SV-07 Selector Valve

- Support a variety of flow path collocation which meets the needs of different customers.
- Runze patented product, sapphire valve rotor and stator, which resist to corrosion, high-pressure, high-temperature and high wear resistance, biocompatible and suitable for a variety of special media
- Supports multiple communication: RS232/RS485/CAN bus
- High efficiency and maintenance-free
- Small footprint suits limited spaces.
- Widely used in environmental analysis instruments, laboratory analyzers, medical analysis equipment, and chromatographic analyzers, etc.

QHF-SV07 - X - S - T10 - K1.2 - S

	Model No.	Valve type	Small low voltage	① Configuration	② Orifice	Sapphire

①	
T6	6-port
T8	8-port
T10	10-port
T12	12-port
T16	16-port

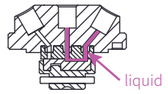
②	
K1.0	Orifice 1.0mm
K1.2	Orifice 1.2mm
K3.0	Orifice 3.0mm

only 6/8 ports support 3.mm orifice

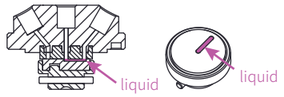
Technical Parameter

Configuration	6/8/10-port	12-port	16-port
Flow Passage Diameters	1.2mm	1.0mm	1.0mm
Dead Volume	Port to Port 27.5μl Rotor Slot Volume 5.41μl	Port to Port 22.43μl Rotor Slot Volume 6.08μl	Port to Port 33.68μl Rotor Slot Volume 10.4μl
Wetted material	PCTFE Valve head、Sapphire rotor and stator		
Pressure rating	0-0.3Mpa (air) / 0-1.6Mpa (water)		
Origin detection	Auto reset to initial position when powered on (this function can be opened or closed)		
Liquid temperature	0-150°C		
Connection	1/4-28UNF		
Replaceable parts	Stator replaceable, sealed rotor irreplaceable		
Transposition	Random start to any specific port		
Driver	Non-optional		
Valve drive	⩽2s/circle	⩽2s/circle	⩽3.3s/circle
Baud rate	RS232/RS485: 9600bps, 19200bps, 38400bps, 57600bps, 115200bps CAN: 100Kbps, 200Kbps, 500Kbps, 1Mbps		
Address & Parameter setting	Via communication		
Power supply	DC24V/3A		
Power	60W		
Operating temperature	-10°C~+50°C		
Operating humidity	<80% relative humidity, non-condensing		
Dimension (L*W*H)	60*51*150mm	60*51*160.5mm	60*51*179.5mm
Net Weight	0.73kg	0.86kg	1.02kg

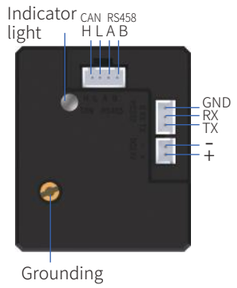
Port-to-Port Volume



Rotor Slot Volume



Driver Port

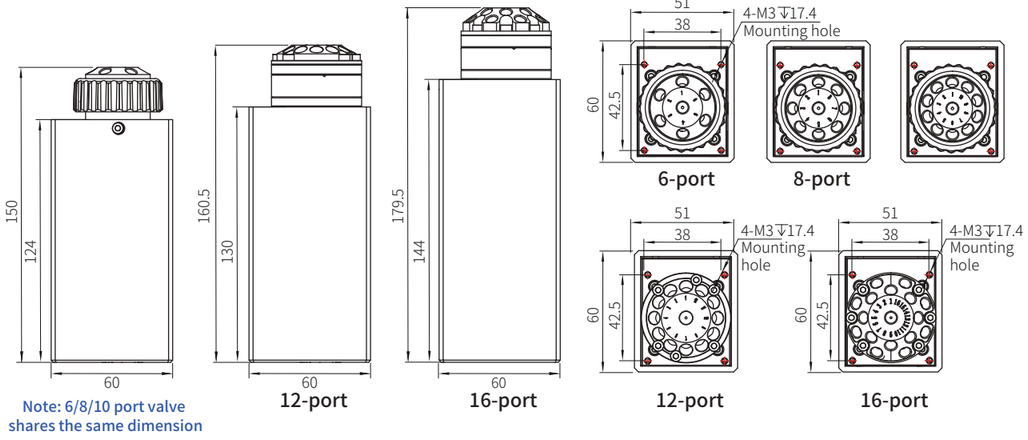


Port	Description
+	DC24V Positive
-	DC24V Negative
TX	RS232 Data Input
RX	RS232 Data Output
GND	GND
H	CANH
L	CANL
A	RS485A
B	RS485B

