



## The fastest non-contact Jet Valve dispensing system

The TS9800 Series is a smart jet valve dispensing system that includes a TS9800 Piezo Jet Valve and TS980 Smart Controller. The new smart jet valve delivers ultra-fast and high precision dispensing results for a wide range of adhesives and viscosities. The highspeed piezo actuator enables the valve to dispense as fast as 1500 Hz continuously with up to 2000 Hz maximum burst and produce micro shot as small as 0.5 nL.

TS9800 series jet valve compact size and modular design aids integration into robotic systems. The valve features fully adjustable parameter settings, allowing the operator to change the jetting properties for different fluid types and optimize the process for repeatable dispensing.

Every component of the valve was designed to the highest tolerances and manufactured to the strictest degree of precision insuring world class accuracy and repeatability in drop-to-drop dispensing volume.

TS980 Smart Controller features an intuitive touchscreen user interface for easy setup and operation. Valve calibration is quick and easy. Dispensing parameters can be quickly dial-in on the touchscreen.

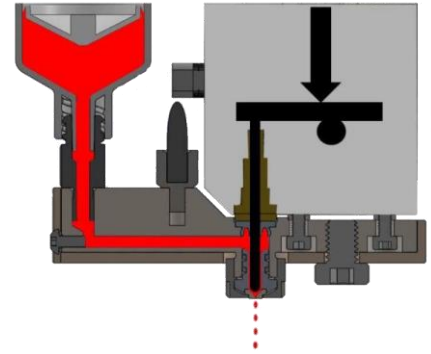
The best-in-class smart controllers come standard with an Internet port to allow users to monitor, record data and make precise parameter adjustments from remote locations. This feature enables the units to fit into the Smart Factory that requires Industry 4.0. In addition, troubleshooting and training can be done remotely through an Ethernet connection.

### KEY FEATURES AND BENEFITS:

- Fast dispense frequency, up to 1500 Hz continuous, with up to 2000 Hz maximum burst for higher throughput
- Micro shot size as small as 0.5 nL for small component applications
- Quick and Easy calibration
- Localized fluid housing heater for better viscosity stabilization and dispensing (optional)
- Touch screen user-friendly interface for easy setup
- Parameters can be adjusted remotely

### TYPICAL APPLICATIONS:

- LCDs/OLEDs edge and end sealing
- Die and frame bonding for camera module assembly
- Jetting silicone phosphor in LED assembly
- Jetting under-fill in micro-electronic package applications
- UV adhesive micro dots jetting in medical device applications



### VALVE SPECIFICATIONS

Valve Size (mm) H x W x D	125 mm H x 102 mm W x 16 mm D
Valve Size (inches) H x W x D	4.9" H x 4.0" W x 0.63" D
Valve Weight	258 g
Max Fluid Pressure	6.9 Bars (100 psi)
Nozzle Orifice Diameter Range	0.05 mm to 0.40 mm
Minimum Shot Size	0.5 nL
Max. Dispensing Frequency	1500 Hz Continuous, 2000 Hz Burst
Wetted Parts	Stainless Steel, Tungsten, PEEK, EPDM, FFKM
Fluid Pressure	0.07 to 6.9 Bars (1.0 to 100.0 psi)
Fluid Viscosity	1 - 2 million cps
Operating Frequency	1 - 1500 Hz (depending on parameter settings)
Response Time	1 $\mu$ s
Operating Temperature Range	10 - 50 °C (50 - 122 °F)

### CONTROLLER SPECIFICATIONS

Controller Size (mm) H x W x D	126 mm H x 137 mm W x 181 mm D
Controller Size (inches) H x W x D	4.96" H x 5.4" W x 7.13" D
Controller Weight	2110 g
# of Parameter Storage Spaces	50 (49 STD program + a P prog)
Display	Color (White backlighting)
Maximum Heating Temperature	90 °C
Heating Circuits	1 (fluidic module heating)
Interfaces	DC power plug (24 VDC) 15 pin Sub-D PLC (SPS) 3 x multi pin sockets 1 x USB port 1 x Ethernet port 1 x Micro SD card port 1 x On/Off switch
Operating Temperature Range	10 to 50 °C
Housing Color	Black
Ventilation Concept	Convection Airing Internal Cooling Fan
Line Voltage	100 – 240 VAC
Line Frequency	50 / 60 Hz
Maximum Power Consumption	221 Watts

