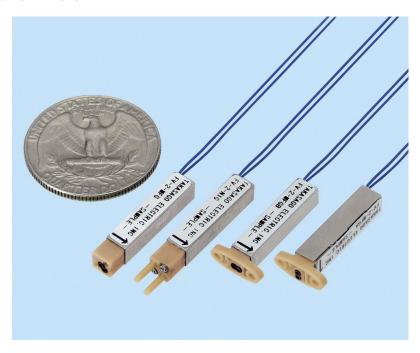
TFS Ultra-small Diaphragm-isolation Solenoid Valve

FV Series



1. 4.2mm square: 4.2×4.2×23.1mm*1

An innovative and groundbreaking ultra-small solenoid valve - can be mounted in the smallest of spaces, minimizing the manifold size and shortening the length of flow paths.

*1 Dimensions for FV-2-MFG, not including wire connections

2. Diaphragm valve

Excellent chemical resistance – PEEK and perfluoroelastomer are used for wetted materials (materials can be changed according to your requirements).

3. Internal volume only 1.1µl*2

Through pursuing miniaturization to the uttermost limits, internal volume is now only $1.1\mu l$ – contributes to reductions in reagent and sample quantities and improvements in analysis accuracy.

REMARKS

The FLV series is a model that uses a latching solenoid. This FV series is a normal solenoid valve. This product doesn't require a polarity change, which is necessary for the actuation of the FLV series.

Note: Details including specifications may change without notification

TAKASAGO ELECTRIC, INC.

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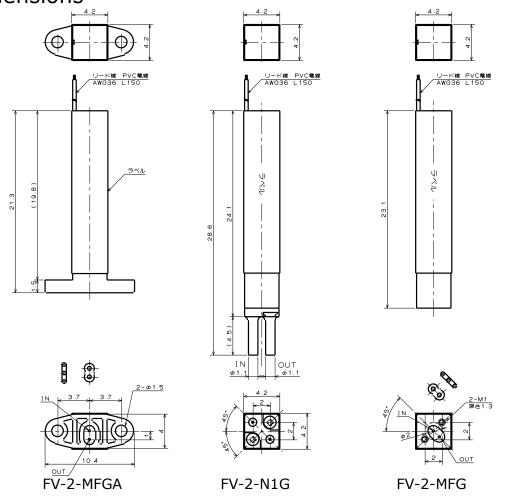
E-mail: info@takasago-elec.net URL: http://www.takasago-elec.com.cn/

Specifications

<u></u>			
Model number	FV-2-N1G	FV-2-MFGA(B)*1	FV-2-MFG
Туре	2 Way N.C.		
Orifice Diameter	0.4mm		
Port Connection	Hose Barb Gasket		
Operating Pressure Range	IN:0 - 100kPa		
	OUT:0 - 50kPa		
Fluid Temp. Range	10 - 50°C		
Ambient Temp. Range	10 - 50°C		
Voltage	5VDC		
Power Consumption	1W		
Duty Cycle	Intermittent		
	ED=40%		
Coil Temp. Increase	Max. 80 °C From Ambient Temperature		
	(when energized for 1.5 minutes at rated voltage)		
Max. Energizing Time	1.5 minutes		
Diaphragm Material	Perfluoroelastomer (Optionally FPM)		
Body Material	PEEK (Optionally PPS)		
Hose Barb Material	PEEK		
	(Optionally PPS)		

Dimensions

 $^{*1}\,\mbox{A}$ and B have a 90° difference in port orientation.



ULTRA-SMALL LATCHING SOLENOID VALVE

NLV Series



Features

1. Outer dimensions: Dia. 5.7 mm x H32.5 mm

An innovative ultra-small solenoid valve - can be mounted in the smallest of spaces, miniaturising application space and shortening the length of flow paths.

2. Highly chemically inert diaphragm valve

PEEK and Perfluoroelastomer are used for wetted materials. Materials can be changed according to your requirements.

3. Internal volume only 4.3 µl

Through pursuing miniaturisation to the uttermost, internal volume is now only 4.3 μ l. The internal volume of the valve chamber, which can be a dead volume, comprises only 0.75 μ l of this. This contributes to reductions in reagent/sample quantities and improvements in analysis accuracy.

4. Latching solenoid valve

The open/closed status of valve is maintained by permanent magnetic force. No energisation is required to maintain the valve status. Contributes to energy saving and lower heat generation due to energisation. Power is required while changing the status (Open to Closed, Closed to Open). Also, it is necessary to reverse the current's polarity to change the status.