Flow Configuration

1. Center port is public port, valve switch to specific port by programming control
2. Wetted material - PCTFE valve head and sapphire valve rotor and stator, non-metal, anti-corrosive, anti-high temperature, wear resistance
3. Flow configuration - 6/8/10/12/16 port and orifice 1.0/1.2mm to meet different applications
4. Reset position - SV-07 valve resets by CCW (non-changeable), rotor stays between port 1 and maximum port, and the public port disconnected with any port when valve at reset status
5. OEM service - RUNZE supports special flow path design and customize, and its flow path configuration can meet the most common applications. RUZNE already declared the patent of a typical cross-contamination-free flow path solution, widely used in various analysis industries, and can provide overall flow path solutions for different needs of customers

Dimension (Unit: mm)



Note: 6/8/10 port valve shares the same dimension

Smart SV-04 Selector Valve

- Runze patented product, sapphire valve rotor and stator, which resist to corrosion, high-pressure, high-temperature and high wear resistance, biocompatible and suitable for a variety of special media
- Much smaller size, beneficial to miniaturization of instruments and equipment
- Support various communication: RS232/RS485/CAN bus
- High efficiency and maintenance-free
- Widely used in environmental analyzers, medical analysis equipment and other high-precision analysis instruments

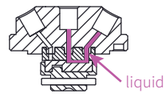
	Model No.	Valve type	Small low voltage	① Configuration	Orifice 1.2mm	Sapphire
QHF-SV04 -	X	-	S	- T10	- K1.2	- S

①	
T6	6-port
T8	8-port
T10	10-port

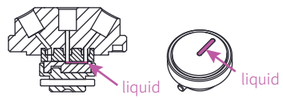
Technical Parameter

Configuration	6/8/10 port
Flow Passage Diameters	1.2mm
Wetted material	PCTFE valve head, Sapphire rotor/stator
Dead volume	Port to port volume 27.5μl Rotor Slot Volume 5.4μl
Pressure rating	0-0.3Mpa (air) / 0-0.6Mpa (water)
Origin detection	Auto reset to initial position when powered on (this function can be opened or closed)
Liquid temperature	0-150°C
Connection	1/4-28UNF
Replaceable parts	Stator replaceable, sealed rotor irreplaceable
Transposition	Random start to any specific port
Driver	Non-optional
Valve drive	⩽4s/circle
Max. torque	4N/m
Communication	RS232/RS485/CAN
Baud rate	RS232/RS485: 9600bps, 19200bps, 38400bps, 57600bps, 115200bps CAN: 100Kbps, 200Kbps, 500Kbps, 1Mbps
Address & Parameter setting	Via communication
Power supply	DC24V/1A
Power	24W
Operating temperature	0°C-50°C
Operating humidity	<80% relative humidity, non-condensing
Dimension (L*W*H)	63.7*50.4*115.2mm
Net weight	0.437kg

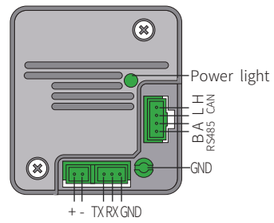
Port-to-Port Volume



Rotor Slot Volume



Driver Port



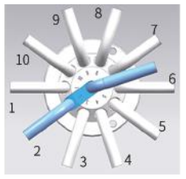
Port	Description
+	DC24V Positive
-	DC24V Negative
TX	RS232 Data Input
RX	RS232 Data Output
GND	GND
H	CAN H
L	CAN L
A	RS485 A
B	RS485 B

