

# VA01 24 series

MINIATURE DIRECT OPERATED SOLENOID VALVE



- ◆ Exceedingly Long Life: 300 million cycle (Under the Test Condition of KURODA)  
Reliable Double Poppet Seal Structure
- ◆ Oil Free is standardized, and Extremely Low Particle (Clean!)
- ◆ Both Vacuum and Positive pressure are available. (-100kPa ~ 0.8MPa)

## Single Solenoid type

- Compact, Large Flow  
Body width: 10mm, C value: 0.2dm<sup>3</sup>/(s·bar)
- Response time, ON/OFF 4.5ms (±1ms)
- 33.5g (with Sub-base)

## Latch Type Solenoid

- Safety Operation  
(Detent mechanism to hold switching position)  
**One Coil Latch Type Solenoid**
- Ultra Quick Response time ON/OFF 2ms (±1ms)
- With Safety Electric Circuit for Simultaneous Energizing

# For Vacuum/Positive Pressure, 4-port 2-position Direct Operated Solenoid Valve



**VA01PSC24** Single Solenoid (Sub-base/Manifold type)

**VA01RSC24** Single Solenoid (In-Line/Manifold type)

**VA01PLC24** Latch Type Solenoid (Sub-base/Manifold type)

**VA01RLC24** Latch Type Solenoid (In-Line/Manifold type)

## Specifications

Model No.	Unit	VA01PSC24	VA01RSC24	VA01PLC24	VA01RLC24
Fluid		Non-lubricated air			
Port Size		M5	M3	M5	M3
Sonic Speed Conductance*2	dm <sup>3</sup> / (s · bar)	0.2			
Effective Area (Reference)*2	mm <sup>2</sup>	(1)			
Cv Value(Reference)*2		0.05			
Temperature Range	°C	-5~50 *1			
Pressure Range		-100kPa~0.8MPa			
Max. Frequency	min <sup>-1</sup>	1200		600	
Response Time *3	ON	4.5		2	
	OFF	1 (4.5)		2	
Min. Excitation Time		-		0.05	
Installation		Free			
Shock Resistance/Vibration Resistance	m/s <sup>2</sup>	150/30			
Weight *4	g	33.5	23.5	36.0	26.0

\*1 When the temperature of valve side goes down below 5°C degree, completely dry air shall be supplied to prevent from freezing.

\*2 Sonic Speed Conductance, Effective Area and CV value shown above are value between port 1 and 4.

\*3 Response time in bracket ( ) shows the value in case of with-surge suppressor. There is about ±1ms variation.

\*4 Mass of "PSC" and "PLC" is with-Sub-base type.

## Electrical Specifications

	Unit	VA01PSC24	VA01RSC24	VA01PLC24	VA01RLC24
Rated Voltage	V	DC24			
Permissible Allowable Voltage Fluctuation	%	±10			
Power Consumption DC	W	2			
Grade of Insulation		JIS grade B			
Wiring		Lead Wire, Plug-in Connector		Plug-in Connector	
Surge Suppressor		Diode		Varistor	
Indicator Light		LED			

Surge suppressor and indicator light are not available for lead wire type.

## Ordering Instruction

VA01PSC24 - 1P E - M5 - □

① ② ③      ④ ⑤ ⑦      ⑧      ⑨

### ① Series Model No.

VA01 PSC24 VA01 RSC24	
VA01 PLC24 VA01 RLC24	

### ② Piping type

P	Sub-base type
R	In-line type
B	Body Ported (for Manifold)

### ③ Function

S	Single Solenoid
L	Latch Type Solenoid

### ④ 電圧 Voltage

1	DC24V
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### ⑤ Wiring Position & Type

P	Horizontal direction, Connector with Lead Wire (with Indicator light & Surge Suppressor)
U	Vertical direction, Connector with Lead Wire, (with Indicator light & Surge Suppressors)
L	Lead Wire (Single Solenoid type only)

### ⑦ Wiring

No mark	Without Connector
E	Connector with Lead Wire (Length 500mm)

### ⑧ Output Port Size (Port 2 & 4)

No mark	PSC or PLC type without Sub-base (One base gasket & two Mounting Screws are attached.)
M3	M3 (Only RCS, RLC, BSC and BLC types)
M5	M5 (On Manifold for PSC and PLC types)

### ⑨ Optional Parts

No mark	Without Bracket
B	With Bracket (BSC and BLC types)

