

# COMPACT 2-WAY/3-WAY SOLENOID VALVES FOR CHEMICAL LIQUIDS

## High Flow Rate

- Orifice Diameter:  $\phi 1.3$  mm
- Flow Capacity Cv: 0.03

## High Chemical Resistance

- Body: PEEK
- Diaphragm: FKM

## Condition Monitoring

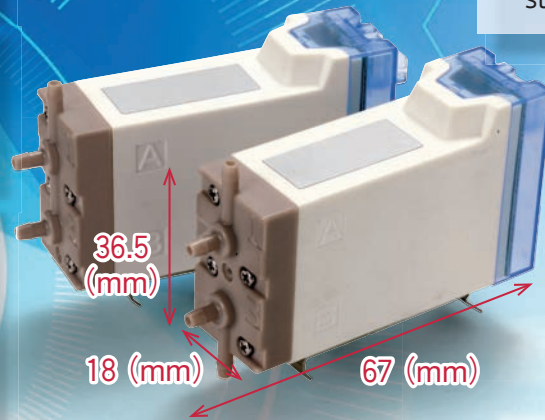
- Observe the status of the valve with just a glance, thanks to the built-in red/green LED's.

## High Durability

- 10,000,000 cycles
- \* (as tested by Takano Co. in a standard testing environment)

## Power-Saving (Standard configuration incorporates a power-saving circuit)

- At startup: 3 W
- Regular operation: 1 W



## FEATURES

### 1 Low Pumping Volume

Because the internal capacity of the valve holds  $20\mu\text{l}$  or less, its "pumping volume" (i.e. the excess fluid displaced by the diaphragm when the valve closes) is significantly less than that of other valves.

### 2 Barbed Tube Fitting

Designed to be able to withstand  $-75 \sim 250$  kPa, so tubing will not be detached under high-pressure loads. (Compatible with tubes of diameter  $\phi 2$  mm)

### 3 No Screws Required for Assembly

Can be attached and detached to and from a DIN rail with one touch. Also incorporates a frame ground (FG) structure, which cuts down on noise.

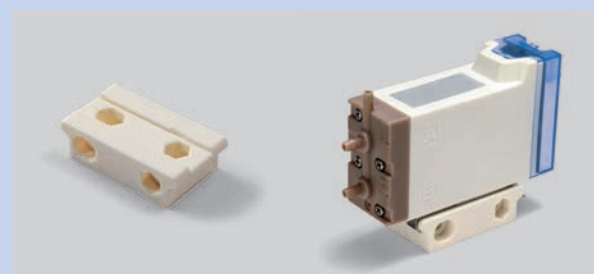
### 4 Independent Control

Since the coil is housed in a single unit, and each unit can be operated individually, you can use our valves for many possible applications.

## INSTALLATION VARIATIONS



- Parallel layered mounting on a DIN rail (board thickness:  $1.5^{+0.1}_{-0.1}$  mm)



- Install in a custom setup of your choosing by using resin attachment (sold separately)

### ◆ Main Specifications

Model Number *1	2×2-Way	3-Way
	W 13X-25A	W 13X-35A
Valve Type	Diaphragm Type Direct Operated Poppet	
Valve Operation	NC (Normally Closed)	
Fluid	Water, Pure Water, Chemicals *2	
Operating Pressure Range	-75 ~ 250 (kPa)	
Compatible Tube Diameter	2 (mm)	
Proof Pressure	375 (kPaG)	
Fluid Temperature	0 ~ 50 (°C)	
Ambient Temperature	0 ~ 50 (°C)	
Ambient Humidity	30 ~ 85 (%)	
Flow Factor Cv	0.03	
Orifice Diameter	1.3 (mm)	
Volume of Valve Chamber	20 (μℓ)	
Enclosure	IP 40 or equivalent	
Mounting Orientation	at will	
Mass	85 (g)	
Operating Noise	60 (dB)	
Life Cycle/Durability *3	10,000,000 (cycles)	
Material for Wetted Parts	Body: PEEK	
	Diaphragm: FKM	
<b>Electrical Specifications</b>		
Working Voltage	24 (V DC)	12 (V DC)
Allowable Voltage Fluctuation	±10 (%)	
Power Consumption	At Startup: 3 (W)	
	Steady-State: 1 (W)	
Heat-Resistant Class	Class F (155 °C)	

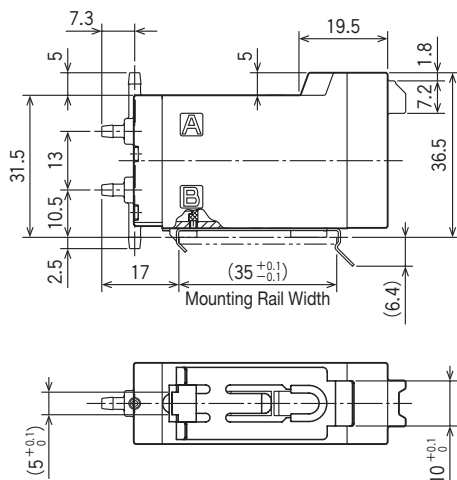
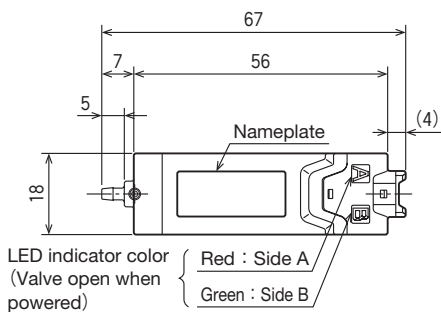
### ◆ Model Number Key

Code	Meaning
① Orifice Diameter	
13	φ1.3 mm
② Mounting Variations	
A	DIN Rail (t = 1.5)
B	Resin Attachment
③ Number of Ports	
2	2-Way
3	3-Way
④ Working Voltage	
5A	24V DC

- \* 1: the "X" portion represents this model's installation variations. Please choose between A or B (see previous page).
- \* 2: please use chemicals that do not corrode the materials used in the wetted part of the valve.
- \* 3: measured by Takano Co. in a standard testing environment.

### ◆ External Dimensions (mm)

〈W 13A-25A〉



### Terminal Specifications

Contacts: SXA-001 T-P0.6 (JST)  
Housing: XAP-03V-1 (JST)

〈W 13A-35A〉