Flow Path

6-port

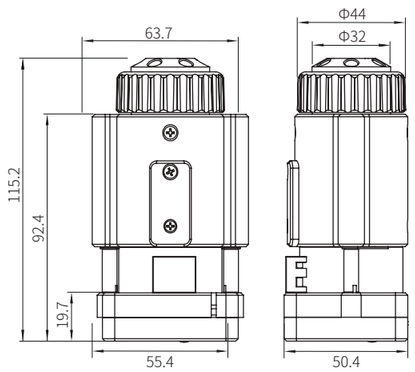
8-port

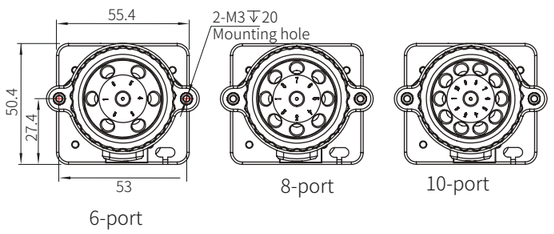
10-port

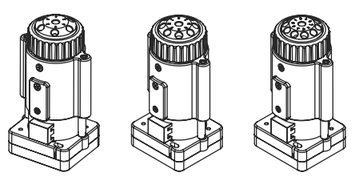


1. Center port is public port, valve switch to specific port by programming control
2. Wetted material - PCTFE valve head and sapphire valve rotor and stator, non-metal, anti corrosive anti high temperature, wear resistance
3. Flow configuration - 6/8/10 port and 1.2mm orifice to meat different applications
4. Reset position - SV-04 valve reset by CCW (non-changeable), rotor stay between port 1 and maximum port, public port disconnected with any port when valve at reset position
5. OEM service - RUNZE support special flow path design and customize

Dimension (unit: mm)







Note: 6/8/10 port valve share the same dimension

LV50

- LV50 series intelligent switching valve can achieve basic programming, which can realize the port switching in accordance with the predetermined logical sequence
- LV50 can be regarded as a programmable control switching valve. The logical sequence, stay time (hour/minute/second), and cycle index can be preset through the keypad. The interface function is clear and intuitive, operations such as adding and deleting items can be easily performed
- Widely used in instruments for environmental monitoring, experimental analysis, medical analysis, chromatographs, etc.

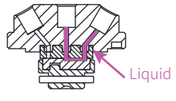
Interface Introduction

1. Query Operation: In the home screen, press the "PAGE/up/down key" to query the content of a member.
2. Edit Operation: In the main interface or any query interface, press the "EDIT" key to enter the item edit selection interface.
3. Running Operation: In the main interface, press the "ON/OFF" key to start the switching valve control flow.
4. Bridge Operation Mode: In special circumstances, when RS485 communication is required to control internal or external switching valves, bridge operation mode is needed.

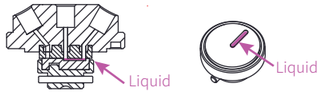
Product Parameters

Valve head	Compatible with universal switching valves figured with 6 or more ports in RUNZE protocol		
Cycle index	Support 1~9999 times loop, or 0000 means infinite loop		
Number of members	Support 1~999 members, at least 1 member		
Rotary encoder control interface	Has a nicer man-machine conversation interface		
Power supply	DC24V±10%		
Power	20W		
Working environment	Temperature range: 0 ~ 40°C; Relative humidity <80%		
Weight	1.58kg~1.68kg		
IP rate	IP31		
	6/8/10 ports	12 ports	16 ports
Dimension	200*100*93mm	205*100*93mm	210*100*93mm

