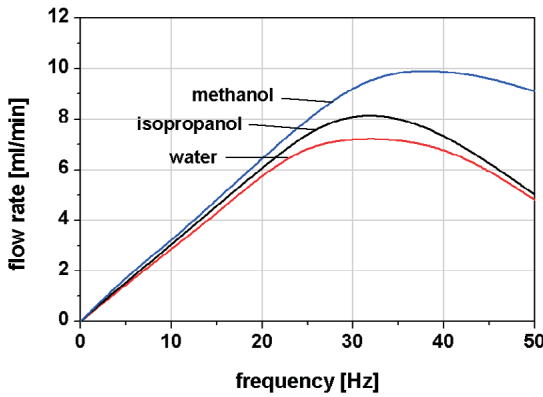
fluidics

inner diameter: 0.8 mm
outer diameter: 2.0 mm
length: 5.0 mm

recommended tubing

Siltube TR60
inner diameter: 1.0 mm
outer diameter: 3.0 mm

Typical flow curve characteristics*



* N.B.: the values given above depend on several parameters, e.g. fluid and tubing. They were measured at 22°C by using: an EDP0504 electronic pump control, tubes (Siltube TR60) of 15 cm in length at both suction and pressure head, and a precision laboratory scale. Variation of these parameters is likely to render different values.

Order information

Description	Product code	Order code
Micro Diaphragm Pump	MDP1304	PA13CC0401
OEM Pump Control	EDP0504	EA05XX0401