

TD218: Piezoelectric Jet Valve

High-precision micro-dispensing piezo valve: accurate, stable, flexible and fast



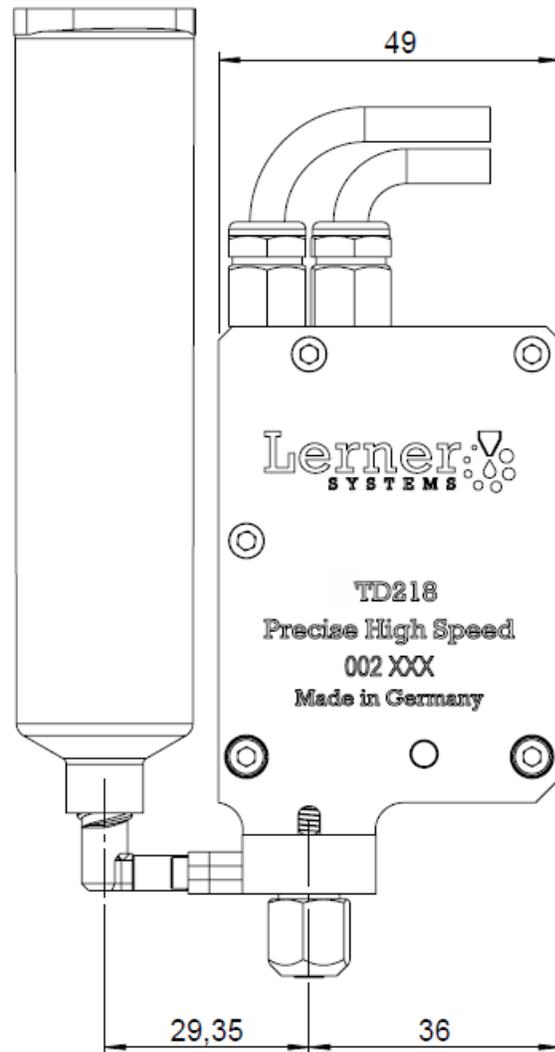
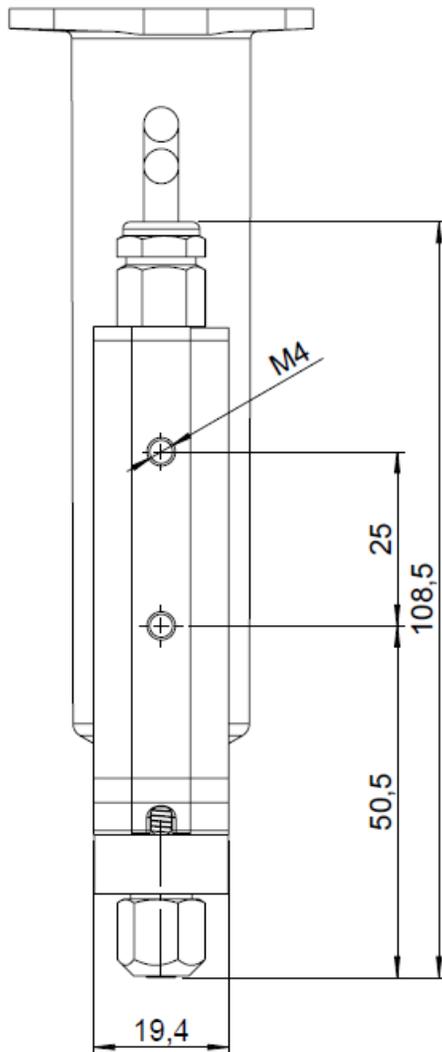
Our high-performance jet valves are designed for a contactless microdispensing of media with low or high viscosity. Micro dosages from 0.5 nL or larger can be dispensed at frequencies as high as 500 Hz (frequencies of 1500 Hz are also possible, for a short period depending on the media). Allowing the valve to dispense single dots as well as lines. The definable dot sizes range from 0.2 mm up to 5.0 mm in diameter depending on the media. Dispensing distances between valve and component are usually between 0.5 mm and 10.0 mm.

The TD218 Jet Valve has easily exchangeable dispensing nozzles, tappets, and fluid inlet fittings. Thereby making it customizable for different application requirements. Wetted parts are separated from the actuator. Thus, grants fast and easy serviceability and maintenance.

The valves have a minimal dilation time of 0.1 ms before the stream-forming dispensation can occur. The dispensing cycle ends with the recession of the control signal and the opening of the valve.

The valves are cost-efficient and perfect for industrial production due to their robust and proven construction.

The TD218 Piezo Jet Valves are made and tested in Germany.



Specifications

Name	TD218
Measurements	19.8W x 109H x 49L mm
Weight	340 g (12 oz)
Mounting	M4 x 20
Input voltage	24 VDC
Power consumption	7 Amp
Valve opening time	from 0.1 ms
Maximum operating frequency	1500 Hz (usually 500 Hz)
Maximum nozzle heating temperature	90°C (194° F)
Maximum operating temperature	40°C (104° F)
Storage temperature	-5–60 °C (23–140° F)
Maximum fluid pressure	70 bar (1015 psi)
Humidity	10-80%
Viscosity range	0.5-100,000 mPas
Dispensing volume	from 0.5 nL in one cycle
Dispensing accuracy	>98%
Quality of compressed air	Degree of contamination DIN ISO 8573-1, class 5

NOTE. Performances and specifications are subject to change without notice.

Controller LC200



Second part of the dispensing system: The LC200 controller

The LC200 controller is intended for the control of our high-speed micro-dispensing valves and nozzle heater.

There are two operation modes: master and slave. In master mode, all the necessary settings apply from the user menu of the LC200-Remote software. In slave mode, the dispensing occurs through an external trigger signal.

Valve control system

- Number of valve channels: 1
- Valve's control modes: graphical user interface or trigger-signal

User Interfaces

- User-friendly interface on the LC200-Controller with a 5-inch touchscreen
- User-friendly interface through the LC200-Remote software on Windows/Linux

External interfaces

- External control interfaces:
 - Isolated RS-485: LC200-Remote software (Windows/Linux), RTU MODBUS, 115200 baud
 - Ethernet 10/100 Mb: RealVNC software (Windows/Linux/Mac)
- External trigger signal

Electrical characteristics

- Operating voltage: +24V \pm 5%
- Current consumption (heater off, valve in standby mode): 400 mA
- Current consumption (heater on, valve 1kHz/100us/300us): 6000 mA