Port-to-port Volume



Rotor Slot Volume

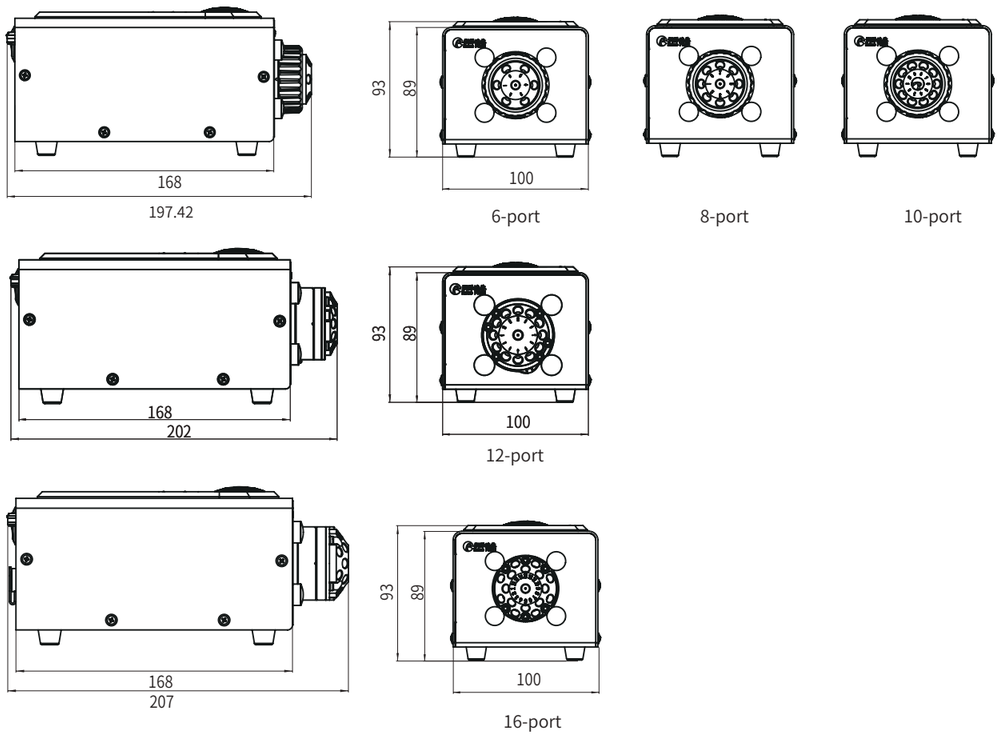


Flow Configuration

The central hole is the common port. Multi-channel switching is available via the rotor.
The flow diagram is as follows:

1. Wetted material - PCTFE valve head and sapphire valve rotor and stator, non-metal, anti-corrosive,anti high temperature, wear resistance
2. Flow configuration 6/8/10/12/16 ports and 1.2mm orifice to meat different application
3. OEM service - RUNZE support special flow path design and customize
4. Reset position - the valve reset by CCW (non-changeable), rotor stay between port 1 and maximum port, public port disconnected with any port when valve at reset position

Dimension (unit: mm)



SV-07B Injector Valve

- Support a variety of flow path collocation by back and forth switching of two positions which meets the needs of different customers
- Runze patented product, sapphire valve rotor and stator, which resist to corrosion, high-pressure, high-temperature and high wear resistance, biocompatible and suitable for a variety of special media
- Supports multiple communication: RS232/RS485/CAN bus
- High efficiency and maintenance-free
- Widely used in a variety of analysis equipment such as environmental analysis instruments, medical analysis instruments, non-standard sampling facilities in high-precision, etc.

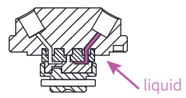
①	
T6	6-port
T8	8-port
T10	10-port

QHF-SV07B	- X -	S	- ① T10	- K1.2	- S
Model No.	Slope valve head	Small low voltage	Configuration	Orifice 1.2mm	Sapphire

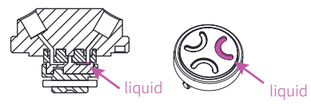
Technical Parameter

Configuration	6-port	8-port	10-port
Flow Passage Diameters	1.2mm		
Rotor Slot Volume	Port to Port 28.121μl Rotor slot Volume 5.207μl	Port to Port 28.67μl Rotor slot Volume 5.756μl	Port to Port 28.129μl Rotor slot Volume 5.215μl
Wetted material	PCTFE, Sapphire rotor/stator		
Pressure rating	0-0.3Mpa (air) / 0-1.6Mpa (water)		
Origin detection	Auto reset to initial position when powered on (this function can be opened or closed)		
Liquid temperature	0-150°C		
Connection	1/4-28UNF		
Replaceable parts	Stator replaceable, sealed rotor irreplaceable		
Transposition	Random start to any specific port		
Driver	Non-optional		
Valve drive	⩽2s/circle	⩽2s/circle	⩽3.3s/circle
Baud rate	RS232/RS485: 9600bps, 19200bps, 38400bps, 57600bps, 115200bps CAN: 100Kbps, 200Kbps, 500Kbps, 1Mbps		
Address & Parameter setting	Via communication		
Power supply	DC24V/3A		
Power	60W		
Operating temperature	-10°C~+50°C		
Operating humidity	<80% relative humidity, non-condensing		
Dimension (L*W*H)	60*51*150mm		
Net Weight	0.73kg		

