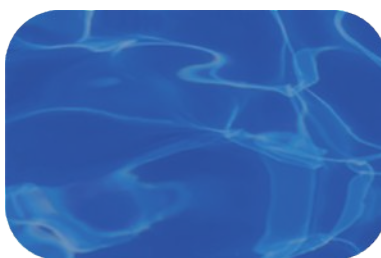


2021-2022 CATALOGUE

| Nanjing Runze Fluid Control Equipment Co.,LTD |



2021 – 2022 Catalogue V 8.23



13 13 Years' focus on fluid system

18 18 Years' R&D Experience

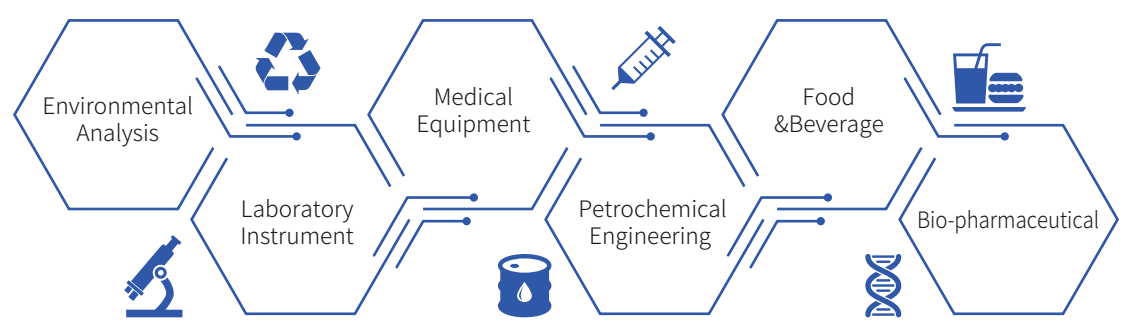
100 Business covers more than 100 countries & regions

12,000 more than 12,000 well-known enterprise customers

公司简介 COMPANY PROFILE

Nanjing Runze Fluid Control Equipment Co.,Ltd is a high-tech enterprise who devote ourselves to research and develop high precision analytical parts such as syringe pumps, multiport valves, plastic fittings, peristaltic pumps, gas-tight syringes, customized dispensing systems that play an important role in medical analysis instruments, environmental on-line analyzers, industrial production line, laboratory and biological analyzers.

RUNZE possess solid technical foundation, relative professional R&D team, high-tech production equipment, skillful inspection procedures that help to establish its key position on the market. In coming future, we will persevere in higher level analytical technologies to provide customers with most satisfactory application experience, microfluidic solutions and services.



企业荣誉 ENTERPRISE HONOR

RUNZE attracted experienced talents with strong capability on integrating software and hardware at electronic research, mechanical design, mold manufacturing. In past years, we have accumulated rich technical and practical experience that bring us honors of ISO9001, National High-tech Enterprise, Jiangsu Province Private Science and Technology Enterprise, 5A Bank Credit Assessment, 49 technical patents and software copyright including 2 invention patents, 33 utility model patents, 13 design patents, 2 software copyright.

In order to provide our customers with the best quality and service , our syringe pumps, switching valves, peristaltic pumps, pump tubings, joints and other accessories have applied for various international certifications,such as ISO 9001, ROHS, CE, SGS, etc.



- 01 Quality Management System Certificate
- 02 Computer Software Copyright Registration Certificate
- 03 Design Patent Certificate
- 04 Utility Model Patent Certificate
- 05 Certificate for Inventor's Patent Right
- 06 China's High-tech Enterprise
- 07 Private Technology Enterprise in Jiangsu Province
- 08 Innovate and Develop Advanced Units





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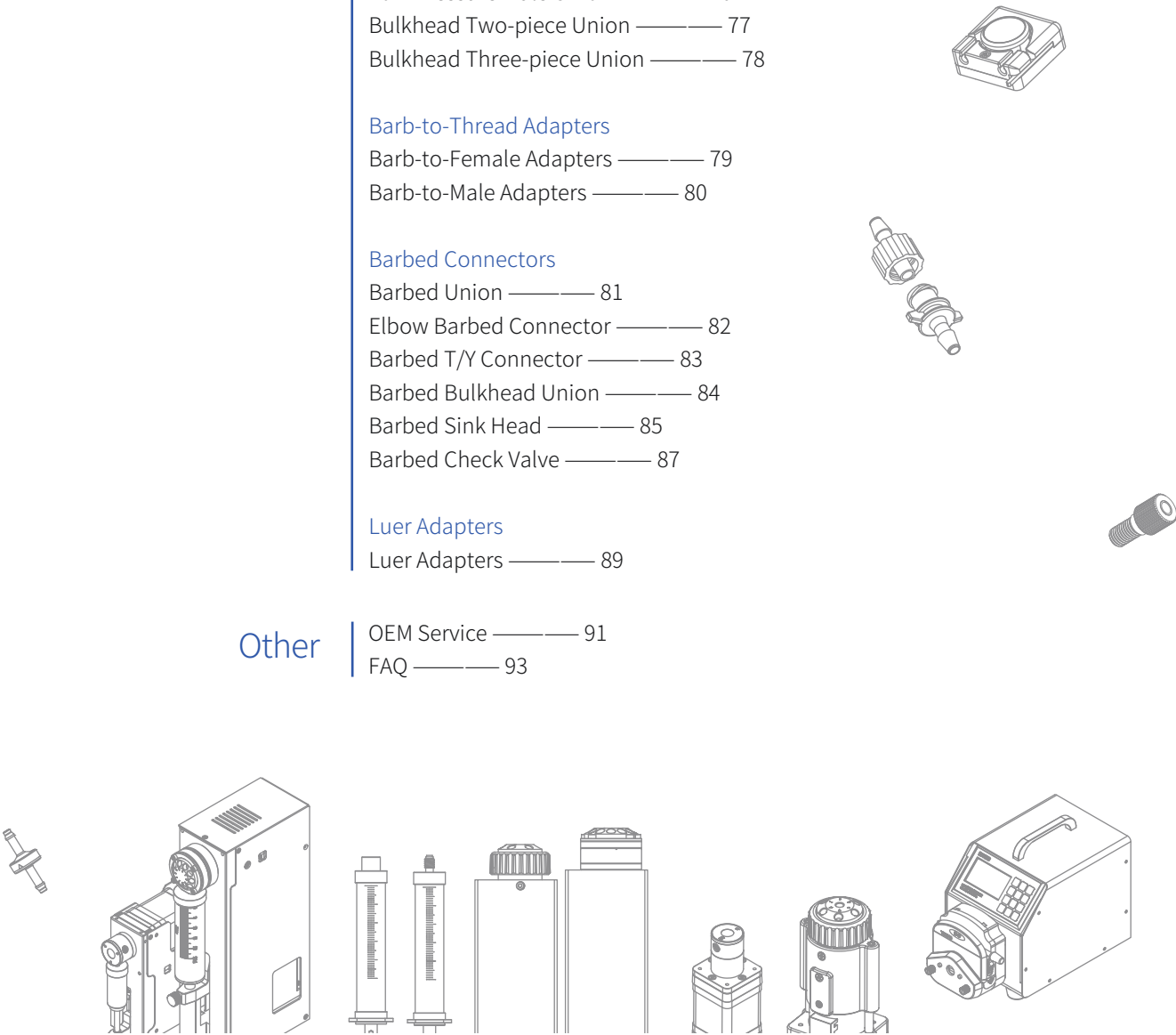
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Mini SY-04 Syringe Pump

- Runze patented product, compact size, can transfer liquid as microliters with extraordinary accuracy and precision
- Equipped with Japan imported NMB step motor, KSS ball screw, OMRON optocouplers, high stability and maintenance-free
- Imported fluorine material as the wetted part, resist to corrosion & high temperature, suitable for various special media.
- Equipped with special drive control or user's self-control available
- Widely used in environmental analyzers, medical analysis equipment and other high-precision analysis instruments

ZSB-LS - 0.9 - 1 - 5 - 1 - Q

Model No. 0.9°Step motor Lead 1mm Volume Channel Driver

①

5	5ml
10	10ml
20	20ml

②

1	Single channel
2	Double channel

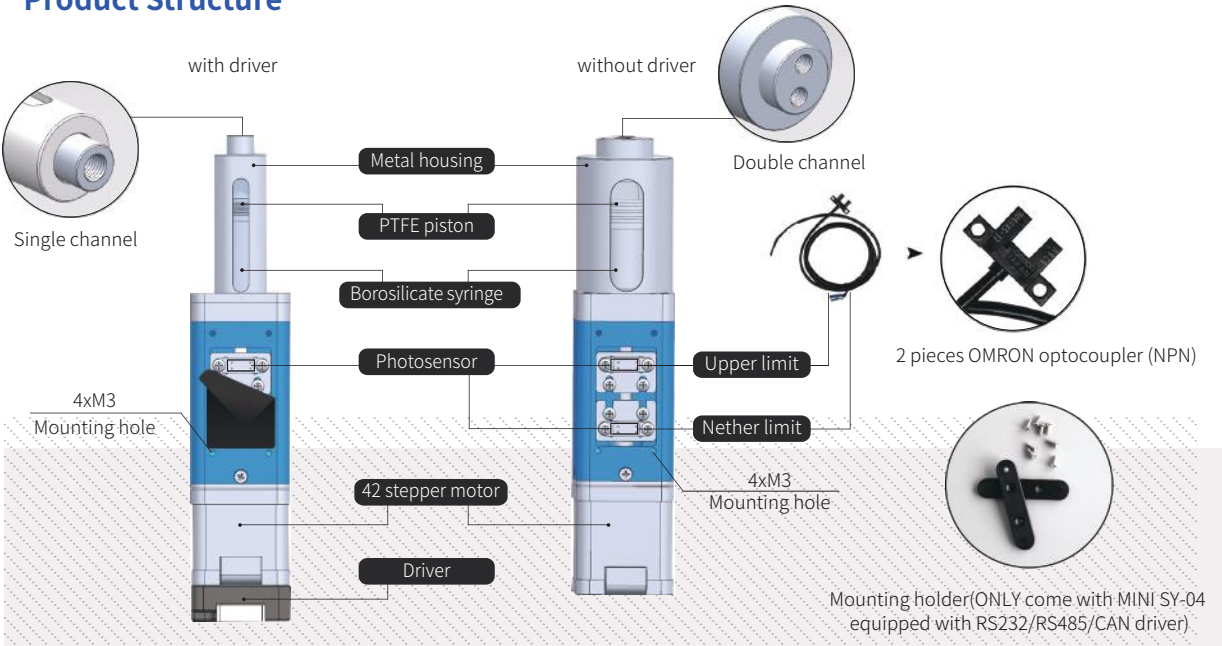
③

Q	With driver
-	Without driver

Technical Parameters

Accuracy	≤1%@100% rated stroke		
Precision (Repeatability)	0.3%~0.7%@100% stroke		
Pressure rating	0~1.2Mpa (water)/ 0~1.0Mpa (air)		
Service life	3 million times no leakage (media: water ; 1 rated stroke=one time)		
Initial position detection	Photosensor detect original piston position		
	5ml	10ml	20ml
Rated stroke (control steps)	30mm(12000 steps)	24.08mm(9632 steps)	24mm(9600 steps)
Maximum speed	300rpm	300rpm	250rpm
Linear speed	0.017~5mm/s	0.017~5mm/s	0.017~4.167mm/s
Running time (per rated stroke)	6~1765s	4.82~1416s	5.76~1412s
Resolution	0.0025mm/0.4154μl	0.0025mm/1.0382μl	0.0025mm/2.0833μl
Syringe ID	14.55mm	23.03mm	32.57mm
Actuator	Ball screw (Lead 1mm)		
Max. piston drive	≥100N		
Sub. piston drive	≥45N		
Wetted material	Borosilicate glass, PTFE		
Connection	1/4-28UNF		
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/1.5A		
Operating temperature	5°C~55°C		
Operating humidity	<80% relative humidity, non-condensing		
Dimension (L*W*H)	42*42*191mm (without driver)		42*42*206.2mm (with driver)
Net weight	0.72kg		

Product Structure



Product Function

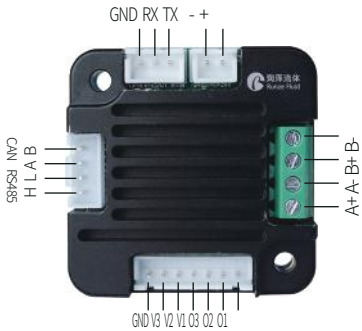
Address setting	Address settable via serial port
Baud rate setting	RS232/RS485/CAN baud rate settable
CAN destination address setting	When multiple devices controlled in paralleling, any device can be set with priority address
Speed setting	1rpm - 300 rpm (air and liquid maybe different)
Subdivision setting	When speed at 1rpm, motor subdivision must be 256
Reset interior data	Factory reset
Parameter query	Query address, speed, subdivision, baud rate etc.
Version query	Query firmware version
Motor direction	CW/CCW settable
Reset	Return piston to the origin
Strong stop	Strong stop the running motor
Motor status query	Detect current motor status
Power memory	When motor suddenly stops, current position can be queried from the distance between current position with the origin
Collision protection	Upper and nether optocoupler to limit the piston position

Motor Parameter

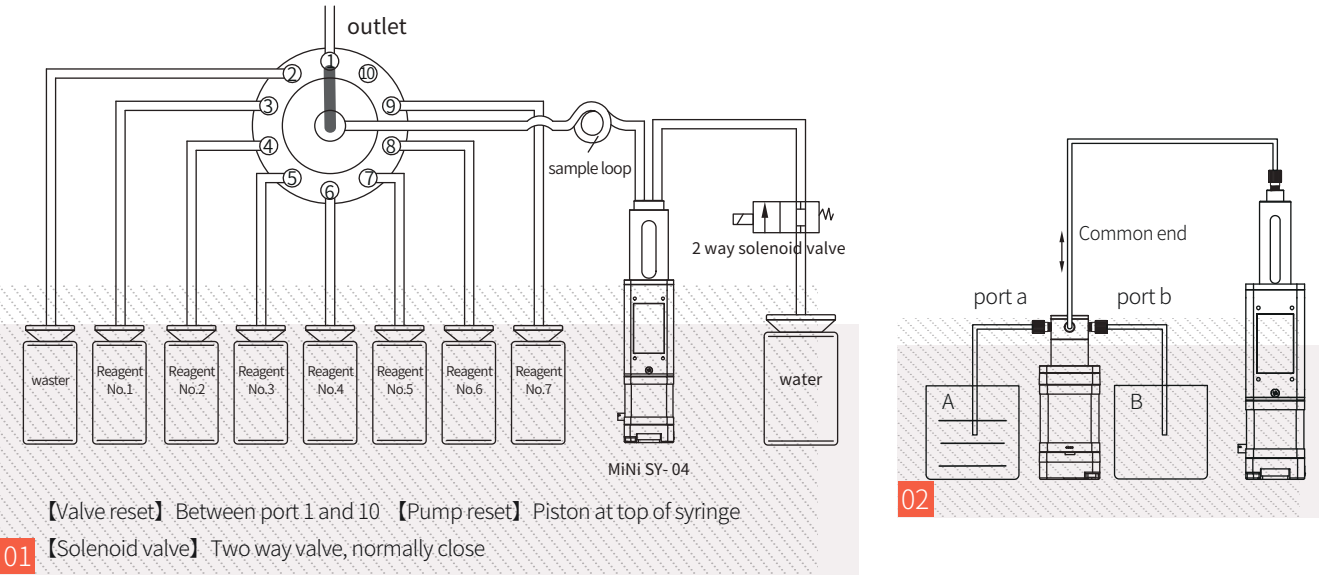
Max. power	9.2W
Step angle	0.9°
Phase	2
Phase voltage	4.6V
Phase current	1.0A
Resistance	4.6Ω±0.48
Inductance	18.6mH REF
Insulation	100m Ω MIN
Max. temperature	80°C MAX
Insulation grade	B

Driver Port

Port	Description	Port	Description
H	CANH	B+/B-	Phase B wiring
L	CANL	A+/A-	Phase A wiring
A	RS485 A	O ₁	Photosensor wiring port
B	RS485 B	O ₂	
GND	GND	O ₃	
RX	RS232 data output	V ₁	
TX	RS232 data input	V ₂	
-	DC24V negative	V ₃	
+	DC24V positive	GND	



Cross Contamination Free System



01 Perfusion steps

Tubing shown in 01

1. Reset selector valve, open two way solenoid valve, syringe pump aspirate water (the volume must be little more than liquid in the storage loop)
2. After water aspiration, close two way solenoid valve, selector valve switch to port 2, syringe pump reset and empty
3. Selector valve switch to port 3, reagent 1 was aspirated into storage loop through selector valve (the volume depends on tubing length and inner diameter)
4. Selector valve switch to port 2, syringe pump reset and empty
5. Selector valve switch to port 10 (air port), syringe pump aspirates 1ml air and switch to port 3 to discharge 100 μ l air, then switch to port 2 to empty

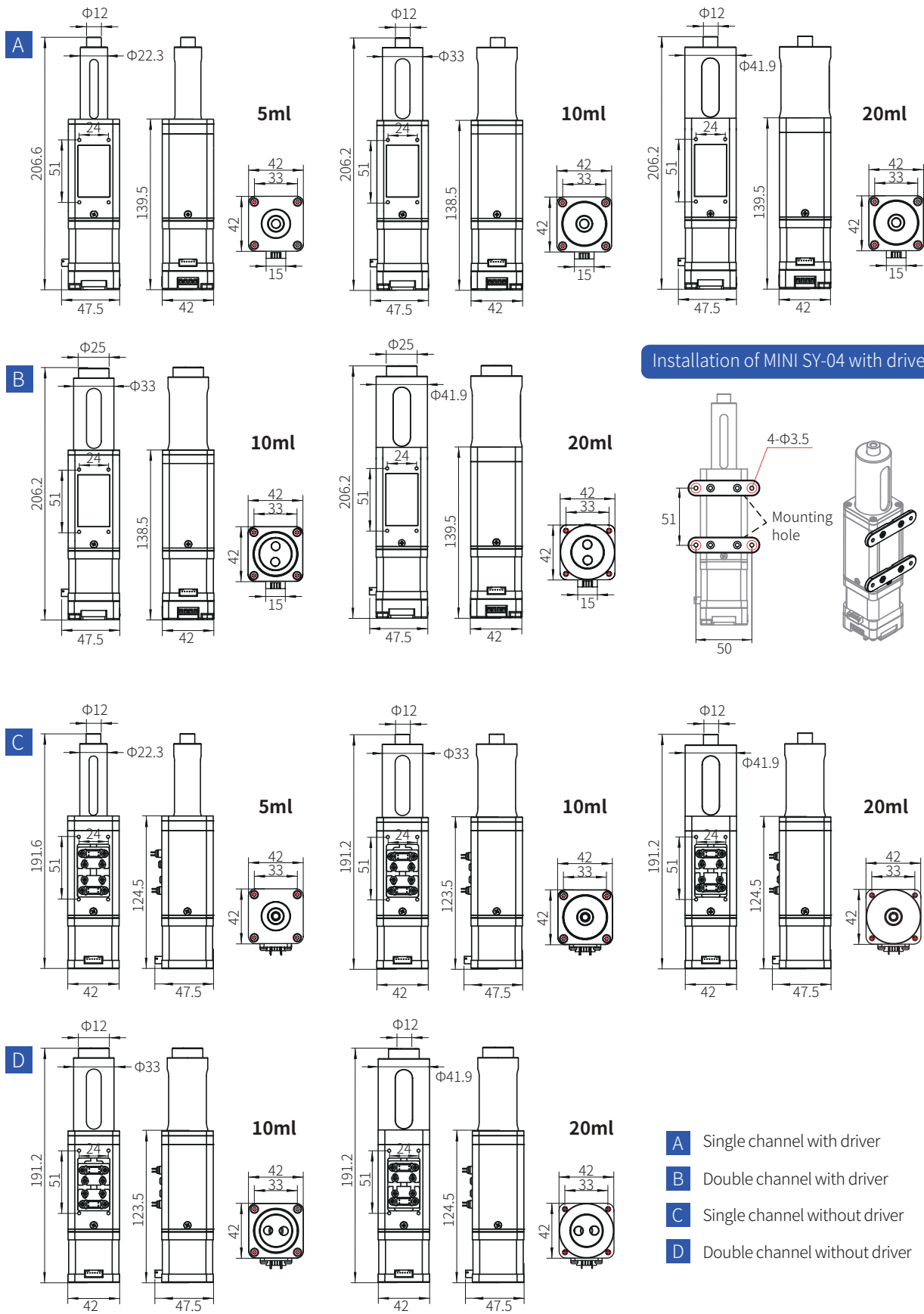
01 Sampling steps

Tubing shown in 01

1. Reset selector valve, open two way solenoid valve, syringe pump aspirates water
2. After water aspiration, close two way solenoid valve, selector valve switch to port 2, syringe pump reset and empty
3. Selector valve switch to port 3, syringe pump aspirates certain volume of reagent (suction volume more than target volume to ensure the accuracy)
4. Selector valve switch to port 2, syringe pump discharge 200 μ l, after 2s delayed, selector valve switch to port 1, syringe pump discharge target volume, then discharge and empty the rest liquid to port 2.
5. Selector valve switch to port 10, syringe pump aspirates 1ml air and discharge 0.5ml air to port 1, discharge 100 μ l air to port 3, then switch to port 2 to empty

- 02
- Tubing shown in 02
1. To make syringe pump aspirate liquid, power on solenoid valve, NO (normally open) and common port of solenoid valve connected, pump aspirate liquid from box A into syringe pump;
 2. To make syringe pump discharge liquid, power on solenoid 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)



SY-08 Syringe Pump



- Compact size, easy mounting, space-saving, long service life
- Industrial syringe pump with high precision in micro-liquid transferring and high performance.
- Wetted material borosilicate glass and PTFE, corrosion resistance, high temperature resistance, biocompatible and suitable for a variety of special media.
- Widely used in a variety of analysis equipment such as environmental analysis instruments, medical analysis instruments, non-standard sampling facilities in high-precision, etc.

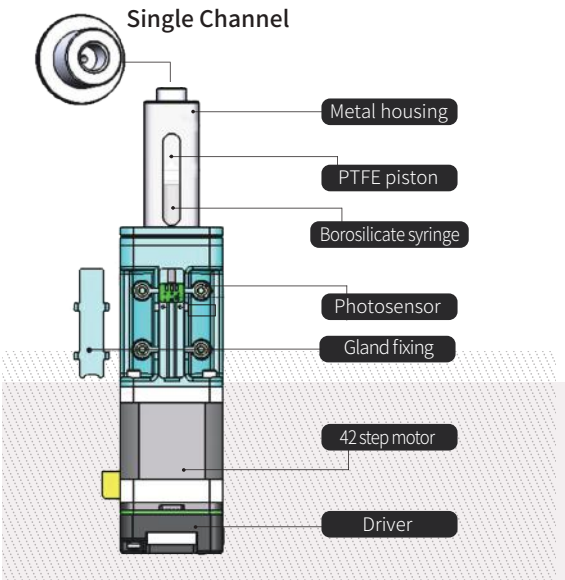
ZSB08-LS - 0.9 - 1 - 5 - 1 - Q
Model No. 0.9° Step angle Screw Lead 1mm Volume Single channel With Driver

5	Volume 5ml
12.5	Volume 12.5ml
25	Volume 25ml

Technical Parameter

Accuracy	≤1%@100% (rated stroke)		
Precision (Repeatability)	0.3%-0.7%@100% (rated stroke)		
Service life	3 million times no leakage (media: water; 1 rated stroke = one time)		
Volume	5ml	12.5ml	25ml
Back Pressure	0.95Mpa	0.9Mpa	0.5Mpa
Rated Stroke (control steps)	30mm(12000steps)	30mm(12000steps)	30mm(12000steps)
Maximum speed	600rpm	600rpm	500rpm
Linear speed	0.017~10mm/s	0.017~10mm/s	0.017~8.33mm/s
Running time (per rated stroke)	3~1800s	3~1800s	3.6~1800s
Resolution	0.0025mm/0.416μl	0.0025mm/1.042μl	0.0025mm/2.083μl
Syringe ID	14.55mm	23.03mm	32.57mm
Actuator	Trapezoidal screw (Lead 1mm)		
Max. piston drive	≥100N		
Wetted Material	Borosilicate glass, PCTFE valve head, PTFE piston		
Max. Pressure	Positive: 0-0.8Mpa, Negative:0-0.06Mpa, (retention time based on test)		
Channel	Single channel		
Connection	1/4-28UNF		
Baud-rate	RS232/RS485: 9600bps / 19200bps / 38400bps / 57600bps / 115200bps CAN: 100Kbps/200Kbps/500Kbps/1Mbps		
Address & Parameter setting	Via Communication		
Power supply	DC24V/3A		
Operating temperature	5°C~55°C		
Operating humidity	≤ 80% relative humidity, non-condensing		
Dimension (L*W*H)	42*42*192.8mm	42*42*201.8mm	42*42*201.8mm
Net Weight	0.56KG	0.62KG	0.66KG

Product Structure

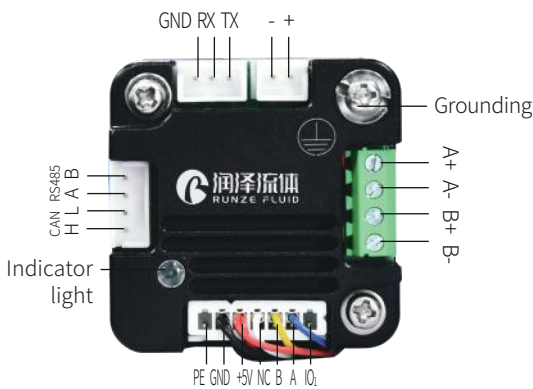


Product Function

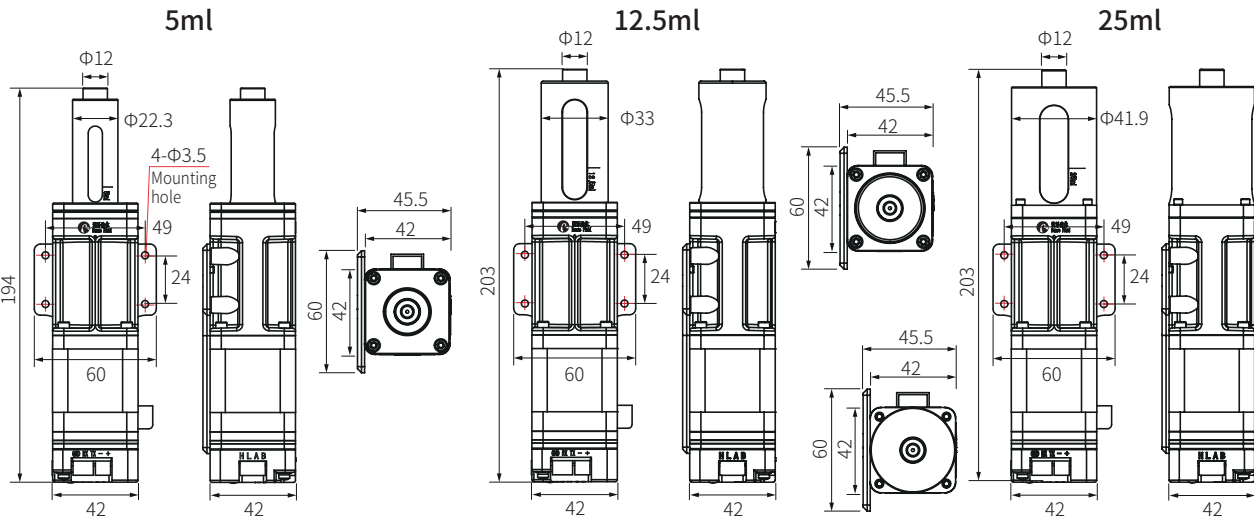
Address setting	Address settable via serial port
Baud rate setting	RS232/RS485/CAN baud rate settable
CAN destination address setting	When multiple devices controlled in paralleling, any device can be set with priority address
Speed setting	5ml、12.5ml: from 1 rpm to 600 rpm 25ml: from 1 rpm to 500 rpm (There are difference for gas, liquid and models)
Subdivision setting	subdivision 2-32 are settable
Reset interior data	Factory reset
Parameter query	Query address, speed, subdivision, baud rate, etc.
Version query	Query current firmware version
Motor direction	CW/CCW settable
Reset	Return piston to the origin/home position
Strong stop	Strong stop the running motor
Motor status query	Detect current motor status

Driver Port Definition

Port	Description	Port	Description
+	DC24V Positive	A+/A-	Phase A wiring
-	DC24V Negative	B+/B-	Phase B wiring
TX	RS232 Data Input	IO ₁	NC
RX	RS232 Data Output	IO ₂	Encoder Phase A
GND	RS232 GND	IO ₃	Encoder Phase B
H	CANH	IO ₄	IO ₄ Optocoupler signal
L	CANL	+5V	Power positive
A	RS485A	GND	GND
B	RS485B	PE	Grounding



Dimension (unit: mm)

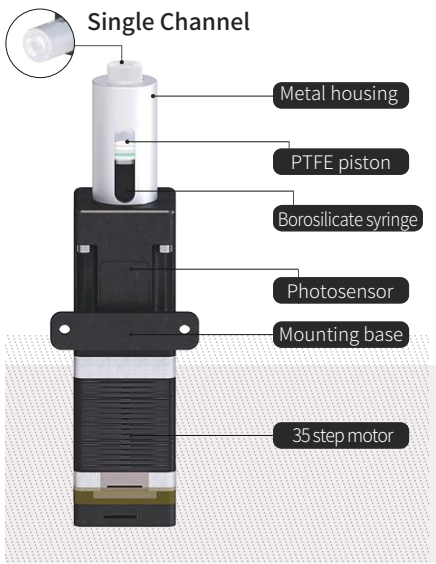


SY-09 Syringe Pump



- Compact size, easy mounting, space-saving, long service life
- An industrial Syringe Pump with high precision & high performance in micro-liquid transferring self-developed by Runze Fluid.
- Make step motor move in clockwise or counterclockwise by receiving instructions from the host computer. The circular motion is converted into linear motion by the trapezoidal screw to make the piston move up and down which applied in medical analysis equipment, chromatographic analyzers, food and beverages detection and analysis system, water quality on-line analyzer, petroleum detection equipment and biopharmaceutical extraction devices

Product Structure



Product Function

Address setting	Address settable via serial port
Baud rate setting	RS232/RS485/CAN baud rate settable
CAN destination address setting	When multiple devices controlled in paralleling, any device can be set with priority address
Speed setting	3ml: from 1 rpm to 600 rpm 8ml: from 1 rpm to 300 rpm (There are difference for gas, liquid and models)
Subdivision setting	subdivision 2-32 are settable
Reset interior data	Factory reset
Parameter query	Query address, speed, subdivision, baud rate, etc.
Version query	Query current firmware version
Motor direction	CW/CCW settable
Reset	Return piston to the origin/home position
Strong stop	Strong stop the running motor
Motor status query	Detect current motor status

ZSB-LS - 1.8 - 1 - 3 - M - Q

Model No.1.8° Step angleScrew Lead 1mmVolumeWith code diskWith Driver

①

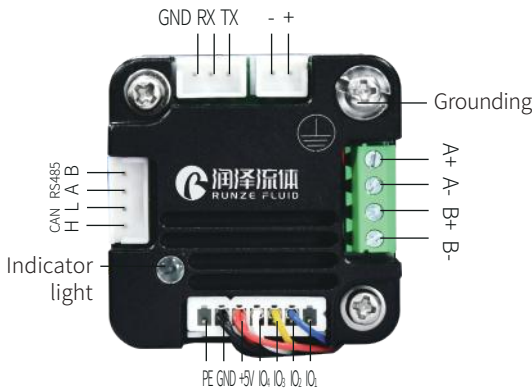
3	Volume 3ml
8	Volume 8ml

Technical Parameter

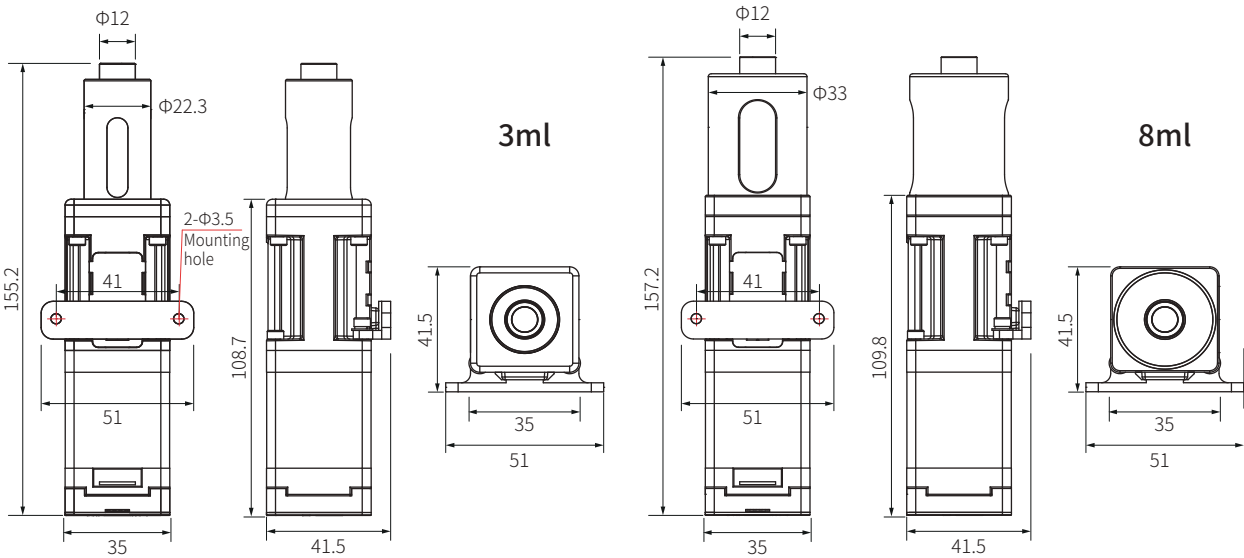
Accuracy	≤1%@100% (rated stroke)	
Precision (Repeatability)	0.3%-0.7%@100% (rated stroke)	
Service life	3 million times no leakage (media: water; 1 rated stroke = one time)	
Volume	3ml	8ml
Rated Stroke (control steps)	18mm(3600steps)	19.2mm(3840steps)
Maximum speed	600rpm	300rpm
Linear speed	0.017-10mm/s	0.017- 5mm/s
Running time (per rated stroke)	1.8~1080s	3.84-1129s
Resolution	0.005mm/0.833μl	0.005mm/2.083μl
Syringe ID	14.55mm	23.03mm
Actuator	Trapezoidal screw (Lead 1mm)	
Wetted Material	Borosilicate glass, PCTFE valve head, PTFE piston	
Max. Pressure	Positive: 0-0.8Mpa, Negative:0-0.06Mpa, (retention time based on test)	
Channel	Single channel	
Connection	1/4-28UNF	
Baud rate	RS232/RS485: 9600bps / 19200bps / 38400bps / 57600bps / 115200bps CAN: 100Kbps/200Kbps/500Kbps/1Mbps	
Address & Parameter setting	Via Communication	
Rated power	15W	
Power supply	DC24V/3A	
Operating temperature	5°C~55°C	
Operating humidity	≤ 80% relative humidity, non-condensing	
Dimension (L*W*H)	51*41.5*155.2mm	51*41.5*157.2mm
Net Weight	0.56kg	0.62kg

Driver Port Definition

Port	Description	Port	Description
+	DC24V Positive	A+/A-	Phase A wiring
-	DC24V Negative	B+/B-	Phase B wiring
TX	RS232 Data Input	IO ₁	NC
RX	RS232 Data Output	IO ₂	Encoder Phase A
GND	RS232 GND	IO ₃	Encoder Phase B
H	CANH	IO ₄	IO ₄ Optocoupler signal
L	CANL	+5V	Power positive
A	RS485A	GND	GND
B	RS485B	PE	Grounding



Dimension (unit: mm)



