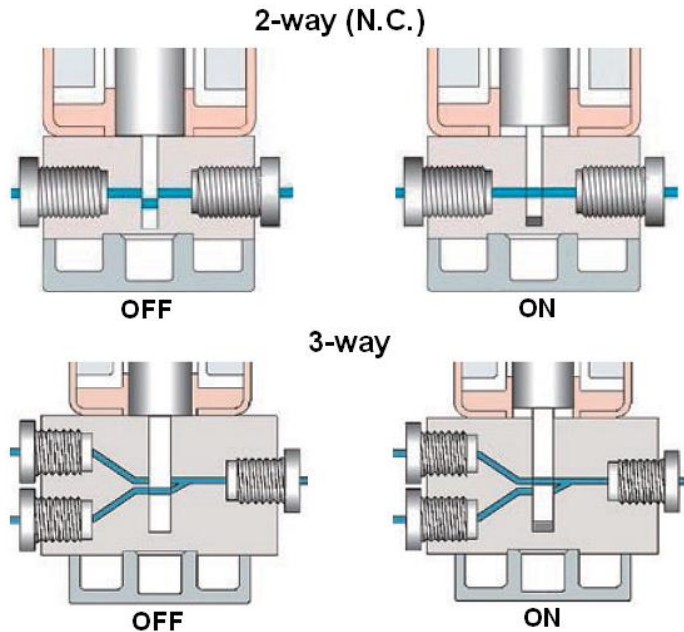


# Solenoid-Driven Slider Valve



The solenoid-driven slider valve is a kind of shear valve in which a shutter called a "slider" moves vertically and shuts off the flow path. The pumping volume which occurs when a diaphragm valve opens and closes, or the dead volume in which some fluid may stay in the valve is reduced to almost zero, preventing reduction of accuracy in analysis or fluid dispensation. Furthermore, the pressure capability of this slider valve is greatly improved.

## Image of Internal Structure

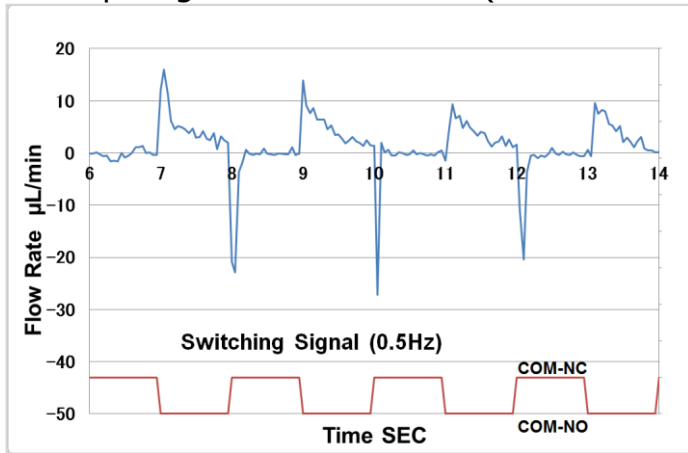


## Features

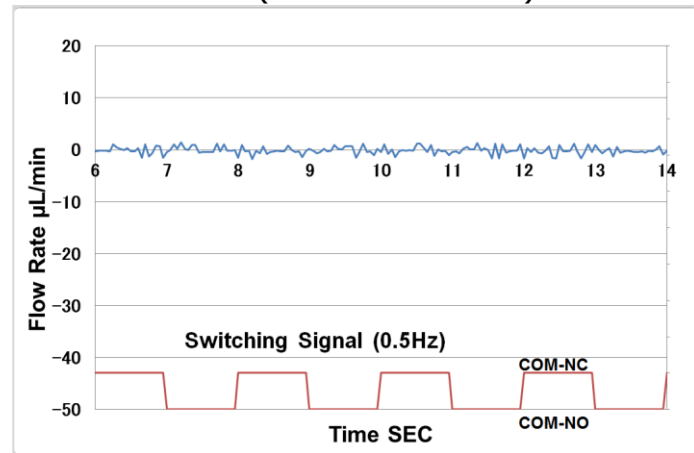
- No pumping volume, as there is no structural change in the internal volume when the valve operates.
- An excellent fluid exchangeability compared to a diaphragm solenoid valve due to its almost linear flow path and very small internal volume.
- Easily controlled compared to a motor-driven rotary type shear valve because the slider valve is simply driven by the ON-OFF operation of a solenoid and no special driver is required. It is also compact in size.