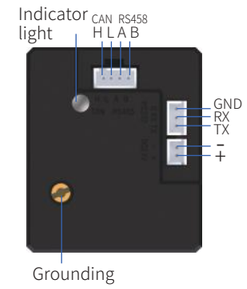
Port-to-Port Volume



Rotor Slot Volume

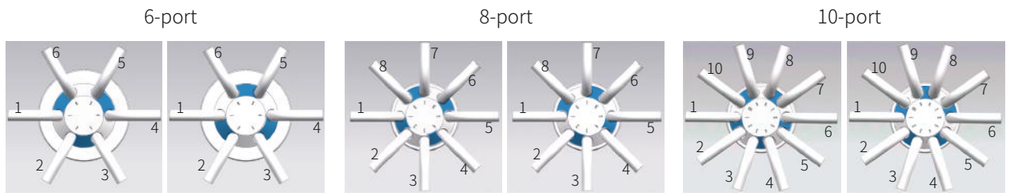


Driver Port

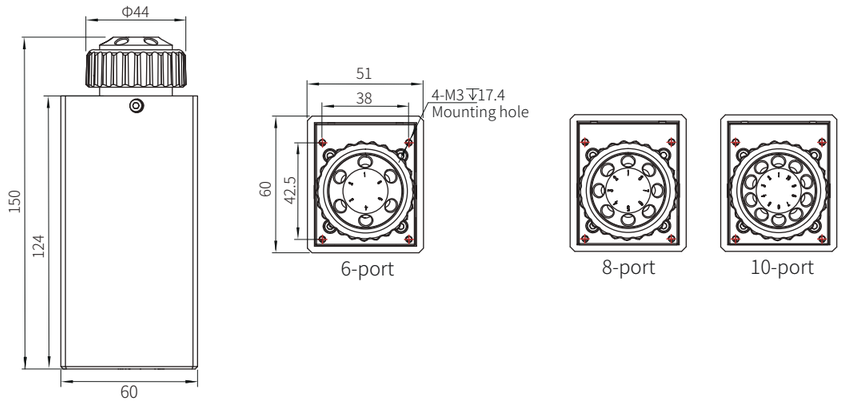


Port	Description
+	DC24V Positive
-	DC24V Negative
TX	RS232 Data Input
RX	RS232 Data Output
GND	GND
H	CANH
L	CANL
A	RS485A
B	RS485B

Flow Configuration



Dimension (Unit: mm)



Note: 6/8/10-port valve shares the same dimension

Smart SV-04B Injector Valve

- Back and forth switching of two positions
- Runze patented product, sapphire valve rotor and stator, which resist to corrosion, high-pressure, high-temperature and high wear resistance, biocompatible and suitable for a variety of special media
- Small footprint suits limited spaces
- Available with 6, 8, 10 ports and 1.2mm orifice
- Supports multiple communication: RS232/RS485/CAN bus
- High efficiency and maintenance-free
- Low pressure injectors are available with fittings for tubing OD1.6/2.0/2.5/3.0/3.175/3.2mm

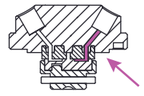
QHF-SV04B	- X	- ① T6	- K1.2	- S	
Model No.	Slope valve head	Configuration	Orifice 1.2mm	Sapphire	