Smart SY-01B Syringe Pump



- Smart SY-01B syringe pump is the newest member in the series of micro-syringe pumps self-developed by Runze Fluid, which can handling fluids from microliters to milliliters with extraordinary accuracy and precision.
- Accommodates distribution valves and syringe in a variety of configuration which can meet various users’ requirement on high-precision liquid transferring
- Multiple pumps can be used in series
- Excellent performance provides a guarantee and convenience for the user's project

ZSB-SY01B - 30 - M01 - 3

Model No. Rated Stroke 30mm Valve model 12000 control steps (ASC II Code)

①

Valve Model			
M01	M02	M03	M04
M05	M06	M10	M12

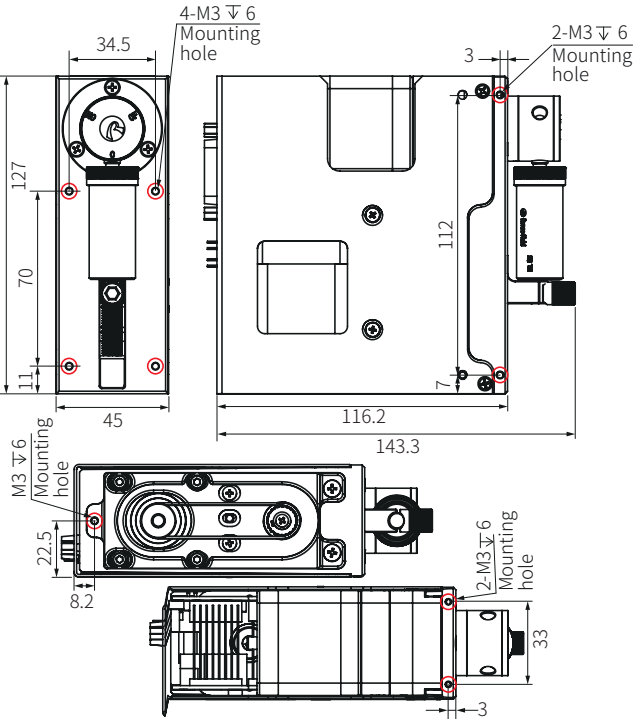
Technical Parameter (ASC II Code)

Accuracy	≤1%@100% rated stroke
Precision (Repeatability)	0.3%~0.5%@100% rated stroke
Rated stroke (control steps)	30mm(12000 steps standard mode; 96000 steps micro-step mode)
Maximum speed	450rpm
Linear speed	0.0333mm/s ~ 15mm/s(media: water ; 1 rated stroke=one time)
Running time (per rated stroke)	2s ~ 900s(media: water ; 1 rated stroke=one time)
Resolution	0.0025mm (per step)
Syringe configuration	25μl, 50μl, 125μl, 250μl. 500μl, 1.25ml, 2.5ml, 5ml
Valve Model(available)	M01、 M02、 M03、 M04、 M05、 M06、 M10、 M12
Wetted material	Borosilicate glass, PTFE, Sapphire, PCTFE
Max. Pressure Rating	0.7Mpa
Actuator	Trapezoidal screw (Lead 2mm)
Connection	1/4-28UNF
Baud rate	RS232/RS485: 9600bps /19200bps/38400bps/57600bps/115200bps CAN: 100kbps / 200kbps/ 500kbps/1Mbps
Communication addres	Up to 15 individual addresses can be provided
Firmware	Programmable acceleration/deceleration, termination of movement, programmable piston speed, diagnostic query error, programmable clearance compensation, absolute position or relative position, change speed on the fly, programmable Non-Volatile Memory
Power supply	DC24V/3A
Operating temperature	5°C~55°C
Operating humidity	<80% relative humidity, non-condensing
Dimension (L*W*H)	45*143.3*127mm
Net weight	1.5kg

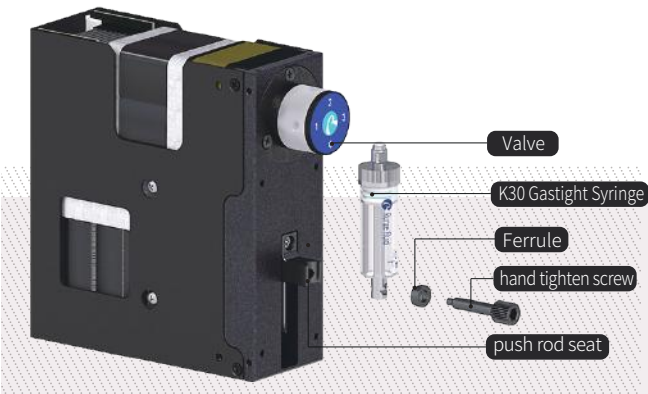
Valve Model (C connected with syringe)

Valve Model: M01 Fluid Logic: Y Flow Path (C-1/1-2/C-2 interlinked)			
Valve Model: M02 Fluid Logic: T Flow Path (C-1/2/C-1/1-2/C-2 interlinked)			
Valve Model: M03 Fluid Logic: Distribution Flow Path (C-1/C-2/C-3 interlinked)			
Valve Model: M04 Fluid Logic: Radio Flow Path (C-1/1-2/2-3/C-3 interlinked)			
Valve Model: M05 Fluid Logic: Bi-pass Flow Path (C-1/2-3 interlinked, C-3/1-2 interlinked)			Valve Model: M06 Fluid Logic: Distribution Flow Path (C selectively link to port 1-6)
Valve Model: M10 Fluid Logic: Distribution Flow Path (C selectively link to port 1-9)			
Valve Model: M12 Fluid Logic: Distribution Flow Path (C selectively link to port 1-12)			

Dimension (unit: mm)



Product Structure



SY-03B Syringe Pump



- SY-03B is a micro-syringe pump with extraordinary-precision in the series of high-end products developed by Runze Fluid.
- Accommodates distribution valves and syringes in a variety of configurations. Transfers liquid in high precision which can meet most users ' requirements.
- Can be used in series with multiple pumps.
- Fully programmable pump module with open framework, which handling fluids from microliters to milliliters with extraordinary accuracy and precision.
- With functions in automatic pipetting, dilution and dispensing.
- Controlled by an external computer or microprocessor.

ZSB-SY03B - 60 - M01 - 3

Model No. Rated Stroke 60mm Valve model 6000 control steps (ASC II Code)

Valve Model									
M01	M02	M03	M04	M05					
M06	M07	M08	M09	M10					

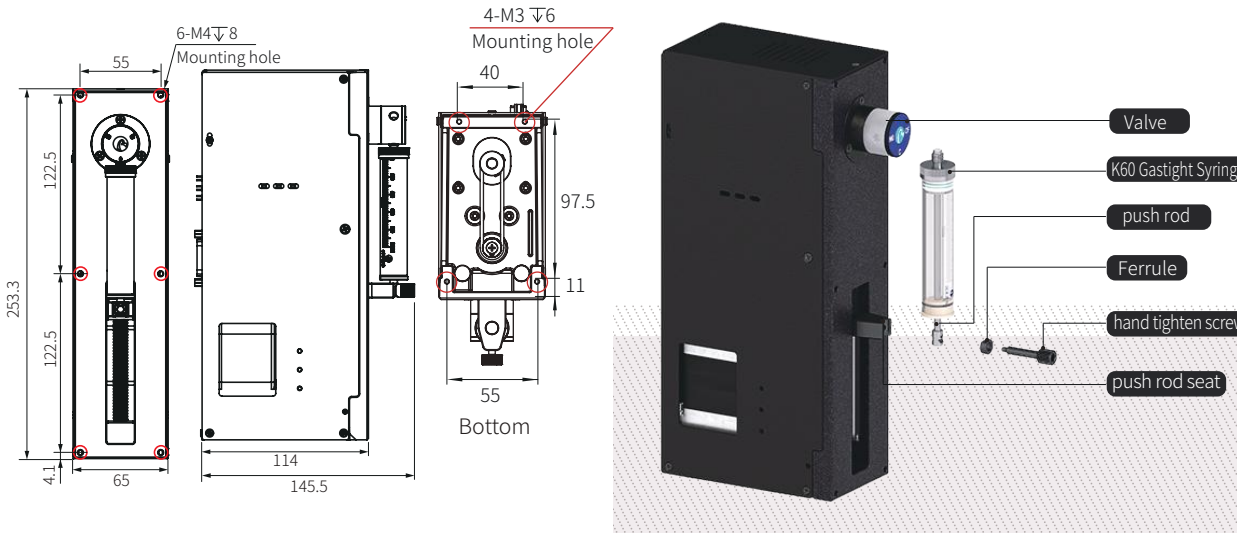
Technical Parameter (ASC II Code)

Accuracy	≤1%@100% rated stroke
Precision (Repeatability)	0.3%~0.5%@100% rated stroke
Rated stroke (control steps)	60mm(6000 steps standard mode; 48000 steps micro-step mode)
RPM Range	0.1rpm ~900rpm
Linear speed	0.01mm/s ~ 60mm/s(media: water ; 1 rated stroke=one time)
Running time (per rated stroke)	1s ~ 900s(media: water ; 1 rated stroke=one time)
Resolution	0.01mm (per step)
Syringe configuration	25μl, 50μl, 100μl, 250μl, 500μl, 1ml, 2.5ml, 5ml, 10ml, 25ml
Valve Model(available)	M01、 M02、 M03、 M04、 M05、 M06、 M07、 M08、 M09、 M10
Wetted material	Borosilicate glass, PTFE, Sapphire, PCTFE
Max. Pressure Rating	0.7Mpa
Actuator	Trapezoidal screw (Lead 6mm)
Connection	1/4-28UNF
Baud rate	RS232/RS485: 9600bps /19200bps/38400bps/57600bps/115200bps CAN: 100kbps / 200kbps/ 500kbps/1Mbps
Communication addres	Up to 15 individual addresses can be provided
Firmware	Programmable acceleration/deceleration, termination of movement, programmable piston speed, diagnostic query error, programmable clearance compensation, absolute position or relative position, change speed on the fly, programmable Non-Volatile Memory
Power supply	DC24V/3A
Operating temperature	5°C~55°C
Operating humidity	<80% relative humidity, non-condensing
Dimension (L*W*H)	65*145.5*253.3mm
Net weight	2.2kg

Valve Model (C connected with syringe)

Valve Model: M01 Fluid Logic: Y Flow Path (C-1/1-2/C-2 interlinked)			
Valve Model: M02 Fluid Logic: T Flow Path (C-1-2/C-1/1-2/C-2 interlinked)			
Valve Model: M03 Fluid Logic: Distribution Flow Path (C-1/C-2/C-3 interlinked)			
Valve Model: M04 Fluid Logic: Radio Flow Path (C-1/1-2/2-3/C-3 interlinked)			
Valve Model: M05 Fluid Logic: Bi-pass Flow Path (C-1/2-3 interlinked, C-3/1-2 interlinked)			Valve Model: M06 Fluid Logic: Distribution Flow Path (C selectively link to port 1-6)
Valve Model: M07 Fluid Logic: Distribution Flow Path (C selectively link to port 1-8)			Valve Model: M08 Fluid Logic: Distribution Flow Path (C selectively link to port 1-10)
Valve Model: M09 Fluid Logic: Distribution Flow Path (C selectively link to port 1-15)			Valve Model: M10 Fluid Logic: Distribution Flow Path (C selectively link to port 1-12)

Dimension (unit: mm)



SY-03B DK Syringe Pump



- SY-03B Dk series product is a kind of micro-syringe pump with multiple syringes working in parallel in high precision developed by Runze Fluid.
- Use a stepper motor to drive the syringe and the valve to aspirate and dispense quantitative liquid.
- Fully programmable pump module with open framework, which handling fluids from microliters to milliliters with extraordinary accuracy and precision. With functions in automatic pipetting, dilution and dispensing.
- Controlled by an external computer or microprocessor.

ZSB-SY03B DK - 60 - T1 - Z - PPS

Model No. Rated Stroke 60mm Configuration Solenoid valve Valve material

①

T1 1-port

T2 2-port

T4 4-port

T6 6-port

T8 8-port

②

Z without Solenoid valve

F with Solenoid valve

③

PPS Valve material PPS

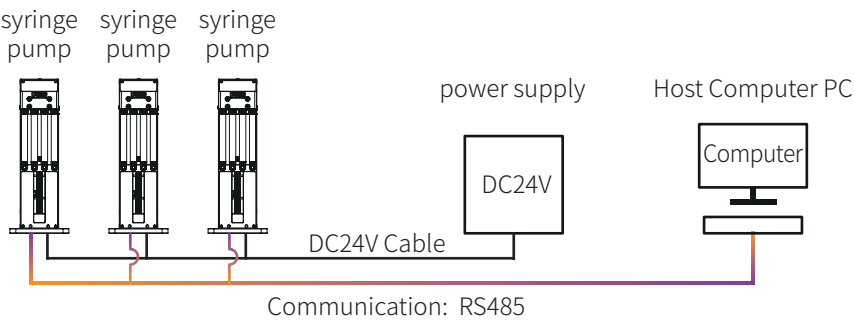
PEEK Valve material PEEK

Technical Parameter(ASCII Code)

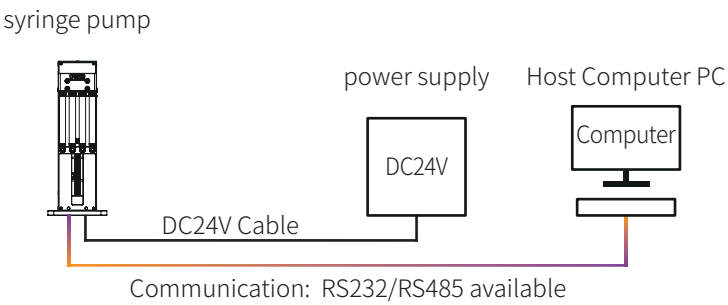
Accuracy	≤1%@100% rated stroke
Precision (Repeatability)	0.3%~0.5%@100% rated stroke
Rated stroke (control steps)	60mm(6000 steps standard mode; 48000 steps micro-step mode)
RPM Range	0.1rpm ~ 333rpm
Linear speed	0.01mm/s ~ 100mm/s(media: water ; 1 rated stroke=one time)
Running time (per rated stroke)	1.8s ~ 6000s(media: water ; 1 rated stroke=one time)
Resolution	0.01mm (per step)
Valve Type	Solenoid valve
Syringe configuration	25μl, 50μl, 100μl, 250μl, 500μl, 1ml, 1.25ml, 2.5ml, 5ml
Wetted material	Borosilicate glass, PTFE, FKM, PEEK(PPS)
Max. Pressure Rating	0.2Mpa
Actuator	Trapezoidal screw (Lead 6mm)
Connection	1/4-28UNF
Baud rate	RS232/RS485: 9600bps, 38400bps
Communication addres	Up to 15 individual addresses can be provided
Firmware	Programmable acceleration/deceleration, termination of movement, programmable piston speed, diagnostic query error, programmable clearance compensation, absolute position or relative position, change speed on the fly, programmable Non-Volatile Memory
Power supply	DC24V/3A
Operating temperature	5°C~55°C
Operating humidity	<80% relative humidity, non-condensing
Dimension (L*W*H)	65*150*261.3mm
Net weight	2.2kg

Wiring Diagram

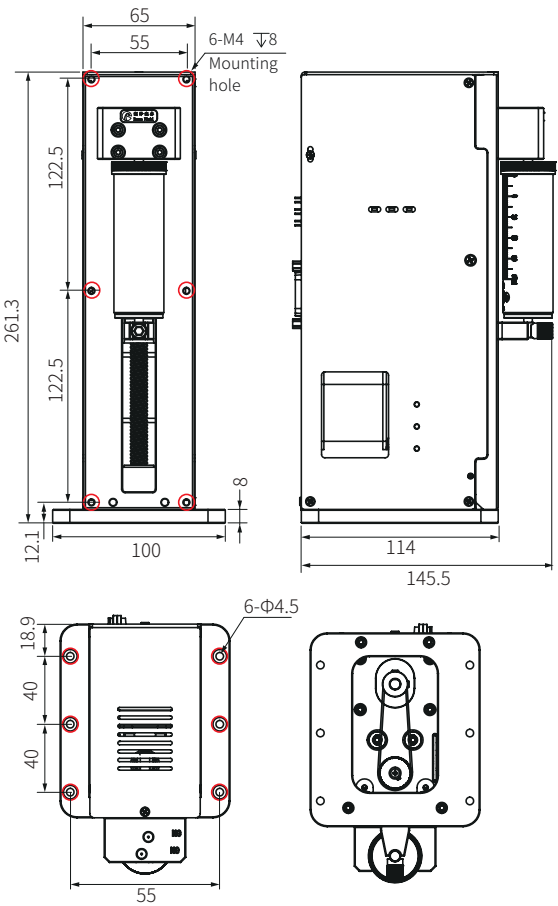
Multiple syringe pumps controlled in parallel



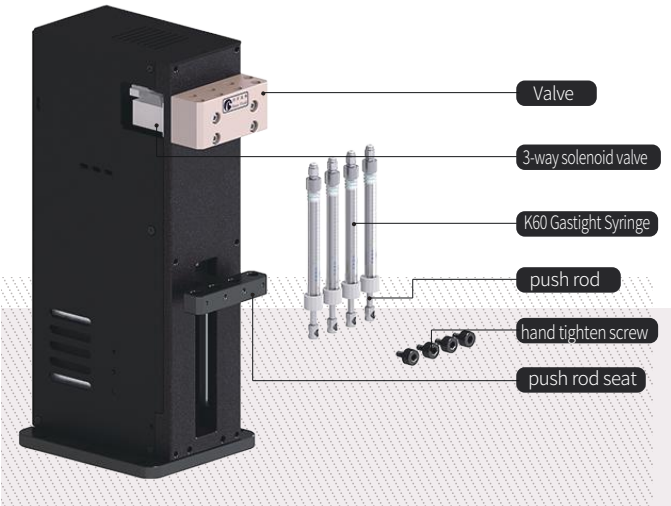
Single controlled



Dimension (unit: mm)



Product Structure



Rpm-01 Syringe Pump



- High precision continuous liquid transferring instead of peristaltic pump
- Compact size compact size, easy mounting, space-saving
- High Repeatability, long service life, maintenance-free
- Wetted material borosilicate glass and PTFE, corrosion resistance, biocompatible, non-contamination
- NMB stepper motor, long service life, high accuracy, reliability and stability
- RS232/RS485/CAN communication driver optional

RPM-01 - D - 42 - 1 - W01

Model No. single side 42 stepper motor Volume Optocoupler/Drive Optional

①		②	
1	1ml	W00	Without optocoupler & drive
2	2ml	W01	With optocoupler & without drive
3	3ml	Y02	With optocoupler & drive

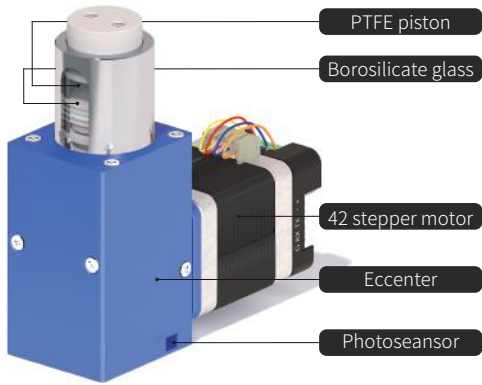
Technical Parameter

Rated volume	1ml	2ml	3ml
Resolution	1ml		
Accuracy	±1%@100% reciprocal stroke		
Precision (Repeatability)	0.3%~0.7%(100% stroke)		
Pressure rating	Max. 0.3Mpa		
Service life	3 million times no leakage (media: water; 1 rated stroke=one time)		
Max. speed	180rpm		
Min. speed	1rpm/min		
Flow range	1 - 360ml/min		
Actuator	Eccenter		
Wetted material	Borosilicate glass, PTFE piston/outlet		
Connection	1/4-28UNF		
Communication	RS485/RS232/CAN		
Power supply	DC24V/1.5A		
Operating temperature	5°C-55°C		
Operating humidity	<80% relative humidity, non-condensing		
Dimension(L*W*H)	98.3*42*116.4mm		
Net weight	0.8kg		

Motor Parameter

42 stepper motor			
Max. power	9.2W	Resistance	3.8Ω±0.38
Step angle	1.8°	Inductance	5.2mH REF
Phase	2	Insulation	100m Ω MIN
Phase voltage	4.2V	Max. Temp	80°C MAX
Phase current	1.1A	Insulation grade	B

Product Structure



Component

RPM-01 eccentric syringe pump was made of PTFE piston, borosilicate syringe, 42stepper motor, eccentric inset, crank web, pushrod, Panasonic photosensor, other mechanical parts.

Classification

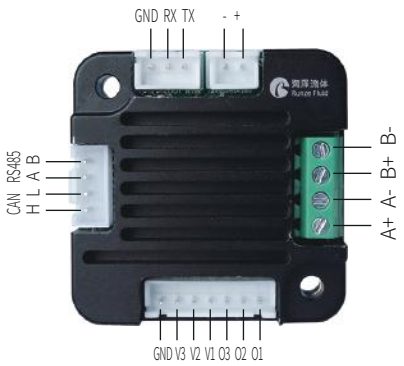
Rpm-01-D 1ml 2ml 3ml syringe pump aspiration and discharge 1ml 2ml 3ml when motor runs 1 circle (360°)

Panasonic photosensor (optional)

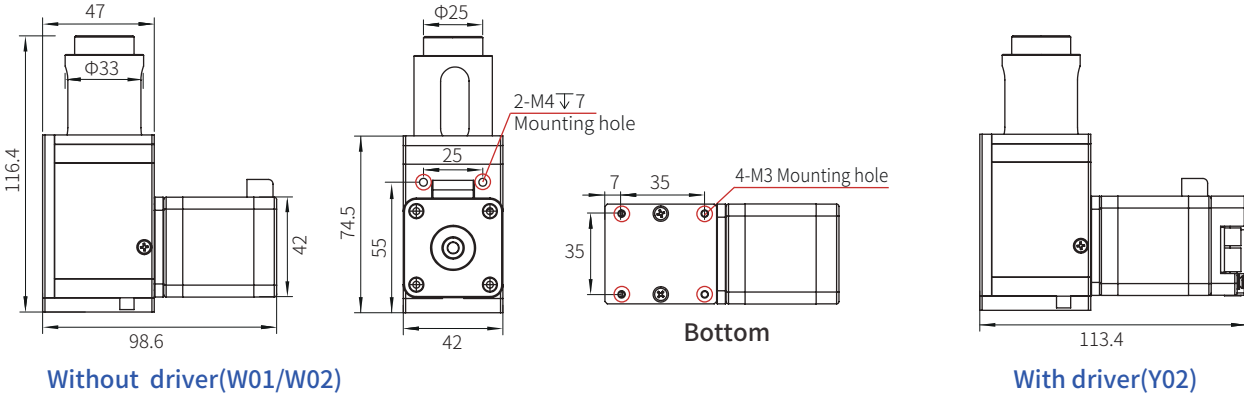
Inset Panasonic photosensor (optional) helps to protect the syringe pump from collision and anti external interference.

Driver Port (optional)

Port	Description	Port	Description
H	CANH	B+/B-	Phase B wiring
L	CANL	A+/A-	Phase A wiring
A	RS485 A	O1	Photosensor wiring port
B	RS485 B	O2	
GND	GND	O3	
RX	RS232 data output	V1	
TX	RS232 data input	V2	
-	DC24V negative	V3	
+	DC24V positive	GND	



Dimension (unit: mm)





Rp-01 Piston Pump

Micro piston pump is a type of small volume precision pump with the flexible control options of the encoder, driver, solenoid valve, it is mostly equipped in medical analysis systems for delivering fluid in microliters or milliliters with very high precision, wetted materials are corrosion resistance and biocompatible for most chemicals or solvents, small footprint and high cost performance make it a very special choice for high precision fluid treatment in medical and biological analytical systems.

ZSB-RP01-LS - 1.8 - 1 - 6 - M-Q - F-2

Model No.1.8°Step motorLead 1mmVolume 6mlEncoder/DriverSolenoid Valve Hole Quantity

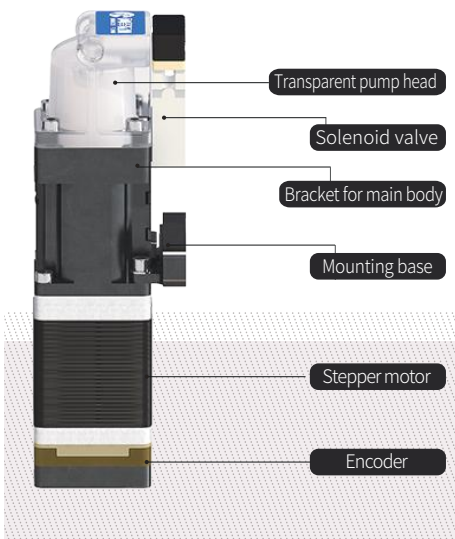
①

1single-hole without encoder and driverM-Q-1single-hole with encoder and driverM-Q-F-2double-hole with solenoid valve, encoder and driver

Technical Parameters

Accuracy	≤1%@100% rated stroke	
Precision (Repeatability)	0.3%~0.7% (100% rated stroke)	
Service life	3 million times no leakage (media: water; 1 rated stroke=one time)	
Initial position detection	Photoelectric detects original piston position	
Valve head	Single hole	Double-hole with valve
Dead volume	1.45ml	1.716ml
Volume	6ml	
Rated stroke (control steps)	19.1mm (3820 steps)	
Maximum speed	500rpm	
Linear speed	0.017~8.33mm/s	
Running time (per rated stroke)	2.292s(500rpm) ~1146s(1rpm)	
Resolution	0.005mm/1.5707μl	
Cylinder ID	20mm	
Actuator	lead screw (lead 1mm)	
Wetted material	PC, ceramics, PTFE	
Maximum pressure	Positive air pressure 0~0.8Mpa Negative air pressure 0~0.06Mpa (hold time 1min)	
Connection	1/4-28UNF female thread	
Power supply	DC24V/1.5A	
Operating temperature	5~55°C	
Operating humidity	<80%	
Dimension (L*W*H)	51*41.5*131.5mm (Single hole, Without Encoder/Driver/Solenoid valve)	
Weight	0.4kg (Single hole, Exclude Encoder/Driver/Solenoid valve)	

Product Structure

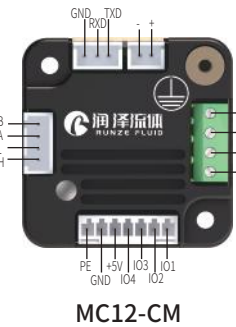


Product Function

Address setting	Address settable via serial port
Baud rate setting	RS232/RS485/CAN baud rate settable
CAN destination address setting	When multiple devices controlled in paralleling, any device can be set with priority address
Speed setting	1rpm - 500 rpm (air and liquid maybe different)/min
Subdivision setting	Motor subdivision vary from 2 to 32
Reset interior data	Factory reset
Parameter query	Query address, speed, subdivision, baud rate etc.
Version query	Query firmware version
Motor direction	CW/CCW settable
Reset	Return piston to the origin
Strong stop	Strong stop the running motor
Motor status query	Detect current motor status
Power memory	When motor suddenly stops, current position can be queried from the distance between current position with the origin
Collision protection	Upper and nether optocoupler to limit the piston position

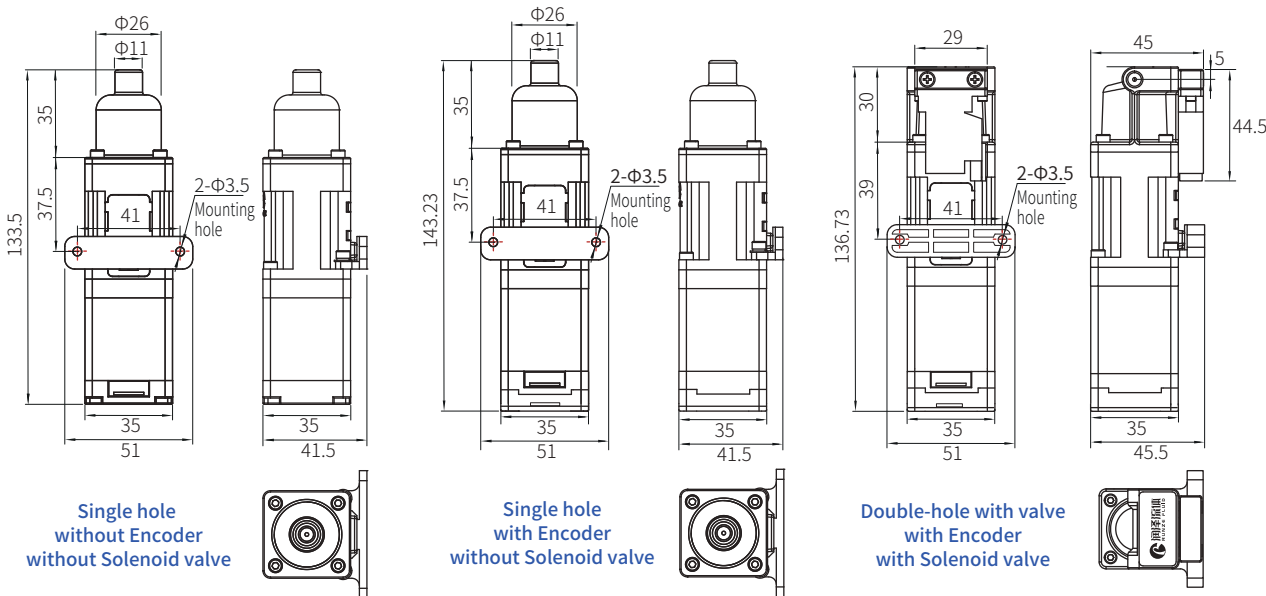
Driver & Valve Parameters

MC12-CM Driver Port			
Port	Description	Port	Description
H	CANH	B+/B-	Phase B wiring
L	CANL	A+/A-	Phase A wiring
A	RS485 A	IO1	NC
B	RS485 B	IO2	Encoder Phase A
GND	GND	IO3	Encoder Phase B
RX	RS232 data output	IO4	Optocoupler signal
TX	RS232 data input	+5V	Power positive
-	DC24V negative	GND	GND
+	DC24V positive	PE	Grounding



Parameters of Solenoid Valve	
Input Voltage	24V±10%
Starting Current	154mA
Standing Current	42mA
Starting Power	3.7W
Standing Power	<1W
Leak-allowed Current	4mA
Insulation Resistance	100M Ω MIN
Power Light	Red LED
Surge-proof	Surge absorbing diode

Dimension (unit:mm)



K30 Gastight Syringe



- Standard 1/4-28UNF thread, good tightness
- Wetted Material: Borosilicate(glass), PTFE(piston /syringe outlet) , high precision, corrosion resistance
- Maximum pressure rating 0.68Mpa(Bar)
- Easy clean and sterilization, reusable
- Service Life: 3 million times no leakage (water)
- Flexible connections to meet different applications

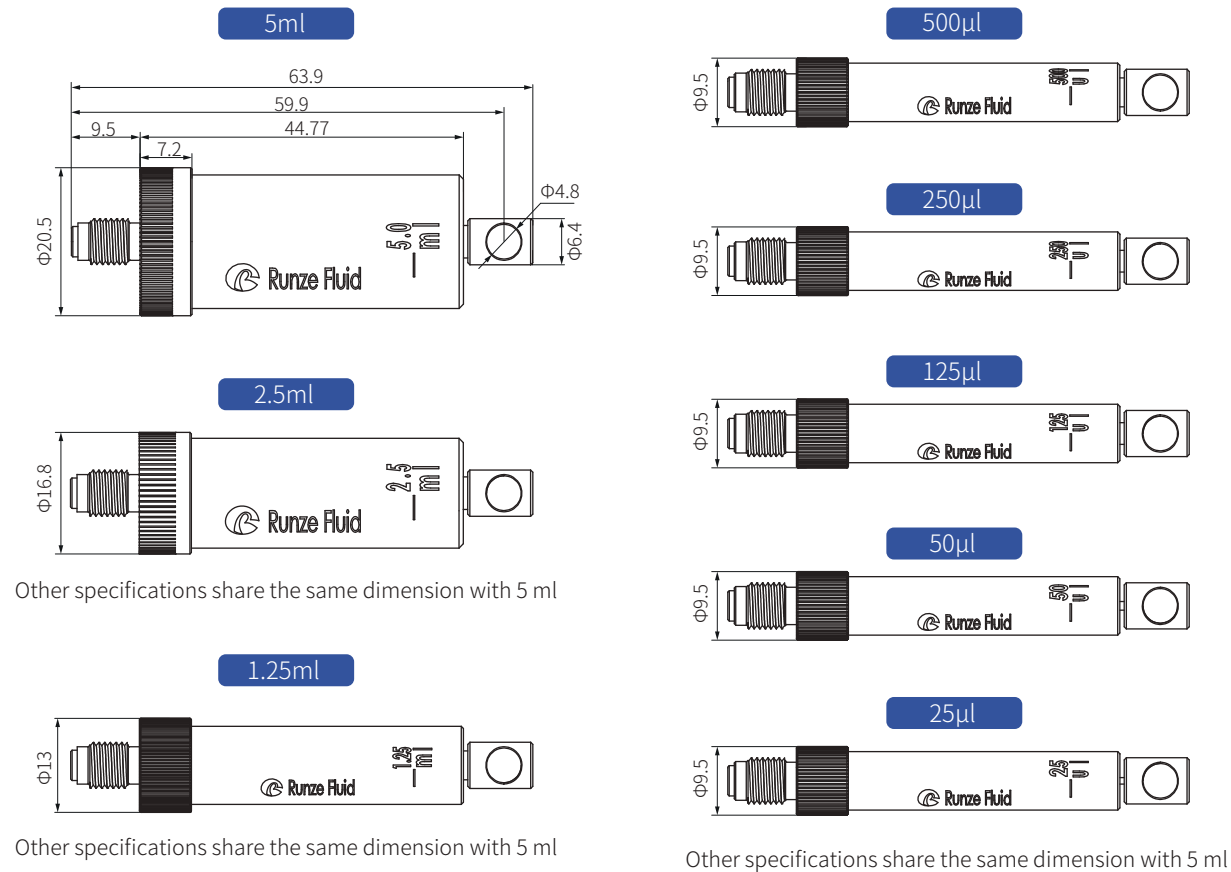
RZ-K30 - 5ML - W - 1 - U

Model No. Volume Male thread Single channel Thread 1/4-28UNF

①

5ML	250μl
2.5ML	125μl
1.25ML	50μl
500μl	25μl

Dimension (Unit: mm)



K60 Gastight Syringe

- Standard 1/4-28UNF thread, good tightness
- Wetted Material: Borosilicate(glass), PTFE(piston /syringe outlet) , high precision, corrosion resistance
- Maximum pressure rating 0.68Mpa(Bar)
- Easy clean and sterilization, reusable
- Service Life: 3 million times no leakage (water)
- Flexible connections to meet different applications

