



- Diaphragm pump
- Self-priming
- For precise dispensing
- Bi-directional

With the Type 7616 Micro Dosing Unit, Bürkert has provided a new compact alternative for precise dispensing in the μl -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.

Areas of use

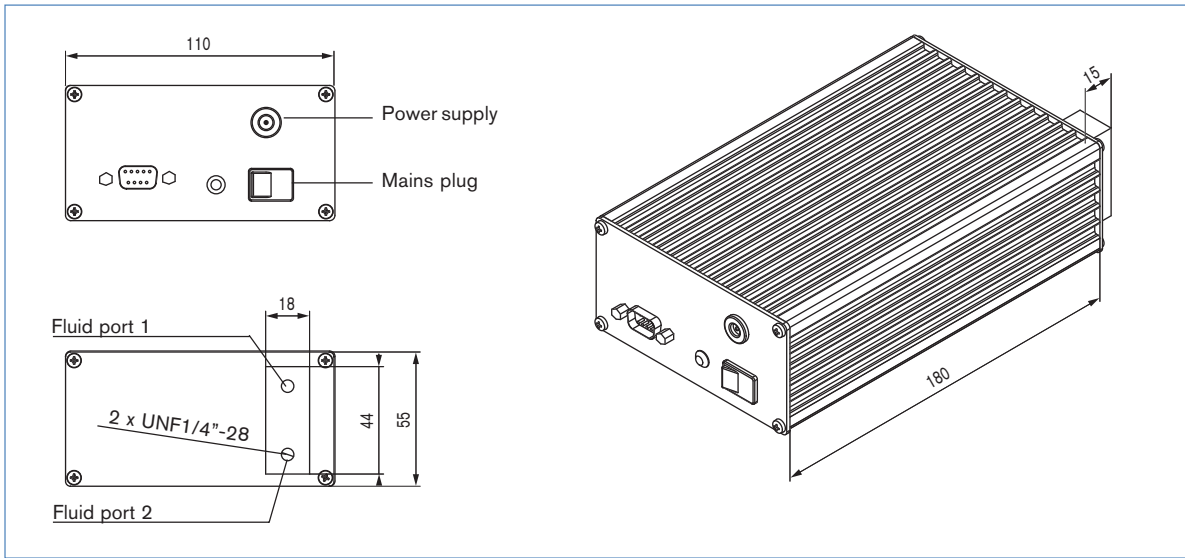
- Pumping of very small quantities of liquids in the medical, analytical and bio-technology
- Replacement for injection pumps (syringes) in pipetting
- Moistening paper
- Preparation of samples for HPLC

Technical data	
Body material	PEEK
Sealing material	FFKM
Media	Resistant against neutral and aggressive liquids and gases (see chemical resistance chart)
Medium temperature	+10 ... 60 °C
Ambient temperature	max. 55 °C
Dosage	mechanically adjustable from 0.5 μl to 5 μl per stroke
Pump frequency	max. 900 cycles/min (15 Hz)
Standard deviation	
Dosage	< $\pm 2\%$ at 5 μl stroke
Maximum outlet pressure	2.5 bar ¹⁾
Duty cycle	100%
Operating voltage	12 V/DC, 24 V/DC
Voltage tolerance	$\pm 10\%$
Power consumption	2 x 1.5 W + 1 x 3.4 W
Electrical connection	3 x right-angle plug 3 x 200 mm wires on request
Mounting	Mounting holes on manifold
Width per station	23 mm
Protection class	IP40
Pump cycles	min. 10 Mio. cycles

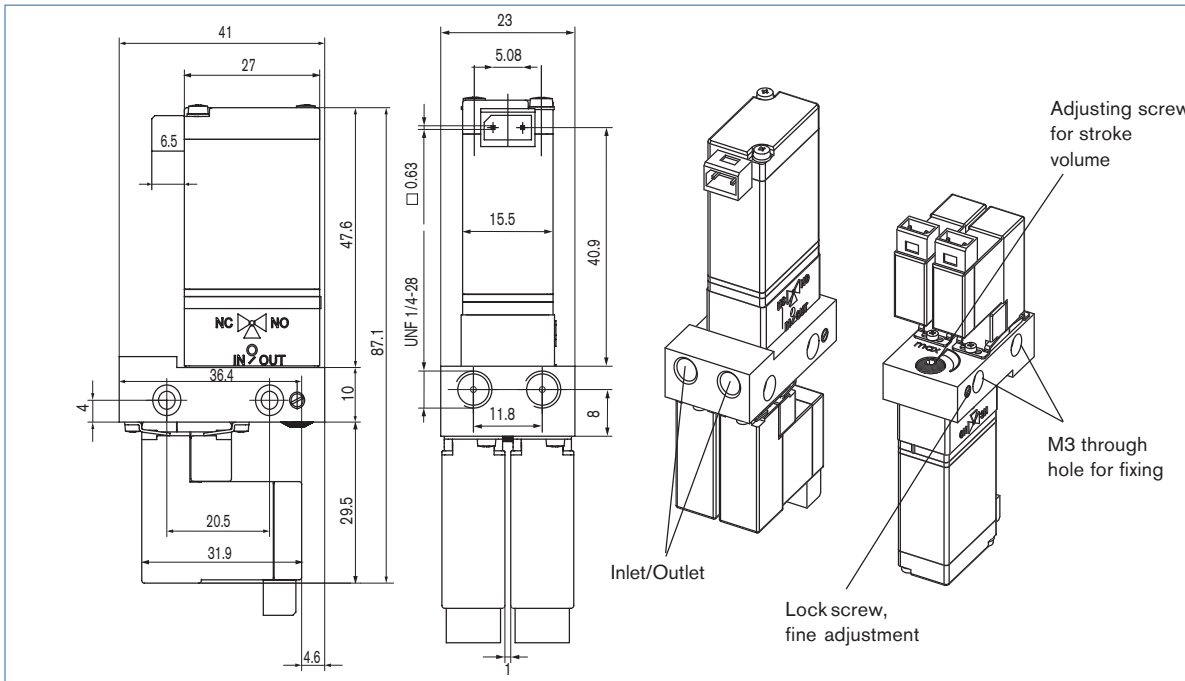
¹⁾ Pressure data [bar]: Overpressure with respect to atmospheric pressure