①	
T6	6-port
T8	8-port
T10	10-port

Technical Parameter

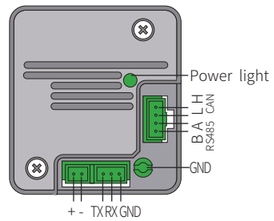
Configuration	6-port	8-port	10-port
Flow Passage Diameters	1.2mm		
Dead Volume	Port-to-Port 28.121μl Rotor slot Volume 5.207μl	Port-to-Port 28.67μl Rotor slot Volume 5.756μl	Port-to-Port 28.129μl Rotor slot Volume 5.215μl
Wetted material	PCTFE, Sapphire rotor/stator		
Pressure rating	0-0.3Mpa (air) / 0-0.6Mpa (water)		
Origin detection	Auto reset to initial position when powered on (this function can be opened or closed)		
Liquid temperature	0-150°C		
Connection	1/4-28UNF		
Replaceable parts	Stator replaceable, sealed rotor irreplaceable		
Transposition	Random start to any specific port		
Driver	Non-optional		
Valve drive	⩽4s/circle		
Baud rate	RS232/RS485: 9600bps, 19200bps, 38400bps, 57600bps, 115200bps CAN: 100Kbps, 200Kbps, 500Kbps, 1Mbps		
Address & Parameter setting	Via communication		
Power supply	DC24V/1A		
Power	24W		
Operating temperature	0°C~+50°C		
Operating humidity	<80% relative humidity, non-condensing		
Dimension (L*W*H)	63.7*50.4*115.2mm		
Net Weight	0.437kg		

Port-to-Port Volume



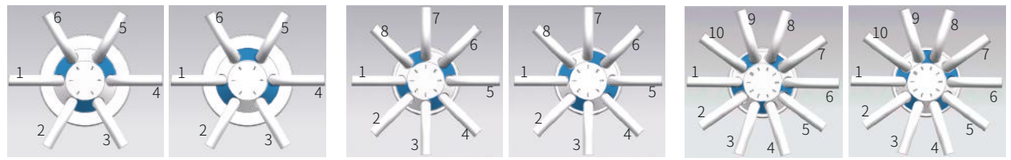
Rotor Slot Volume

Driver Port

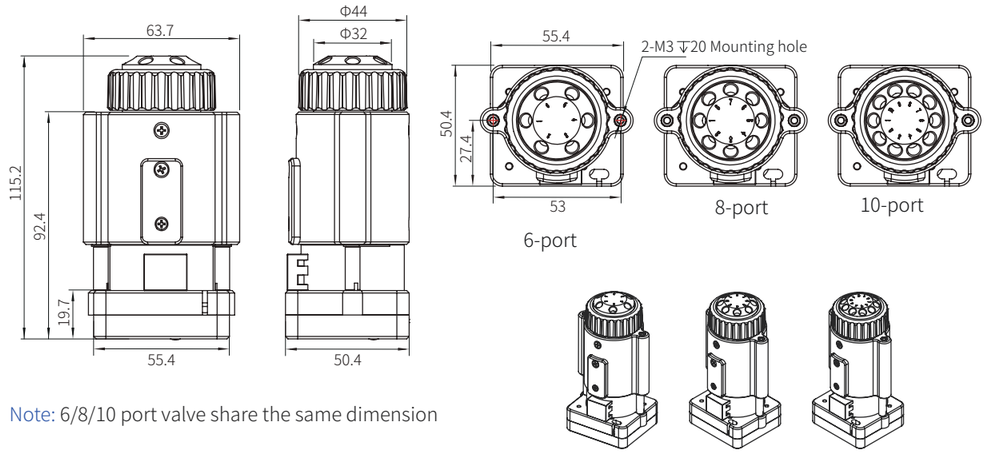


Port	Description
+	DC24V Positive
-	DC24V Negative
TX	RS232 Data Input
RX	RS232 Data Output
GND	GND
H	CAN H
L	CAN L
A	RS485 A
B	RS485 B

Flow Configuration



Dimension (unit: mm)



Note: 6/8/10 port valve share the same dimension

Mrv-01B High Pressure Valve

- Anti positive pressure 1.2Mpa amd negative pressure 0.06Mpa, current valve working status can be feedback via DC3.3-24V input voltage signals
- Plane switching structure design to ensure high dispensing stability at liquid outlet without any liquid fluctuation and pulse
- Valve body can be heated up to 80°C
- Compared to common solenoid valve, Mrv-01B valve body won't get heated even under long time working and much longer service life than common solenoid valve

Mrv-01B -	① T02	- ② K1.5	- S -	③ M01
Model No.	Port numbers	Orifice	Sapphire	Valve model

①	
T02	2 port
T03	3 port
T04	4 port

②	
K1.5	orifice 1.5mm
K3.0	orifice 3.0mm (OEM support)