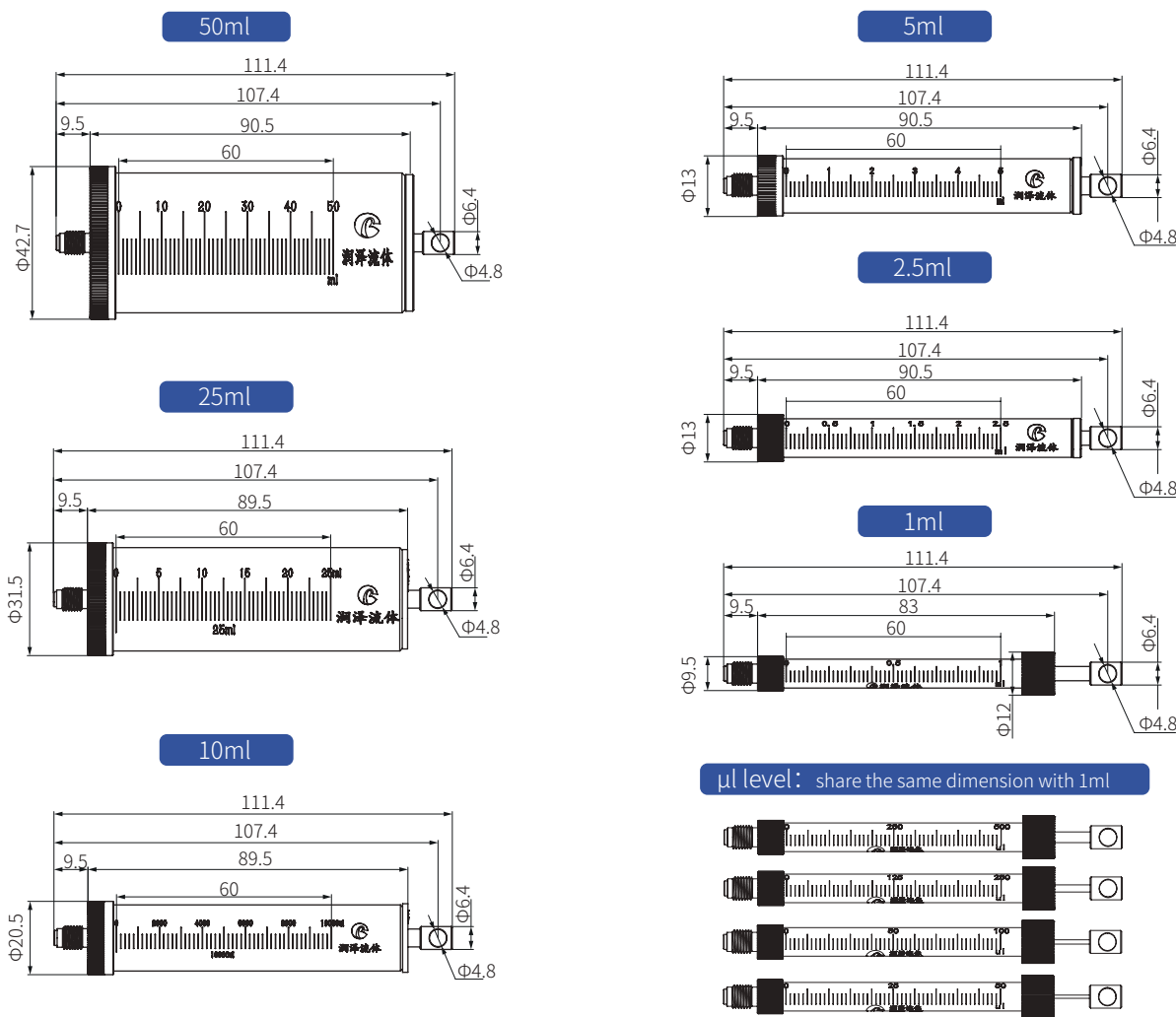
RZ-K60 - 5ML - W - 1 - U

Model No. Volume Male thread Single channel Thread 1/4-28UNF

①

50ML	1ML
25ML	500μl
10ML	250μl
5ML	100μl
2.5ML	50μl

Dimension (Unit: mm)



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

Configuration

Orifice

Sapphire

①

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

②

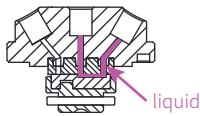
K1.0	Orifice 1.0mm
K1.2	Orifice 1.2mm
K3.0	Orifice 3.0mm

only 6/8 ports support 3.0mm orifice

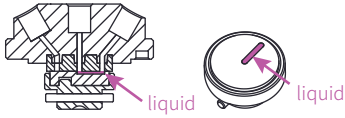
Technical Parameter

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℃		
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℃~+50℃		
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

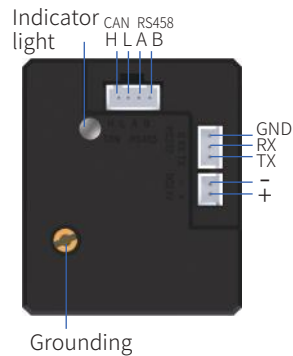
Port-to-Port Volume



Rotor Slot Volume

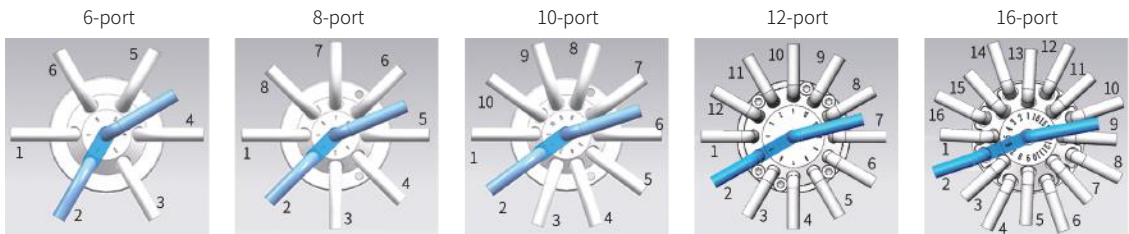


Driver Port



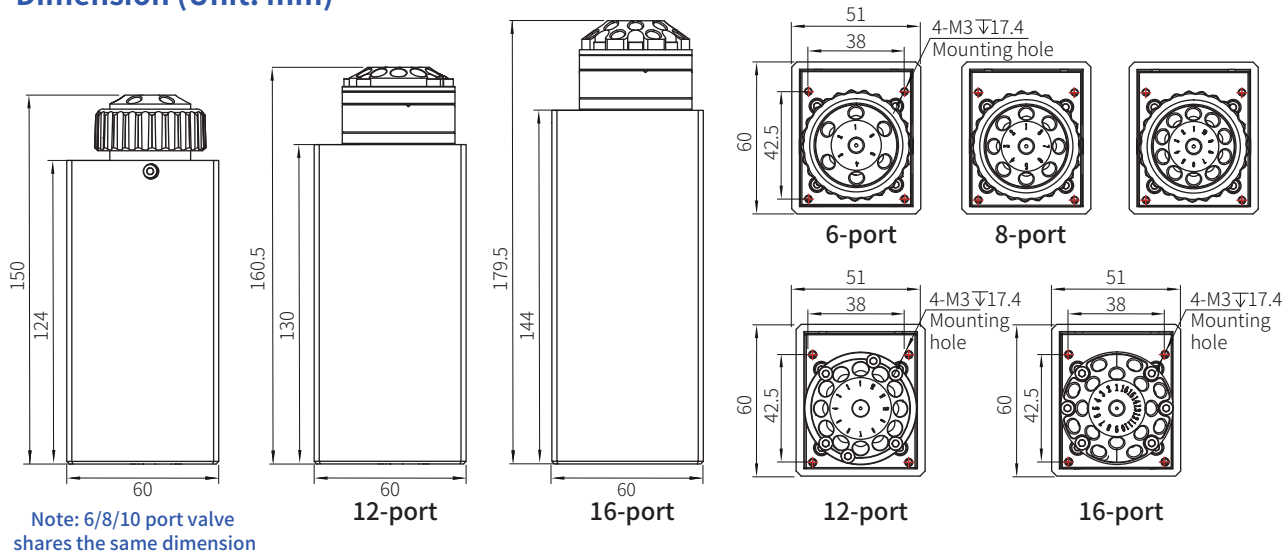
Port	Description
+	DC24V Positive
-	DC24V Negative
TX	RS232 Data Input
RX	RS232 Data Output
GND	GND
H	CANH
L	CANL
A	RS485A
B	RS485B

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)



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

QHF-SV04 - X - S - T10 - K1.2 - S

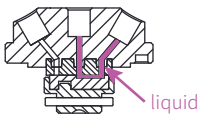
Model No. Valve type Small low voltage Configuration Orifice 1.2mm Sapphire

T6	6-port
T8	8-port
T10	10-port

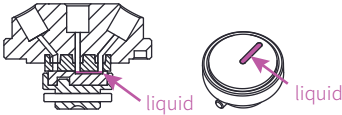
Technical Parameter

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

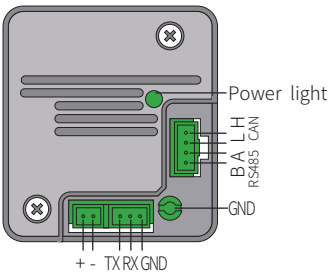
Port-to-Port Volume



Rotor Slot Volume



Driver Port



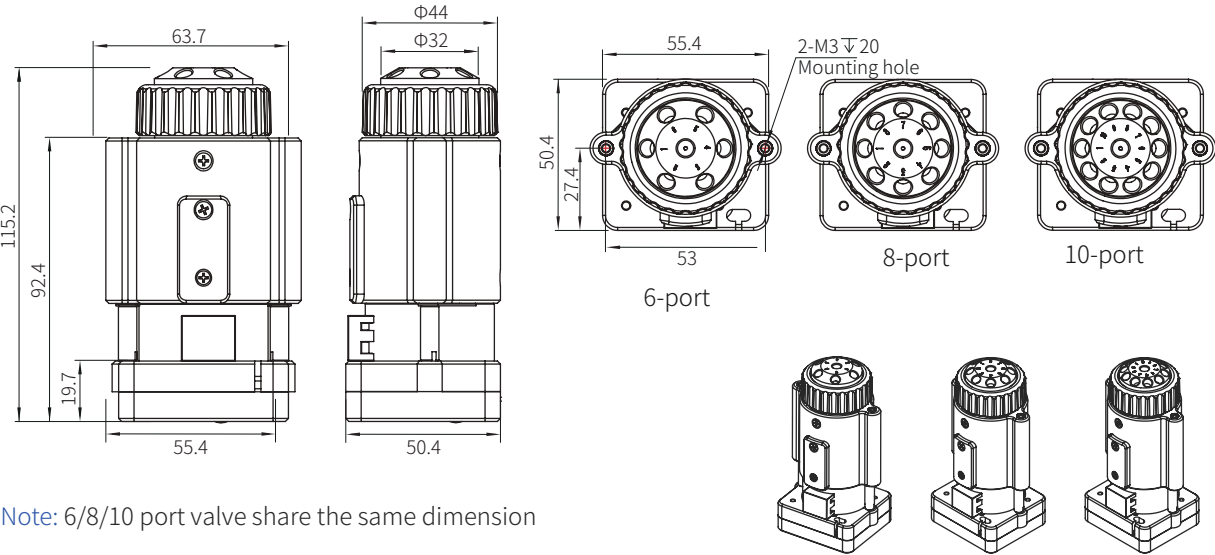
Port	Description
+	DC24V Positive
-	DC24V Negative
TX	RS232 Data Input
RX	RS232 Data Output
GND	GND
H	CAN H
L	CAN L
A	RS485 A
B	RS485 B

Flow Path



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.

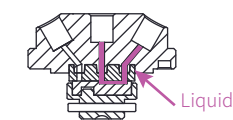
Interface Introduction

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		
Dimension	6/8/10 ports	12 ports	16 ports
	200*100*93mm	205*100*93mm	210*100*93mm

Port-to-port Volume

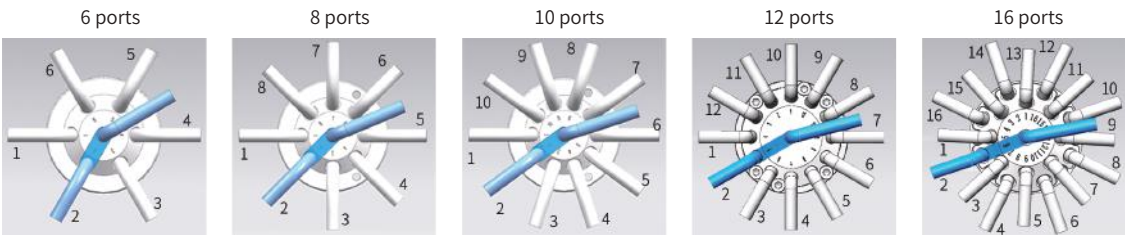


Rotor Slot Volume



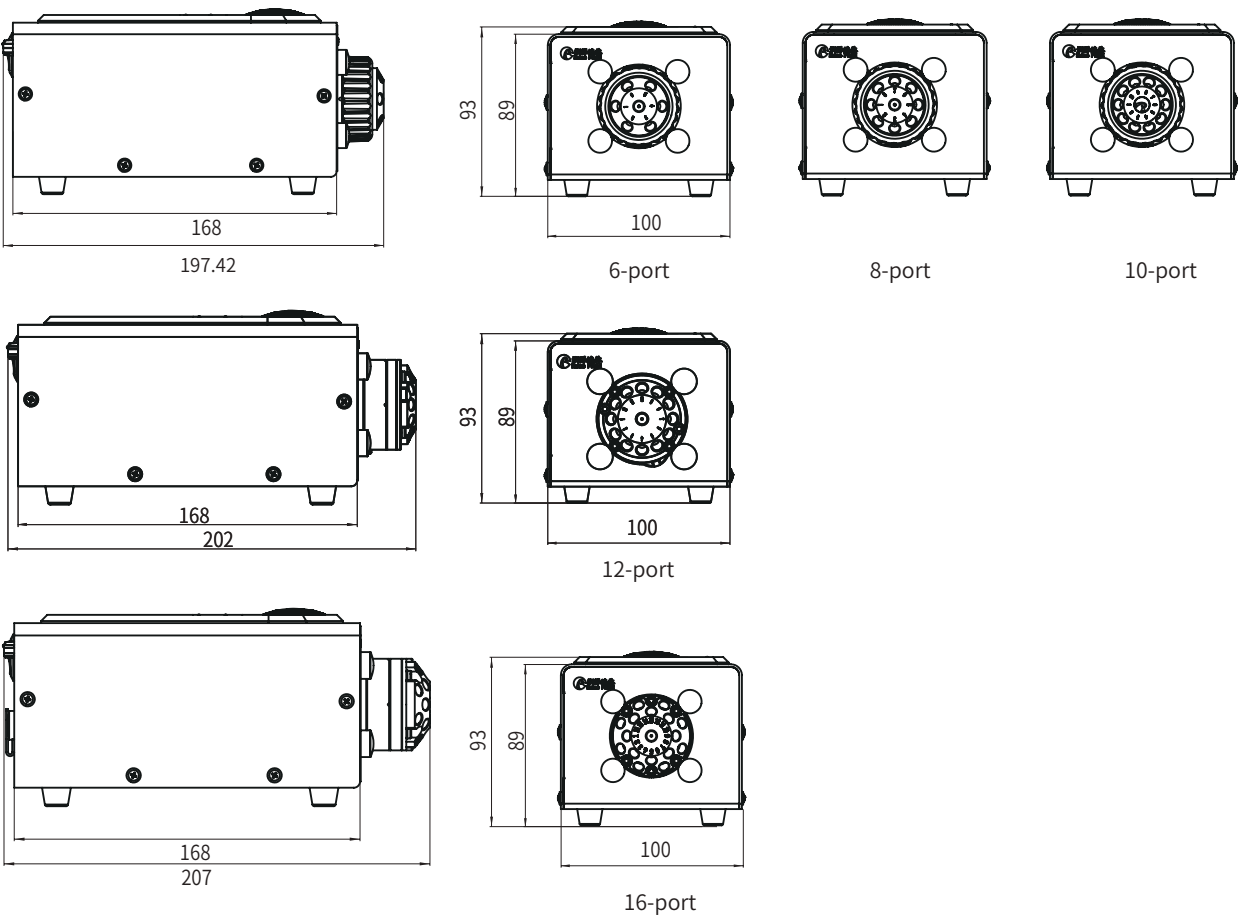
Flow Configuration

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 meet 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.

QHF-SV07B

-

X

-

S

-

T10

-

K1.2

-

S

①

T66-port

T88-port

T1010-port

Model No.

Slope valve head

Small low voltage

Configuration

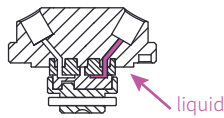
Orifice 1.2mm

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℃		
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℃~+50℃		
Operating humidity	<80% relative humidity, non-condensing		
Dimension (L*W*H)	60*51*150mm		
Net Weight	0.73kg		

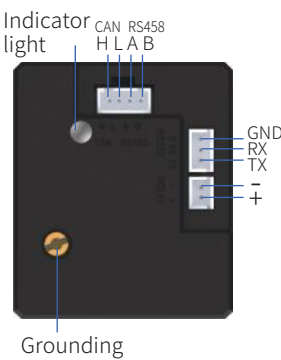
Port-to-Port Volume



Rotor Slot Volume

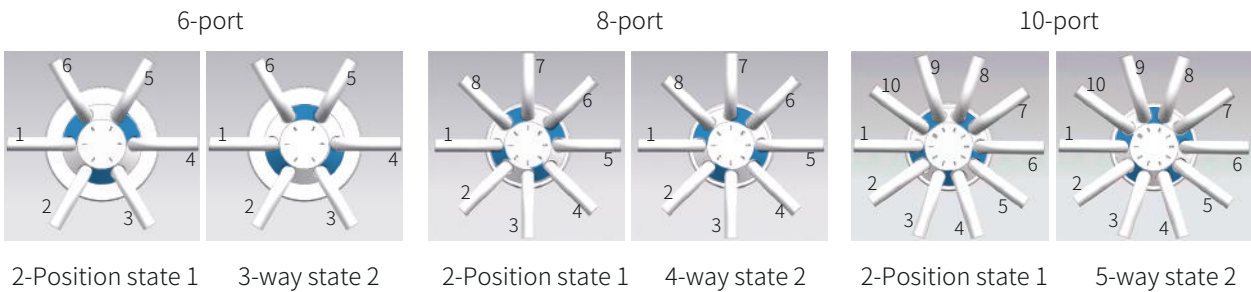


Driver Port

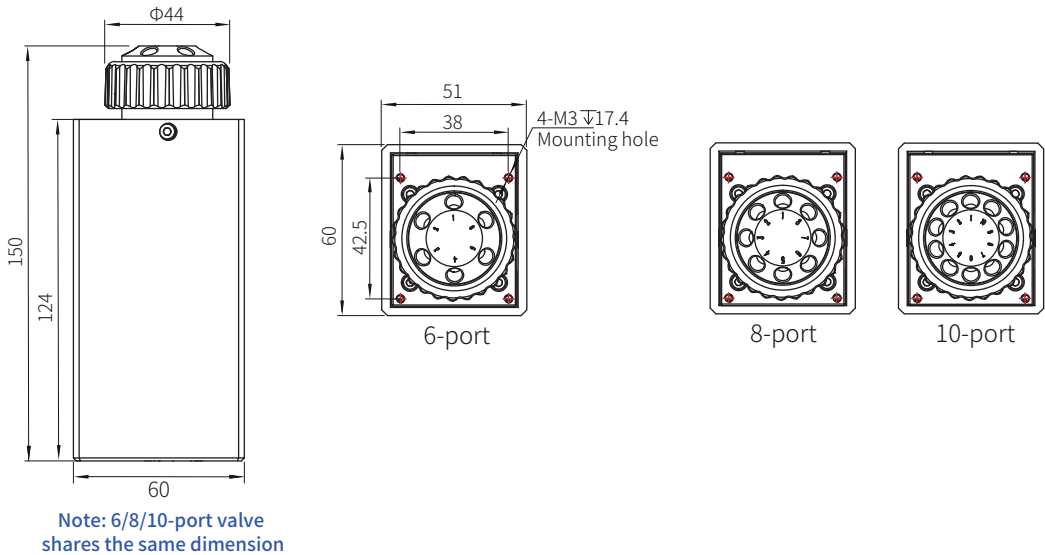


Port	Description
+	DC24V Positive
-	DC24V Negative
TX	RS232 Data Input
RX	RS232 Data Output
GND	GND
H	CANH
L	CANL
A	RS485A
B	RS485B

Flow Configuration



Dimension (Unit: mm)



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 - T6 - K1.2 - S

Model No. Slope valve head Configuration Orifice 1.2mm Sapphire

T6 6-port

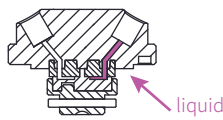
T8 8-port

T10 10-port

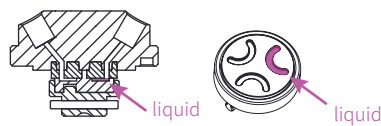
Technical Parameter

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		

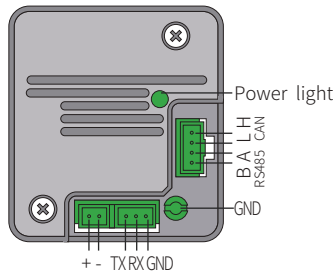
Port-to-Port Volume



Rotor Slot Volume

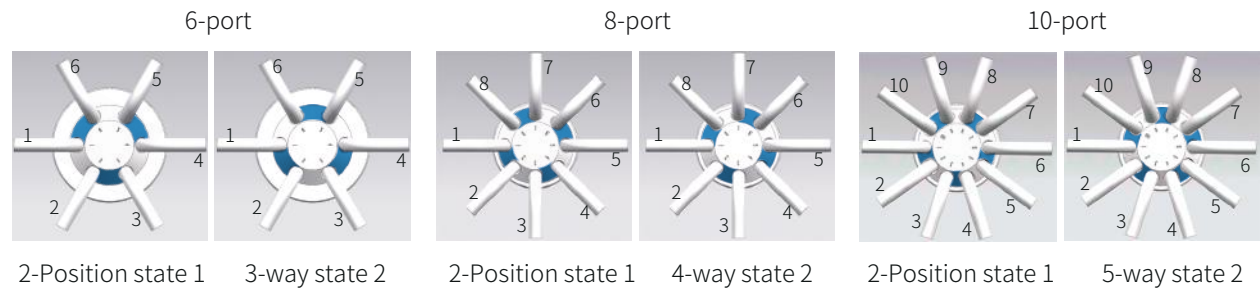


Driver Port

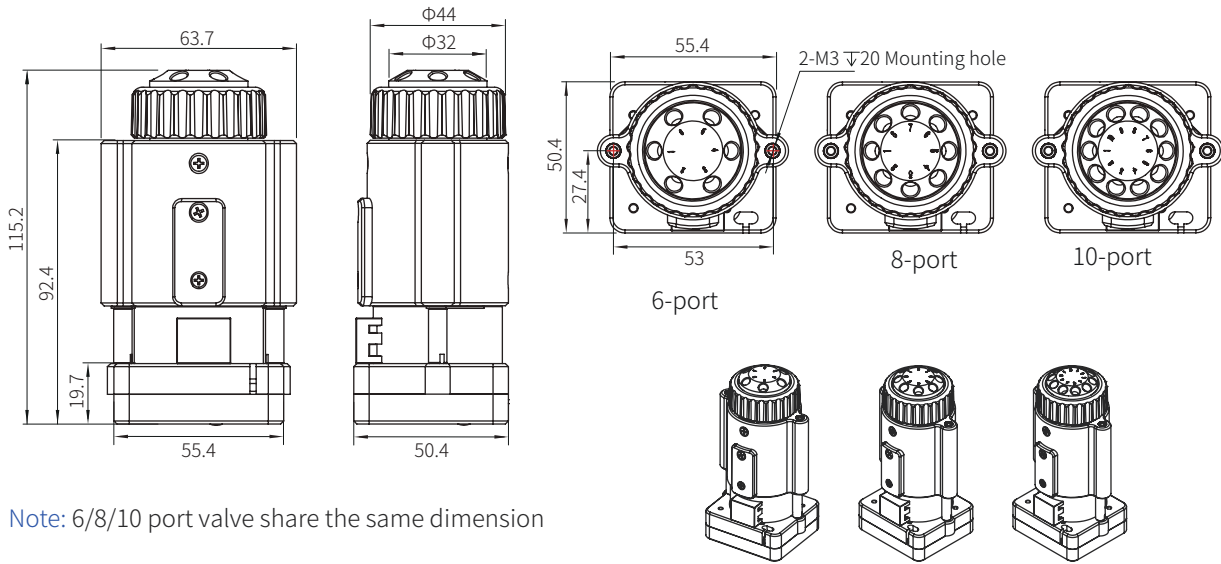


Port	Description
+	DC24V Positive
-	DC24V Negative
TX	RS232 Data Input
RX	RS232 Data Output
GND	GND
H	CAN H
L	CAN L
A	RS485 A
B	RS485 B

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 - ^①T02 - ^②K1.5 - S - ^③M01

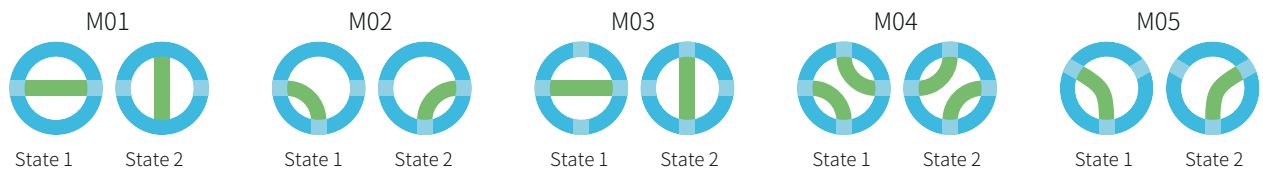
Model No. Port numbers Orifice Sapphire Valve model

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	

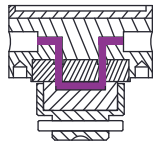
Valve Type



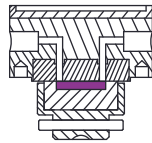
Technical Parameter

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				

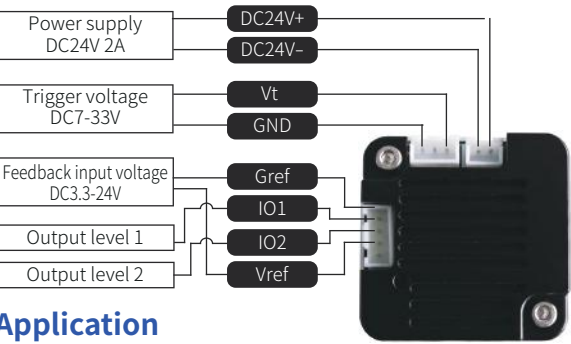
Port-to-Port Volume



Rotor Slot Volume

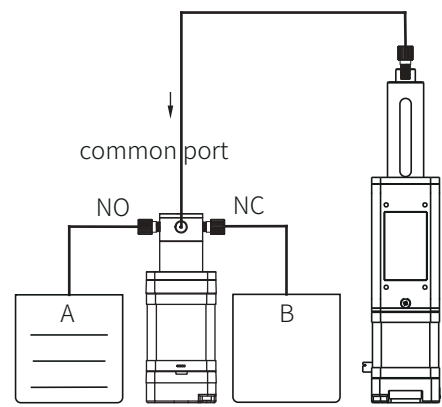


Driver Port



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



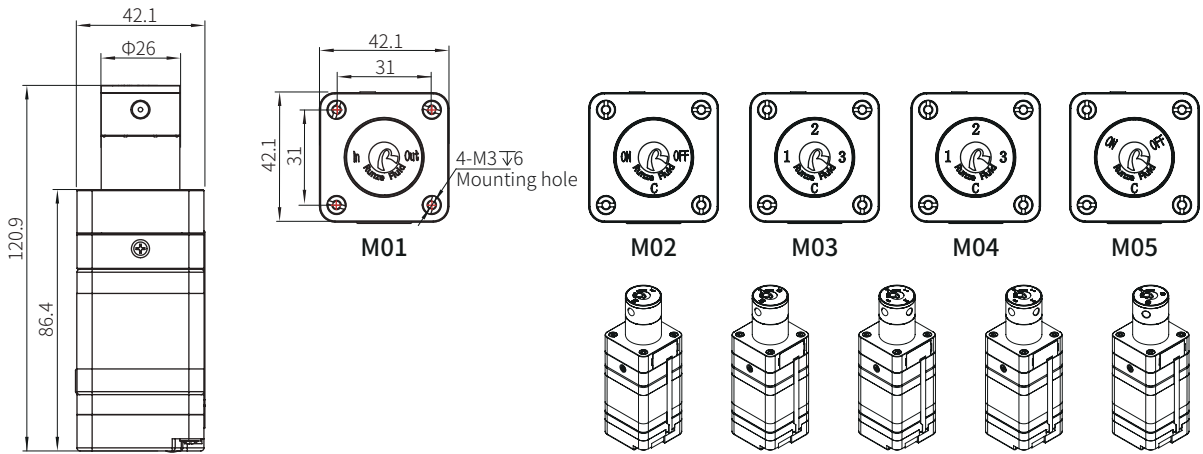
Mrv-01B & MiNi SY-04

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)



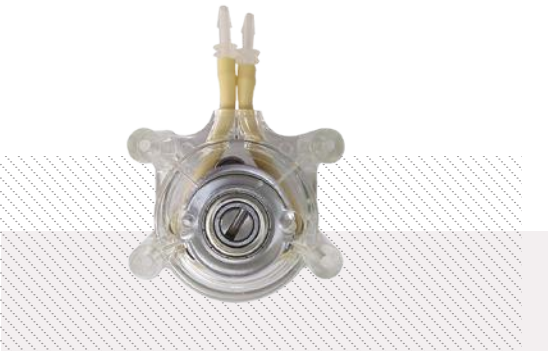
Note: Mrv-01B M01 M02 M03 M04 M05 share the same dimension

Peristaltic Pump Head



RZ1030-4

- Easy replace tubing
- ABS housing
- OEM support
- Compact structurestructure, 4 rollers moderate pulsation
- Designed with flexible block, self-adapt to different tube sizes
- Mainly used for small flow liquid transferring and metering



SN15/SN25

- 304 SST 3/6 rollers, PC housing, easy inspection
- Pump head stackable
- Each tube size match with specific model to ensure high stability
- Standard component in liquid handling system
- OEM Support

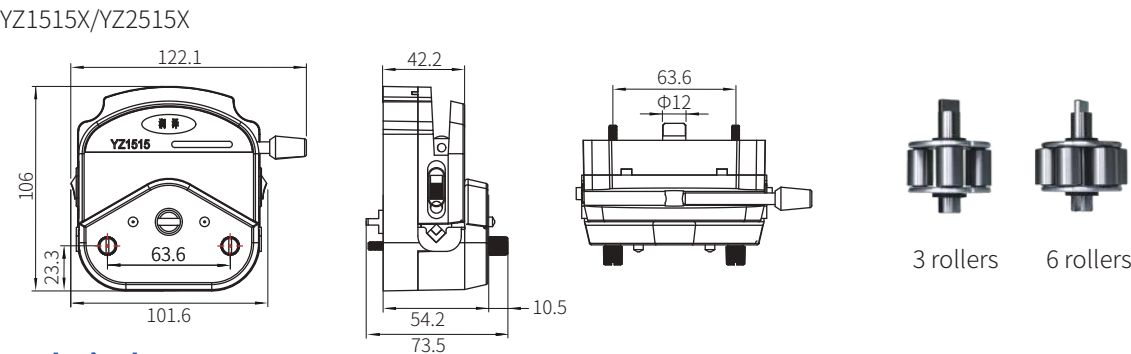
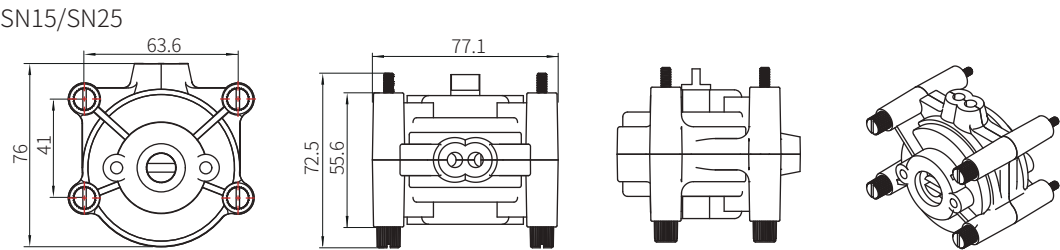
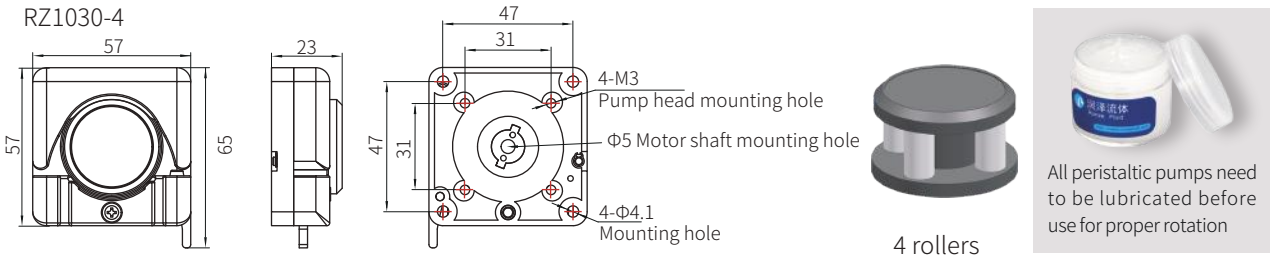


YZ1515X/YZ2515X

- 304 SST 3/6 rollers, ABS engineering housing
- Pump head stackable
- Easy replace tubing, different tube sizes compatible
- Standard component in liquid handling system
- OEM Support



Dimension (unit: mm)



Technical Parameter

Model No.	Housing	Roller	Roller Numbers	Net Weight	Tubing Size	Max. Flow Rate	Working Environment
RZ1030-4	ABS	POM	4	56g	ID 0.64~3.0mm WT 0.8~1.0mm	170ml/min	Temp. 0~40°C Humidity <80%

Model No.	Housing	Roller	Roller Numbers	Net Weight	Tubing Size	Max. Flow Rate	Working Environment
SN15-3	PC	304 SST	3	302g	14# 16# 25# 17#	1725ml/min(500rpm)	Temp. 0~40°C
SN15-6			6	355g	14# 16#	343ml/min(500rpm)	
SN25-3			3	302g	15#	790ml/min(400rpm)	Humidity <80%
SN25-6			6	355g	15#	420ml/min(400rpm)	

Model No.	Color	Material	Roller Numbers	Net Weight	Tubing Size	Max. Flow Rate	Working Environment
YZ1515X-3B	white	ABS Housing	3	383g	14# 16# 25# 17# 18#	1862ml/min(500rpm)	Temp. 0~40°C
YZ1515X-3H	black		3	383g	14# 16#	323ml/min(500rpm)	
YZ1515X-6B	white		6	435g	14# 16#	323ml/min(500rpm)	Humidity <80%
YZ1515X-6H	black		6	435g	14# 16#	323ml/min(500rpm)	
YZ2515X-3B	white	304 SST Roller	3	383g	15# 24#	1425ml/min(500rpm)	
YZ2515X-3H	black		3	383g	15# 24#	1425ml/min(500rpm)	
YZ2515X-6B	white		6	435g	15#	440ml/min(500rpm)	
YZ2515X-6H	black		6	435g	15#	440ml/min(500rpm)	

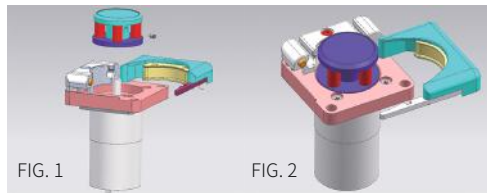


ZLI2(24)-RZI030-4

DC Motor Peristaltic Pump

- ◆ Compact size compact structure, low power consumption
- ◆ Easy replace tubing, various standard tube sizes
- ◆ 12V or 24V DC motor equipped, easy control
- ◆ OEM support
- ◆ Widely used in medical, environmental, industrial analyzers

Roller Mounting Steps

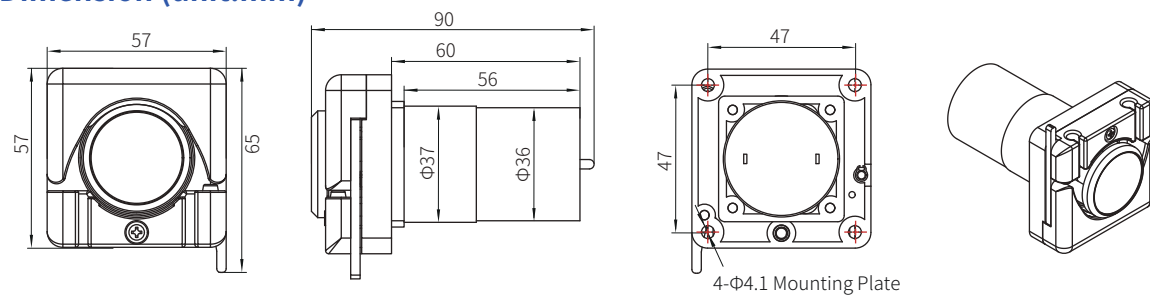


Install the roller parts (purple part) vertically downwards as shown in Figure 1 Flat installation to make sure purple part share the same plane with the pink part.

