



RUNZE FLUID

PUMPS AND VALVES SERIES CATALOGUE

2024 CATALOGUE
V9.47

Provide Professional Solutions For Your Fluid System



润泽官网查看更多信息

南京润泽流体控制设备有限公司

Nanjing Runze Fluid Control Equipment Co.,LTD



Address: No.9 Tianxing West Road Dongshan Street, Jiangning District, Nanjing, Jiangsu, China

Tel: 025-51197362

Email: runzeliuti@runzeliuti.com

Web: www.runzeliuti.com

Syringe Pump | Multiport Valve | Peristaltic Pump | Fittings & Connectors | Tubing | OEM



14

14 Years' focus on fluid system

19

19 Years' R&D Experience

100

Business covers more than 100 countries & regions

12,000

more than 12,000 well-known enterprise customers

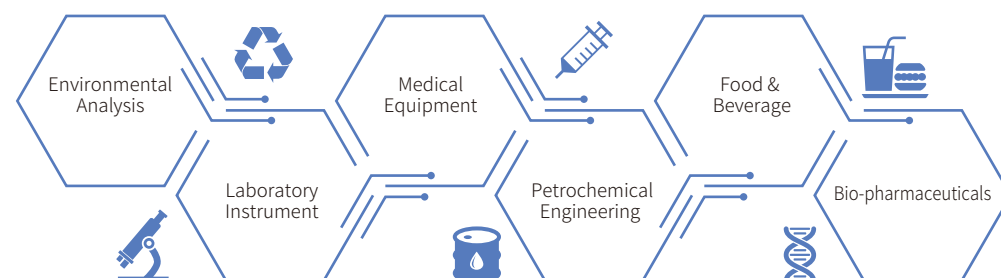


公司简介 COMPANY PROFILE

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.

Industrial Applications



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, 60 technical patents and software copyright including 8 invention patents, 41 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





WELCOME TO RUNZE

A SMARTER FLUIDIC ACCESSORY SYSTEM

Runze fluid is dedicated to your success through thousands of solutions for our customers and fierce global competition with other companies. Productivity enasurement, downtime reduction, and safety increasement is our innovative approaches to enhance your competitive advantages. We will cooperate closely with you and share our experience in fluid systems with you. All of our knowl- edge and experience is available through design consultation, technical support, product selection and field commissioning.

Each employee in Runze willing to listen to your needs in order to provide you with the most suitable solution.

PRODUCT CATEGORY

RUNZE PRODUCTS

Syringe Pump

Gastight Syringe

Multiport Valve

Peristaltic Pump

Stepper Motor Driver

Tubing

Accessories

Above information please refer to
RUNZE FLUID PUMPS AND VALVES SERIES CATALOGUE

Fittings & Connectors

Above information please refer to
RUNZE FLUID PLASTIC FITTINGS & TUBE CATALOGUE

07 SYRINGE PUMP

Syringe Pump

SY-08	---- Syringe Pump	07
SY-09	---- Syringe Pump	08
SY-09S	---- Syringe Pump	09
Rp-01	---- Piston Pump	11
Rpm-01	---- Eccentric Syringe Pump	13
Smart SY-01B	---- Industrial Syringe Pump	15
Smart SY-01C	---- Industrial Syringe Pump	15
SY-03B	---- Industrial Syringe Pump	16
SY-06B	---- Industrial Syringe Pump	17
SY-03B DK	---- Parallel trace amounts Syringe Pump	21
SY-03B T-DK	---- Parallel trace amounts Syringe Pump	22

25 GASTIGHT SYRINGE

Gastight Syringe

K30	---- 30mm stroke, Gastight Syringe	25
K60	---- 60mm stroke, Gastight Syringe	25
AFK60	---- 60mm stroke, Gastight Syringe	26

29 MULTIPORT VALVE

Multiport Valve

Selector Valve Application Note		29
SV-07	---- Selector Valve	30
Smart SV-04	---- Selector Valve	31
LV50	---- Selector Valve	32
Injector Valve Application Note		35
SV-07B	---- Injector Valve	38
Smart SV-04B	---- Injector Valve	39
Mrv-01B	---- High Pressure Valve	41

45 PS-10 SYSTEM

PS-10

PS-10 System	45
--------------	----

49 PERISTALTIC PUMP

Peristaltic Pump

Peristaltic Pump Head	49
ZL12(24)-RZ1030-4 ---- DC Motor Peristaltic Pump	53
BJ-RZ1030 Series ---- 42 Stepper Motor Peristaltic Pump	55
RZ-01 ---- 42 Stepper Motor Peristaltic Pump	57
RZ-02 ---- 42 Stepper Motor Peristaltic Pump	59
BJ30 Series ---- 57 Stepper Motor Peristaltic Pump	61
LM40 Series ----Box-type Peristaltic Pump	65
LM60 Series ----Box-type Peristaltic Pump	67
TS600 ---- Industrial High Flow Peristaltic Pump	73
LM80C ---- Large Flow Box-type Peristaltic Pump	74

77 DRIVER

Driver

MC-20A	77
MC-21T	77
MC-21C	78

81 ACCESSORIES

Accessories

85 TUBE

Tube

Silicone Tube	85
Saint-Gobain Rubber Tube	89
MasterFlex Viton Tube	90
FEP Tube	91
PTFE Tube	92
PEEK Capillary Tube	93
Chemical resistance of rubber tube	95
Chemical resistance of viton tube	97

