

## Micro Dosing Unit



- Diaphragm pump
- Self-priming
- For precise dispensing
- Bi-directional
- Optimal drop rate control

With the Type 7616 Micro Dosing Unit, Bürkert has provided a new compact alternative for precise dispensing in the  $\mu\text{l}$ -range. This unit, which operates on the diaphragm pump principle, features high repeatability. This makes it ideal for the precise dispensing of very small quantities of liquids and gases.

The delivered volume can be adjusted via the cycle rate or stroke adjustment. The use of PEEK and FFKM as the only materials that come into contact with the media facilitate its use with aggressive media.

Due to the symmetrical design (2 x Type 6604, 1 x Type 6606, PEEK manifold), bi-directional feed is possible.

Matching drive electronics (RS 232) complete with software are available.

### Applications

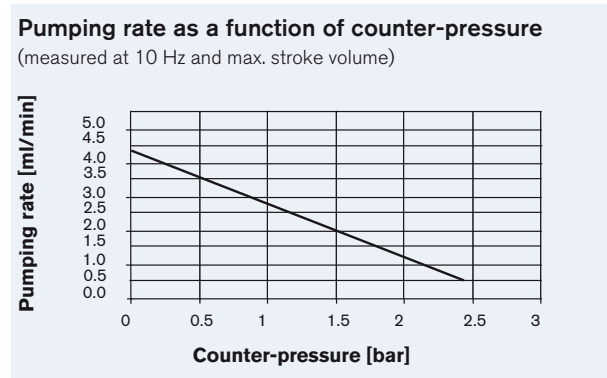
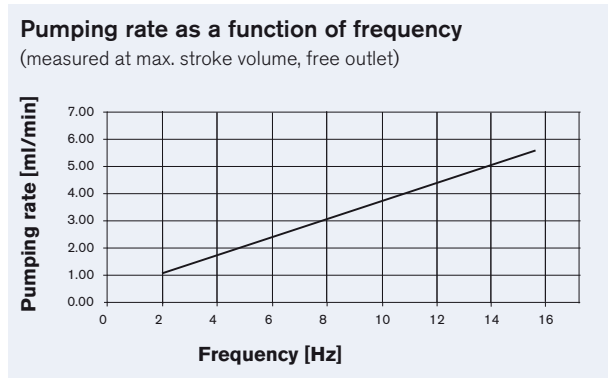
- Medical, analytical and biotechnology
- Replacement for injection pumps (syringes) in pipetting
- Moistening paper
- Preparation of samples for HPLC
- Lubricant dosing

Technical data	
<b>Body material</b>	PEEK
<b>Sealing material</b>	FFKM (Simriz)
<b>Media</b>	Resistant against neutral and aggressive liquids and gases (see chemical resistance chart)
<b>Medium temperature</b>	+10 to 60 °C
<b>Ambient temperature</b>	max. 55 °C
<b>Dosage</b>	mechanically adjustable from 4 $\mu\text{l}$ to 6 $\mu\text{l}$ per stroke
<b>Pump frequency</b>	max. 900 cycles/min (15 Hz)
<b>Standard deviation Dosage</b>	< $\pm 2\%$ at 5 $\mu\text{l}$ stroke <sup>2)</sup>
<b>Maximum outlet pressure</b>	2.5 bar <sup>1)</sup>
<b>Duty cycle</b>	100%
<b>Operating voltage</b>	12 V/DC, 24 V/DC
<b>Voltage tolerance</b>	$\pm 10\%$
<b>Power consumption</b>	2 x 1.5 W + 1 x 3.4 W
<b>Electrical connection</b>	3 x right-angle plug 3 x 200 mm wires on request
<b>Mounting</b>	Mounting holes on manifold
<b>Width per station</b>	23 mm
<b>Protection class</b>	IP40
<b>Pump cycles</b>	min. 10 Mio. cycles by 20° C

<sup>1)</sup> Pressure data [bar]: Overpressure with respect to atmospheric pressure

<sup>2)</sup> dependent on operating frequency/voltage, high frequency and low voltage reduce the accuracy