As shown in Figure 2, the roller is perfectly installed.

Note : Refer to page P37 for pump tube installation [RZ1030-4]

Dimension (unit:mm)



Technical Parameter

Model No.	Motor Type	Input Voltage	Rated Current	Power	Speed	Net Weight	Working Environment	Max.DB
ZL12-RZ1030-4	DC motor	12V	0.04-0.2A	15W	100/200/300 rpm	429g	Temp. 0~40°C Humidity <80%	70dB
ZL24-RZ1030-4		24V				427g		

Flow Rate Table(300 rpm for this test)

Tubing	Rubber tube														Silicone tube		
ID*WT(mm)	0.64*0.8	0.76*0.8	0.89*0.8	1.02*0.8	1.14*0.8	1.30*0.8	1.42*0.8	1.52*0.8	1.65*0.8	1.85*0.8	2.06*0.8	2.29*0.8	2.54*0.8	2.79*0.8	1*1	2*1	3*1
ZL12-RZ1030-4 (ml/min)	6	9	10	13	14	22	28	31	37	46	55	58	95	105	15	47	122
ZL24-RZ1030-4 (ml/min)	10	13	16	22	24	32	36	41	46	54	67	96	112	125	23	86	140

Note: Test under room temperature 20°C and no external pressure (water), flow rate may vary from different media, condition, pressure, humidity, temperature etc.
The date for reference only.



BJ-RZI030

42 Stepper Motor Peristaltic Pump

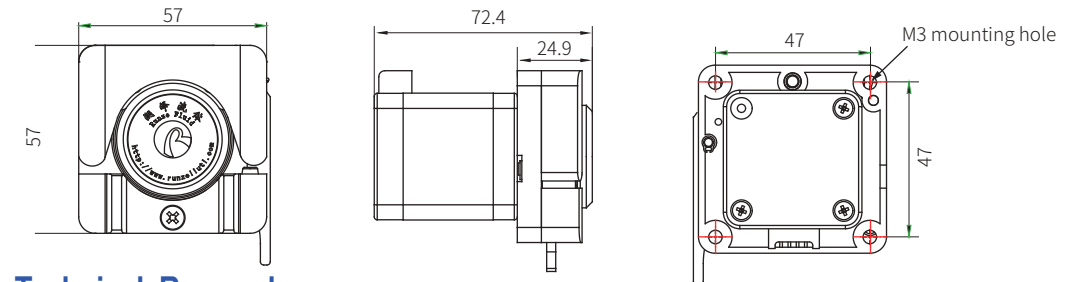
- ◆ Delicate compact structure, low power consumption
- ◆ Imported 42 stepper motor, low noise, high stability, long service life, accuracy ensured
- ◆ Mainly used for medical instruments and various types of small flow liquid transfer analysis instruments
- ◆ OEM Support



Installation Steps of Pump Hose



Dimension (unit: mm)



Technical Parameters

Model No.	Motor Type	Motor Type	Speed	Net Weight	Working Environment	Max.DB
BJ-RZ1030-4	42 step motor	1.1A	≤400rpm	424g	Temp. 0~40℃ Humidity <80%	70dB
BJ-RZ1030B				432g		

42 stepper motor				Motor wire	
Max. power	9.2W	Resistance	$3.8\Omega \pm 0.38$	Port	Wire color
Step angle	1.8°	Inductance	5.2mH REF	A+	Orange
Phase	2	Insulation	100m Ω MIN	A-	Blue
Phase volt	4.6V	Temp.	80°C MAX	B+	Red
Phase current	1.1A	Insulation grade	B	B-	Yellow

Max.Flow Rate Table

Model No.	WT(mm)		0.8														1.0		
	ID (mm)		0.64	0.76	0.89	1.02	1.14	1.30	1.42	1.52	1.65	1.85	2.06	2.29	2.54	2.79	1.0	2.0	3.0
BJ-RZ1030B	4 Rollers	ml/min	12	15	18	25	32	38	47	50	56	70	87	94	113	128	24	74	183
	8 Rollers		9	14	17	21	27	32	38	42	43	55	61	71	77	81	17	57	114
BJ-RZ1030-4	4 Rollers	ml/min	12.5	17.3	22	28.2	33.4	42.5	51.9	59.4	72.2	89	101.9	112.6	137.6	146.9	26.1	105	170

Note: Test under room temperature 20°C and no external pressure (water), flow rate may vary from different media, condition, pressure, humidity, temperature etc.



RZ-01

42 Stepper Motor Peristaltic Pump

- ♦ PPS rollers, excellent structural performance,
- ♦ 4 rollers moderate pulse,
- ♦ PC housing, easy inspection
- ♦ waterproof, dustproof, easy to clean, no dead space
- ♦ OEM support

RZ-01 - 1.6 - 4

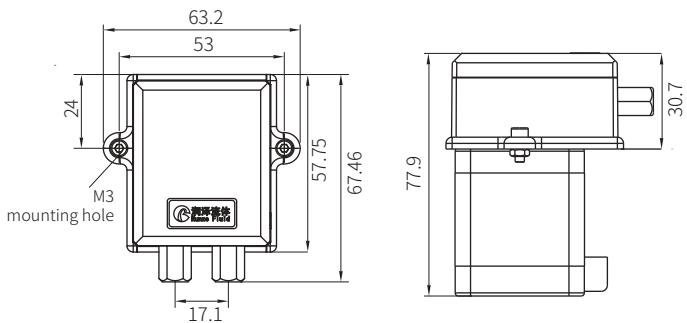
Model No. wall thickness of rubber tube 4 rollers

0.8	Tube WT: 0.8mm
1.6	Tube WT: 1.6mm

Installation Steps of Pump Hose



Dimension (unit: mm)



Tubing

- hose connection:**
Barb-to-Female Adapters
+Barb-to-Male Adapters
- rigid tube connection:**
Barb-to-Female Adapters
+Flangeless Fittings



Technical Parameters

Model No.	Motor Type	Motor Type	Speed	Net Weight	Working Environment	Max.DB
RZ-01	NMB 42 step motor	1.1A	≤400rpm	432g	Temp. 0~40°C Humidity <80%	70dB

Note 1: Please refer to page P40 [42 stepper motor parameters] and [motor wire phase table] for detailed motor parameters
Note 2: Motor wire & color: A+/**Orange**; A-/**Blue**; B+/**Red**; B-/**Yellow**

Max.Flow Rate Table

WT(mm)	0.8														1.6			
ID (mm)	0.64	0.76	0.89	1.02	1.14	1.30	1.42	1.52	1.65	1.85	2.06	2.29	2.54	2.79	0.8	1.6	2.4	3.2
Max. Flow Rate ml/min	12	13	16	22	28	34	42	44	47	60	65	88	90	96	14	48	94	152

Note: Test under room temperature 20°C and no external pressure (water), flow rate may vary from different media, condition, pressure, humidity, temperature etc.



RZ-02

42 Stepper Motor Peristaltic Pump

- ♦ PPS rollers, excellent structural performance
- ♦ 6 rollers: low pulsation, steady outflow / 3 rollers: large flow rate
- ♦ Housing material PPS+ synthetic fibre, high temperature and corrosion resistant
- ♦ Spring mounting clips for easy disassembly and installation of the pump tube
- ♦ Imported 42 stepper motor for low noise, high stability, long service life, and accuracy
- ♦ Mainly used for medical instruments and various small flow liquid transfer analysis instruments

RZ-02 - 1.6 - 6 - L

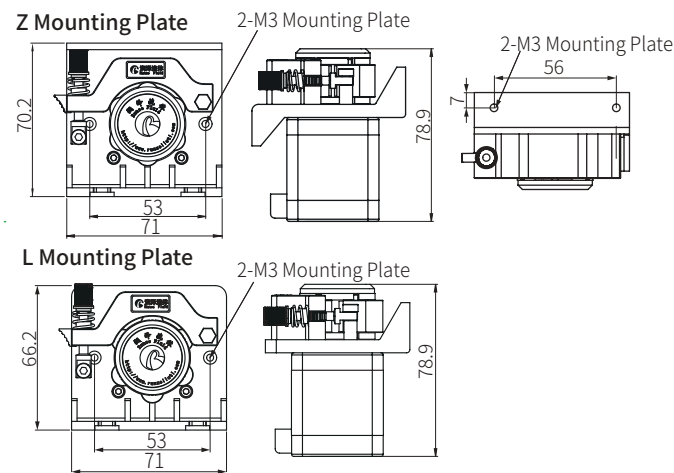
Model No. Rubber Tube WT Rollers Mounting Plate

0.8	Tube WT: 0.8mm	3	3 Rollers	L	L Mounting Plate
1.6	Tube WT: 1.6mm	6	6 Rollers	Z	Z Mounting Plate

Installation Steps of Pump Hose

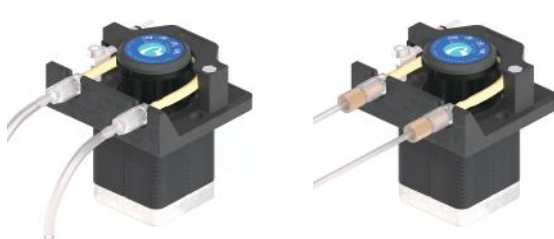


Dimension (unit: mm)



Tubing

- hose connection:**
Barb-to-Female Adapters
+Barb-to-Male Adapters
- rigid tube connection:**
Barb-to-Female Adapters
+Flangeless Fittings



Technical Parameters

Model No.	Motor Type	Motor Type	Speed	Net Weight	Working Environment	Max.DB
RZ-02	42 step motor	1.1A	≤400rpm	472g	Temp. 0~40°C Humidity <80%	70dB

Note 1: Please refer to page P39[42 stepper motor parameters] and [motor wire phase table] for detailed motor parameters
Note 2: Motor wire & color: A+/**Orange**; A-/**Blue**; B+/**Red**; B-/**Yellow**

Max.Flow Rate Table

	WT(mm)	0.8														1.6			
	ID (mm)	0.64	0.76	0.89	1.02	1.14	1.30	1.42	1.52	1.65	1.85	2.06	2.29	2.54	2.79	0.8	1.6	2.4	3.2
3 rollers	ml/min	16	18	27	30	37	47	59	64	71	94	104	126	153	161	23	57	112	236
6 rollers	ml/min	13	16	21	26	31	39	45	48	55	61	82	86	105	114	19	51	105	183

Note: Test under room temperature 20°C and no external pressure (water), flow rate may vary from different media, condition, pressure, humidity, temperature etc.

BJ30 Series Peristaltic Pump

57 Stepper Motor Peristaltic Pump



- Pump head optional, replaceable and stackable
- Easy replace tubing, various standard tube sizes
- Equipped with Japan imported 57 NMB stepper motor , high accuracy and stability,long service life, low noise
- OEM support
- Widely used in medical, environmental, industrial analyzer

Pump Head



SN15/SN25



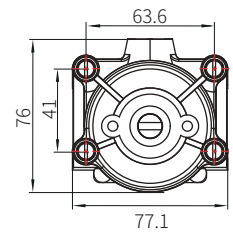
YZ1515X/YZ2515X



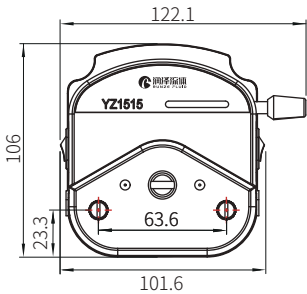
Note : Refer to page P37 for pump tube installation[SN15]and[YZ1515X/YZ2515X]

Dimension (unit: mm)

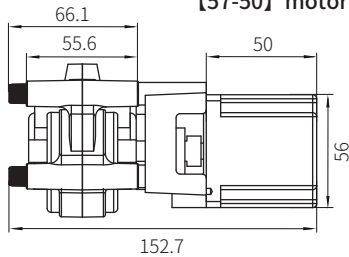
BJ30-SN15(SN25)



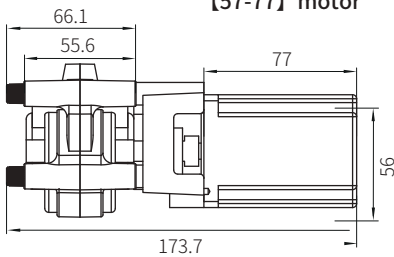
BJ30-YZ1515X(YZ2515X)



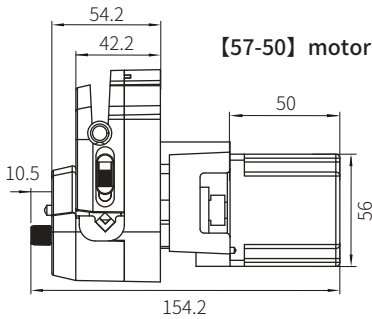
【57-50】 motor



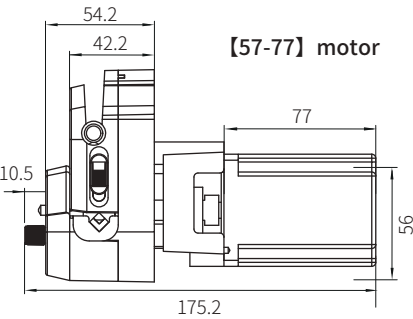
【57-77】 motor



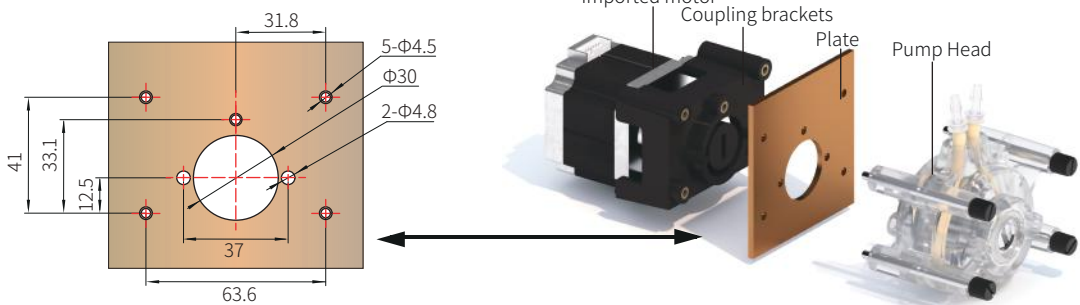
【57-50】 motor



【57-77】 motor



Installation Diagram: Panel Mounting Hole Dimension (Unit: mm)



※ Panel thickness must be≤3mm Coupling brackets can be purchased separately

Technical Parameter

Model No.	Motor Type	Motor Type	Speed	Net Weight	Working Environment	Max.DB
BJ30	NMB 57 step motor	1.5A 【57-50】 2.3A 【57-77】	≤400rpm	671g 【57-50】 1148g 【57-77】	Temp. 0~40℃ Humidity <80%	70dB

【57-50】 motor				【57-77】 motor				Motor Wire		
Max. power	12W	Resistance	1.15Ω±0.17	Max. power	18.8W	Resistance	1.7Ω±0.17	Port	57-50 motor	57-77 motor
Step angle	1.8°	Inductance	1.85mH REF	Step angle	1.8°	Inductance	7mH REF	A+	Red	Orange
Phase	2	Insulation	100m Ω MIN	Phase	2	Insulation	100m Ω MIN	A-	Yellow	Blue
Phase volt	2.6V	Temp.	80℃ MAX	Phase volt	4.0V	Temp.	80℃ MAX	B+	Blue	Red
Phase current	2.3A	Insulation grade	B	Phase current	2.35A	Insulation grade	B	B-	Orange	Yellow

Flow Rate Table (14# 16# - 57 small motor; 15# 17# 18# 24# 25# 57 big motor)

Model No.	Pump head	Color	Rollers	Max. Flow Rate ml/min					
				14#	16#	25#	17#	15#	24#
BJ30	SN15-3	semi-opaque	3	68 (300rpm)	270 (300rpm)	573 (300rpm)	997 (300rpm)	—	—
	SN15-6		6	56 (300rpm)	192 (300rpm)	—	—	—	—
	SN25-3		3	—	—	—	—	517 (300rpm)	—
	YZ1515X-3B	white	3	117 (400rpm)	389 (400rpm)	752 (400rpm)	1249 (400rpm)	—	—
	YZ1515X-3H	black		—	—	—	—	—	—
	YZ1515X-6B	white	6	76 (400rpm)	244 (400rpm)	—	—	—	—
	YZ1515X-6H	black		—	—	—	—	—	—
	YZ2515X-3B	white	3	—	—	—	—	783 (400rpm)	1295 (400rpm)
	YZ2515X-3H	black		—	—	—	—	—	—

Note: Test under room temperature 20℃ and no external pressure (water), flow rate may vary from different media, condition, pressure, humidity, temperature etc. The date for reference only.

LM40 Series Peristaltic Pump
Box-type Peristaltic Pump

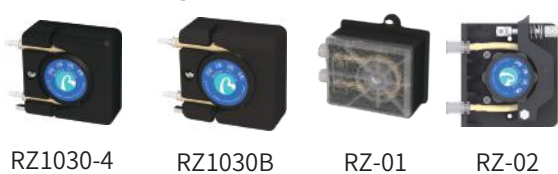


- The minimum speed can reach 0.1 rpm
- Motor subdivision adaptive, with high-performance processor and motor drive to control stepper motor
- The speed can be adjusted through the keypad or rotary encoder
- LED displays the CW/CCW rotation, foot switch status, motor running status, and the status of external control interface, etc., the display is intuitive, the operation is convenient, and the content is simple
- Support various control modes: keypad control mode, RS485 communication control mode, external control mode (optional multiple signal conversion modules), passive contact state output.

LM40A Pump Head

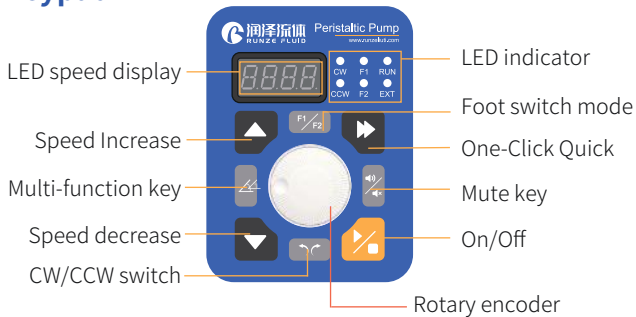


LM40B Pump Head



Note : Refer to page P37 for pump tube installation[SN15] and [YZ1515X/YZ2515X] and [RZ1030-4],RZ-01 refer to page P41, RZ-02 refer to page P42

Keypad

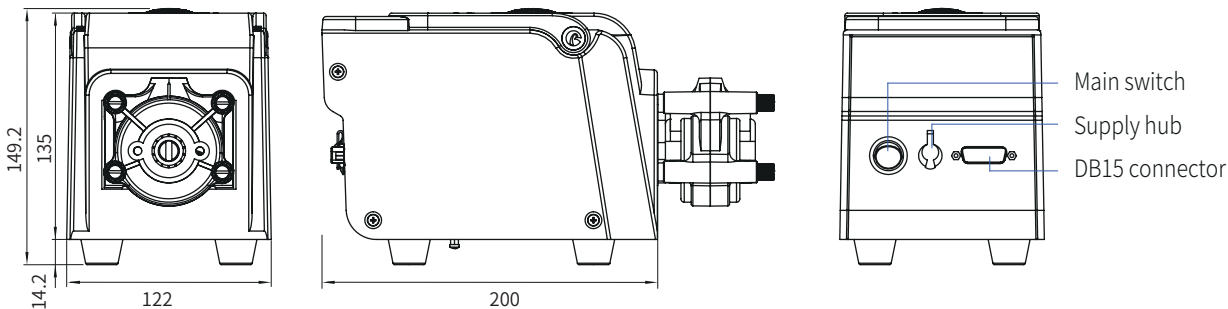


Technical Parameter

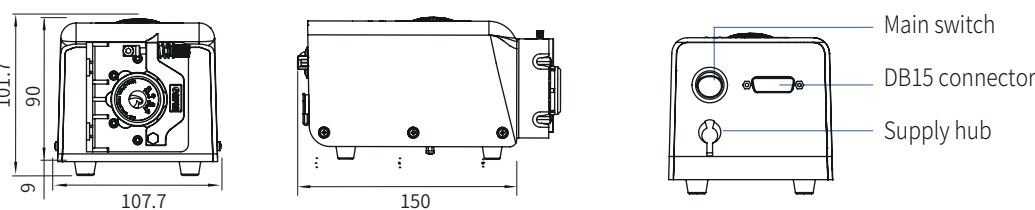
Model No.	LM40A	LM40B
Speed range	0.1rpm~300/400rpm (the Max. Speed varies from pump head or pump tubing configuration)	
Speed resolution	±0.1rpm	
Flow rate range	0.027~1295ml/min	0.03~183ml/min
Foot pedal input interface	Foot switch control start and stop (Keypad control mode only)	
Input interface for external control signal of regulating speed	Support switching multiple control inputs (External control mode only)	
Input interface for external control veer signal	Support veer switching control inputs (External control mode/ Foot switch mode only)	
Input interface for external control start signal	Support start/stop switching control inputs (External control mode only)	
Communication Control	RS485(Communication control mode only)	
Power Supply	DC24V± 10%	
Power	35W	20W
Operating temperature	0℃ ~ 40 ℃	
Operating humidity	< 80% relative humidity, non-condensing	
Net weight	1.64kg (without pump head)	0.09kg (without pump head)
IP Grade	IP31	

Dimension (unit: mm)

LM40A



LM40B



Flow Rate Table

Model No.	Pump head	Color	Rollers	Max. Flow Rate (ml/min)																							
				14#				16#				25#				17#				15#				24#			
LM40A	SN15-3	semi-opaque	3	68 (300rpm)				270 (300rpm)				573 (300rpm)				997 (300rpm)				—				—			
	YZ1515X-3B	white	3	117 (400rpm)				389 (400rpm)				752 (400rpm)				1249 (400rpm)				—				—			
	YZ1515X-3H	black																									
	YZ1515X-6B	white	6	76 (400rpm)				244 (400rpm)				—				—				—				—			
	YZ1515X-6H	black																									
	YZ2515X-3B	white	3	—				—				—				—				783 (400rpm)				1295 (400rpm)			
	YZ2515X-3H	black																									
Model No.	Pump head	Rollers	Max. Flow Rate (ml/min)																								
			WT (mm)																0.8				1.0				
			ID (mm)	0.64	0.76	0.89	1.02	1.14	1.30	1.42	1.52	1.65	1.85	2.06	2.29	2.54	2.79	1.0	2.0	3.0							
LM40B	RZ1030/1030B	4	Max. Flow Rate ml/min	12	15	18	25	32	38	47	50	56	70	87	94	113	128	24	74	183							
	RZ1030B	8	Max. Flow Rate ml/min	9	14	17	21	27	32	38	42	43	55	61	71	77	81	17	57	114							
	Pump head	Rollers	WT (mm)																1.6								
			ID (mm)	0.64	0.76	0.89	1.02	1.14	1.30	1.42	1.52	1.65	1.85	2.06	2.29	2.54	2.79	0.8	1.6	2.4	3.2						
	RZ-01	4	Max. Flow Rate ml/min	12	13	16	22	28	34	42	44	47	60	65	88	90	96	14	48	94	152						
	RZ-02	3	Max. Flow Rate ml/min	16	18	27	30	37	47	59	64	71	94	104	126	153	161	23	57	112	236						
		6	Max. Flow Rate ml/min	13	16	21	26	31	39	45	48	55	61	82	86	105	114	19	51	105	183						

Note:
1. (300rpm)(400rpm) is the maximum speed under specific pump head and tube size.
2. Test under room temperature 20℃ and no external pressure (water), flow rate may vary from different media, condition, pressure, humidity, temperature etc, The date for reference only.

LM60 Series Peristaltic Pump

Box-type Peristaltic Pump



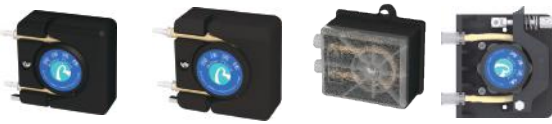
- Metering mode: continuous, booking, rationing, calibration
- Foot pedal (switch) control support
- Preset dispensing volume, interval time, cycle times
- Speed resolution 0.1rpm and flow rate calibration lead to high accuracy dispensing volume
- LCD display screen and membrane buttons works together to control speed, flow rate, volume and time
- Mainly used for bottle fillings in laboratory and production line

LM60A Pump Head



SN15 YZ1515X/YZ2515X

LM60B Pump Head



RZ1030-4 RZ1030B RZ-01 RZ-02

Note : Refer to page P37 for pump tube installation[SN15] and [YZ1515X/YZ2515X] and [RZ1030-4],RZ-01 refer to page P41, RZ-02 refer to page P42

Working Mode

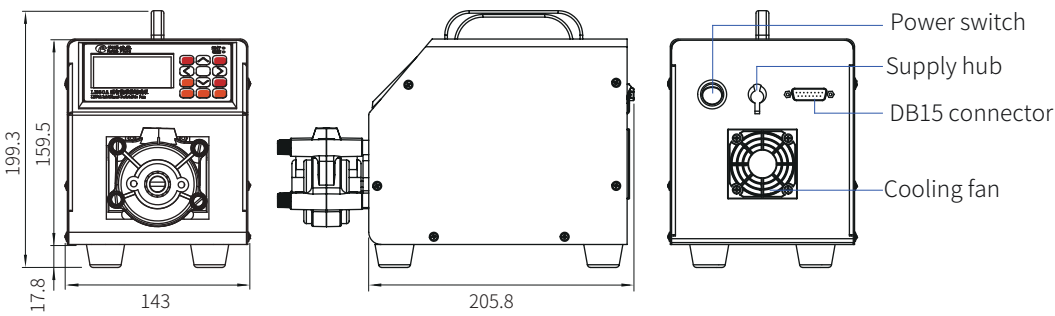
- 1. Calibration Mode** - For ensure accuracy of dispensing volume and flow rate before starting any other working mode or when pump/tubing get replaced
- 2. Continuous Mode** - For continuous liquid transfer with no specific requirements
- 3. Rationing Mode** - Realize one-off liquid dispensing in specific volume within specific period of time under specific speed
- 4. Reservation Mode** - Realize liquid dispensing in specific volume at N times under specific speed

Technical Parameter

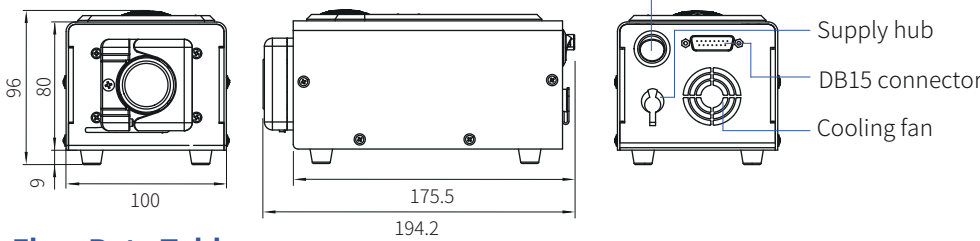
Model No.	LM60A	LM60B
Speed range	0.1rpm~300/400rpm(Maximum speed vary from different pump heads,tube type and tube sizes)	
Speed resolution	±0.1rpm	
Working mode	Continuous mode, Rationing mode, Booking mode, Calibration mode	
Pedal signal port	Foot pedal switch control start and stop (only keyboard control mode)	
Speed signal port	Foot pedal switch control start and stop (only keyboard control mode)	
Direction signal port	Support steering switch control input (external control mode only)	
ON/OFF signal port	Support ON/OFF switch control input (external control mode only)	
Communication port	RS232/RS485 (only in communication control mode)	
Rotary coding port	—	can rotate to change editing position and content (only LM60B)
Power supply	DC24V±10%	
Power	30W	20W
Operating temperature	0℃～40℃	
Operating humidity	<80% relative humidity, non-condensing	
Protection level	IP31	
Net weight	3.5kg (without pump head)	1.45kg(without pump head)

Dimension (unit: mm)

LM60A



LM60B



*RUNZE foot pedal available (Optional) free your hands

Flow Rate Table

Model No.	Pump head	Color	Rollers	Max. Flow Rate (ml/min)															
				14#		16#		25#		17#		15#		24#					
LM60A	SN15-3	semi-opaque	3	68 (300rpm)		270 (300rpm)		573 (300rpm)		997 (300rpm)		—		—					
	YZ1515X-3B	white	3	117 (400rpm)		389 (400rpm)		752 (400rpm)		1249 (400rpm)		—		—					
	YZ1515X-3H	black																	
	YZ1515X-6B	white	6	76 (400rpm)		244 (400rpm)		—		—		—		—					
	YZ1515X-6H	black																	
	YZ2515X-3B	white	3	—		—		—		—		783 (400rpm)		1295 (400rpm)					
	YZ2515X-3H	black																	

Model No.	Pump head	Rollers	Max. Flow Rate (ml/min)																			
			WT (mm)																0.8		1.0	
			ID (mm)	0.64	0.76	0.89	1.02	1.14	1.30	1.42	1.52	1.65	1.85	2.06	2.29	2.54	2.79	1.0	2.0	3.0		
LM60B	RZ1030/1030B	4	Max. Flow Rate ml/min	12	15	18	25	32	38	47	50	56	70	87	94	113	128	24	74	183		
	RZ1030B	8	Max. Flow Rate ml/min	9	14	17	21	27	32	38	42	43	55	61	71	77	81	17	57	114		
	Pump head	Rollers	WT (mm)																0.8		1.6	
			ID (mm)	0.64	0.76	0.89	1.02	1.14	1.30	1.42	1.52	1.65	1.85	2.06	2.29	2.54	2.79	0.8	1.6	2.4	3.2	
	RZ-01	4	Max. Flow Rate ml/min	12	13	16	22	28	34	42	44	47	60	65	88	90	96	14	48	94	152	
	RZ-02	3	Max. Flow Rate ml/min	16	18	27	30	37	47	59	64	71	94	104	126	153	161	23	57	112	236	
		6	Max. Flow Rate ml/min	13	16	21	26	31	39	45	48	55	61	82	86	105	114	19	51	105	183	

Note:

1. (300rpm)(400rpm) is the maximum speed under specific pump head and tube size.
2. Test under room temperature 20℃ and no external pressure (water), flow rate may vary from different media, condition, pressure, humidity, temperature etc, The date for reference only.



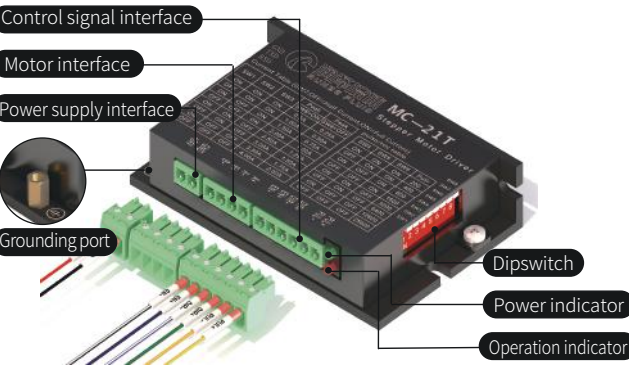
MC-21T

Pulse Stepper Motor Driver

Product Features

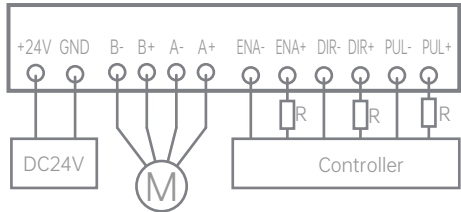
- Pulse stepper motor driver, 8 motor subdivision and current value can be set for wide application, output current range 0.25~4A.
- External equipped with motor subdivision brings smooth and ultra-quiet operation at low / medium / high speeds.
- MC-21T driver was integrate with automatic parameter setting which automatically generate optimal parameters to maximize the motor performance.
- 6Support 4/6/8 wires two-phase/four-phase stepper motor
- Can be applied to medical instruments, detection instruments, etc.,

Product Structure Diagram



Driver interface

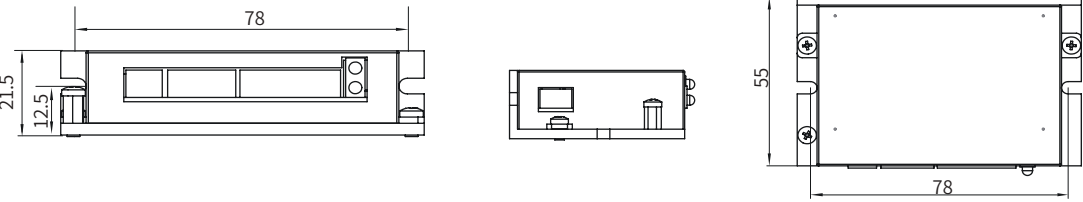
The driver adopts a double-ended signal input and output, which is suitable for common-anode and common-cathode wiring. It is equipped with built-in high-speed optocoupler, open collector and NPN circuit output signal, the interface circuit is illustrated in the following diagram



Wiring Requirement

To protect MC-21T driver from external interference, kindly suggest taking shielded cable as signal control wire and keeping short circuit between shielded side and earth line, connect upper line of shielded cable with earth line, leave driver of shielded cable alone.

Dimension unit: mm



Electronic Performances & Working Environment & Parameters

Instruction	MC-21T			
	Minimum Value	Normal Value	Maximum Value	Unit
Output current	0.25	2	4	A
Power voltage input	21.6	24	26.4	VDC
Control signal input current	7	10	16	mA
Stepper pulse frequency	–	–	75	KHz
Current setting	Up to 4A, 0.25A resolution			
Working Environment	Temperature: 0~50°C			
	Humidity: 40~90%RH			
	Vibration: 5.9m/s2MAX			
Net Weight	92g			
Occasion	① Protect it from other heating device ② Protect it from dust, smoke, corrosive liquid or air			
	③ Protect it from high humidity and strong vibration places ④ Protect it from flammable gas and conductive dust			



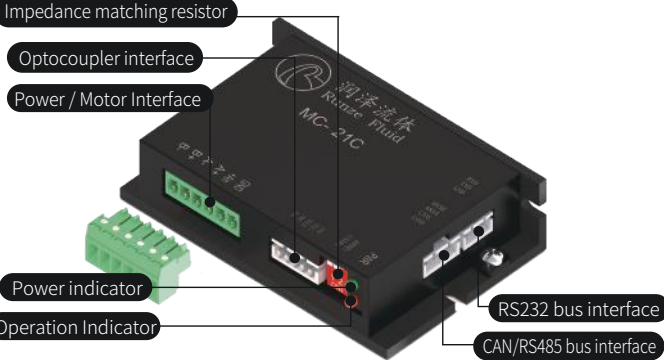
MC-21C

Digital Stepper Motor Driver

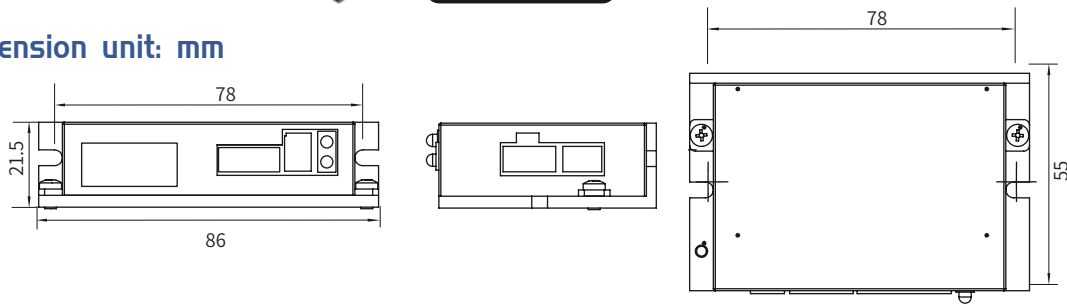
Product Features

- A variety of parameter queries, parameter settings, command control, etc. can be carried out between the host computer (computer, microprocessor, PLC, etc.) and the driver
- Support RS232, RS485, CAN bus communications.
- Able to drive 4, 6, 8-wire two-phase/four-phase stepper motor
- Can be used in medical equipment, testing equipment, etc.