Dimensions [mm]

Dispensing system

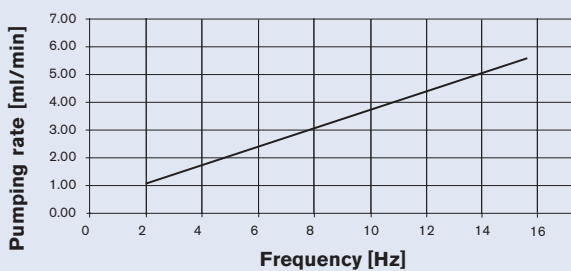


OEM model

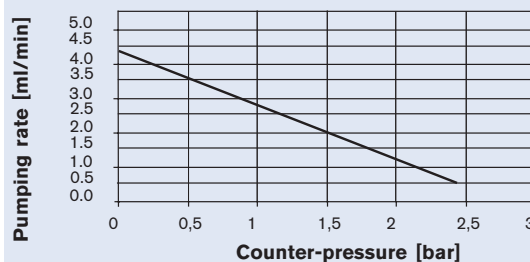


Pumping characteristics

Pumping rate as a function of frequency
(measured at max. stroke volume, free outlet)



Pumping rate as a function of counter-pressure
(measured at 10 Hz and max. stroke volume)



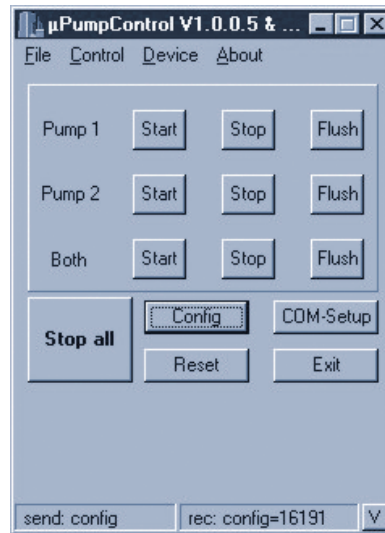
Control electronics

Features

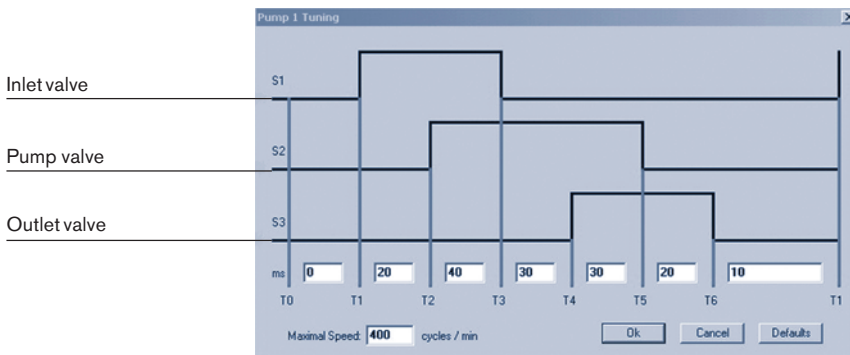
- Freely-selectable COM port
- Control of 8 power outputs with a stroke resolution of 1 kHz. As a result, and depending on the configuration (whereby a mixed selection is also permissible) a maximum of 2 pumps (each consisting of 3 mono-stable valves) or 4 bi-stable valves or 8 mono-stable valves can be driven.

Note: A bi-stable relay remains in its last selected position in the inactive state (no current). It is switched alternately to inlet port A or B by a short pulse

- 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

DTS 1000020080 EN Version: D Status: RL (released | freigegeben | valide) printed: 13.08.2008

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 data sheet for Type 1013

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