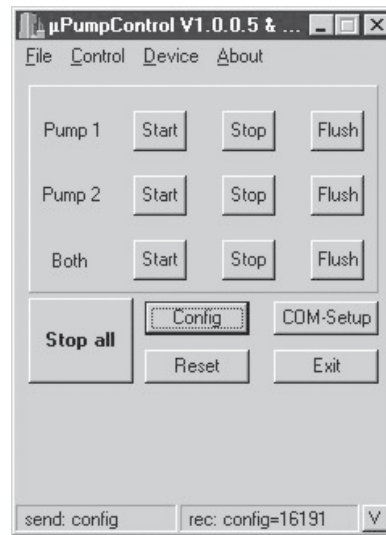
Pumping characteristics



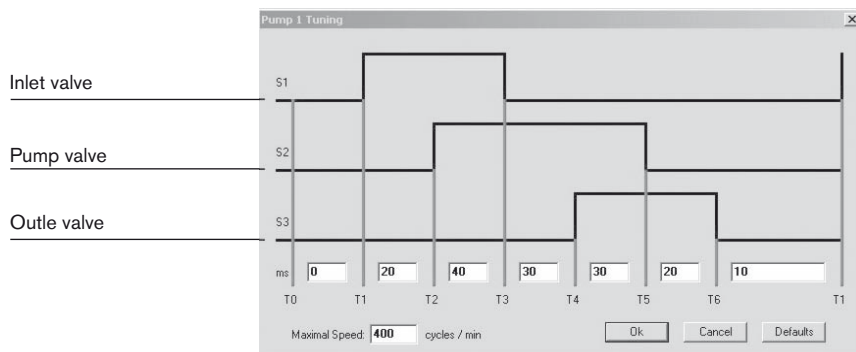
Control electronics

Features

- Freely-selectable COM port
- Activation with 1 ms metered interval from 2 pumps maximum (3 valves present in each)
- Hardware control
- Configurations can be saved



Control chart



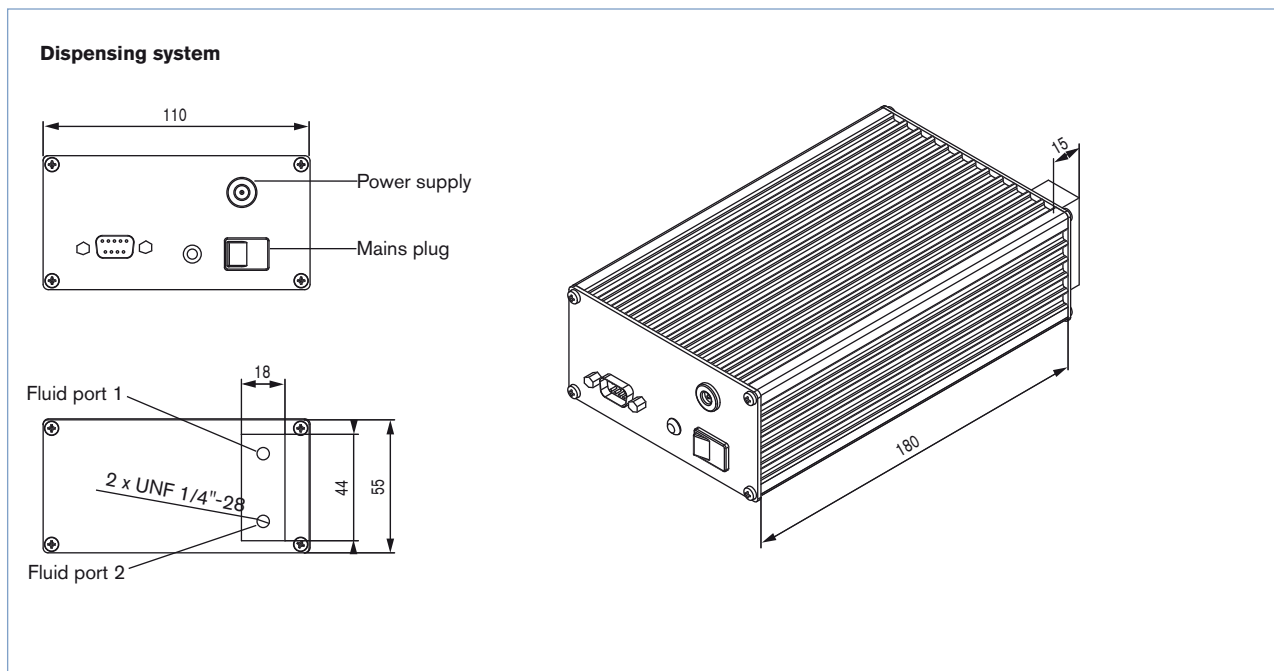
## Ordering chart

Version	Item no.
24 V, OEM model, right-angle plug	162 274
12 V, OEM model, right-angle plug	162 183
Dispensing system with 1 dispensing unit, incl. Control electronics (RS232), software, data cable, power supply, casing, 24 V	165 948
Dispensing system with 2 dispensing units, incl. Control electronics (RS232), software, data cable, power supply, casing, 24 V	165 949
Control electronics, separate	on request