Product Structure Diagram



Dimension unit: mm



Electronic Performances & Working Environment & Parameters

Instruction	MC-21C			
	Minimum Value	Normal Value	Maximum Value	Unit
Output current	0.25	2	4	A
Power voltage input	21.6	24	26.4	VDC
Insulation resistance	500	–	–	MΩ
IO high level	2	3.3	3.6	V
IO low level	-0.5	–	0.7	V
Current setting	Up to 4A, 0.5A resolution			
Working Environment	Temperature: : 0~50°C			
	Humidity: 40~90%RH			
	Vibration: 5.9m/s2MAX			
Net Weight	85g			
Occasion	① Protect it from other heating device ② Protect it from dust, smoke, corrosive liquid or air			
	③ Protect it from high humidity and strong vibration places ④ Protect it from flammable gas and conductive dust			



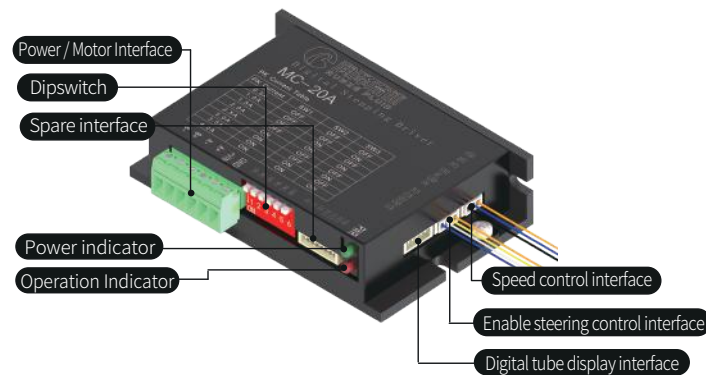
MC-20A

Analog Digital Control Stepper Motor Driver

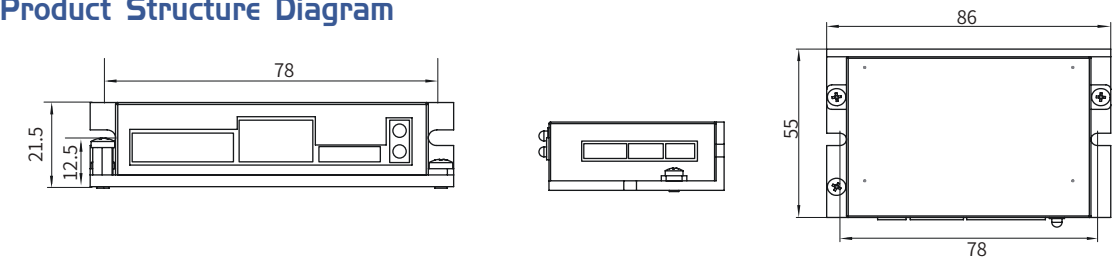
Product Features

- High stability and low noise for low, middle, high speed running
- Integrate with automatic parameter setting which automatically generate optimal parameters to maximize the motor performance.
- Able to drive 4, 6, 8-wire two-phase/four-phase stepper motor;
- Can be used in medical equipment, testing equipment, etc.

Product Structure Diagram



Product Structure Diagram



Electronic Performances & Working Environment & Parameters

Instruction	MC-20A			
	Minimum Value	Normal Value	Maximum Value	Unit
Output current	0.25	2	4	A
Power voltage input	21.6	24	26.4	VDC
Insulation Resistance	500	—	—	MΩ
Current setting Up to 4A, 0.5A resolution				
Working Environment Temperature: 0~50°C				
Humidity: 40~90%RH				
Vibration: 5.9m/s2MAX				
Net Weight 85g				
Occasion ① Protect it from other heating device ② Protect it from dust, smoke, corrosive liquid or air				
③ Protect it from high humidity and strong vibration places ④ Protect it from flammable gas and conductive dust				



Saint-Gobain Rubber Tube

Saint-Gobain tubing is standard choice for peristaltic pumps

- Excellent mechanical strength, autoclavable, stretchable, non-toxic, nonhemolytic
- Continuous operating temperature: -60°C to + 135°C
- Hardness: 64 A
- Compatible with most CIP solutions and SIP
- Breathability: 80 (for nitrogen test, the higher the value, the better the tube breathability, and vice versa.
- UV resistance: A
- Ozone resistance: B
- Resistance to acids and alkalis: average
- Pump tube service life: 1000 hours (this value is provided by Saint-Gobain and is for reference only)
- Certification: USP Class VI, FDA, NSF, ISO 10993



MasterFlex Viton Tube

Viton is strong, resilient and flexible, provides excellent resistance to cor-rosive liquid such as acids, alkalis and some aggressive chemical solvents

- Continuous operating temperature: -32°C to +204°C
- Hardness: 75 A
- Ultra pure, non-toxic, excellent chemical inertness
- Breathability: low breathability
- UV resistance: A
- Ozone resistance: A
- Resistance to acids and bases: strong acids and bases (e.g. 98% con-centrated sulphuric acid), some corrosive organic solvents (e.g. chloro-form)
- Pump tube service life: 500 hours
- Opaque black color helps protect light sensitive fluid
- Certification: FDA and ADCF compliant

Model No.	ID	OD	WT (mm)	Colour
Saint-Gobain Rubber Tube				
Pharmed BPT-0038-008	0.38	1.98	0.8	Opaque beige
Pharmed BPT-0064-008	0.64	2.24	0.8	Opaque beige
Pharmed BPT-0076-008	0.76	2.36	0.8	Opaque beige
Pharmed BPT-0089-008	0.89	2.49	0.8	Opaque beige
Pharmed BPT-0102-008	1.02	2.62	0.8	Opaque beige
Pharmed BPT-0114-008	1.14	2.74	0.8	Opaque beige
Pharmed BPT-0130-008	1.30	2.90	0.8	Opaque beige
Pharmed BPT-0142-008	1.42	3.02	0.8	Opaque beige
Pharmed BPT-0152-008	1.52	3.12	0.8	Opaque beige
Pharmed BPT-0165-008	1.65	3.25	0.8	Opaque beige
Pharmed BPT-0185-008	1.85	3.45	0.8	Opaque beige
Pharmed BPT-0206-008	2.06	3.66	0.8	Opaque beige
Pharmed BPT-0229-008	2.29	3.89	0.8	Opaque beige
Pharmed BPT-0254-008	2.54	4.14	0.8	Opaque beige
Pharmed BPT-0279-008	2.79	4.39	0.8	Opaque beige
Pharmed BPT-0200-010	2.00	4.00	1.0	Opaque beige
Pharmed BPT-0300-010	3.00	5.00	1.0	Opaque beige
Pharmed BPT-0400-010	4.00	6.00	1.0	Opaque beige
Pharmed BPT-0080-016 (13#)	0.80	4.00	1.6	Opaque beige
Pharmed BPT-0160-016 (14#)	1.60	4.80	1.6	Opaque beige
Pharmed BPT-0240-016 (19#)	2.40	5.60	1.6	Opaque beige
Pharmed BPT-0320-016 (16#)	3.20	6.40	1.6	Opaque beige
Pharmed BPT-0400-016	4.00	7.20	1.6	Opaque beige
Pharmed BPT-0480-016 (25#)	4.80	8.00	1.6	Opaque beige
Pharmed BPT-0640-016 (17#)	6.40	9.60	1.6	Opaque beige
Pharmed BPT-0800-016 (18#)	8.00	11.20	1.6	Opaque beige
Pharmed BPT-0640-024 (24#)	6.40	11.20	2.4	Opaque beige
Pharmed BPT-0480-025 (15#)	4.80	9.80	2.5	Opaque beige
Pharmed BPT-0127-032 (82#)	12.7	19.10	3.2	Opaque beige
Pharmed BPT-0950-032 (73#)	9.50	15.90	3.2	Opaque beige

Model No.	ID	OD	WT (mm)	Colour
MasterFlex Viton Tube				
9763228 (1.02*2.62)	1.02	2.62	0.8	Opaque black
9763238 (1.65*3.25)	1.65	3.25	0.8	Opaque black
9763242 (2.06*3.66)	2.06	3.66	0.8	Opaque black
9763246 (2.54*4.14)	2.54	4.14	0.8	Opaque black
96412-13(13#)	0.8	4.00	1.6	Opaque black
96412-14(14#)	1.6	4.80	1.6	Opaque black
96412-16(16#)	3.2	6.40	1.6	Opaque black
96412-25(25#)	4.8	8.00	1.6	Opaque black
96412-17(17#)	6.4	9.60	1.6	Opaque black
96412-18(18#)	7.9	11.10	1.6	Opaque black

Silicone Tube

A translucent medical/food grade tubing which is odourless, non-toxic, Autoclavable, stretchable

- Continuous operating temperature -50°C to +200°C
- Hardness: 55 A
- Meets FDA standard, high sterility
- Anti-thermal oxidation, ozone Aging, light aging and weather aging
- Platinum cured for reduced residual levels of siloxanes and other volatiles
- Reduced spallation than rubber tube

Model No.	ID	OD	WT (mm)	Colour
Silicone Tube				
96405 (0.5*2.1)	0.50	2.10	0.8	Transparent
96406 (2.4*4)	2.40	4.00	0.8	Transparent
96410 (1*3)	1.00	3.00	1.0	Transparent
96411 (2*4)	2.00	4.00	1.0	Transparent
96413 (3*5)	3.00	5.00	1.0	Transparent
96421 (1.5*3)	1.50	3.00	1.5	Transparent
96402-13 (13#)	0.80	4.00	1.6	Transparent
96402-14 (14#)	1.60	4.80	1.6	Transparent
96402-19 (19#)	2.40	5.60	1.6	Transparent
96402-16 (16#)	3.20	6.40	1.6	Transparent
96402-25 (25#)	4.80	8.00	1.6	Transparent
96402-17 (17#)	6.40	9.60	1.6	Transparent
96402-18 (18#)	7.90	11.10	1.6	Transparent
96521 (1.6*6.4)	1.60	6.40	2.4	Transparent
96402-15 (15#)	4.80	9.80	2.5	Transparent
96402-24 (24#)	6.40	11.40	2.5	Transparent
96402-35 (35#)	7.90	12.90	2.5	Transparent
96402-36 (36#)	9.60	14.60	2.5	Transparent
16*22.4	16.00	22.40	3.2	Transparent
6.4*13	6.40	13.00	3.3	Transparent
96402-73 (73#)	9.60	16.60	3.5	Transparent
96402-82 (82#)	12.70	19.70	3.5	Transparent
BS-GJG-Φ10*Φ18	10.00	18.00	4.0	Transparent
12.7*22.3 (88#)	12.70	22.30	4.8	Transparent
25.4*35 (92#)	25.40	35.00	4.8	Transparent
9.5*22.1 (86#)	9.50	22.10	6.3	Transparent
19*31.6 (90#)	19.00	31.60	6.3	Transparent

FEP/PTFE Tube

FEP tube - transparent

PTFE tube - milk white

- Good optical clarity (96% UV transmission)
- Continuous operating temperature: FEP: -51~50°C / PTFE: -100~150°C
Note: The above data were measured at room temperature 20°C, at atmospheric pressure, and the test fluid was a neutral liquid.
- Very smooth internal surfaces
- Reduced gas diffusion
- Excellent chemical resistance
- Ideal for thermoforming
- Tight dimensional tolerances
- Biocompatible
- FDA & USP Class VI compliant
- Gamma & ETO sterilizable

Model No.	ID	OD	WT (mm)	Colour
FEP Tube				
BS-TFLG-Φ1*Φ1.6	1.00	1.60	0.3	Transparent
TFLG00001 (0.8*1.6)	0.80	1.60	0.4	Transparent
TFLG00002 (1*2)	1.00	2.00	0.5	Transparent
TFLG00005 (2.175*3.175)	2.175	3.175	0.5	Transparent
TFLG00003 (1.5*2.5)	1.50	2.50	0.5	Transparent
TFLG00004 (2*3)	2.00	3.00	0.5	Transparent
TFLG-Φ3*Φ4	3.00	4.00	0.5	Transparent
TFLG00008 (2.65*4)	2.65	4.00	0.675	Transparent
TFLG00006 (1.6*3.175)	1.60	3.175	0.7875	Transparent
TFLG00007 (1.6*3.2)	1.60	3.20	0.8	Transparent
TFLG00009 (1.2*3)	1.20	3.00	0.9	Transparent
BS-TFLG-Φ2*Φ4	2.00	4.00	1.0	Transparent
TFLG-Φ4*Φ6	4.00	6.00	1.0	Transparent
TFLG-Φ6*Φ8	6.00	8.00	1.0	Transparent
BS-TFLG-Φ4.35*Φ6.35	4.35	6.35	1.0	Transparent
PTFE Tube				
TFLG00001-E (0.8*1.6)	0.80	1.60	0.4	Milk white
BS-TFLG-E-Φ1*Φ2	1.00	2.00	0.5	Milk white
TFLG00003-E (1.5*2.5)	1.50	2.50	0.5	Milk white
TFLG00004-E (2*3)	2.00	3.00	0.5	Milk white
TFLG00005-E (2.175*3.175)	2.175	3.175	0.5	Milk white
BS-TFLG-E-Φ3*Φ4	3.00	4.00	0.5	Milk white
TFLG00007-E (1.6*3.2)	1.60	3.20	0.8	Milk white
BS-TFLG-E-Φ2*Φ4	2.00	4.00	1.0	Milk white
BS-TFLG-E-Φ4*Φ6	4.00	6.00	1.0	Milk white
BS-TFLG-E-Φ4.35*Φ6.35	4.35	6.35	1.0	Milk white
BS-TFLG-E-Φ5*Φ8	5.00	8.00	1.5	Milk white



PEEK Capillary Tube

- Brand: RUNZE
- Colour: PEEK natural
- Operating temperature: maximum CUT 100°C
- Product hardness: 90 AS
- Applications: bearing, piston, syringe pump, switching valve, etc.
- Features:
 1. 1.6mm OD
 2. Biocompatible, inert and easy to cut
 3. Ideal for high pressure use
 4. PEEK does not react chemically with most solvents and can be used to replace stainless steel tubing in most liquid analysis systems.
 5. The very smooth inner surface of PEEK tubing generates less turbulence than metals of similar size, which helps to improve the resolution of sample bands with minimal permeability of PEEK.

Model No.	ID	OD	WT (mm)	Colour
PEEK Capillary Tube				
0.75*1.6	0.75	1.6	0.425	PEEK natural
0.5*1.6	0.50	1.6	0.55	PEEK natural
0.38*1.6	0.38	1.6	0.61	PEEK natural
0.25*1.6	0.25	1.6	0.675	PEEK natural
0.18*1.6	0.18	1.6	0.71	PEEK natural
0.13*1.6	0.13	1.6	0.735	PEEK natural
0.1*1.6	0.10	1.6	0.75	PEEK natural

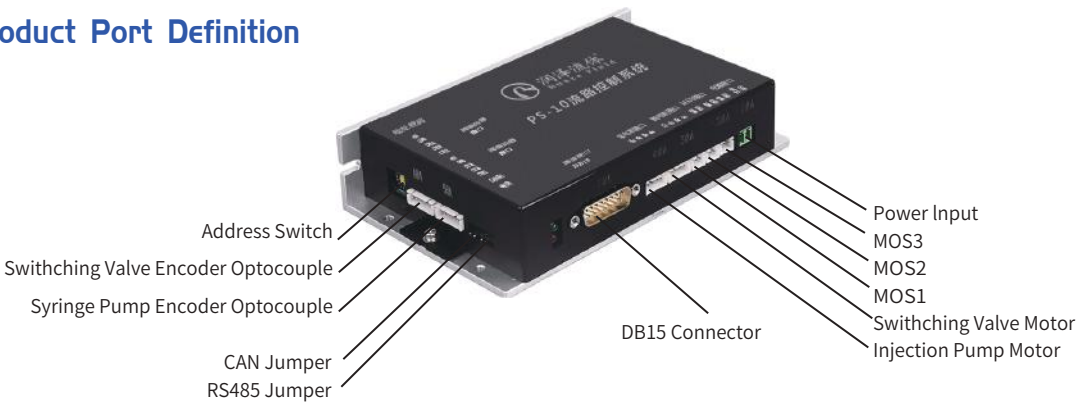
PS-10 System

Features:

- Adopt the world's leading sequential fuel injection platform, low reagent consumption, 1/20 of the reagent consumption of conventional chemical method instruments, suitable for long-term online monitoring.
- Highly integrated multi-channel switching valve, the single valve body can realize the switching function of 6-16 valve positions, simple construction.
- Innovative liquid reservoir ring structure, the sample or reagent does not directly contact with the syringe, avoiding the wear and corrosion of the injection flow path.
- Accurate sample and reagent volume quantification, good repeatability, more precise than conventional chemical method instruments.
- Unique bubble stirring mixing technology to ensure the sample and reagents are fully mixed.



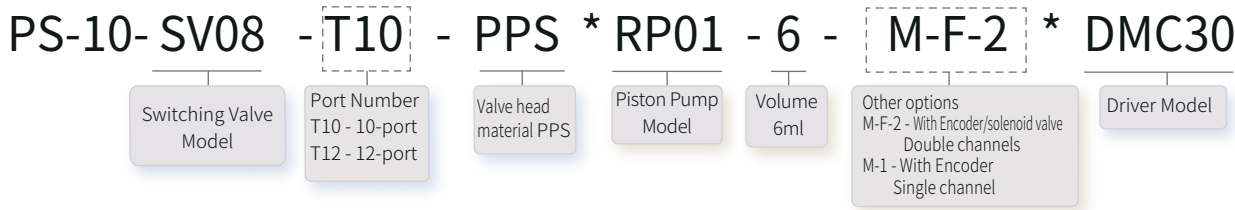
Product Port Definition



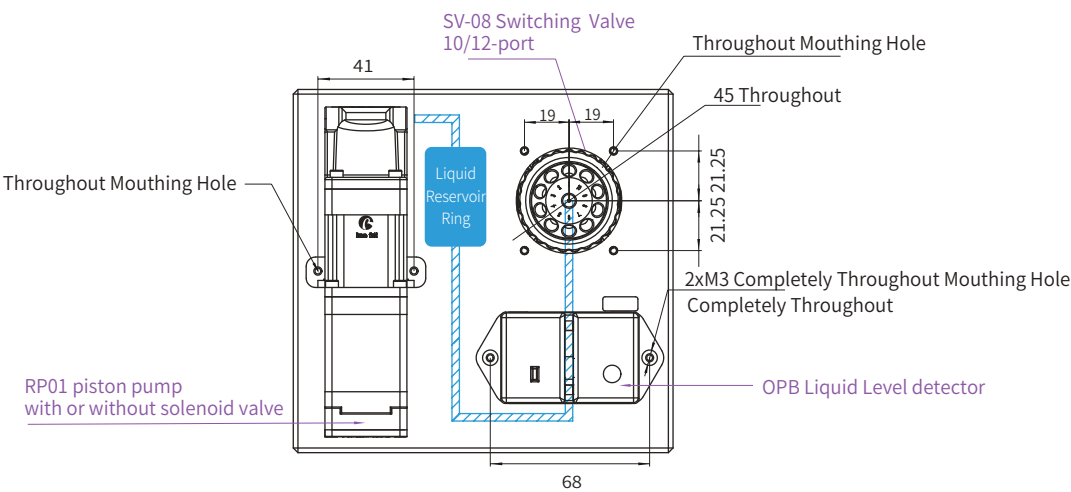
Product Introduction

Wastewater from daily life or industrial production contains not only a certain amount of inorganic pollutants, but also a large number of organic pollutants, which, after entering the environment, affect the whole ecosystem in the form of toxicity and reduction of dissolved oxygen in the water body. Relevant research shows that the vast majority of toxic substances in wastewater are organic substances, so organic pollution indicators are of great importance in today's water quality monitoring.

Runze Fluid Keeps up with the trend of industry development, grasps the opportunity, and rides on it to develop a new generation of PS-10 Cross-Contamination-Free Flow Path System, which can be applied as an accessory to monitor COD (Chemical Oxygen Demand) concentration in water from environmental pollutant outfalls/municipal wastewater/industrial wastewater/industrial production process water, etc. The PS-10 system is also equipped with a liquid level detector, which can determine whether there is liquid in the tube by the color change of the light on the liquid level detector.

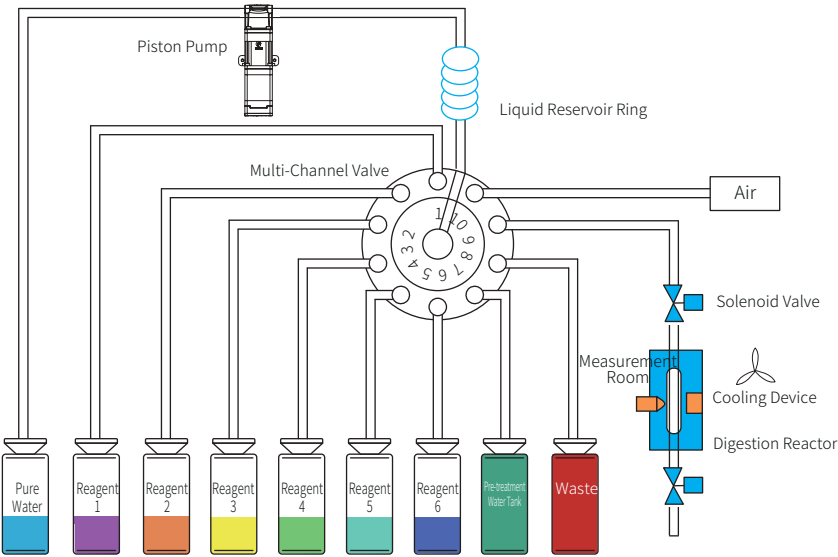


Recommended Installation Schematic (unit: mm)



The PS-10 system consists of the following parts: SV-08 multi-port switching valve, RP-01 piston pump with solenoid valve and encoder, 5 ml flow path plate (liquid reservoir ring), solenoid valve, liquid level detector (optional) and digestion container (user-configured), the green part is the tube.

Product Working Principles



The instrument adopts the world's leading sequential fuel injection technology, the sample to be measured and reagents are sucked into a section of liquid reservoir ring through the switching of the valve and the reverse motion of piston pump, and then the reagents are pushed into the reaction room, and the sample and reagents are ablated at high temperature and high pressure in the reaction room, the acquisition and processing the light absorption signal is completed in the digestion container after the digestion is completed. Then quickly cooled and discharged through a multi-channel switching valve, and the tested fluid is discharged into the waste bottle, and then the tube is cleaned to complete a test.

The entire process utilizes a liquid reservoir ring so that reagents and samples do not come into direct contact with the syringe.

Accessories

DB15-Analog Signal External Control Module (Current /Voltage)

Recommended for Runze LM40 series peristaltic pump/plug and play

* DB15 interface connected with peristaltic pump, can collect and change the external 4-20mA/0-5V/0-10V analog signal to 0-3.3V speed signal for runze peristaltic pump application.

* Green button is to change the direction, red button is the start/stop button, black and red wire is to connect with the current/voltage signal generator

DB15-RS485 Communication Cable

Recommended for Runze LM40, LM60 series peristaltic pump , used for DB15 pin to RS485 signal conversion

* Used to connect with the RS485 interface if the peristaltic pump controlled by RS485 communication , and usually used with Runze USB-30 serial port converter

* Recommended for Runze LM40, LM60 series peristaltic pump

RS232-TTL-IO Voltage Level Translator

A modular used to translate signals between PC serial ports and peripheral devices

* Can be widely used for SCM (Single-chip) .

* Serial debugging of embedded system and other occasions, realization of bidirectional signal conversion.

* Suitable for all of Runze Products with communication, such as switching valve, syringe pump and peristaltic pump.

Serial USB-30 to RS232/RS485 Adapter

Bidirectional transmission/Dial switch design /Plug and play

* A convenient tool for serial debugging and serial communication test.

* Adopt industrial chip solutions which can be used for industrial applications.

* Hot Plugging Support,USB interface, plug and play after the driver is installed.

* Suitable for all of Runze Products with communication, such as switching valve, syringe pump and peristaltic pump.



LW-10 Surge Protector

Mainly used to protect devices supplied by DC power

* Suitable for surge protection of precision instrument in more complex environments.

* Surge protection level reached 4KV

*.Modular design, compact size

* Adopt 35 linear guideway, simple installation and easy maintenance

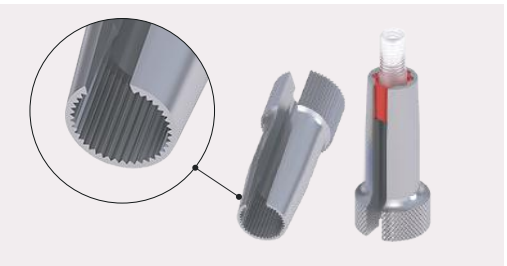


Runze Pipe Cutter

Used for pipe cutting

* Most of the ordinary scissors are difficult to achieve flat, 90° , burr free cutting. Runze pipe cutter is specialized in cutting pipes, with sharp blades, V-shaped positioning, accurate cutting, smooth cutting surface, and avoid any leakage caused by uneven pipe cutting

* Recommended for Runze PTFE/FEP tubing, Pharmed bpt tubing, silicon hose, etc.

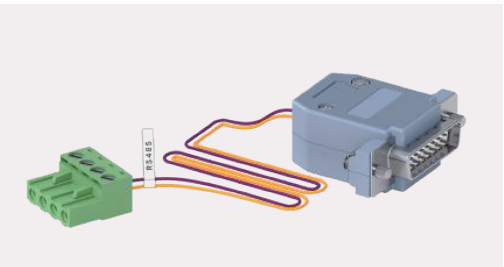
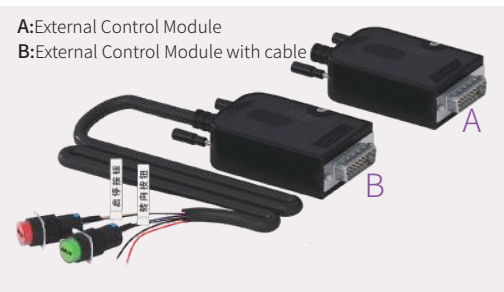


Hand-screwed Tooling for Flangeless Fittings

Tight fit/Highly efficient/Finger protection

* The handle part of the hand-screwed tooling is designed to be longer and larger, larger force area makes it easier to tighten and labor saving.

* More suitable for fittings located in narrow space.



Model No	Model Name	Description	Qty
Accessories			
1009000008	RZ-A04-20 Current analog signal external control module	Current range: 4-20mA, suitable for external control of peristaltic pump	1Unit
1009000009	RZ-V05 Voltage analog signal external control module	Voltage range: 0-5V, suitable for external control of peristaltic pump	1Unit
1009000010	RZ-V10 Voltage analog signal external control module	Voltage range: 0-10V, suitable for external control of peristaltic pump	1Unit
1009000011	RZ-A04-20 Current analog signal external control module with cable	Current range: 4-20mA, suitable for external control of peristaltic pump	1Set
1009000012	RZ-V05 Voltage analog signal external control module with cable	Voltage range: 0-5V, suitable for external control of peristaltic pump	1Set
1009000013	RZ-V10 Voltage analog signal external control module with cable	Voltage range: 0-10V, suitable for external control of peristaltic pump	1Set
1009000007	DB15-RS485	DB15-RS485 Communication Cable,used for DB15 pin to RS485 signal conversion, recommend for LM40/60 series peristaltic pump	1Set
1009000002	RS232-TTL-10	used to translate signals between PC serial ports and peripheral devices	1Piece
1009000001	USB-30A	USB-30 to RS232/RS485 Serial Port Converter, with green pin terminal	1Piece
1009000006	USB-30B	USB-30 to RS232/RS485 Serial Port Converter, with RS232/RS485 wire and the green pin terminal	1Piece

Model No.	Model Name	Description	Qty
Accessories			
1009000002	LW-10	Suitable for surge protection of precision instrument supplied by DC power in more complex environments.	1Piece
1009010012	Runze Pipe Cutter	Used for pipe cutting	1Piece
1006020073	Hand-screwed tooling--flower head	Suitable for pre-torque flangeless fittings with flower-shaped screw head	1Piece
1006010256	Hand-screwed tooling--round head	uitable for WF10A/WD10A flangeless fittings	1Piece



PEEK Flangeless Fittings—two-piece set

Features:

- Peek material, which insoluble in almost all solvents except concentrated sulfuric acid
- Superior to PTFE in terms of high temperature and abrasion resistance, high coefficient of friction and impact resistance
- High mechanical strength, fittings are not easily loosened after tightening
- Continuous operating temperature: -80°C~+250°C
- Can be disassembled repeatedly without affecting its sealing

★ Application Note

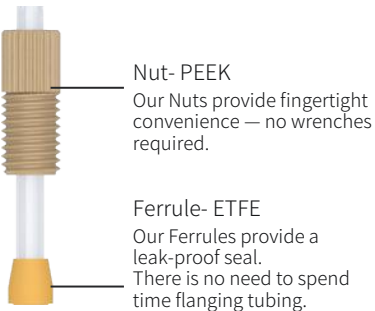
※ Ensure the end of tubing has a clean, square, burr-free cut .

Step 1. Slide the PEEK nut, followed by the ETFE ferrule, at least 3/16"(4.7625mm) from the end of clean cut tubing

Step 2. Insert the assembly into the receiving port, pushing the tubing into the port until it bottoms out

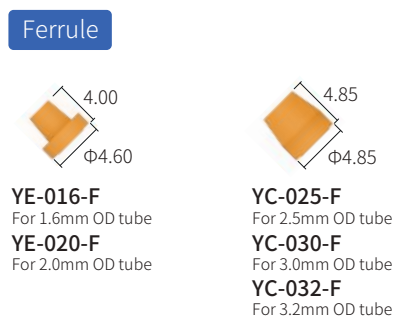
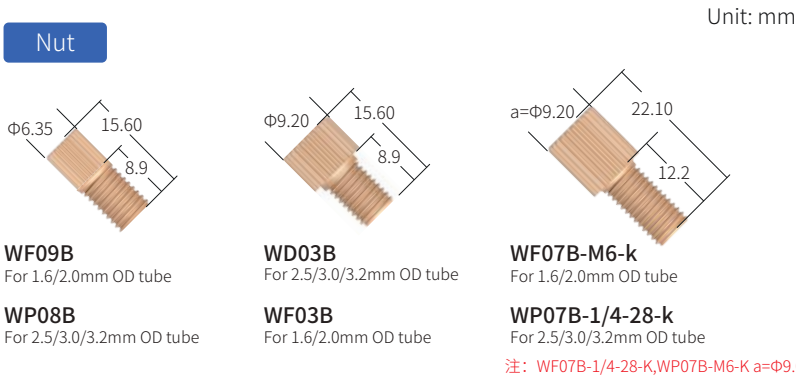
Step 3. Finger tighten the fittings into the port until snug

Step 4. After several uses (especially at high pressure) the ferrules should be replaced



※ Make sure the ferrule is oriented correctly! The narrow end of the ferrule should towards the nut.

※ M6 threaded fittings support customization



SKU	Model No.	Thread	Tube OD	Pressure Rating	Material
WF09B/WP08B					
1011010018	WF09B-1/4-28-K * YE-016-F	1/4-28UNF	1.6mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010017	WF09B-1/4-28-K * YE-020-F	1/4-28UNF	2.0mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010016	WP08B-1/4-28-K * YC-025-F	1/4-28UNF	2.5mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010015	WP08B-1/4-28-K * YC-030-F	1/4-28UNF	3.0mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010014	WP08B-1/4-28-K * YC-032-F	1/4-28UNF	3.2mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010050	WF09B-M6-K * YE-016-F	M6	1.6mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010051	WF09B-M6-K * YE-020-F	M6	2.0mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010052	WP08B-M6-K * YC-025-F	M6	2.5mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010053	WP08B-M6-K * YC-030-F	M6	3.0mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010054	WP08B-M6-K * YC-032-F	M6	3.2mm OD	3.4Mpa	PEEK natural * ETFE yellow
WF07B/WP07B					
1011010066	WF07B-1/4-28-K * YE-016-F	1/4-28UNF	1.6mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010067	WF07B-1/4-28-K * YE-020-F	1/4-28UNF	2.0mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010041	WP07B-1/4-28-K * YC-025-F	1/4-28UNF	2.5mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010042	WP07B-1/4-28-K * YC-030-F	1/4-28UNF	3.0mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010043	WP07B-1/4-28-K * YC-032-F	1/4-28UNF	3.2mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010039	WF07B-M6-K * YE-016-F	M6	1.6mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010040	WF07B-M6-K * YE-020-F	M6	2.0mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010063	WP07B-M6-K * YC-025-F	M6	2.5mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010064	WP07B-M6-K * YC-030-F	M6	3.0mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010065	WP07B-M6-K * YC-032-F	M6	3.2mm OD	3.4Mpa	PEEK natural * ETFE yellow
WF03B/WD03B					
1011010068	WF03B-1/4-28-K * YE-016-F	1/4-28UNF	1.6mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010069	WF03B-1/4-28-K * YE-020-F	1/4-28UNF	2.0mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010055	WD03B-1/4-28-K * YC-025-F	1/4-28UNF	2.5mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010056	WD03B-1/4-28-K * YC-030-F	1/4-28UNF	3.0mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010057	WD03B-1/4-28-K * YC-032-F	1/4-28UNF	3.2mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010078	WF03B-M6-K * YE-016-F	M6	1.6mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010079	WF03B-M6-K * YE-020-F	M6	2.0mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010058	WD03B-M6-K * YC-025-F	M6	2.5mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010059	WD03B-M6-K * YC-030-F	M6	3.0mm OD	3.4Mpa	PEEK natural * ETFE yellow
1011010060	WD03B-M6-K * YC-032-F	M6	3.2mm OD	3.4Mpa	PEEK natural * ETFE yellow



PEEK Flangeless Fittings—three-piece set

Features:

- With stainless steel lock ring, the rigid tube does not follow the rotation during screwing flangeless nut
- Continuous operating temperature: -80°C~+250°C
- Can be disassembled repeatedly without affecting its sealing
- Suitable for ion chromatography, genetic testing, high-end bioanalysis, experimental analytical instruments and other fields

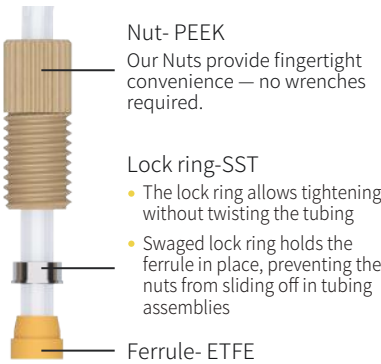
★ Application Note

※ Ensure the end of tubing has a clean, square, burr-free cut .

Step 1. Slide the PEEK nut, followed by the 316 SST sleeve and ETFE ferrule, at least 3/16"(4.7625mm) from the end of clean cut tubing

Step 2. Insert the assembly into the receiving port, pushing the tubing into the port until it bottoms out

Step 3. Finger tighten the fittings into the port until snug

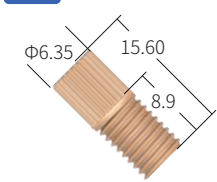


※ Make sure the locking ring is oriented correctly! The flattened end of the ring should face towards the nut with the narrow end of the ferrule towards the ring.

