

NANOJET

PIEZOVALVE SYSTEM

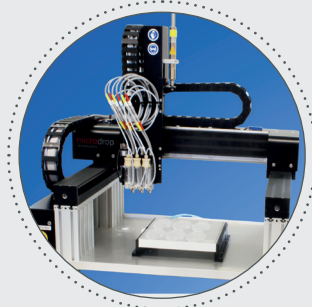
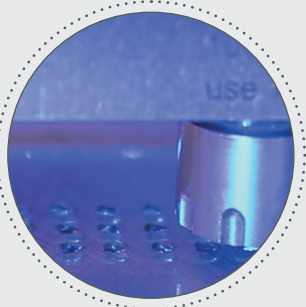
for applications in the nano- to microliter range

ADVANTAGES

- choice of different valves which cover the range from low viscosity liquids to hot melt adhesives
- all valves can be operated individually or integrated into our xyz-systems
- high accuracy due to precisely controlled piezoelectric trigger pulse
- stable and robust system for industrial applications
- dispensing volume starts at 5 nl per pulse
- 24-hours non stop application possible
- easily exchangeable nozzles for various applications
- very good chemical stability for the usage of complex liquids

PERFECT FOR APPLICATIONS LIKE

- automation
- precision mechanics
- micro electronics
- mechanical engineering
- medical industry
- life Science
- smart card manufacturing



RECOMMENDED MEDIA

- aqueous solution
- organic solvent
- adhesives
- oil
- conductive adhesive
- hot melt adhesive
- LED phosphor
- lacquers



NANOJET PIEZOVALE SYSTEM

The piezo valves in our product portfolio are designed for media with viscosities up to 2,000,000 mPas and can be found in all industries such as microelectronics, medical technology or the semiconductor industry.

Common to all valves is the non-contact dispensing in highest and reliable precision.

A user-defined valve configuration based on a selection of nozzles and fluidics can generate the desired droplet size for the respective dispensing medium and thus perfect the dispensing result.

Mainly, we use the following valves:

	MDV 3010+ / MDV 3020+ / MDV 3080	MDV 3280
Dispensable Quantity	Minimum 5 nl per cycle	0.5 nl up to > 200 µl per cycle (for highly viscous medium)
Inlet Pressure Range	0.1 to 100 bar (relative) 0.1 to 8 bar with cartridge 0.1 to 70 bar with pressure tank	Depending on the supply unit (e.g. cartridge or pressure tank)
Dynamic Viscosity of Fluids	Low to medium viscosity up to 8,000 mPas	Low to high viscosity up to 2,000,000 mPas
Response Time (PLC-interface)	ca. 96 µs	ca. 130 µs
Dispensing Frequency (average)	450 Hz (cooled)	> 1 kHz
Operating Temperature	from 10 °C to 50 °C	from 10 °C to 50 °C
Compatibility	all aqueous fluids, organic solvents, weak acids and bases	all aqueous fluids, organic solvents, weak acids and bases
Dimensions in mm (basic model)	103 x 39.5 x 10 (MDV 3010+ & 3020+) 103 x 39.5 x 15 (MDV 3080)	92.1 x 41.5 x 36.5
Weight	approx. 210 g (depending on configuration)	approx. 250 g (depending on configuration)
Position of Tappet in Absence of Voltage	normally closed (NC)	normally open (NO)



We are here for you. Contact us.

microdrop Technologies GmbH
Tycho-Brahe-Kehre 1
22844 Norderstedt
Germany

Tel. +49 40 | 535383-0
Fax +49 40 | 535383-24
info@microdrop.de
www.microdrop.de