# Pumping Volume Comparison (Flow rates of the N.C. ports when turning on/off 3-way valves)

## < Diaphragm Isolation Valve (KV-3K Series) >



## < Slider Valve (MTV-3SL Series) >



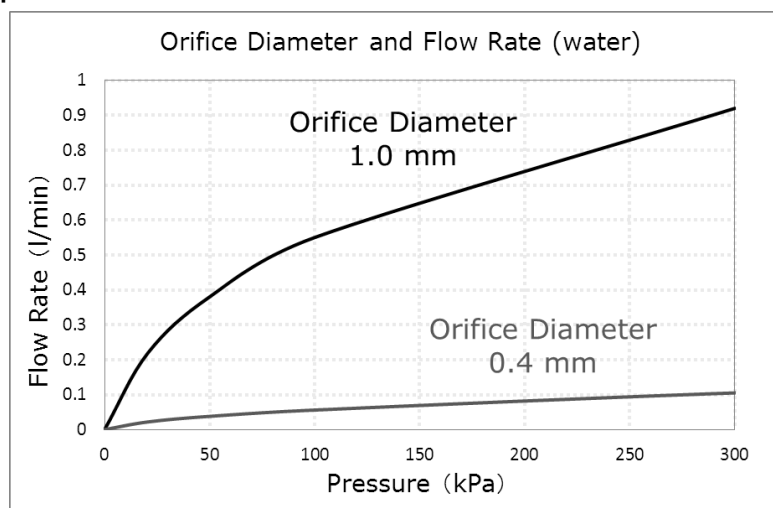
Measurement method: Measure the flow rates at the N.C. ports with a micro flowmeter when turning the valves on/off while filled with water and with the COM. and N.O. ports plugged.

These data are provided by Fujii T. Lab, Institute of Industrial Science, the University of Tokyo.

## Specifications

Model Number	MTV-2SL-N32UF-1	MTV-3SL-N32UF-2	NRV-2SL-M6(1/4U)	NRV-3SL-M6(1/4U)
Type	2-way (N.C.)		3-way	
Orifice Diameter	0.4 mm		1.0 mm	
Port Connection	No.10-32UNF		M6, 1/4-28UNF	
Operating Pressure Range	0 ~ 500 kPa		-90 ~ 300 kPa	
Media/Ambient Temp. Range	10 ~ 50 °C			
Rated Voltage	12 VDC, 24 VDC			
Power Consumption	18 W		16 W	
Duty Cycle	Intermittent (ED = 15 %), Maximum ON time: 45 s *Incorporation of our hit and hold circuit (option) allows a continuous energisation at the rated voltage.		Intermittent (ED = 33 %), Maximum ON time: 2 minutes *Incorporation of our hit and hold circuit (option) allows a continuous energisation at the rated voltage.	
Internal Volume	1.5 µl	3.7 µl	16.5 µl	36.2 µl
Wetted Material	PTFE, PEEK, Al <sub>2</sub> O <sub>3</sub>		PTFE, PEEK, SiC (Silicon Carbide)	
Outer Dimensions (mm)	L24 x W34 x H62	L24 x W38.5 x H62	L38 x W38 x H86	L38 x W41 x H86
Life Expectancy	200 thousand cycles (not guaranteed value)		100 thousand cycles (not guaranteed value)	

## Flow Rate (Comparison of Orifice Diameter 0.4 mm and 1.0 mm)



Note: Details including specifications may change without notification.