※ M6 threaded fittings support customization

SKU	Model No.	Thread	Tube OD	Pressure Rating	Material
WF01B/WD01B					
1011010009	WF01B-1/4-28-K * KCF-038-SUS316 * YE-016-F	1/4-28UNF	1.6mm OD	4.0Mpa	PEEK natural * SUS316 * ETFE yellow
1011010010	WF01B-1/4-28-K * KCF-038-SUS316 * YE-020-F	1/4-28UNF	2.0mm OD	4.0Mpa	PEEK natural * SUS316 * ETFE yellow
1011010011	WD01B-1/4-28-K * KCF-045-SUS316 * YK-025-F	1/4-28UNF	2.5mm OD	4.0Mpa	PEEK natural * SUS316 * ETFE yellow
1011010012	WD01B-1/4-28-K * KCF-045-SUS316 * YK-030-F	1/4-28UNF	3.0mm OD	4.0Mpa	PEEK natural * SUS316 * ETFE yellow
1011010013	WD01B-1/4-28-K * KCF-045-SUS316 * YK-032-F	1/4-28UNF	3.2mm OD	4.0Mpa	PEEK natural * SUS316 * ETFE yellow
1011010070	WF01B-M6-K * KCF-038-SUS316 * YE-016-F	M6	1.6mm OD	4.0Mpa	PEEK natural * SUS316 * ETFE yellow
1011010071	WF01B-M6-K * KCF-038-SUS316 * YE-020-F	M6	2.0mm OD	4.0Mpa	PEEK natural * SUS316 * ETFE yellow
WF06B/WD06B					
1011010031	WF06B-1/4-28-K * KCF-038-SUS316 * YE-016-F	1/4-28UNF	1.6mm OD	4.0Mpa	PEEK natural * SUS316 * ETFE yellow
1011010032	WF06B-1/4-28-K * KCF-038-SUS316 * YE-020-F	1/4-28UNF	2.0mm OD	4.0Mpa	PEEK natural * SUS316 * ETFE yellow
1011010033	WD06B-1/4-28-K * KCF-045-SUS316 * YK-025-F	1/4-28UNF	2.5mm OD	4.0Mpa	PEEK natural * SUS316 * ETFE yellow
1011010034	WD06B-1/4-28-K * KCF-045-SUS316 * YK-030-F	1/4-28UNF	3.0mm OD	4.0Mpa	PEEK natural * SUS316 * ETFE yellow
1011010035	WD06B-1/4-28-K * KCF-045-SUS316 * YK-032-F	1/4-28UNF	3.2mm OD	4.0Mpa	PEEK natural * SUS316 * ETFE yellow
1011010072	WF06B-M6-K * KCF-038-SUS316 * YE-016-F	M6	1.6mm OD	4.0Mpa	PEEK natural * SUS316 * ETFE yellow
1011010073	WF06B-M6-K * KCF-038-SUS316 * YE-020-F	M6	2.0mm OD	4.0Mpa	PEEK natural * SUS316 * ETFE yellow

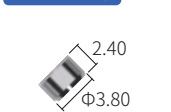
Nut



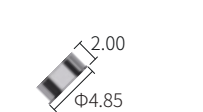
WF01B
For 1.6/2.0mm OD Tube

WD01B-1/4-28-K
For 2.5/3.0/3.2mm OD Tube

Lock ring

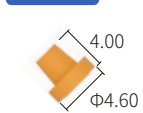


KCF-038-SUS316
For 1.6/2.0mm OD tube



KCF-045-SUS316
For 2.5/3.0/3.2mm OD tube

Ferrule



YE-016-F
For 1.6mm OD tube
YE-020-F
For 2.0mm OD tube



YK-025-F
For 2.5mm OD tube
YK-030-F
For 3.0mm OD tube
YK-032-F
For 3.2mm OD tube



★ Application Note

※ Before flange the tubing , ensure the end of tubing has a clean, square, burr-free cut.

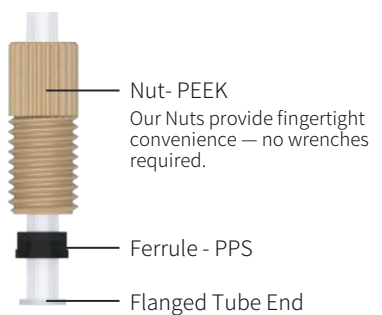
Step 1. Flange the tubing with exclusive flange tools, tubing can be flanged one end or both two ends, depending on specific application requirements

Step 2. When tubing flanged in two ends, 2 pieces clips and 2 pieces nuts need to be slid into the tubing before both ends flanged; when tubing flanged in one end, 1 piece clip and 1 piece nut can be slid into tubing before or after the one end flanged.

Step 3. Insert the assembly into the receiving port, pushing the tubing into the port until it bottoms out

Step 4. Finger tighten the fittings into the port until snug

Step 5. After several uses (especially at high pressure) the flanged tube should be replace



※ Make sure the ferrule is oriented correctly! The narrow end of the ferrule should towards the nut.

※ Flange the tubing with exclusive flange tools, flanged Tube End≤Φ5mm

※ M6 threaded fittings support customization

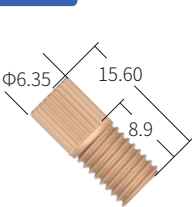
SKU	Model No.	Thread	Tube OD	Material
WF01B/WD01B				
1011140011	WF01B-1/4-28-K * KCF-016-S	1/4-28UNF	1.6mm OD	PEEK natural * PPS black
1011140012	WF01B-1/4-28-K * KCF-020-S	1/4-28UNF	2.0mm OD	PEEK natural * PPS black
1011140013	WD01B-1/4-28-K * KCF-025-S	1/4-28UNF	2.5mm OD	PEEK natural * PPS black
1011140017	WD01B-1/4-28-K * KCF-030/032-S	1/4-28UNF	3.0mm/3.2mm OD	PEEK natural * PPS black
1011140019	WF01B-M6-K * KCF-016-S	M6	1.6mm OD	PEEK natural * PPS black
1011140020	WF01B-M6-K * KCF-020-S	M6	2.0mm OD	PEEK natural * PPS black
WF06B/WD06B				
1011140014	WF06B-1/4-28-K * KCF-016-S	1/4-28UNF	1.6mm OD	PEEK natural * PPS black
1011140015	WF06B-1/4-28-K * KCF-020-S	1/4-28UNF	2.0mm OD	PEEK natural * PPS black
1011140016	WD06B-1/4-28-K * KCF-025-S	1/4-28UNF	2.5mm OD	PEEK natural * PPS black
1011140018	WD06B-1/4-28-K * KCF-030/032-S	1/4-28UNF	3.0mm/3.2mm OD	PEEK natural * PPS black
1011140021	WF06B-M6-K * KCF-016-S	M6	1.6mm OD	PEEK natural * PPS black
1011140022	WF06B-M6-K * KCF-020-S	M6	2.0mm OD	PEEK natural * PPS black

PEEK Flanged Fittings

Features:

- A traditional flat-bottomed fitting. By deforming the bottom of the tube, the bottom of the tube then compressed to form an airtight rigid tube connection system.
- Continuous operating temperature: -80°C to +250°C
- No change in tube diameter, no effect on flow rate, more stable flow rate
- Can be disassembled repeatedly without affecting its sealing

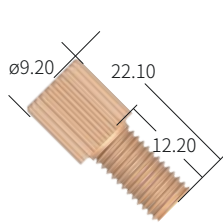
Nut



WF01B
For 1.6/2.0mm OD Tube

WD01B-1/4-28-K
For 2.5/3.0/3.2mm OD Tube

Nut



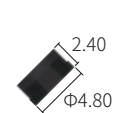
WF06B
For 1.6/2.0mm OD Tube

WD06B
For 2.5/3.0/3.2mm OD Tube

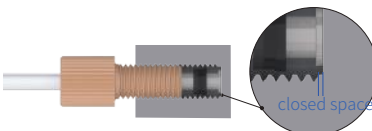
Ferrule



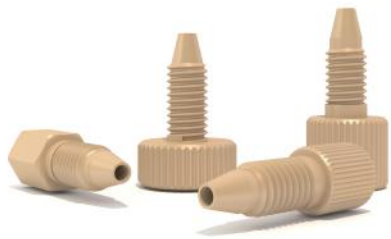
KCF-016-S
For 1.6mm OD tube
KCF-020-S
For 2.0mm OD tube



KCF-025-S
For 2.5mm OD tube
KCF-030/032-S
For 3.0/3.2mm OD tube



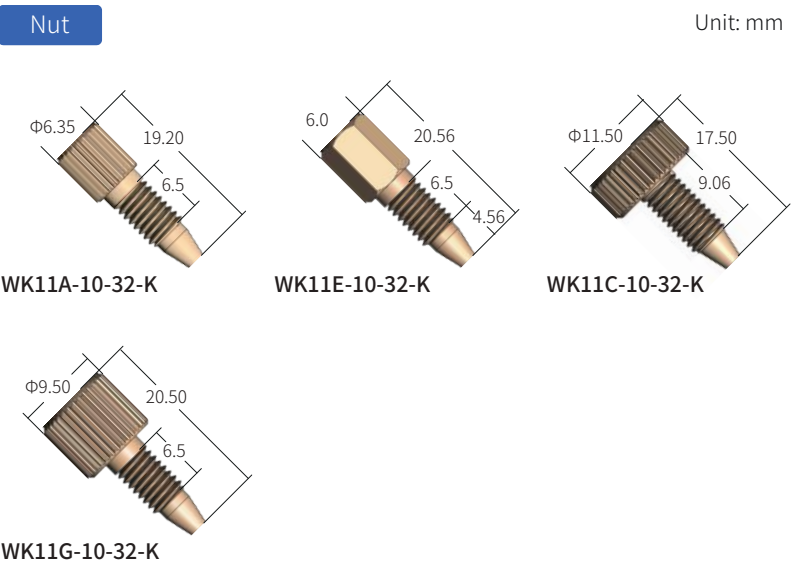
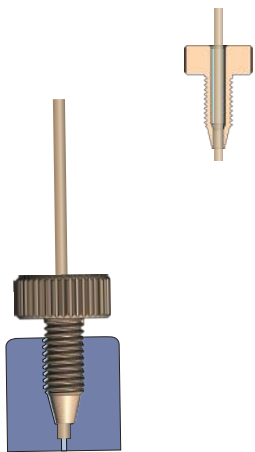
Note: Height of perforated closed space ≤0.5mm



Features:

- PEEK material, which insoluble in almost all solvents except concentrated sulfuric acid
- Superior to PTFE in terms of high temperature and abrasion resistance, high coefficient of friction and impact resistance
- High mechanical strength, fittings are not easily loosened after tightening
- Continuous operating temperature: -100°C~+250°C
- Original one-piece hand tightening fittings
- 10-32 threaded coned head for HPLC system application
- Suitable for 1.6 mm OD PEEK/PTFE/ETFE/FEP and other semi-rigid tubes

Application Note



Model No.	Thread	Tube OD	Pressure Rating	Material
WK11A-10-32-K	10-32UNF Coned	1.6mm OD	8.64Mpa	PEEK natural
WK11E-10-32-K	10-32UNF Coned	1.6mm OD	8.64Mpa	PEEK natural
WK11C-10-32-K	10-32UNF Coned	1.6mm OD	8.64Mpa	PEEK natural
WK11G-10-32-K	10-32UNF Coned	1.6mm OD	8.64Mpa	PEEK natural

Flangeless Fittings

Features:

- Resistant to chemicals and organics, including materials like PP, PTFE, POM, PPS
- Standard threads and curvature, no gap, no wobble and good sealing with the corresponding threads
- Available in five sizes of 1.6/2.0/2.5/3.0/3.2mm OD rigid tube, with a pressure capacity of 7 kg
- Quick and easy installation, no tools required, cost-effective

Application Note

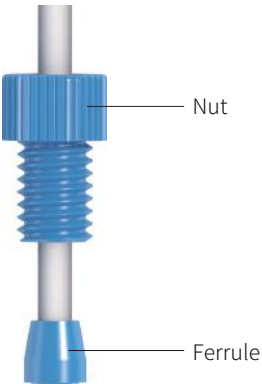
※ Ensure the end of tubing has a clean, square, burr-free cut .

Step 1. Slide the nut, followed by the ferrule, at least 3/16” (4.7625mm) from the end of clean cut tubing

Step 2. Insert the assembly into the receiving port, pushing the tubing into the port until it bottoms out

Step 3. Finger tighten the fittings into the port until snug

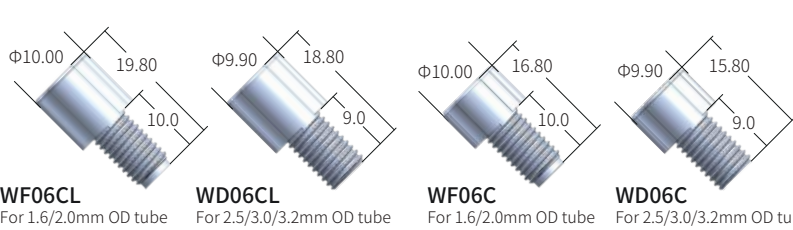
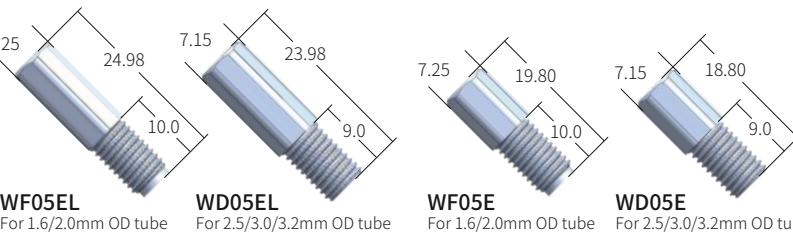
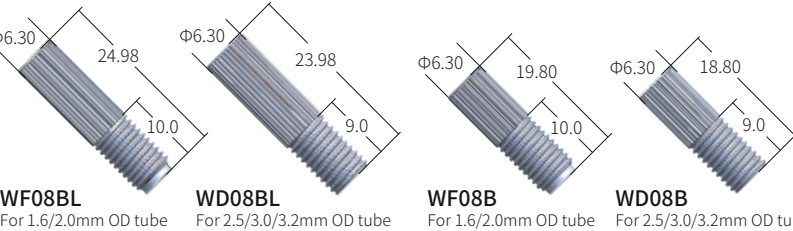
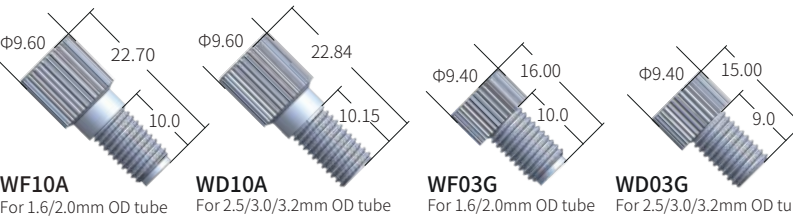
Step 4. After disassembling, the ferrules should be replaced in next assembly and connection



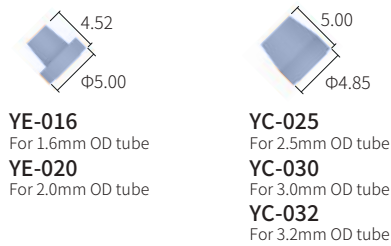
※ Make sure the ferrule is oriented correctly! The narrow end of the ferrule should towards the nut.

※ Flangeless nut is also available in PTFE and POM material Flangeless Fittings

NutUnit: mm



Ferrule



SKU	Model No.	Thread	Tube OD	Material
WF10A/WD10A				
1006010170	WF10A-28P * YE-016P	1/4-28UNF	1.6mm OD	PP natural*PP natural
1006010169	WF10A-28P * YE-020P	1/4-28UNF	2.0mm OD	PP natural*PP natural
1006010168	WD10A-28P * YC-025P	1/4-28UNF	2.5mm OD	PP natural*PP natural
1006010167	WD10A-28P * YC-030P	1/4-28UNF	3.0mm OD	PP natural*PP natural
1006010166	WD10A-28P * YC-032P	1/4-28UNF	3.2mm OD	PP natural*PP natural
1006010175	WF10A-28E * YE-016A	1/4-28UNF	1.6mm OD	PTFE natural*PFA natural
1006010174	WF10A-28E * YE-020A	1/4-28UNF	2.0mm OD	PTFE natural*PFA natural
1006010173	WD10A-28E * YC-025A	1/4-28UNF	2.5mm OD	PTFE natural*PFA natural
1006010172	WD10A-28E * YC-030A	1/4-28UNF	3.0mm OD	PTFE natural*PFA natural
1006010171	WD10A-28E * YC-032A	1/4-28UNF	3.2mm OD	PTFE natural*PFA natural
1006010246	WF10A-M6P * YE-016P	M6	1.6mm OD	PP natural*PP natural
1006010247	WF10A-M6P * YE-020P	M6	2.0mm OD	PP natural*PP natural
1006010248	WD10A-M6P * YC-025P	M6	2.5mm OD	PP natural*PP natural
1006010249	WD10A-M6P * YC-030P	M6	3.0mm OD	PP natural*PP natural
1006010238	WD10A-06P * YC-032P	M6	3.2mm OD	PP natural*PP natural
1006010241	WF10A-M6E * YE-016A	M6	1.6mm OD	PTFE natural*PFA natural
1006010242	WF10A-M6E * YE-020A	M6	2.0mm OD	PTFE natural*PFA natural
1006010243	WD10A-M6E+YC-025A	M6	2.5mm OD	PTFE natural*PFA natural
1006010244	WD10A-M6E+YC-030A	M6	3.0mm OD	PTFE natural*PFA natural
1006010245	WD10A-M6E+YC-032A	M6	3.2mm OD	PTFE natural*PFA natural

Model No.	Thread	Tube OD	Material
Nut			
WF03G-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD03G-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF08BL-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD08BL-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF08B-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD08B-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF05EL-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD05EL-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF05E-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD05E-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF06CL-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD06CL-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF06C-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD06C-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF03G-06-P	M6	1.6mm/2.0mm/OD	PP natural
WD03G-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural
WF08BL-06-P	M6	1.6mm/2.0mm/OD	PP natural
WD08BL-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural
WF08B-06-P	M6	1.6mm/2.0mm/OD	PP natural
WD08B-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural
WF05EL-06-P	M6	1.6mm/2.0mm/OD	PP natural
WD05EL-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural
WF05E-06-P	M6	1.6mm/2.0mm/OD	PP natural
WD05E-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural
WF06CL-06-P	M6	1.6mm/2.0mm/OD	PP natural
WD06CL-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural
WF06C-06-P	M6	1.6mm/2.0mm/OD	PP natural
WD06C-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural



★ Application Note

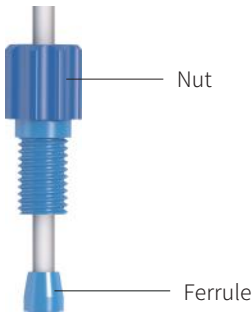
※ Ensure the end of tubing has a clean, square, burr-free cut .

Step 1. Slide the nut, followed by the ferrule, at least 3/16” (4.7625mm) from the end of clean cut tubing

Step 2. Insert the assembly into the receiving port, pushing the tubing into the port until it bottoms out

Step 3. Finger tighten the fittings into the port until snug

Step 4. After disassembling, the ferrules should be replaced in next assembly and connection



※ Make sure the ferrule is oriented correctly! The narrow end of the ferrule should towards the nut.

※ Please choose the correct nut model, so that no under-torque or over-torque will occur to affect tube sealing or squeeze tube.

※ Use environment.:
0.11~0.15 N·m——WT ≤0.5mm at room temperature
0.15~0.20 N·m——WT>0.5mm at room temperature
0.20~0.25 N·m——Use temperature >100°C, or pressure >8kg

Model No.	Tube OD	Material
Ferrule		
YE-016-P	1.6mm OD	PP natural
YE-020-P	2.0mm OD	PP natural
YC-025-P	2.5mm OD	PP natural
YC-030-P	3.0mm OD	PP natural
YC-032-P	3.2mm OD	PP natural
YE-016-A	1.6mm OD	PFA natural
YE-020-A	2.0mm OD	PFA natural
YC-025-A	2.5mm OD	PFA natural
YC-030-A	3.0mm OD	PFA natural
YC-032-A	3.2mm OD	PFA natural

Pre-torque Flangeless Fittings

Features:

- Working principle: Pre-applied forces to achieve a reliable and tight connection and to prevent gaps or relative slippage between the fittings after being applied force
- Resistant to chemical corrosion and various organic substances, including PTFE and PP materials
- Standard threads and curvature, no gap, no wobble and good sealing with the corresponding threads
- Used for standard rigid tubing OD 1.6/2.0/2.5/3.0/3.2mm, easy and fast installation.



Model No.	Thread	Tube OD	Torque Range	Head Style	Material
Nut					
YJLDZ-YX-28P-S(011-015)	1/4-28UNF	1.6mm/2.0mm OD	0.11~0.15 N·m	Blue round screw head	PP natural
YJLDZ-YX-06P-S(011-015)	M6			Blue round screw head	PP natural
YJLDZ-BX-28P-S(011-015)	1/4-28UNF	1.6mm/2.0mm OD	0.11~0.15 N·m	Blue flat screw head	PP natural
YJLDZ-BX-06P-S(011-015)	M6			Blue flat screw head	PP natural
YJLDZ-HX-28P-S(011-015)	1/4-28UNF	1.6mm/2.0mm OD	0.11~0.15 N·m	Blue flower-shaped screw head	PP natural
YJLDZ-HX-06P-S(011-015)	M6			Blue flower-shaped screw head	PP natural
YJLDZ-BX-28P-S(015-020)	1/4-28UNF	1.6mm/2.0mm OD	0.15~0.20 N·m	Yellow flat screw head	PP natural
YJLDZ-BX-06P-S(015-020)	M6			Yellow flat screw head	PP natural
YJLDZ-HX-28P-S(015-020)	1/4-28UNF	1.6mm/2.0mm OD	0.15~0.20 N·m	Yellow flower-shaped screw head	PP natural
YJLDZ-HX-06P-S(015-020)	M6			Yellow flower-shaped screw head	PP natural
YJLDZ-BX-28P-S(020-025)	1/4-28UNF	1.6mm/2.0mm OD	0.20~0.25 N·m	Red flat screw head	PP natural
YJLDZ-BX-06P-S(020-025)	M6			Red flat screw head	PP natural
YJLDZ-HX-28P-S(020-025)	1/4-28UNF	1.6mm/2.0mm OD	0.20~0.25 N·m	Red flower-shaped screw head	PP natural
YJLDZ-HX-06P-S(020-025)	M6			Red flower-shaped screw head	PP natural
YJLDZ-YX-28P-(011-015)	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	0.11~0.15 N·m	Blue round screw head	PP natural
YJLDZ-YX-06P-(011-015)	M6			Blue round screw head	PP natural
YJLDZ-BX-28P-(011-015)	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	0.11~0.15 N·m	Blue flat screw head	PP natural
YJLDZ-BX-06P-(011-015)	M6			Blue flat screw head	PP natural
YJLDZ-HX-28P-(011-015)	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	0.11~0.15 N/m	Blue flower-shaped screw head	PP natural
YJLDZ-HX-06P-(011-015)	M6			Blue flower-shaped screw head	PP natural
YJLDZ-BX-28P-(015-020)	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	0.15~0.20 N·m	Yellow flat screw head	PP natural
YJLDZ-BX-06P-(015-020)	M6			Yellow flat screw head	PP natural
YJLDZ-HX-28P-(015-020)	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	0.15~0.20 N·m	Yellow flower-shaped screw head	PP natural
YJLDZ-HX-06P-(015-020)	M6			Yellow flower-shaped screw head	PP natural
YJLDZ-BX-28P-(020-025)	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	0.20~0.25 N·m	Red flat screw head	PP natural
YJLDZ-BX-06P-(020-025)	M6			Red flat screw head	PP natural
YJLDZ-HX-28P-(020-025)	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	0.20~0.25 N·m	Red flower-shaped screw head	PP natural
YJLDZ-HX-06P-(020-025)	M6			Red flower-shaped screw head	PP natural
YJLDZ-YX-28E-S(011-015)	1/4-28UNF	1.6mm/2.0mm OD	0.11~0.15 N·m	Blue round screw head	PTFE natural
YJLDZ-YX-06E-S(011-015)	M6			Blue round screw head	PTFE natural
YJLDZ-BX-28E-S(011-015)	1/4-28UNF	1.6mm/2.0mm OD	0.11~0.15 N·m	Blue flat screw head	PTFE natural
YJLDZ-BX-06E-S(011-015)	M6			Blue flat screw head	PTFE natural
YJLDZ-HX-28E-S(011-015)	1/4-28UNF	1.6mm/2.0mm OD	0.11~0.15 N·m	Blue flower-shaped screw head	PTFE natural
YJLDZ-HX-06E-S(011-015)	M6			Blue flower-shaped screw head	PTFE natural
YJLDZ-BX-28E-S(015-020)	1/4-28UNF	1.6mm/2.0mm OD	0.15~0.20 N·m	Yellow flat screw head	PTFE natural
YJLDZ-BX-06E-S(015-020)	M6			Yellow flat screw head	PTFE natural
YJLDZ-HX-28E-S(015-020)	1/4-28UNF	1.6mm/2.0mm OD	0.15~0.20 N·m	Yellow flower-shaped screw head	PTFE natural
YJLDZ-HX-06E-S(015-020)	M6			Yellow flower-shaped screw head	PTFE natural
YJLDZ-BX-28E-S(020-025)	1/4-28UNF	1.6mm/2.0mm OD	0.20~0.25 N·m	Red flat screw head	PTFE natural
YJLDZ-BX-06E-S(020-025)	M6			Red flat screw head	PTFE natural
YJLDZ-HX-28E-S(020-025)	1/4-28UNF	1.6mm/2.0mm OD	0.20~0.25 N·m	Red flower-shaped screw head	PTFE natural
YJLDZ-HX-06E-S(020-025)	M6			Red flower-shaped screw head	PTFE natural
YJLDZ-YX-28E-(011-015)	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	0.11~0.15 N·m	Blue round screw head	PTFE natural
YJLDZ-YX-06E-(011-015)	M6			Blue round screw head	PTFE natural
YJLDZ-BX-28E-(011-015)	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	0.11~0.15 N·m	Blue flat screw head	PTFE natural
YJLDZ-BX-06E-(011-015)	M6			Blue flat screw head	PTFE natural
YJLDZ-HX-28E-(011-015)	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	0.11~0.15 N·m	Blue flower-shaped screw head	PTFE natural
YJLDZ-HX-06E-(011-015)	M6			Blue flower-shaped screw head	PTFE natural
YJLDZ-BX-28E-(015-020)	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	0.15~0.20 N·m	Yellow flat screw head	PTFE natural
YJLDZ-BX-06E-(015-020)	M6			Yellow flat screw head	PTFE natural
YJLDZ-HX-28E-(015-020)	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	0.15~0.20 N·m	Yellow flower-shaped screw head	PTFE natural
YJLDZ-HX-06E-(015-020)	M6			Yellow flower-shaped screw head	PTFE natural
YJLDZ-BX-28E-(020-025)	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	0.20~0.25 N·m	Red flat screw head	PTFE natural
YJLDZ-BX-06E-(020-025)	M6			Red flat screw head	PTFE natural
YJLDZ-HX-28E-(020-025)	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	0.20~0.25 N·m	Red flower-shaped screw head	PTFE natural
YJLDZ-HX-06E-(020-025)	M6			Red flower-shaped screw head	PTFE natural



Flanged Fittings

Features:

- The fitting requires a flat flanged end and a gasket/clip located between the flanged tube and the flat bottom fitting. Sealing achieved through tightening the nut, by deforming the bottom of the tube, the bottom of the tube then compressed to form an airtight rigid tube connection system. The wetted part is the tubing itself: a matching washer(gasket) is required.
- Resistant to chemicals and organics, including PP, PTFE, PPS and other materials
- Used for standard rigid tubing OD 1.6/2.0/2.5/3.0/3.2mm, easy and fast installation.
- Thread: 1/4-28UNF, M6

Application Note

※ Before flange the tubing , ensure the end of tubing has a clean, square, burr-free cut.

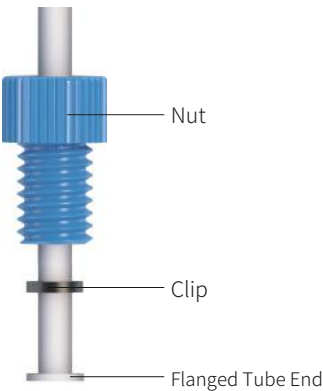
Step 1. Flange the tubing with exclusive flange tools, tubing can be flanged one end or both two ends, depending on specific application requirements

Step 2. When tubing flanged in two ends, 2 pieces clips and 2 pieces nuts need to be slid into the tubing before both ends flanged; when tubing flanged in one end, 1 piece clip and 1 piece nut can be slid into tubing before or after the one end flanged.

Step 3. Insert the assembly into the receiving port, pushing the tubing into the port until it bottoms out

Step 4. Finger tighten the fittings into the port until snug

Step 5. After several uses (especially at high pressure) the flanged tube should be replace

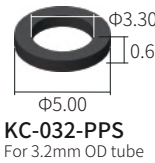
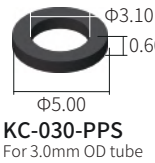
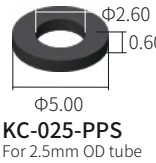
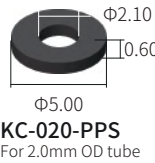
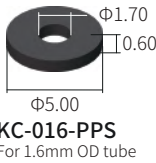


※ Flange the tubing with exclusive flange tools, flanged Tube End≤Φ5mm

※ Flangeless nut is also available in PTFE and POM material

Nut				Unit: mm
WF10A For 1.6/2.0mm OD tube	WD10A For 2.5/3.0/3.2mm OD tube	WF03G For 1.6/2.0mm OD tube	WD03G For 2.5/3.0/3.2mm OD tube	
WF08BL For 1.6/2.0mm OD tube	WD08BL For 2.5/3.0/3.2mm OD tube	WF08B For 1.6/2.0mm OD tube	WD08B For 2.5/3.0/3.2mm OD tube	
WF05EL For 1.6/2.0mm OD tube	WD05EL For 2.5/3.0/3.2mm OD tube	WF05E For 1.6/2.0mm OD tube	WD05E For 2.5/3.0/3.2mm OD tube	
WF06CL For 1.6/2.0mm OD tube	WD06CL For 2.5/3.0/3.2mm OD tube	WF06C For 1.6/2.0mm OD tube	WD06C For 2.5/3.0/3.2mm OD tube	
WF07Y For 2.5/3.0/3.2mm OD tube	WD020A For 4.0mm OD tube	WD06G For 4.0mm OD tube		

Clip

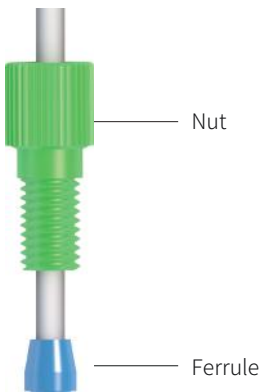


Model No.	Thread	Tube OD	Material
Nut			
WF10A-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD10A-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF03G-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD03G-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF08BL-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD08BL-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF08B-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD08B-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF05EL-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD05EL-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF05E-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD05E-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF06CL-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD06CL-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF06C-1/4-28-P	1/4-28UNF	1.6mm/2.0mm/OD	PP natural
WD06C-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WF07Y-1/4-28-P	1/4-28UNF	2.5mm/3.0mm/3.2mm OD	PP natural
WD020A-1/4-28-P	1/4-28UNF	4.0mm OD	PP natural
WD06G-1/4-28-P	M6	4.0mm OD	PP natural
WF10A-06-P	M6	1.6mm/2.0mm OD	PP natural
WD10A-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural
WF03G-06-P	M6	1.6mm/2.0mm OD	PP natural
WD03G-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural
WF08BL-06-P	M6	1.6mm/2.0mm OD	PP natural
WD08BL-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural
WF08B-06-P	M6	1.6mm/2.0mm OD	PP natural
WD08B-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural
WF05EL-06-P	M6	1.6mm/2.0mm OD	PP natural
WD05EL-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural
WF05E-06-P	M6	1.6mm/2.0mm OD	PP natural
WD05E-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural
WF06CL-06-P	M6	1.6mm/2.0mm OD	PP natural
WD06CL-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural
WF06C-06-P	M6	1.6mm/2.0mm OD	PP natural
WD06C-06-P	M6	2.5mm/3.0mm/3.2mm OD	PP natural
WD020A-06-P	M6	4.0mm OD	PP natural
Clip			
KC-016-PPS		1.6mm OD	PPS black
KC-020-PPS		2.0mm OD	PPS black
KC-025-PPS		2.5mm OD	PPS black
KC-030-PPS		3.0mm OD	PPS black
KC-032-PPS		3.2mm OD	PPS black



★ Application Note

Installation steps same as flangeless fittings



※ Make sure the ferrule is oriented correctly! The narrow end of the ferrule should towards the nut.