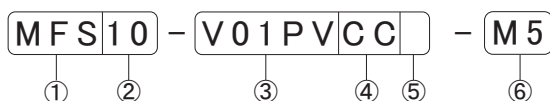
# Manifold



## Specification

Model No.		MFS		MFD	MFB	MFU
		Common SUP, Common EXH, Port 2 & 4 on Side		Common SUP, Common EXH, Port 2 & 4 on Side	Common SUP, Common EXH, Port 2 & 4 on Bottom	Common SUP, Common EXH, Port 2 & 4 on Valve Body
Port Size	Port 1	M5(BothSide)	With Push-in Fitting for Dia 4mm (OneSide)	Rc1/4(OneSide)	M5(BothSide)	M5(BothSide)
	Port 3 & 5	M5(BothSide)	Rc1/8(OneSide)	Rc1/4(OneSide)	M5(BothSide)	M5(BothSide)
	Port 2 & 4	M3	With Push-in Fitting for Outer Dia 4mm Tube	M5	M3	M3
Number of Stations		2~20stations				
Mountable Solenoid Valve		VA01PSC24 VA01PLC24			VA01PSC24 VA01PLC24	VA01BSC24 VA01BLC24
Blank Plate		PC1-BP				

## Ordering Instruction



### ① Manifold Model No.

MFS	1, 3 & 5 Port on both side of Manifold
MFD	1, 3 & 5 Port on one side of Manifold
MFB	Port 2 & 4 on bottom of Manifold
MFU	Port 2 & 4 on Valve Body

### ③ Mountable Solenoid Valve

V01PV	VA01 Series
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### ⑤ Option

No Mark	Without Bracket
B	With Bracket

### ④ Manifold Specification

CC	Common SUP, Common EXH
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### ⑥ Size of Port 2 & 4

M5	M5 × 0.8
M3	M3 × 0.5
C4	Push-in Fitting for Outer Dia 4mm Tube

### ② Number of Station

2	2 Station
?	?
20	20 Station

\* More than 11 station manifold is made to order.

## ⚠ Clamping Torque

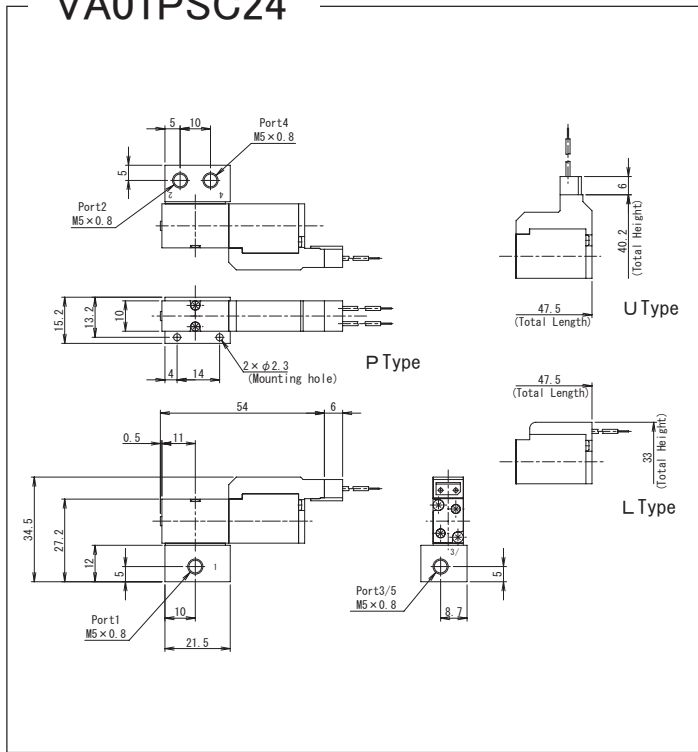
Tighten screws for Sub-base and Manifold within the following range of clamping torque.

M2: 0.10~0.14(N·m)