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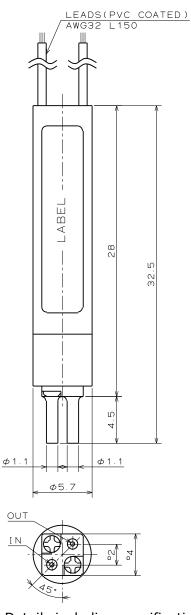
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Specifications

Model Number	NLV-2-N1G	
Туре	2-way	
Orifice Diameter	0.4 mm	
Port Connection	Hose barb	
Onesating Duescoure Dance	IN:0 ∼ 100 kPa	
Operating Pressure Range	OUT:0 ~ 50 kPa	
Fluid Temp. Range	10 ~ 50 °C	
Ambient Temp. Range	10 ~ 50 °C	
Rated Voltage	5 VDC, 12 VDC	
Power Consumption	1.5 W (when energised)	
Coil Type	Latch Type Solenoid	
Insulation Class	Class B	
Dielectric Strength	800 VAC 60 seconds	
Diaphragm Materials	Perfluoroelastomer (Optionally FPM)	
Body/Hose Barb Materials	PEEK (Optionally PPS)	

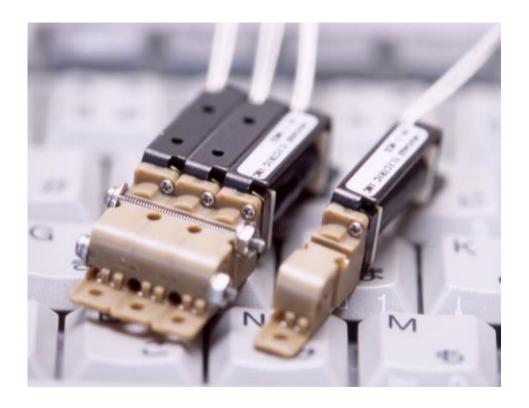
Dimensions



Note: Details including specifications may change without notification.

TFS Slim Diaphragm-isolated Solenoid Valve

KV Series



1. 6mm Slim Design

This small valve enables you to reduce not only the installation space but also internal pipe length of your manifold by making it possible to mount at 6mm intervals.

2. Capacity for Bilateral Connection

Easy to make manifolds (see page 3)

3. Small Internal Volume

Only 10 micro liters (each port)

4. Excellent Chemical Resistance

PEEK molded body and Perfluoroelastomer diaphragm

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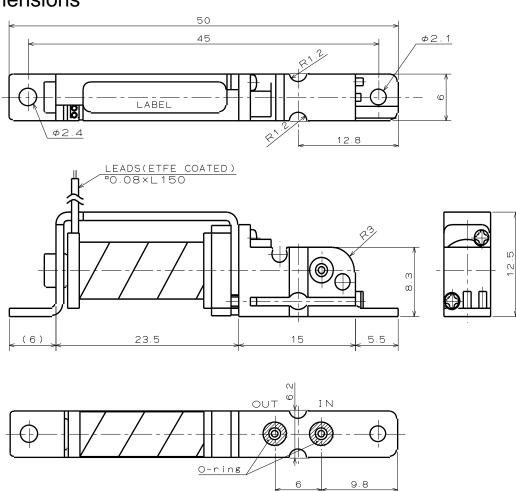
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Specifications

Model Number	KV-2-NCG		
Туре	2-way N. C.		
Orifice Diameter	0.8mm		
Port Connection	O-ring Seal		
Operating Pressure Range	IN: 0 - 100kPa OUT: 0 - 50kPa		
Fluid Temp. Range	0 - 50 °C		
Ambient Temp. Range	0 – 40 °C		
Voltage	12VDC, 24VDC		
Power Consumption	1.8W		
Duty Cycle	Continuous Duty		
Coil Temp. Increase	Max. 90 °C From Ambient Temperature		
Internal Volume	Inlet: 10 micro liters Outlet: 10 micro liters		
Insulation Class	Class B		
Dielectric Strength	1500VAC for 60s		
Weight	8g		
Wetted Materials	Diaphragm	Perfluoroelastomer	
	O-ring	Perfluoroelastomer	
	Body	PEEK (poly ether ether ketone)	

Dimensions



Example of Manifold Configuration

3-valve manifold clamped by screws