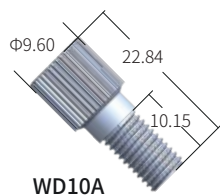
Color Flangeless Fittings

Features:

- Different fitting colors for easy differentiation of flow paths
- Imported PP material, non-toxic, odorless, heat resistant, corrosion resistant, widely used in biological medicine, environmental protection, food industry
- Standard threads and curvature, no gap, no wobble and good sealing with the corresponding threads
- Available in five sizes of 1.6/2.0/2.5/3.0/3.2mm OD rigid tube, with a pressure capacity of 7 kg
- Quick and easy installation, no tools required, cost-effective

Nut

Unit: mm



WD10A

Ferrule



YC-016

For 1.6mm OD tube

YC-020

For 2.0mm OD tube

YC-025

For 2.5mm OD tube

YC-030

For 3.0mm OD tube

YC-032

For 3.2mm OD tube

Model No.	Thread	Tube OD	Material
Nut			
WD10A-1/4-28-P-Red	1/4-28UNF	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Red
WD10A-1/4-28-P-Dark Blue	1/4-28UNF	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Dark Blue
WD10A-1/4-28-P-Beige Blue	1/4-28UNF	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Beige Blue
WD10A-1/4-28-P-Deep Purple	1/4-28UNF	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Deep Purple
WD10A-1/4-28-P-Lemon Yellow	1/4-28UNF	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Lemon Yellow
WD10A-1/4-28-P-Dark Brown	1/4-28UNF	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Dark Brown
WD10A-1/4-28-P-Grass Green	1/4-28UNF	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Grass Green
WD10A-1/4-28-P-Deep Black	1/4-28UNF	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Deep Black
WD10A-M6-P-Red	M6	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Red
WD10A-M6-P-Dark Blue	M6	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Dark Blue
WD10A-M6-P-Beige Blue	M6	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Beige Blue
WD10A-M6-P-Deep Purple	M6	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Deep Purple
WD10A-M6-P-Lemon Yellow	M6	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Lemon Yellow
WD10A-M6-P-Dark Brown	M6	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Dark Brown
WD10A-M6-P-Grass Green	M6	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Grass Green
WD10A-M6-P-Deep Black	M6	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PP Deep Black
WD10A-1/4-28-E-Red	1/4-28UNF	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PTFE Red
WD10A-M6-E-Red	M6	1.6mm/2.0mm2.5mm/3.0mm/3.2mm OD	PTFE Red
Ferrule			
YC-016-P		1.6mm OD	PP natural
YC-020-P		2.0mm OD	PP natural
YC-025-P		2.5mm OD	PP natural
YC-030-P		3.0mm OD	PP natural
YC-032-P		3.2mm OD	PP natural

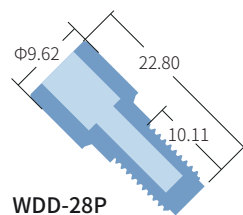


Coned Plug

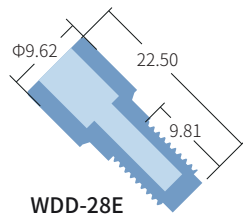
Features:

- For blocking the flow of liquids and gases
- Standard threads and curvature, no gap, no wobble and good sealing with the corresponding threads
- Imported raw material, non-toxic, tasteless, heat and corrosion resistant.
- PP material is widely used in biomedical, environmental protection and food industries; PTFE material is also suitable for chemical industry and other fields

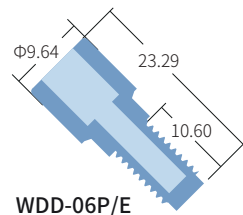
Unit: mm



WDD-28P



WDD-28E

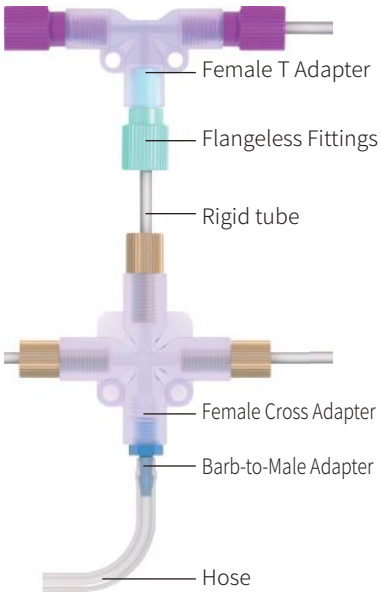


WDD-06P/E

Model No.	Thread	Material
Coned Plug		
WDD-28P	1/4-28UNF	PP natural
WDD-28E	1/4-28UNF	PTFE natural
WDD-06P	M6	PP natural
WDD-06E	M6	PTFE natural



★ Application Note

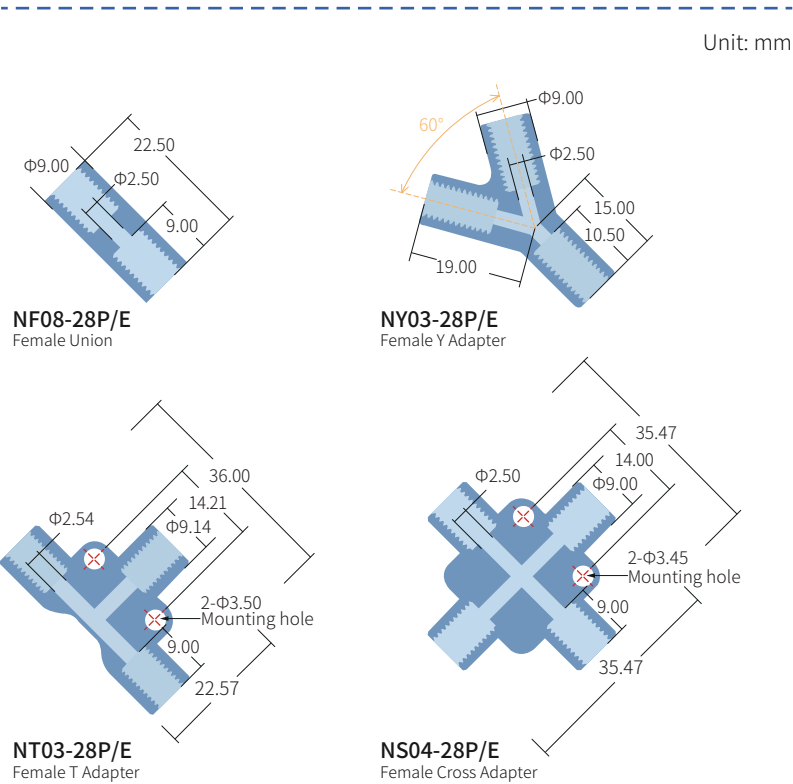


※ Can be connected to 1/4-28 UNF male threaded fittings to allow for any connection between rigid tube and rigid tube, rigid tube and hose, hose and hose of the same or different tube diameters

Female Thread Adapters

Features:

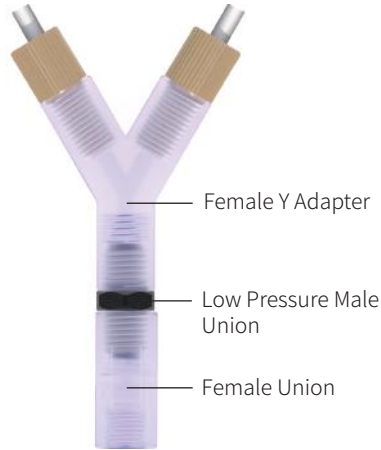
- Standard threads and curvature, no gap, no wobble and good sealing with the corresponding threads
- Imported raw material, non-toxic, tasteless, heat and corrosion resistant.
- PP material is widely used in biomedical, environmental protection and food industries; PTFE material is also suitable for chemical industry and other fields



Model No.	Thread	Material
Female Union		
NF08-28P	1/4-28UNF female thread	PP natural
NF08-28E	1/4-28UNF female thread	PTFE natural
Female Y Adapter		
NY03-28P	1/4-28UNF female thread	PP natural
NY03-28E	1/4-28UNF female thread	PTFE natural
Female T Adapter		
NT03-28P	1/4-28UNF female thread	PP natural
NT03-28E	1/4-28UNF female thread	PTFE natural
Female Cross Adapter		
NS04-28P	1/4-28UNF female thread	PP natural
NS04-28E	1/4-28UNF female thread	PTFE natural



★ Application Note



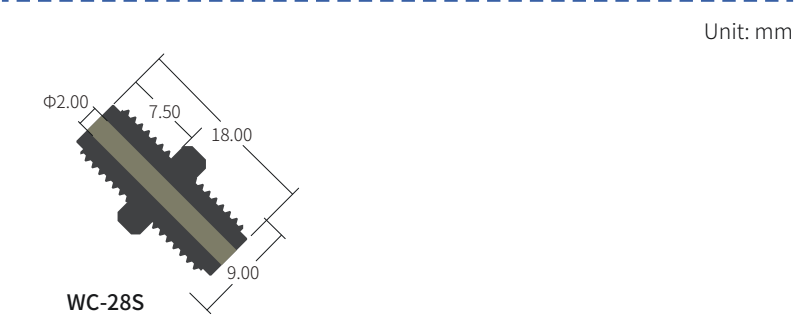
※ Can be used with RUNZE female threaded fittings and threaded bulkhead union to achieve connection of different tubes.

Model No.	Thread	Material
Low Pressure Male Union		
WC-28S	1/4-28UNF	PPS black

Low Pressure Male Union

Features:

- Standard threads and curvature, no gap, no wobble and good sealing with the corresponding threads
- The PPS material has high strength, high toughness, excellent heat and chemical resistance, good electrical property and inherent flame retardancy. The high strength and rigidity at high temperatures makes it a good load-bearing material.
- Suitable temperature range -50°C~150°C

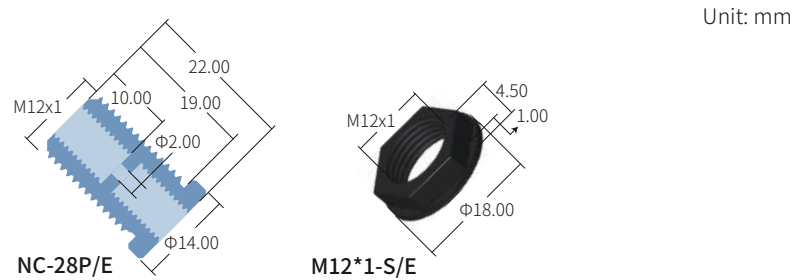
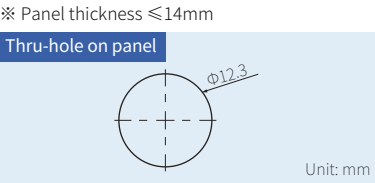
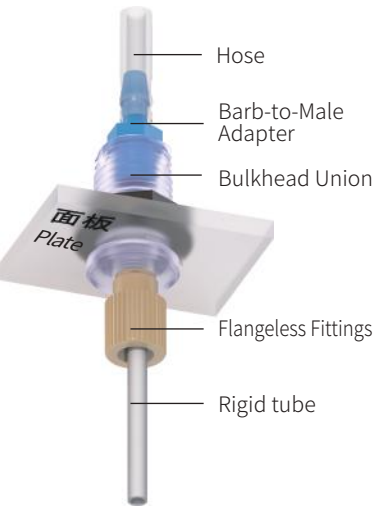


Bulkhead Two-piece Union

Features:

- Can be used RUNZE female threaded fittings and threaded bulkhead union to achieve connection of different tubes.
- Standard threads and curvature, no gap, no wobble and good sealing with the corresponding threads
- Imported raw material, non-toxic, tasteless, heat and corrosion resistant.
- PP material is widely used in biomedical, environmental protection and food industries; PTFE material is also suitable for chemical industry and other fields

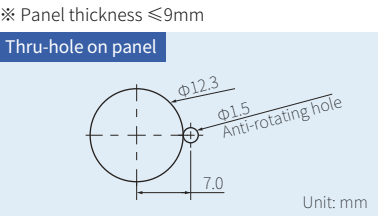
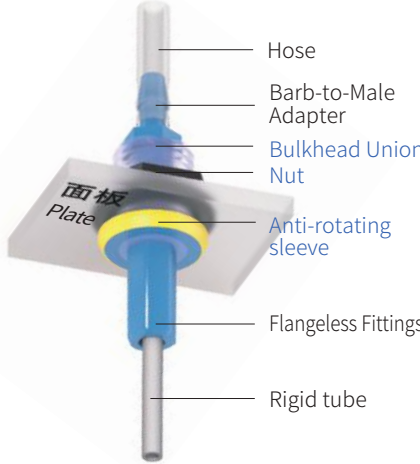
Application Note



SKU	Model No.	Thread	Material
Bulkhead Two-piece Union			
1006090041	NC-28P * M12*1-S	1/4-28UNF female thread	PP natural * PPS black
1006090042	NC-28P * M12*1-E	1/4-28UNF female thread	PP natura * PTFE natural
1006090043	NC-28E * M12*1-S	1/4-28UNF female thread	PTFE natural * PPS black
1006090044	NC-28E * M12*1-E	1/4-28UNF female thread	PTFE natural * PTFE natural



Application Note



Model No.	Thread	Material
Bulkhead Union		
NC01-28P	1/4-28UNF female thread	PP natural
NC01-28E	1/4-28UNF female thread	PTFE natural
Nut		
M12*1-S		PPS black
M12*1-E		PTFE natural
Anti-rotating sleeve		
C12-P-Red		PP Red
C12-P-Black		PP Black
C12-P-Yellow		PP Yellow
C12-P-Green		PP Green
C12-P-Light Blue		PP Light Blue
C12-P-Dark Blue		PP Dark Blue
C12-P-Purple		PP Purple

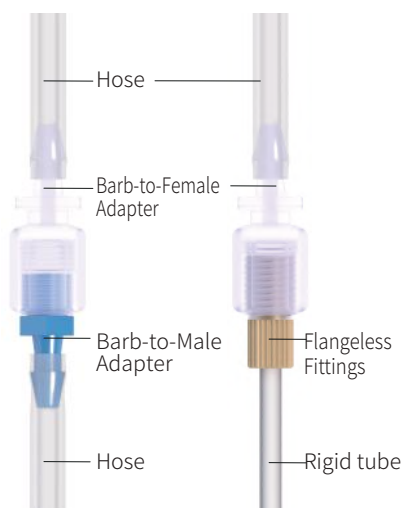


Barb-to-Female Adapter

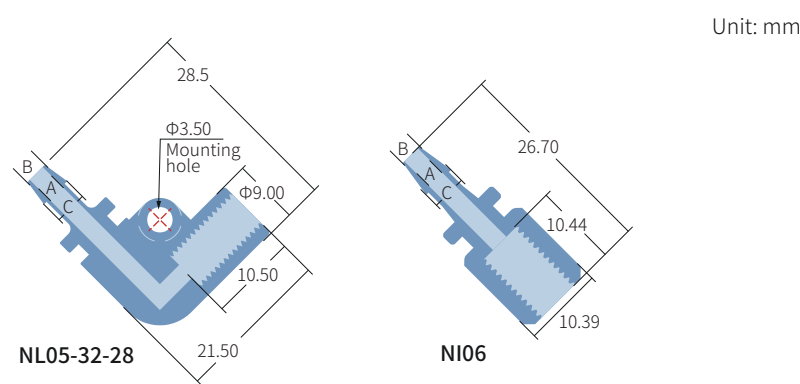
Features:

- Standard threads and curvature, no gap, no wobble and good sealing with the corresponding threads
- Imported raw material, non-toxic, tasteless, heat and corrosion resistant.
- PP material is widely used in biomedical, environmental protection and food industries; PTFE material is also suitable for chemical industry and other fields

Application Note



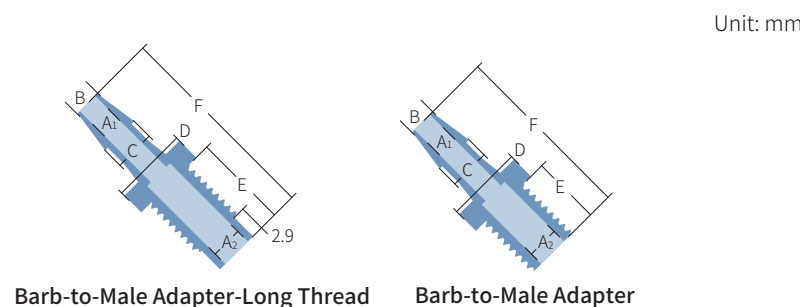
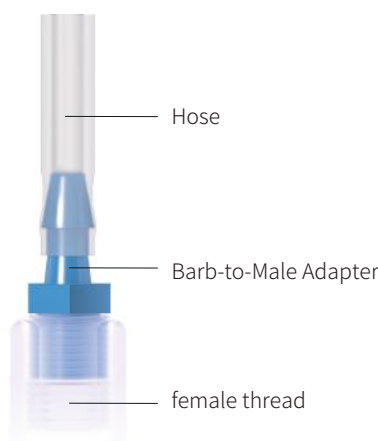
※ Can be used with RUNZE flangeless fitting, flanged fitting and barb-to-male adapter to allow for any connection between rigid tube and rigid tube, rigid tube and hose, hose and hose of the same or different tube diameters



Barb-to-Male Adapter

Features:

- Plug-in for easy and convenient application
- Anti-slip and catch-edge design for no leakage
- Imported raw material, non-toxic, tasteless, heat and corrosion resistant.
- PP material is widely used in biomedical, environmental protection and food industries; PTFE material is also suitable for chemical industry and other fields



Model No.	Tubing ID	Thread	Dimension (mm)			Material
Elbow Barb-to-Female Adapter						
NL05-32-28P	2.4~3.2 mm	1/4-28UNF	A=Φ2.50	B=Φ3.50	C=Φ4.50	PP natural
NL05-32-28E	2.4~3.2 mm	1/4-28UNF	A=Φ2.50	B=Φ3.50	C=Φ4.50	PTFE natural
Straight Barb-to-Female Adapter						
NI06-16-28P	1.0~1.6mm	1/4-28UNF	A=Φ0.99	B=Φ1.60	C=Φ2.90	PP natural
NI06-24-28P	1.6~2.4mm	1/4-28UNF	A=Φ1.59	B=Φ2.40	C=Φ3.80	PP natural
NI06-32-28P	2.4~3.2mm	1/4-28UNF	A=Φ1.97	B=Φ3.50	C=Φ4.50	PP natural
NI06-16-28E	1.0~1.6mm	1/4-28UNF	A=Φ0.99	B=Φ1.60	C=Φ2.90	PTFE natural
NI06-24-28E	1.6~2.4mm	1/4-28UNF	A=Φ1.59	B=Φ2.40	C=Φ3.80	PTFE natural
NI06-32-28E	2.4~3.2mm	1/4-28UNF	A=Φ1.97	B=Φ3.50	C=Φ4.50	PTFE natural

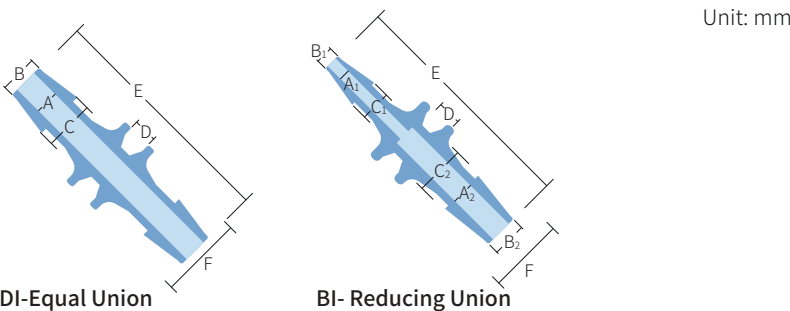
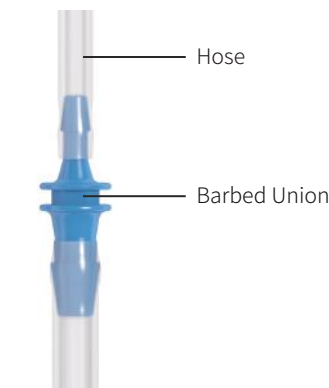
Model No.	Tubing ID	Thread	Dimension (mm)								Material
Barb-to-Male Adapter-Long Thread											
WZ-016L-PP	1.0~1.6 mm	1/4-28UNF	A ₁ =Φ0.99	A ₂ =Φ3.50	B=Φ1.60	C=Φ2.90	D=8.49	E=10.5	F=23.16	PP natural	
WZ-024L-PP	1.6~2.4 mm	1/4-28UNF	A ₁ =Φ1.60	A ₂ =Φ3.50	B=Φ2.40	C=Φ3.80	D=8.49	E=10.5	F=23.16	PP natural	
WZ-032L-PP	2.4~3.2 mm	1/4-28UNF	A ₁ =Φ2.40	A ₂ =Φ3.50	B=Φ3.20	C=Φ4.50	D=8.49	E=10.5	F=23.16	PP natural	
WZ-040L-PP	3.2~4.0 mm	1/4-28UNF	A ₁ =Φ3.50	A ₂ =Φ3.50	B=Φ4.20	C=Φ6.00	D=8.49	E=10.5	F=26.76	PP natural	
WZ-048L-PP	4.0~4.8 mm	1/4-28UNF	A ₁ =Φ4.00	A ₂ =Φ4.00	B=Φ4.80	C=Φ6.80	D=8.49	E=10.5	F=27.06	PP natural	
WZ-016L-PTFE	1.0~1.6 mm	1/4-28UNF	A ₁ =Φ0.99	A ₂ =Φ3.50	B=Φ1.60	C=Φ2.90	D=8.49	E=10.5	F=23.16	PTFE natural	
WZ-024L-PTFE	1.6~2.4 mm	1/4-28UNF	A ₁ =Φ1.60	A ₂ =Φ3.50	B=Φ2.40	C=Φ3.80	D=8.49	E=10.5	F=23.16	PTFE natural	
WZ-032L-PTFE	2.4~3.2 mm	1/4-28UNF	A ₁ =Φ2.40	A ₂ =Φ3.50	B=Φ3.20	C=Φ4.50	D=8.49	E=10.5	F=23.16	PTFE natural	
WZ-040L-PTFE	3.2~4.0 mm	1/4-28UNF	A ₁ =Φ3.50	A ₂ =Φ3.50	B=Φ4.20	C=Φ6.00	D=8.49	E=10.5	F=26.76	PTFE natural	
WZ-048L-PTFE	4.0~4.8 mm	1/4-28UNF	A ₁ =Φ4.00	A ₂ =Φ4.00	B=Φ4.80	C=Φ6.80	D=8.49	E=10.5	F=27.06	PTFE natural	
Barb-to-Male Adapter											
WZ-016-PP	1.0~1.6 mm	1/4-28UNF	A ₁ =Φ1.00	A ₂ =Φ4.00	B=Φ1.60	C=Φ2.90	D=7.35	E=6	F=18.6	PP natural	
WZ-024-PP	1.6~2.4 mm	1/4-28UNF	A ₁ =Φ1.57	A ₂ =Φ4.00	B=Φ2.50	C=Φ3.80	D=8.49	E=6.2	F=18.8	PP natural	
WZ-032-PP	2.4~3.2 mm	1/4-28UNF	A ₁ =Φ2.36	A ₂ =Φ4.00	B=Φ3.20	C=Φ4.20	D=8.49	E=6.2	F=18.8	PP natural	
WZ-040-PP	3.2~4.0 mm	1/4-28UNF	A ₁ =Φ2.96	A ₂ =Φ3.94	B=Φ4.00	C=Φ6.00	D=8.49	E=6.09	F=19.8	PP natural	
WZ-048-PP	4.0~4.8 mm	1/4-28UNF	A ₁ =Φ3.94	A ₂ =Φ4.50	B=Φ4.80	C=Φ6.80	D=8.00	E=6	F=22.5	PP natural	
M8-064-PP	4.8~6.4 mm	M8	A ₁ =Φ5.42	A ₂ =Φ5.42	B=Φ6.40	C=Φ8.40	D=11.32	E=8	F=30.1	PP natural	
M10-087-PP	6.4~8.7 mm	M10	A ₁ =Φ7.39	A ₂ =Φ7.88	B=Φ8.50	C=Φ10.70	D=13.63	E=10	F=32.6	PP natural	



Barbed Union

Features:

- Plug-in hose connectors for easy and convenient application
- Anti-slip and catch-edge design for no leakage
- Imported raw material, non-toxic, tasteless, heat and corrosion resistant
- PP material is widely used in biomedical, environmental protection and food industries



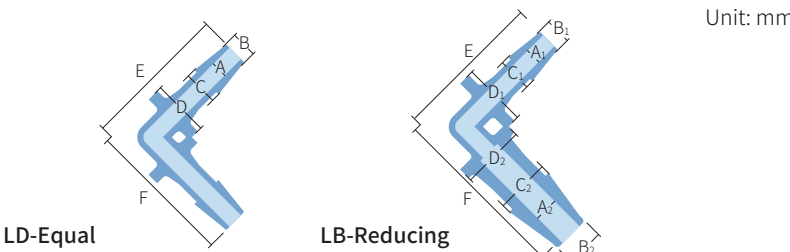
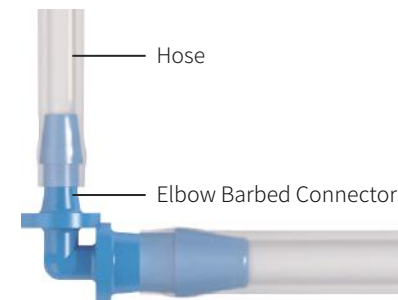
Model No.	Tubing ID	Dimension (mm)						Material
Equal Union								
DI-016	1.0~1.6 mm	A=Φ0.99	B=Φ1.60	C=Φ2.80	D=2.0	E=18	F=Φ7	PP natural
DI-024	1.6~2.4 mm	A=Φ1.58	B=Φ2.40	C=Φ3.40	D=2.0	E=20	F=Φ7	PP natural
DI-032	2.4~3.2 mm	A=Φ1.97	B=Φ3.20	C=Φ4.20	D=2.0	E=20	F=Φ7	PP natural
DI-040	3.2~4.0 mm	A=Φ2.46	B=Φ4.00	C=Φ6.00	D=2.5	E=33.2	F=Φ10	PP natural
DI-048	4.0~4.8 mm	A=Φ2.96	B=Φ4.80	C=Φ6.80	D=1.8	E=33.2	F=Φ10	PP natural
DI-064	4.8~6.4 mm	A=Φ4.93	B=Φ6.40	C=Φ8.40	D=3.0	E=40	F=Φ14	PP natural
DI-087	6.4~8.7 mm	A=Φ6.40	B=Φ8.70	C=Φ10.70	D=3.0	E=40	F=Φ14	PP natural
Reducing Union								
BI-016/024	(1.0~1.6) / (1.6~2.4) mm	A ₁ =Φ0.99 A ₂ =Φ1.70	B ₁ =Φ1.60 B ₂ =Φ2.40	C ₁ =Φ2.80 C ₂ =Φ3.40	D=2.0	E=19.5	F=Φ7	PP natural
BI-016/032	(1.0~1.6) / (2.4~3.2) mm	A ₁ =Φ0.99 A ₂ =Φ1.97	B ₁ =Φ1.60 B ₂ =Φ3.20	C ₁ =Φ2.80 C ₂ =Φ4.20	D=2.0	E=21.5	F=Φ7	PP natural
BI-024/032	(1.6~2.4) / (2.4~3.2) mm	A ₁ =Φ1.58 A ₂ =Φ1.97	B ₁ =Φ2.40 B ₂ =Φ3.20	C ₁ =Φ3.40 C ₂ =Φ4.20	D=2.0	E=21.5	F=Φ7	PP natural
BI-024/040	(1.6~2.4) / (3.2~4.0) mm	A ₁ =Φ1.58 A ₂ =Φ2.46	B ₁ =Φ2.40 B ₂ =Φ4.00	C ₁ =Φ3.40 C ₂ =Φ6.00	D=2.0	E=27.9	F=Φ7	PP natural
BI-032/040	(2.4~3.2) / (3.2~4.0) mm	A ₁ =Φ1.97 A ₂ =Φ2.46	B ₁ =Φ3.20 B ₂ =Φ4.00	C ₁ =Φ4.20 C ₂ =Φ6.00	D=2.0	E=28.9	F=Φ10	PP natural
BI-032/048	(2.4~3.2) / (4.0~4.8) mm	A ₁ =Φ1.97 A ₂ =Φ3.45	B ₁ =Φ3.20 B ₂ =Φ4.80	C ₁ =Φ4.20 C ₂ =Φ6.80	D=2.0	E=30.7	F=Φ10	PP natural
BI-040/048	(3.2~4.0) / (4.0~4.8) mm	A ₁ =Φ2.96 A ₂ =Φ3.45	B ₁ =Φ4.00 B ₂ =Φ4.80	C ₁ =Φ6.00 C ₂ =Φ6.80	D=2.0	E=33.1	F=Φ10	PP natural
BI-040/064	(3.2~4.0) / (4.8~6.4) mm	A ₁ =Φ2.96 A ₂ =Φ5.42	B ₁ =Φ4.00 B ₂ =Φ6.35	C ₁ =Φ6.00 C ₂ =Φ8.35	D=2.5	E=36.75	F=Φ14	PP natural
BI-048/064	(4.0~4.8) / (4.8~6.4) mm	A ₁ =Φ3.94 A ₂ =Φ5.42	B ₁ =Φ4.80 B ₂ =Φ6.35	C ₁ =Φ6.80 C ₂ =Φ8.35	D=2.5	E=36.85	F=Φ14	PP natural
BI-048/087	(4.0~4.8) / (6.4~8.7) mm	A ₁ =Φ3.45 A ₂ =Φ6.90	B ₁ =Φ4.80 B ₂ =Φ8.70	C ₁ =Φ6.80 C ₂ =Φ10.70	D=2.5	E=36.85	F=Φ14	PP natural
BI-064/087	(4.8~6.4) / (6.4~8.7) mm	A ₁ =Φ4.93 A ₂ =Φ6.90	B ₁ =Φ6.35 B ₂ =Φ8.70	C ₁ =Φ8.35 C ₂ =Φ10.70	D=2.5	E=40	F=Φ14	PP natural



Elbow Barbed Connector

Features:

- Plug-in hose connectors for easy and convenient application
- Anti-slip and catch-edge design for no leakage
- Imported raw material, non-toxic, tasteless, heat and corrosion resistant
- PP material is widely used in biomedical, environmental protection and food industries



Model No.	Tubing ID	Dimension (mm)						Material
Equal								
LD-016	1.0~1.6 mm	A=Φ0.79	B=Φ1.60	C=Φ2.80	D=Φ5	E=14.9	F=14.9	PP natural
LD-024	1.6~2.4 mm	A=Φ1.58	B=Φ2.40	C=Φ3.60	D=Φ5	E=14.7	F=14.7	PP natural
LD-032	2.4~3.2 mm	A=Φ1.97	B=Φ3.20	C=Φ4.20	D=Φ7	E=18	F=18	PP natural
LD-040	3.2~4.0 mm	A=Φ2.46	B=Φ4.00	C=Φ6.00	D=Φ8	E=22.9	F=22.9	PP natural
LD-048	4.0~4.8 mm	A=Φ2.96	B=Φ4.80	C=Φ6.80	D=Φ9	E=23.9	F=23.9	PP natural
LD-064	4.8~6.4 mm	A=Φ4.93	B=Φ6.40	C=Φ8.40	D=Φ12	E=32.5	F=32.5	PP natural
LD-087	6.4~8.7 mm	A=Φ6.40	B=Φ8.70	C=Φ10.70	D=Φ14	E=33.8	F=35	PP natural
LD-095	8.7~9.5 mm	A=Φ7.39	B=Φ9.50	C=Φ11.50	D=Φ15	E=38	F=38	PP natural
Reducing								
LB-016/024	(1.0~1.6) / (1.6~2.4) mm	A ₁ =Φ0.79 A ₂ =Φ1.58	B ₁ =Φ1.60 B ₂ =Φ2.40	C ₁ =Φ2.80 C ₂ =Φ3.60	D ₁ =Φ5 D ₂ =Φ5.5	E=14.7	F=14.9	PP natural
LB-016/032	(1.0~1.6) / (2.4~3.2) mm	A ₁ =Φ0.79 A ₂ =Φ1.97	B ₁ =Φ1.60 B ₂ =Φ3.20	C ₁ =Φ2.80 C ₂ =Φ4.20	D ₁ =Φ5 D ₂ =Φ5	E=14.7	F=15.7	PP natural
LB-024/032	(1.6~2.4) / (2.4~3.2) mm	A ₁ =Φ1.58 A ₂ =Φ1.97	B ₁ =Φ2.40 B ₂ =Φ3.20	C ₁ =Φ3.60 C ₂ =Φ4.20	D ₁ =Φ5 D ₂ =Φ6	E=15.7	F=16.7	PP natural
LB-024/040	(1.6~2.4) / (3.2~4.0) mm	A ₁ =Φ1.58 A ₂ =Φ2.46	B ₁ =Φ2.40 B ₂ =Φ4.00	C ₁ =Φ3.60 C ₂ =Φ6.00	D ₁ =Φ6 D ₂ =Φ6	E=15.7	F=20.6	PP natural
LB-032/040	(2.4~3.2) / (3.2~4.0) mm	A ₁ =Φ1.97 A ₂ =Φ2.46	B ₁ =Φ3.20 B ₂ =Φ4.00	C ₁ =Φ4.20 C ₂ =Φ6.00	D ₁ =Φ7 D ₂ =Φ7	E=18	F=21.9	PP natural
LB-032/048	(2.4~3.2) / (4.0~4.8) mm	A ₁ =Φ1.97 A ₂ =Φ2.96	B ₁ =Φ3.20 B ₂ =Φ4.80	C ₁ =Φ4.20 C ₂ =Φ6.80	D ₁ =Φ8 D ₂ =Φ8	E=19	F=22.9	PP natural
LB-040/048	(3.2~4.0) / (4.0~4.8) mm	A ₁ =Φ2.46 A ₂ =Φ2.96	B ₁ =Φ4.00 B ₂ =Φ4.80	C ₁ =Φ6.00 C ₂ =Φ6.80	D ₁ =Φ8 D ₂ =Φ8	E=22.9	F=22.9	PP natural
LB-040/064	(3.2~4.0) / (4.8~6.4) mm	A ₁ =Φ2.46 A ₂ =Φ4.93	B ₁ =Φ4.00 B ₂ =Φ6.40	C ₁ =Φ6.00 C ₂ =Φ8.40	D ₁ =Φ10 D ₂ =Φ10	E=24.9	F=31	PP natural
LB-048/064	(4.0~4.8) / (4.8~6.4) mm	A ₁ =Φ2.96 A ₂ =Φ4.93	B ₁ =Φ4.80 B ₂ =Φ6.40	C ₁ =Φ6.80 C ₂ =Φ8.40	D ₁ =Φ12 D ₂ =Φ12	E=26.9	F=33	PP natural
LB-048/087	(4.0~4.8) / (6.4~8.7) mm	A ₁ =Φ2.96 A ₂ =Φ6.40	B ₁ =Φ4.80 B ₂ =Φ8.70	C ₁ =Φ6.80 C ₂ =Φ10.70	D ₁ =Φ12 D ₂ =Φ12	E=26.9	F=33	PP natural
LB-064/087	(4.8~6.4) / (6.4~8.7) mm	A ₁ =Φ4.93 A ₂ =Φ6.40	B ₁ =Φ6.40 B ₂ =Φ8.70	C ₁ =Φ8.40 C ₂ =Φ10.70	D ₁ =Φ15 D ₂ =Φ15	E=35.5	F=36	PP natural
LB-064/095	(4.8~6.4) / (8.7~9.5) mm	A ₁ =Φ4.93 A ₂ =Φ7.39	B ₁ =Φ6.40 B ₂ =Φ9.50	C ₁ =Φ8.40 C ₂ =Φ11.50	D ₁ =Φ15 D ₂ =Φ15	E=35.5	F=38	PP natural
LB-087/095	(6.4~8.7) / (8.7~9.5) mm	A ₁ =Φ6.40 A ₂ =Φ7.39	B ₁ =Φ8.70 B ₂ =Φ9.50	C ₁ =Φ10.70 C ₂ =Φ11.50	D ₁ =Φ14 D ₂ =Φ14	E=35	F=37	PP natural



T Barbed Connector

Features:

- Plug-in hose connectors for easy and convenient application
- Anti-slip and catch-edge design for no leakage
- Imported raw material, non-toxic, tasteless, heat and corrosion resistant
- PP material is widely used in biomedical, environmental protection and food industries

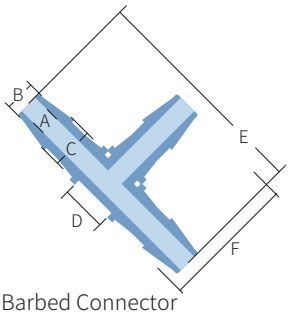
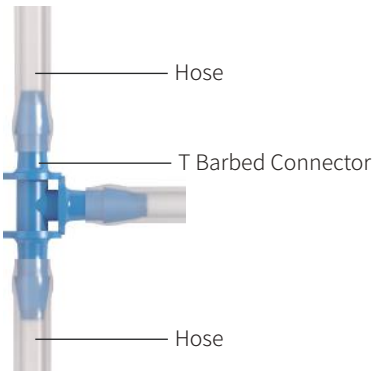


Y Barbed Connector

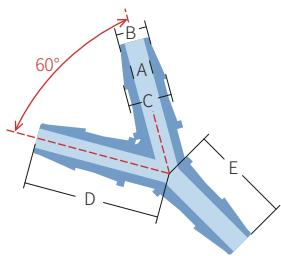
Features:

- Plug-in hose connectors for easy and convenient application
- Anti-slip and catch-edge design for no leakage
- Imported raw material, non-toxic, tasteless, heat and corrosion resistant
- PP material is widely used in biomedical, environmental protection and food industries

Unit: mm



T-T Barbed Connector



Y-Y Barbed Connector

Model No.	Tubing ID	Dimension (mm)						Material
T Barbed Connector								
T-016	0.8~1.6mm	A=Φ1.08	B=Φ1.82	C=Φ2.45	D=2.2	E=12.8	F=7.73	PP natural
T-020	1.6~2.0 mm	A=Φ1.08	B=Φ2.00	C=Φ3.00	D=3.5	E=17.7	F=10.9	PP natural
T-024	2.0~2.4 mm	A=Φ1.58	B=Φ2.50	C=Φ3.50	D=3.8	E=18.6	F=11.3	PP natural
T-032	2.4~3.2 mm	A=Φ2.36	B=Φ3.30	C=Φ4.80	D=5.2	E=26	F=15.65	PP natural
T-040	3.2~4.0 mm	A=Φ2.96	B=Φ4.00	C=Φ6.00	D=8.8	E=39	F=24.5	PP natural
T-048	4.0~4.8 mm	A=Φ3.94	B=Φ4.80	C=Φ6.80	D=8.8	E=39	F=24.5	PP natural
T-064	4.8~6.4 mm	A=Φ5.42	B=Φ6.40	C=Φ8.70	D=11	E=52.4	F=32.2	PP natural
T-087	6.4~8.7 mm	A=Φ7.78	B=Φ8.70	C=Φ10.70	D=13	E=55	F=34.5	PP natural
Y Barbed Connector								
Y-016	0.8~1.6mm	A=Φ1.18	B=Φ1.82	C=Φ2.45	D=7.12	E=6.15		PP natural
Y-020	1.6~2.0 mm	A=Φ1.08	B=Φ2.00	C=Φ2.80	D=8.00	E=7.00		PP natural
Y-024	2.0~2.4 mm	A=Φ1.58	B=Φ2.50	C=Φ3.50	D=10.98	E=8.04		PP natural
Y-032	2.4~3.2 mm	A=Φ2.36	B=Φ3.30	C=Φ4.80	D=13.80	E=11.30		PP natural
Y-040	3.2~4.0 mm	A=Φ3.00	B=Φ4.06	C=Φ6.09	D=21.21	E=19.18		PP natural
Y-048	4.0~4.8 mm	A=Φ4.00	B=Φ4.87	C=Φ6.90	D=21.30	E=19.30		PP natural
Y-064	4.8~6.4 mm	A=Φ5.50	B=Φ6.45	C=Φ8.48	D=28.93	E=25.88		PP natural
Y-087	6.4~8.7 mm	A=Φ7.50	B=Φ8.63	C=Φ10.86	D=31.68	E=26.30		PP natural

