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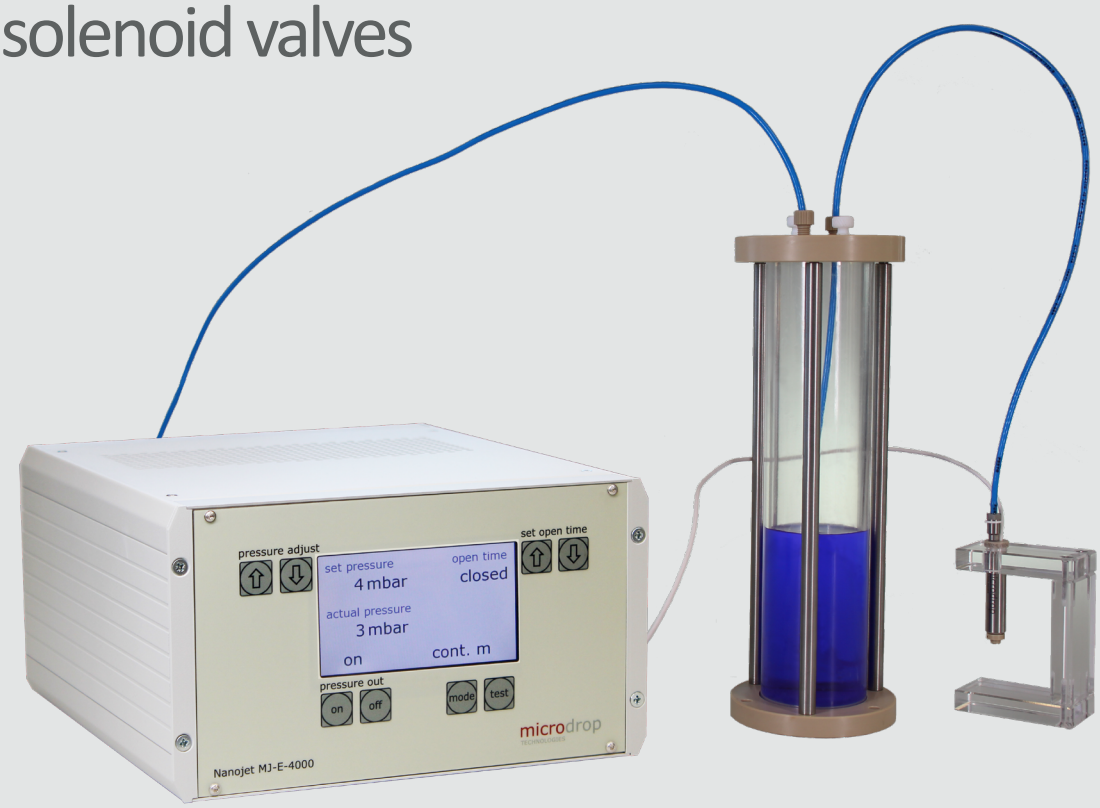
TECHNOLOGIES

MJ-E-4000

NANOJET MICRO DISPENSING SYSTEM

for solenoid valves



ADVANTAGES

- Minimum single volume 30 nl
- Maximum repetition frequency 100 Hz
- Contact-less dispensing
- Laminar jet
- High resistance against aggressive fluids
- Big range of nozzle diameter
- Easy handling of the setting criteria

DISPENSABLE LIQUIDS

- Aqueous (protein) liquids
- Medical coatings
- Cell suspensions

TECHNOLOGY

Nanojet dispenser heads feature a miniaturized solenoid valve and a glass capillary nozzle through which the liquid is emitted. The liquid is feeded from the reservoir to the dispensing head by applying of gas pressure.

The special nozzle shape provides laminar liquid flow, which prevents liquid from atomizing, thus ensuring that liquid is restricted to the target area. The possible nozzle diameters range from 50 µm up to 500 µm.

The dispensed volume depends on gas pressure, valve opening time, nozzle diameter and liquid viscosity.

Electronic control of the valve in combination with the pressure control ensures a precisely dispensed volume.

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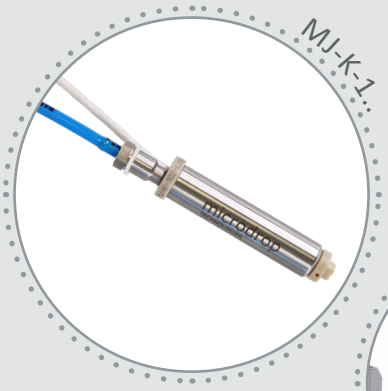
NANOJET MICRO DISPENSING SYSTEM

TECHNICAL DATA OF THE DRIVER ELECTRONIC MJ-E-4010

Nominal voltage/ frequency	110…250 V / 50/60 Hz
Power input	< 10 W
Inlet pressure	4 – 8 bar
Working pressure	0 – 3500 mbar
Display	• graphical display 4,3", 480x272 pixel • set/Is value pressure • opening time • status
Operating modes	• „trigger mode": valve opening time given by preselection (displayed) • „gate mode": valve opening time given by duration of external trigger signal • manual release (test)
Pressure regelation	digital electropneumatic precision pressure regulator
Connections	Mains connection (cold-device plug)
External communication	RJ-45, USB (serial)
Compressed air connection	Coupling plug for compressed air coupling NW5, (hose coupling is supplied)
Working pressure connection	4 mm plug nipple
Valve control	2 pin Lemo
Trigger input	Mini SMB (TTL) incl. cable to BNC
Dimensions	42 TE - housing; whd 236 mm x 132 mm x 280 mm
Weight	approx. 3 kg
Switch time	0.01 ms - 10 s or gate mode

NANOJET DISPENSER HEAD (EXTRACT)

	MJ-K-1...
Permissible liquid viscosity	0.4 - 50 mPas*
Nozzle diameter	50 - 500 µm*
Ambient temperature	room temperature - 60°C
Dispensing single volume	100 nl*
Average speed of emission	approx. 10 m/s
Maximum working pressure	350 kPa
Relative scatter of dosed volume	approx. 10 %
Maximum repetition frequency	approx. 100 Hz
Minimum opening time	10 ms*
Maximum opening time	2 s in trigger mode



The Nanojet dispenser head can be used with different storage volumes up to 250 ml.

* depending on the liquid to be dispensed

We are there for you. Contact us.

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