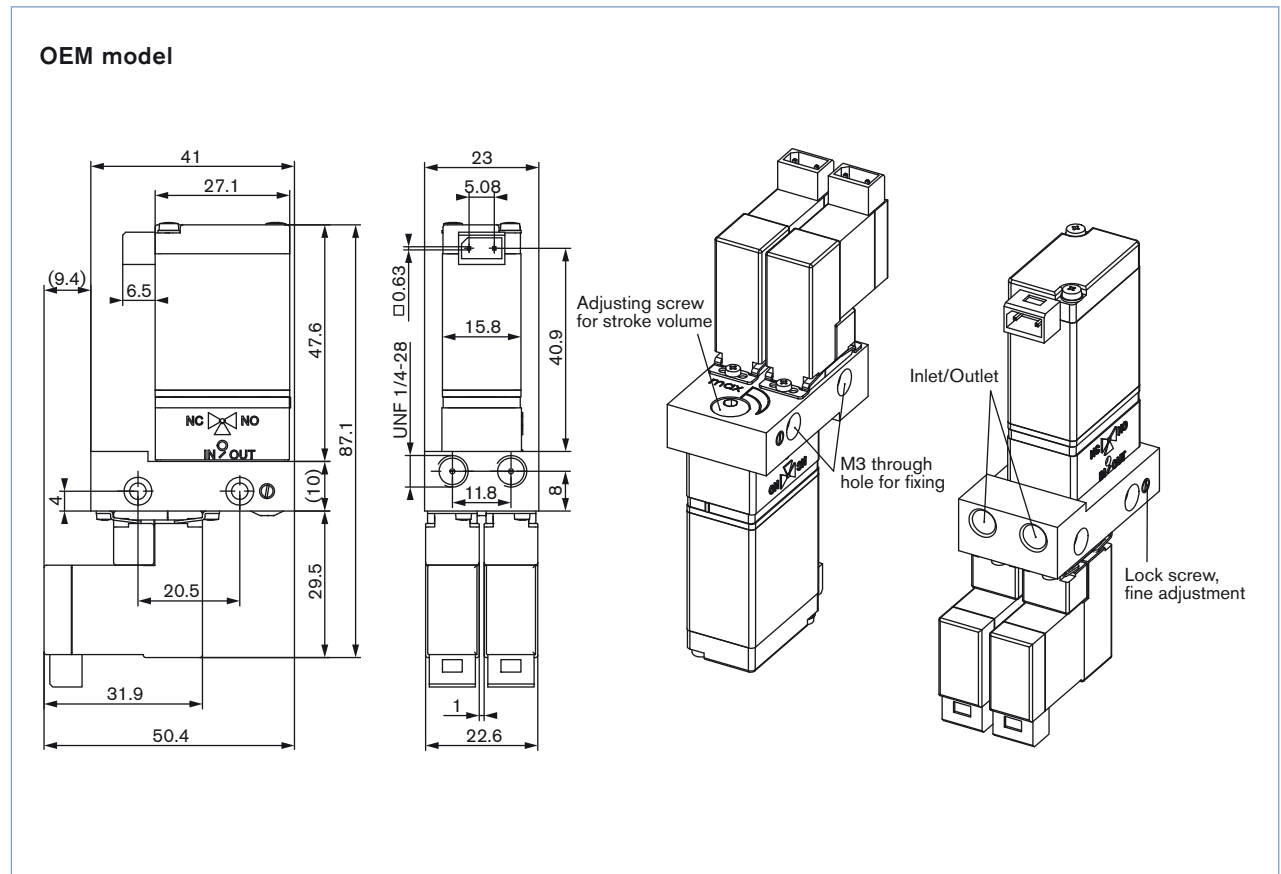
## Ordering chart accessories

Versions	Item no.
Right-angle connector, with 3 m cable	133 486
Right-angle connector, with 300 mm wires	644 068
Right-angle connector, with 2 individual contacts	644 067
Fittings and hoses	see datasheet for Type 1013

## Dimensions [mm]



## Dimensions [mm], Continued



To find your nearest Bürkert facility, click on the orange box → [www.burkert.com](http://www.burkert.com)

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

Subject to alteration.  
© Christian Bürkert GmbH & Co. KG

1012/4\_EU-en\_00891899