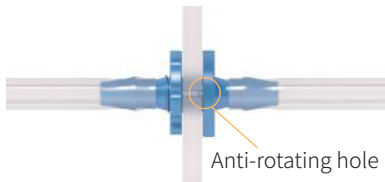


Barbed Bulkhead Union

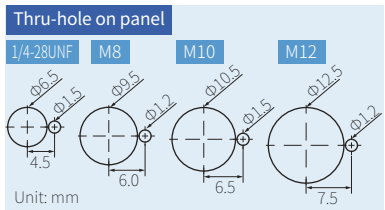
Features:

- Barbed bulkhead union for hose connection
- Anti-slip and catch-edge design for no leakage
- Imported raw material, non-toxic, tasteless, heat and corrosion resistant.
- PP material is widely used in biomedical, environmental protection and food industries

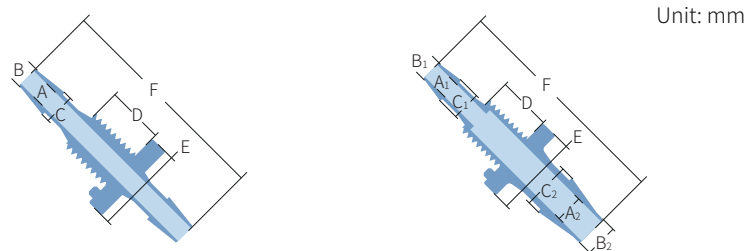
★ Application Note



※ Panel thickness≤3mm



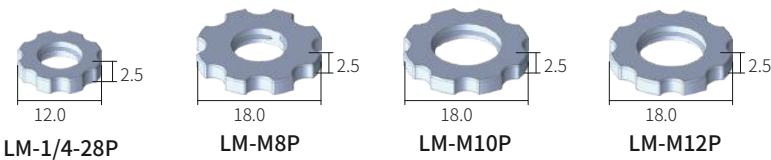
※Nut is also available in PTFE material
※M10*1 nut on Page 89 is optional for M10 thread fittings



Unit: mm

DC-Equal Bulkhead Union

BC-Reducing Bulkhead Union



SKU	Model No.	Thread	Tubing ID	Dimension (mm)						Material	
Equal Bulkhead Union											
1008030046	DC-016-1/4-28-016P * LM-1/4-28P	1/4-28UNF	1.0~1.6 mm	A=Φ0.99	B=Φ1.60	C=Φ2.80	D=7.6	E=12	F=27.7	PP natural	
1008030047	DC-024-1/4-28-024P * LM-1/4-28P	1/4-28UNF	1.6~2.4 mm	A=Φ1.58	B=Φ2.40	C=Φ3.40	D=7.7	E=12	F=27.7	PP natural	
1008030048	DC-032-1/4-28-032P * LM-1/4-28P	1/4-28UNF	2.4~3.2 mm	A=Φ2.46	B=Φ3.20	C=Φ4.20	D=7.7	E=12	F=29.7	PP natural	
1008030049	DC-040-M8-040P * LM-M8P	M8	3.2~4.0 mm	A=Φ2.46	B=Φ4.00	C=Φ6.00	D=8.0	E=18	F=36.51	PP natural	
1008030050	DC-048-M8-048P * LM-M8P	M8	4.0~4.8 mm	A=Φ3.94	B=Φ4.80	C=Φ6.80	D=8.0	E=18	F=37.3	PP natural	
1008030051	DC-064-M10-064P * LM-M10P	M10	4.8~6.4 mm	A=Φ5.42	B=Φ6.40	C=Φ8.40	D=8.0	E=18	F=48.7	PP natural	
1008030061	DC-087-M12-087P * LM-M12P	M12	6.4~8.7 mm	A=Φ7.39	B=Φ8.70	C=Φ10.70	D=8.0	E=18	F=49.7	PP natural	
Reducing Bulkhead Union											
1008030052	BC-016-1/4-28-024P * LM-1/4-28P	1/4-28UNF	1.0~1.6 mm 1.6~2.4 mm	A ₁ =Φ0.99 A ₂ =Φ1.58	B ₁ =Φ1.60 B ₂ =Φ2.40	C ₁ =Φ2.80 C ₂ =Φ3.40	D=7.7	E=12	F=27.7	PP natural	
1008030053	BC-016-1/4-28-032P * LM-1/4-28P	1/4-28UNF	1.0~1.6 mm 2.4~3.2 mm	A ₁ =Φ0.99 A ₂ =Φ2.46	B ₁ =Φ1.60 B ₂ =Φ3.20	C ₁ =Φ2.80 C ₂ =Φ4.20	D=7.6	E=12	F=27.7	PP natural	
1008030054	BC-024-1/4-28-032P * LM-1/4-28P	1/4-28UNF	1.6~2.4 mm 2.4~3.2 mm	A ₁ =Φ1.58 A ₂ =Φ2.46	B ₁ =Φ2.40 B ₂ =Φ3.20	C ₁ =Φ3.40 C ₂ =Φ4.20	D=7.6	E=12	F=28.5	PP natural	
1008030056	BC-024-1/4-28-048P * LM-1/4-28P	1/4-28UNF	1.6~2.4 mm 4.0~4.8 mm	A ₁ =Φ1.58 A ₂ =Φ3.94	B ₁ =Φ2.40 B ₂ =Φ4.80	C ₁ =Φ3.40 C ₂ =Φ6.80	D=7.7	E=12	F=32.4	PP natural	
1008030055	BC-032-1/4-28-048P * LM-1/4-28P	1/4-28UNF	2.4~3.2 mm 4.0~4.8 mm	A ₁ =Φ2.46 A ₂ =Φ3.94	B ₁ =Φ3.20 B ₂ =Φ4.80	C ₁ =Φ4.20 C ₂ =Φ6.80	D=7.7	E=12	F=32.4	PP natural	
1008030057	BC-032-1/4-28-064P * LM-1/4-28P	1/4-28UNF	2.4~3.2 mm 4.8~6.4 mm	A ₁ =Φ2.46 A ₂ =Φ5.42	B ₁ =Φ3.20 B ₂ =Φ6.40	C ₁ =Φ4.20 C ₂ =Φ8.40	D=7.7	E=12	F=33.5	PP natural	
1008030058	BC-048-M8-064P * LM-M8P	M8	3.2~4.8 mm 4.8~6.4 mm	A ₁ =Φ3.94 A ₂ =Φ5.42	B ₁ =Φ4.80 B ₂ =Φ6.40	C ₁ =Φ6.80 C ₂ =Φ8.40	D=8.0	E=18	F=39.9	PP natural	
1008030059	BC-064-M10-087P * LM-M10P	M10	4.8~6.4 mm 6.4~8.7 mm	A ₁ =Φ5.42 A ₂ =Φ7.93	B ₁ =Φ6.40 B ₂ =Φ8.70	C ₁ =Φ8.40 C ₂ =Φ10.70	D=8.0	E=18	F=49.2	PP natural	
1008030060	BC-064-M10-127P * LM-M10P	M10	4.8~6.4 mm 8.7~12.7 mm	A ₁ =Φ4.93 A ₂ =Φ10.34	B ₁ =Φ6.40 B ₂ =Φ12.70	C ₁ =Φ8.40 C ₂ =Φ14.70	D=8.0	E=18	F=48.5	PP natural	
1008030062	BC-087-M12-127P * LM-M12P	M12	6.4~8.7 mm 8.7~12.7 mm	A ₁ =Φ7.39 A ₂ =Φ10.34	B ₁ =Φ8.70 B ₂ =Φ12.70	C ₁ =Φ10.70 C ₂ =Φ14.70	D=8.0	E=18	F=52.7	PP natural	

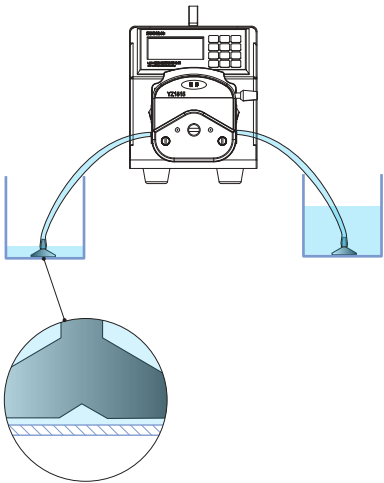
Barbed Sink Head



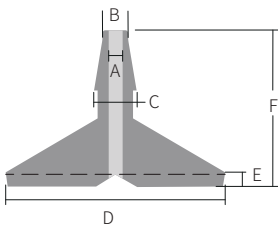
Features:

- Sink the hose. Commonly used to connect the external tube of the peristaltic pump to prevent the tubing from twisting, floating and the liquid splashing
- Plug-in type, simple & convenient to use. Anti-slip and catch-edge design for no leakage
- SUS304 stainless steel material, safe and hygienic, featured with high strength, excellent heat resistance, anti-corrosion and no magnetic

★ Application Note



The bottom of the barbed sink head is designed with a 120° groove, which enables the liquid to flow out stably in time while maintaining its own stability.



Unit: mm

Model No.	Tubing ID	Dimension (mm)						Material
Barbed Sink Head								
CT-016	1.0~1.6 mm	A=Φ0.99	B=Φ1.60	C=Φ2.80	D=Φ15	E=1	F=10.7	SUS304
CT-024	1.6~2.4 mm	A=Φ1.58	B=Φ2.40	C=Φ3.40	D=Φ25	E=2	F=14	SUS304
CT-032	2.4~3.2 mm	A=Φ1.97	B=Φ3.20	C=Φ4.20	D=Φ25.7	E=2.5	F=15.2	SUS304
CT-040	3.2~4.0 mm	A=Φ2.96	B=Φ4.00	C=Φ6.00	D=Φ27.3	E=3	F=20	SUS304
CT-048	4.0~4.8 mm	A=Φ3.45	B=Φ4.80	C=Φ6.80	D=Φ35.6	E=3.5	F=23	SUS304
CT-064	4.8~6.4 mm	A=Φ4.93	B=Φ6.40	C=Φ8.40	D=Φ40.7	E=4	F=25.8	SUS304
CT-087	6.4~8.7 mm	A=Φ6.40	B=Φ8.70	C=Φ10.70	D=Φ45.2	E=5	F=27	SUS304

Barbed Check Valve

Features:

- Coned check valve, spring check valve and diaphragm check valve for your choice
- Ultrasonic welding, simple structure:
- Plug-in hose connectors for easy and convenient application. Anti-slip and catch-edge design for no leakage
- Imported raw material, widely used in biomedical, environmental protection and food industries, multiple materials are also available for the chemical industry and other applications

★ Tips

Diaphragm check valve



Unlock pressure>2kPa
Back pressure<300kPa

Coned check valve



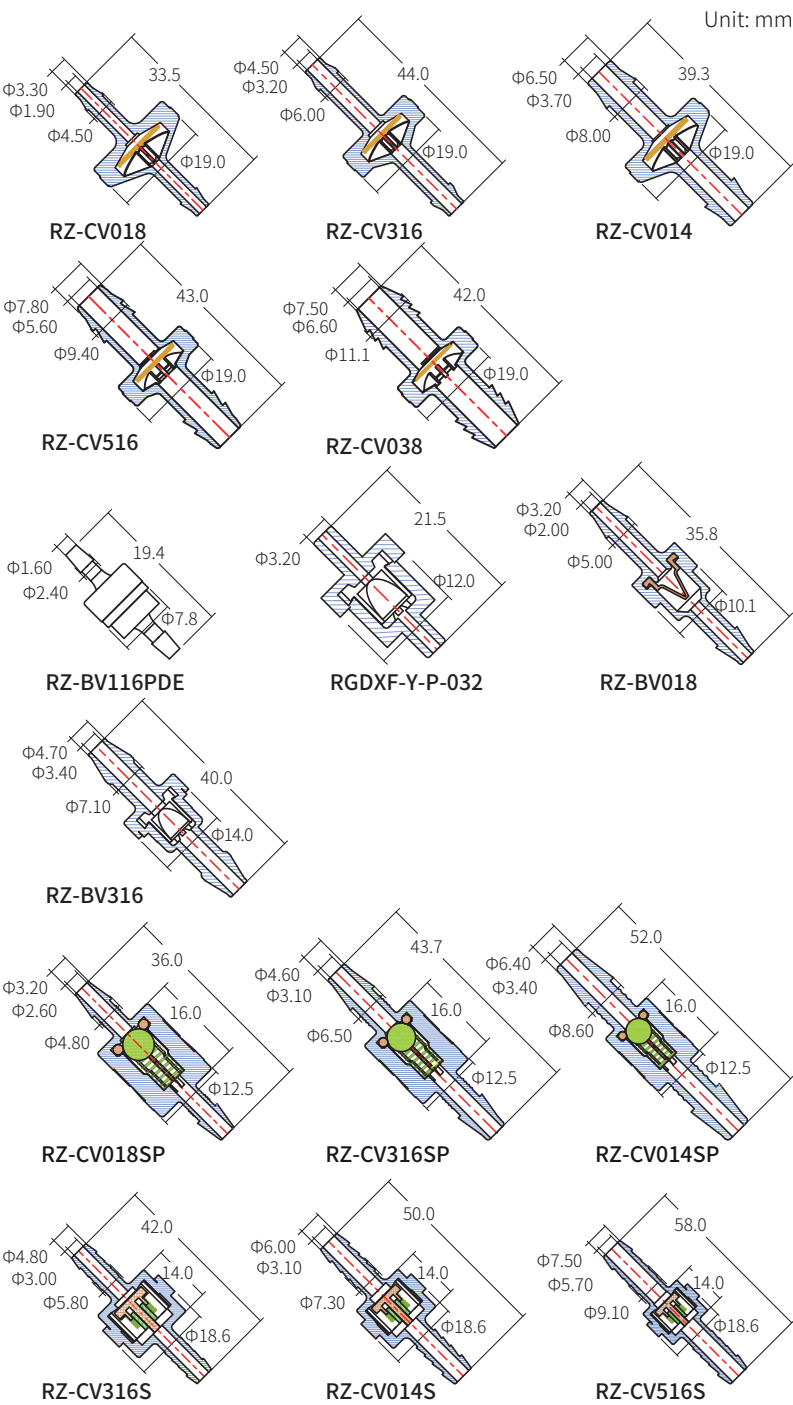
Unlock pressure>2kPa
Back pressure<300kPa

Spring check valve



Unlock pressure>5kPa
Back pressure<300kPa

Note:Unlock pressure vary from the elasticity of spring



Model No.	Barbed End	Tubing ID	Diaphragm Material	Valve Material	
Diaphragm check valve					
RZ-CV018PAF	1/8	2.5~4.0 mm	Viton	Nylon(two color)	
RZ-CV018ABS	1/8	2.5~4.0 mm	Silicone	ABS(two color)	
RZ-CV018PPF	1/8	2.5~4.0 mm	Viton	PP	
RZ-CV018PPE	1/8	2.5~4.0 mm	EPDM	PP	
RZ-CV018PDF	1/8	2.5~4.0 mm	Viton	PVDF	
RZ-CV018PCF	1/8	2.5~4.0 mm	Viton	PC(transparent)	
RZ-CV316PAF	3/16	4.0~5.5 mm	Viton	Nylon(two color)	
RZ-CV316ABS	3/16	4.0~5.5 mm	Silicone	ABS(two color)	
RZ-CV316PPF	3/16	4.0~5.5 mm	Viton	PP	
RZ-CV316PDF	3/16	4.0~5.5 mm	Viton	PVDF	
RZ-CV316PCF	3/16	4.0~5.5 mm	Viton	PC(transparent)	
RZ-CV014PAF	1/4	6.0~7.5 mm	Viton	Nylon(two color)	
RZ-CV014ABS	1/4	6.0~7.5 mm	Silicone	ABS	
RZ-CV014PPF	1/4	6.0~7.5 mm	Viton	PP	
RZ-CV014PDF	1/4	6.0~7.5 mm	Viton	PVDF	
RZ-CV014PCF	1/4	6.0~7.5 mm	Viton	PC(transparent)	
RZ-CV516PAF	5/16	7.0~9.0 mm	Viton	Nylon(two color)	
RZ-CV516ABS	5/16	7.0~9.0 mm	Silicone	ABS(two color)	
RZ-CV516PPF	5/16	7.0~9.0 mm	Viton	PP	
RZ-CV516PDF	5/16	7.0~9.0 mm	Viton	PVDF	
RZ-CV516PCF	5/16	7.0~9.0 mm	Viton	PC(transparent)	
RZ-CV038PAF	3/8	8.5~10.5 mm	Viton	Nylon(two color)	
RZ-CV038ABS	3/8	8.5~10.5 mm	Silicone	ABS(two color)	
RZ-CV038PPF	3/8	8.5~10.5 mm	Viton	PP	
RZ-CV038PDF	3/8	8.5~10.5 mm	Viton	PVDF	
RZ-CV038PCF	3/8	8.5~10.5 mm	Viton	PC(transparent)	
Coned check valve					
Model No.	Barbed End	Tubing ID	Sealing Material	Valve Material	
RZ-BV116PDE	1/16	1.0~1.6 mm	EPDM	PVDF	
RZ-BV116PPS	1/16	1.0~1.6 mm	Silicone	PP	
RGDXF-Y-P-032	1/8	1.6~2.4 mm	Viton Silicone	PP	
RZ-BV018PPF	1/8	2.5~4.0 mm	Viton	PP	
RZ-BV018PPS	1/8	2.5~4.0 mm	Silicone	PP	
RZ-BV316PPFVMQ	3/16	4.5~6.0 mm	Viton Silicone	PP	
RZ-BV316PDFVMQ	3/16	4.5~6.0 mm	Viton Silicone	PVDF	
Spring check valve					
Model No.	Barbed End	Tubing ID	Valve Material	Diaphragm Material	Valve Material
RZ-CV018SPPOF	1/8	2.5~4.0 mm	SUS316L	Viton	PP
RZ-CV018SPDOF	1/8	2.5~4.0 mm	SUS316L	Viton	PVDF
RZ-CV316SPPOF	3/16	4.5~6.0 mm	SUS316L	Viton	PP
RZ-CV316SPDOF	3/16	4.5~6.0 mm	SUS316L	Viton	PVDF
RZ-CV014SPPOF	1/4	6.0~7.5 mm	SUS316L	Viton	PP
RZ-CV014SPDOF	1/4	6.0~7.5 mm	SUS316L	Viton	PVDF
RZ-CV316SPAF	3/16	4.5~5.5 mm	SUS316L	Viton	nylon
RZ-CV014SPAF	1/4	6.0~7.0 mm	SUS316L	Viton	nylon
RZ-CV516SPAF	5/16	7.0~8.5 mm	SUS316L	Viton	nylon

Luer Adapter

Features:

- Luer adapter is standardized micro-permeation-free adapters that are usually connected by male and female luer part
- Simplifies the management of liquid or gaseous medical fluids and allows multiple compatible fluids to be managed using the same tube.
- Imported PP material, non-toxic, odorless, heat and corrosion resistant; used in biomedical, environmental and food industries

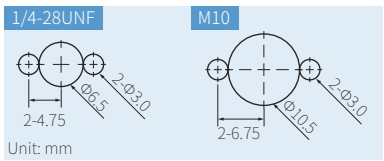
Application Note



※ Hose connection available through male luer adapter +female luer adapter

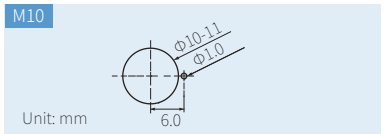


※ Panel thickness must be ≤3mm
※ The panel is to be pre-drilled prior to connection, with the following hole sizes as indicated:

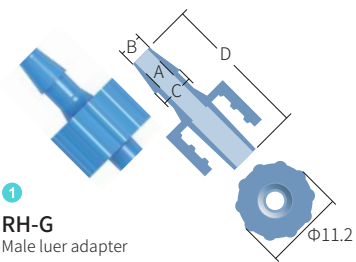


※ RH-M-M10W can be connected to 1/4-28UNF male thread adapter, and the other end is connected to a Luer adapter through a plate.

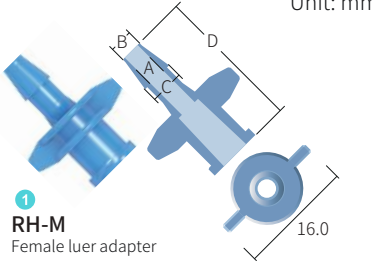
※ To be used with LM-M10P single tooth nut
※ Panel thickness must be ≤7mm, panel hole diameter Φ10.5mm



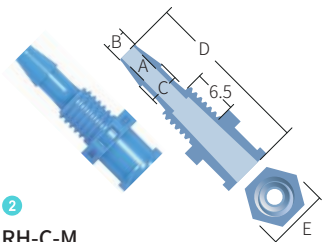
Unit: mm



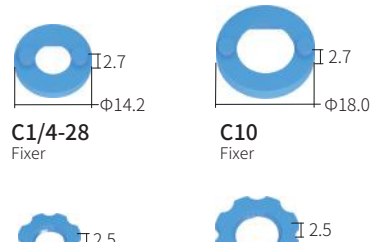
RH-G
Male luer adapter



RH-M
Female luer adapter

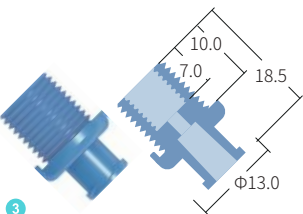


RH-C-M
Bulkhead Luer adapter



C1/4-28
Fixer

C10
Fixer

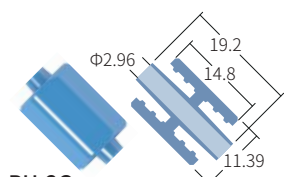


RH-M-M10W
Female luer bulkhead adapter

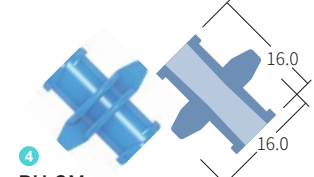


M10*1
Fine thread thin nut

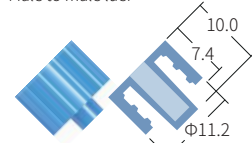
Standard nut for RH-M-M10W Female luer bulkhead adapter is LM-M10P single tooth nut, but M10*1 nut (pps material) is also available for purchase, which is easier for installation.



RH-2G
Male to male luer



RH-2M
Female to female luer



RH-G-D
Male luer plug



RH-M-D
Female luer plug



※ Female Luer adapter can be connected to 1/4-28UNF male fitting and the other end to Luer fitting



※ Male Luer adapter can be connected to 1/4-28UNF female thread, and the other end can be connected to Luer fitting



Model No.	Tubing ID		Dimension (mm)				Material		
Male luer adapter									
RH-G016	1.0~1.6 mm	A=Φ0.99	B=Φ1.60	C=Φ2.80	D=18.6	PP natural			
RH-G024	1.6~2.4 mm	A=Φ1.58	B=Φ2.40	C=Φ3.40	D=18.6	PP natural			
RH-G032	2.4~3.2 mm	A=Φ2.46	B=Φ3.20	C=Φ4.20	D=19.6	PP natural			
RH-G040	3.2~4.0 mm	A=Φ2.96	B=Φ4.00	C=Φ6.00	D=25	PP natural			
RH-G048	4.0~4.8 mm	A=Φ3.94	B=Φ4.80	C=Φ6.80	D=25	PP natural			
RH-G064	4.8~6.4 mm	A=Φ5.42	B=Φ6.35	C=Φ8.40	D=27.1	PP natural			
Female luer adapter									
RH-M016	1.0~1.6 mm	A=Φ0.99	B=Φ1.60	C=Φ2.80	D=20	PP natural			
RH-M024	1.6~2.4 mm	A=Φ1.58	B=Φ2.40	C=Φ3.40	D=20	PP natural			
RH-M032	2.4~3.2 mm	A=Φ2.46	B=Φ3.20	C=Φ4.20	D=20	PP natural			
RH-M040	3.2~4.0 mm	A=Φ2.46	B=Φ4.00	C=Φ6.00	D=27.5	PP natural			
RH-M048	4.0~4.8 mm	A=Φ2.96	B=Φ4.80	C=Φ6.80	D=27.5	PP natural			
RH-M064	4.8~6.4 mm	A=Φ4.43	B=Φ6.35	C=Φ8.40	D=27.5	PP natural			
Bulkhead Luer adapter									
SKU	Model No.	Tubing ID	Thread	Dimension (mm)				Material	
1008050037	RH-C-M016 * C1/4-28 * LM-1/4-28P	1.0~1.6 mm	1/4-28UNF	A=Φ0.99	B=Φ1.60	C=Φ2.40	D=25	E=9.12	PP natural
1008050038	RH-C-M024 * C1/4-28 * LM-1/4-28P	1.6~2.4 mm	1/4-28UNF	A=Φ1.58	B=Φ2.40	C=Φ3.40	D=25	E=9.12	PP natural
1008050039	RH-C-M032 * C1/4-28 * LM-1/4-28P	2.4~3.2 mm	1/4-28UNF	A=Φ2.46	B=Φ3.20	C=Φ4.20	D=25	E=9.12	PP natural
1008050040	RH-C-M040 * C10 * LM-M10P	3.2~4.0 mm	M10	A=Φ2.96	B=Φ4.00	C=Φ6.00	D=32.5	E=13.74	PP natural
1008050041	RH-C-M048 * C10 * LM-M10P	4.0~4.8 mm	M10	A=Φ3.94	B=Φ4.80	C=Φ6.80	D=32.5	E=13.74	PP natural
1008050042	RH-C-M064 * C10 * LM-M10P	4.8~6.4 mm	M10	A=Φ5.42	B=Φ6.35	C=Φ8.40	D=32.5	E=13.74	PP natural
Female luer bulkhead adapter									
1008050043	RH-M-M10W	* LM-M10P	1/4 28UNF female thread/M10 male thread				PP natural		
Luer adapter									
Model No.			Thread	Material					
RH-G-(1/4-28)N			1/4-28UNF female thread	PP natural					
RH-M-(1/4-28)N			1/4-28UNF female thread	PP natural					
RH-G-(1/4-28)W			1/4-28UNF male thread	PP natural					
RH-M-(1/4-28)W			1/4-28UNF male thread	PP natural					
RH-2G				PP natural					
RH-2M				PP natural					
RH-G-D				PP natural					
RH-M-D				PP natural					
RH-2M-L				PP natural					
RH-3M-T				PP natural					
RH-3M-Y				PP natural					
RH-4M				PP natural					

We respect every customer's design concept then provide practical fluidic solutions

RUNZE have established business system from R&D, production, marketing to after-sale service, product line from high precision syringe pump, multiport valve, high pressure solenoid valve, gastight syringe, peristaltic pump, plastic fittings, tubing to OEM parts



Our 3000 cubic meters manufacturing base was set up with different kinds of injection molding machine, EDM center, components machining center, grinding machine for fluid parts processing

As a design and manufacturing company, we have enough capabilities to provide our customers with components or system OEM services as well as technical support

As a Hi-tech qualified enterprice, we have acquired certificates of ISO9001, design and utility patents, CE, RoHs, we will further apply for more new design patents, CE, RoHs, Reach certificates for our product

We keep upgrading the production and detection equipment to bring our customers with high quality products but much competitive and stable prices

Choose High Quality Materials

We carefully choose raw materials for each part to ensure the quality of final product and ensure a long service life.

Shorten Development Time

We specialize in fluid instrument design and moulding to help reduce the development time.

Ensure Excellent Quality

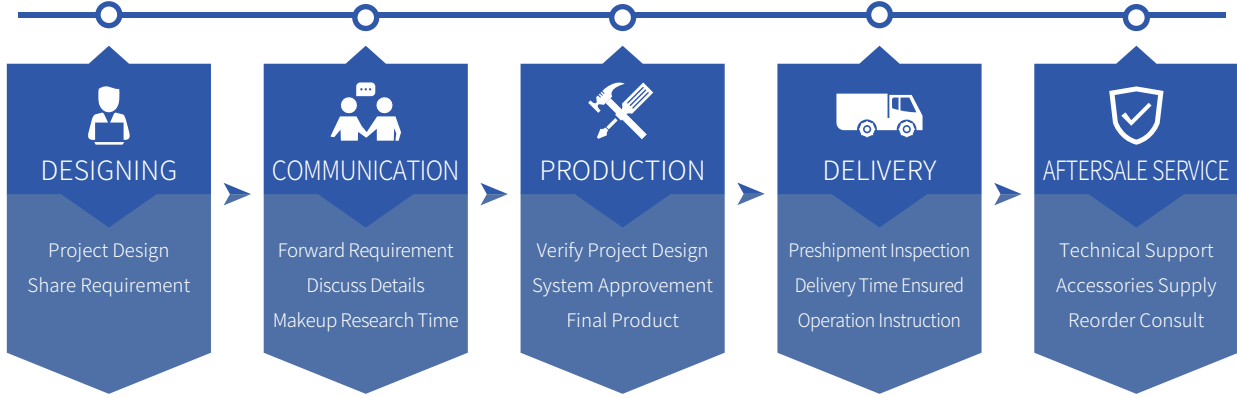
No matter how much the order quantities, we strictly inspect the whole process even on a small component, to avoid any mistakes, aim to reach the best product.

Increase Customer Experience

To increase user experience, we aim to choose high quality components to make each part of the product easier operation and more accurate.



Customisation



OEM Service

Robotic Sampling	Dispensing System	Bench-top System
OEM Syringe Pump	OEM Syringe Pump	OEM Syringe Pump
OEM Liquid System	OEM Liquid System	OEM Syringe Pump

Q: How to understand the accuracy of syringe pump?

A: There are 3 types of accuracy, minimum sampling volume, repetitiveness accuracy and single dispense accuracy. Minimum sampling volume depends on lead screw, motor step angle, syringe inner diameter and motor deceleration ratio. Repetitiveness accuracy was tested by comparing dispensing volumes when motor runs 1 circle or 1 step. Single dispense accuracy depends on mechanical structures and errors of the parts.

Q: Why the motor of syringe pump doesn't work after powered on but makes constant noises?

A: Syringe pump needs DC24V 3A power supply at the moment of starting, it will not be able to start if input current is less than this current, after it gets into normal working, 1.5A current is workable. When paralleling 2 sets syringe pumps and making them run synchronously, they need DC24V 6A power supply to make them start, et cetera.

Q: How to adjust the non-accurate dispensing volume caused by single dispense accuracy?

A: Single dispense accuracy was caused by mechanical errors but it can be made up by adjust the motor steps, for example, theoretically motor needs to run 10 steps to discharge 1ml, but actually it discharges 0.9ml, you can make motor runs 11 steps to discharge 1ml, vice versa.

Q: When use syringe pump to discharge high density liquid, how to manage it?

- A: Liquid of high density was of hysteretic nature which make it hard to reach accurate results, but we can take some measures to make it as accurate as possible.
- a. Reduce the motor speed
 - b. Liquid container was put at higher position than syringe pump, at least put at the same level with syringe pump
 - c. Enlarge inner diameter of tubing and shorten the length of tubing

Q: How to install syringe pump in right way?

- A: There are 3 mounting ways for syringe pumps, we recommend the first or second way according to your application needs. Third way is the worst mounting way to choose.
- a. Keep liquid outlet upside
When mounting in this direction, bubbles (within liquid or brought in by suction) will be floated at the upper surface, actual discharged volume will be little bit less than theoretical volume with part of air in it, the advantage of this mounting way is that bubbles can be fully discharged.
 - b. Keep liquid outlet downside
When mounting in this direction, bubbles (within liquid or brought in by suction) will be floated at the nether surface, actual discharged volume will be equal to theoretical volume, the disadvantage of this mounting way is that bubbles will always stay in the cylinder.
 - c. Keep liquid outlet horizontally
When mounting in this direction, bubbles (within liquid or brought in by suction) will be floated at the upper surface of horizontal cylinder, actual discharged volume will be less than theoretical volume and part of bubbles will always stay in cylinder.

Q: What is the difference between RUNZE switching valves and that from other suppliers?

A: All the switching valves on the market are made of plastic valve core which is very easy to be worn out (short service life) and not workable for liquid with small certain size particulate matters; RUNZE valves are made of ceramic or sapphire valve cores which are workable for almost all the corrosive or non-corrosive liquids even liquid with small particles in a long working life time.

Q: How to calculate the resolution (minimum sampling volume) of syringe pumps?

A: Before calculate the resolution, you need to know cylinder inner diameter, step motor step angle, lead screw.

For example, 5ml MiNi SY-04 syringe pump, cylinder inner diameter 14.55mm, lead screw 1mm, motor step angle 0.9°, how to calculate the resolution?

Lead screw 1mm = motor runs 1 circle (360°)

Total steps when motor runs 1 circle = 360°/0.9° = 400 steps

Minimum effective travel = 1mm/400 steps = 0.0025mm

Resolution = $S = \pi r^2 \times 0.0025\text{mm} = 3.14 \times (14.55/2)^2 \times 0.0025 = 0.4154\text{mm}^3 = 0.4154\mu\text{l}$

Q: How to understand the bubbles problems caused during pumping?

- A: Only if you know how the bubbles were caused then you can understand how to solve the problems, possible causes as below:
- a. Motor speed is too fast which brings air into the cylinder
 - b. Adapters and tubing are not tightly connected
 - c. Target liquid includes air, when motor is fast running, the air was separated from target liquid and too late to integrated into the liquid
 - d. When you find 1 or 2 bubbles adhered on the inside cylinder wall, you have already improved by above 3 methods but the bubbles still exist, at this moment, you need to clean the cylinder with suitable ablutents or neutralizers.

Q: When the syringe pump was connected to computer, there are no response after input parameters into the debug software, why?

- A: There are no received command which means communication is impassable.
- a. Ensure COM port on your computer is correct, RS232/RS485 adapters are no problem, all wirelines are well connected.
 - b. Check if the switch on the RS232/RS485 adapter have been turned to RS232.
 - c. Don't tick " Factory mode ", input 00 into Address, input 4A into Command, input 00 into Parameter, click Send.
 - d. If it still doesn't work after above 3 ways, try to exchange the position of TX and RX wireline.

Q: How to know whether the target liquid can be dispensed by syringe pump or not?

A: Usually syringe pumps are used for low viscosity and low temperature liquid, our suggestion is that viscosity of target liquid should be equivalent less to cooking oil while liquid temperature should be equal or less than 55°C.

Q: What is the difference between RUNZE 3 ways solenoid valve and other three way valves on the market?

- A: All the 3 way solenoid valves on the market are made of plastic valve core and diaphragm structures, upper and nether diaphragms are very easy to be stuck together which makes it unable to switch from ON to OFF or from OFF to ON; there are liquid dripping and big pulsation during liquid sampling; they can only anti pressure 0.3Mpa at most.
- RUNZE 3 way valve was designed rotor and stator plane switching without any liquid pulsation or dripping during microfluidic sampling; PCTFE, ceramic/sapphire fluid path support corrosive liquids and without any cross contamination to target liquids, also RUNZE three way valve was designed to anti pressure 1.2Mpa maximum which benefits a lot to high pressure microanalysis; RUNZE 3 way valve was designed with feedback signals to tell users if it is normally working or not which make your production line more reliable and stable.



温 润 而 泽 沐 泽 四 海

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