# DIMENSIONS

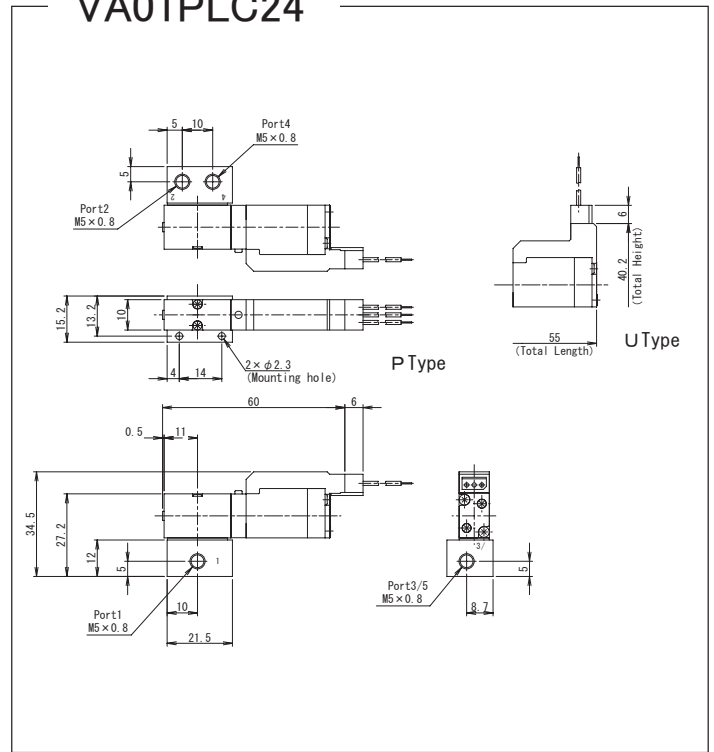
## VA01PSC24

(Unit:mm)



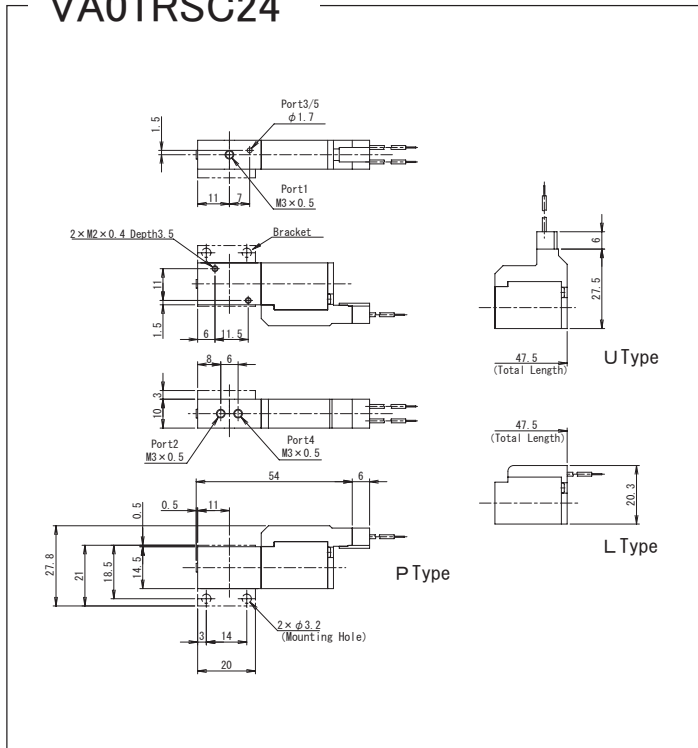
## VA01PLC24

(Unit:mm)



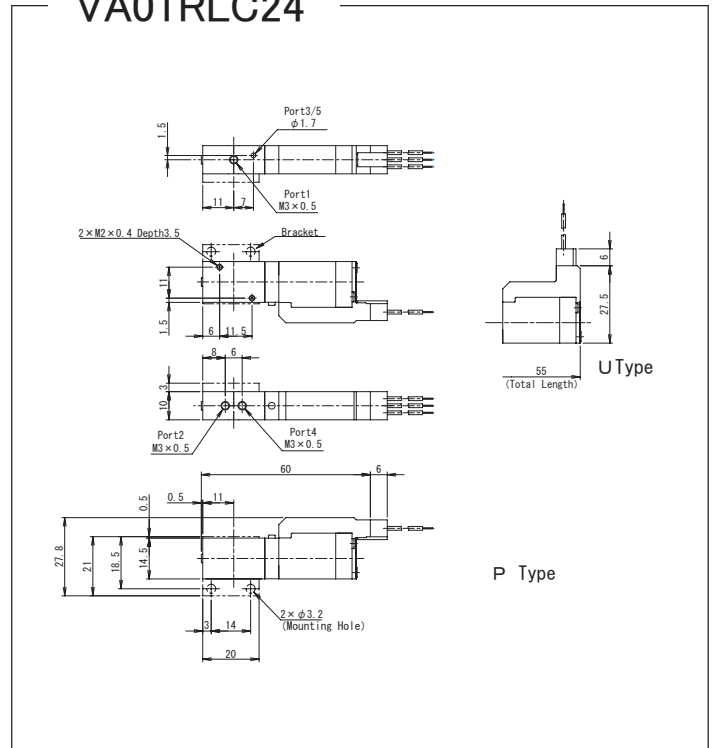
## VA01RSC24

(Unit:mm)



## VA01RLC24

(Unit:mm)



URL <http://www.kuroda-precision.co.jp>

**KURODA PRECISION INDUSTRIES LTD.**

Head Office: 239, Shimohirama,  
Siwai-ku, Kawasaki, Kanagawa 212-8560, JAPAN