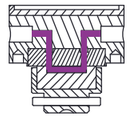
③		
Valve Model		
M01	M02	M03
M04	M05	

Valve Type

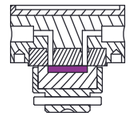
Technical Parameter

Flow Passage Diameters	1.5mm				
Wetted material	PCTFE valve head, Sapphire rotor/stator				
Valve model	**M01**	**M02**	**M03**	**M04**	**M05**
Dead Volume	52.93μl	50.68μl	52.93μl	101.35μl	51.32μl
Pressure rating	0-1.0Mpa (air) / 0-1.2Mpa (water)				
Liquid temperature	0°C-80°C				
Connection	1/4-28UNF				
Replaceable parts	Stator replaceable, rotor sealed irreplaceable				
Driver	Non-optional				
Valve drive	⩽530ms(response time)				
Trigger signal	DC7-33V				
Freedback input signal	DC3.3V-24V high low level output				
Power supply	DC24V/1A				
Max. current	2A				
Power	15W				
Operating temperature	0°C-50°C				
Operating humidity	<70% relative humidity, non-condensing				
Dimension (L*W*H)	42.1*42.1*120.9 mm				
Net Weight	0.487kg				

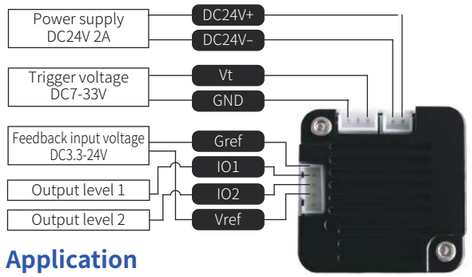
Port-to-Port Volume



Rotor Slot Volume

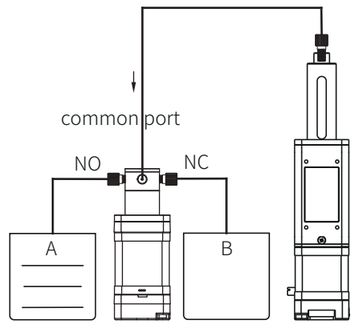


Driver Port



Port	Description
DC24V(+)	DC24V positive
DC24V(-)	DC24V negative
Vt	External trigger voltage(DC7~33V)
GND	GND
Gref	External reference voltage GND(-)
IO1	Output level 1
IO2	Output level 2
Vref	External reference input voltage(+)

Application



Mrv-01B & MiNi SY-04

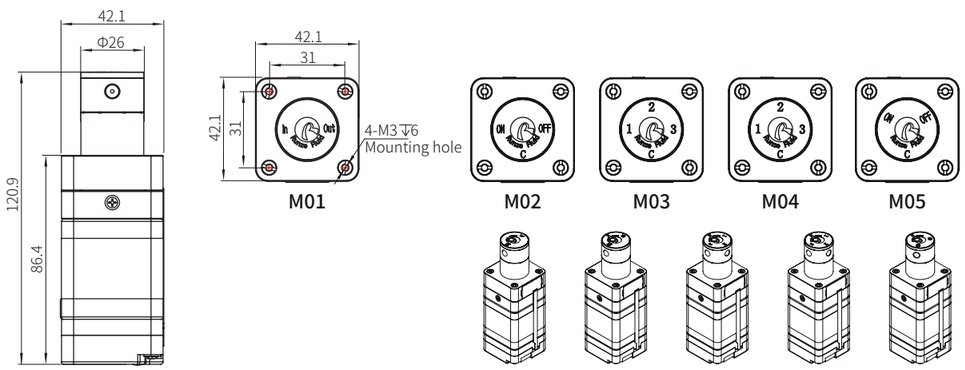
1. Mrv-01B M02 valve & MiNi SY-04 connected

2. Working process:

To make syringe pump suction liquid, power on Mrv-01B valve, NO (normally open) and common port of Mrv-01B valve connected, pump suction liquid from box A into syringe pump;

To make syringe pump discharge liquid, power on Mrv-01B valve, NO (normally open) closed, NC (normally close) opened and connected with common port, pump discharge liquid from syringe into box B.

Dimension (unit: mm)



Note: Mrv-01B M01 M02 M03 M04 M05 share the same dimension