103 OTHER

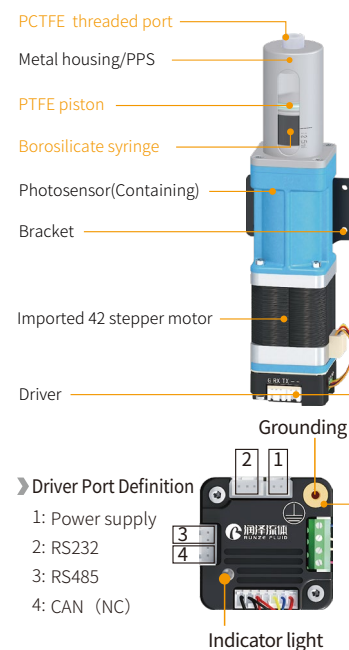
Other

OEM Service	103
FAQ	105



- › The material of the threaded port is PVDF (hard and tightly sealed); Optimize the structure to prevent the valve head from following during joint installation
- › Increase grounding holes to enhance the product's anti-interference ability; Increase encoder system to improve product accuracy
- › Relying on optocoupler+encoder command reset, with small reserved space and small dead volume
- › Improvement of corrosion resistance performance of core transmission components of the product

★ Product Structure



- › Driver Port Definition
- 1: Power supply
 - 2: RS232
 - 3: RS485
 - 4: CAN (NC)

SY-08 Syringe Pump

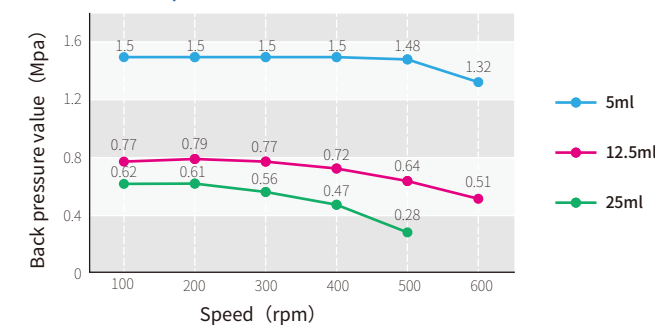
- ◆ Compact size,easy mounting,space-saving,long service life
- ◆ Multiple pumps can be used in series together
- ◆ Dual protocol control: ASCII protocol, custom protocol
- ◆ CE/RoHS Certified

As a core accessory, it is applied in fluid transmission systems with high precision and stability, such as laboratory instrument solutions, medical in vitro diagnostic analysis equipment, chromatographic analyzers, automatic biochemical analyzers, blood analyzers, trace element analyzers, electrolyte analyzers, food and beverage detection and analysis systems, water quality online analyzers, petroleum detection equipment, biopharmaceutical extraction devices, etc

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 ^(Note 1)	1.32Mpa	0.51Mpa	0.28Mpa
Rated Stroke(control steps)	30mm(12000 steps)	30mm(12000 steps)	30mm(12000 steps)
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, PTFE, PCTFE		
Max. Pressure	Positive: 0-0.8Mpa, Negative:0-0.06Mpa (retention time based on test)		
Connection	1/4-28UNF		
Baud rate	RS232/RS485: 9600bps、19200bps、38400bps、57600bps、115200bps		
Power supply	DC24V/3A		
Operating temperature	5°C~55°C		
Operating humidity	≤ 80% relative humidity,non condensing		
Net Weight	0.56kg	0.62kg	0.66kg

Note 1:Back pressure



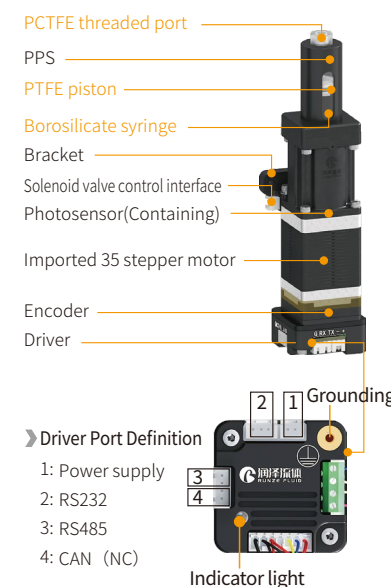
This curve graph shows the pressure exerted on the fluid discharged by the injection pump at the outlet or secondary side, which is opposite to the flow direction. Experimental conditions: room temperature, normal pressure, pure water.

For specific values, please contact Runze Sales Engineer



- › Using a 35 stepper motor, the overall appearance is smaller
- › The material of the threaded port is PCTFE ; Optimize the structure to prevent the valve head from following during joint installation
- › Increase grounding holes to enhance the product's anti-interference ability; Increase encoder system to improve product accuracy
- › Provide solenoid valve control interface
- › Relying on optocoupler+encoder command reset, with small reserved space and small dead volume
- › Improvement of corrosion resistance performance of core transmission components of the product

★ Product Structure



- › Driver Port Definition
- 1: Power supply
 - 2: RS232
 - 3: RS485
 - 4: CAN (NC)

SY-09 Syringe Pump

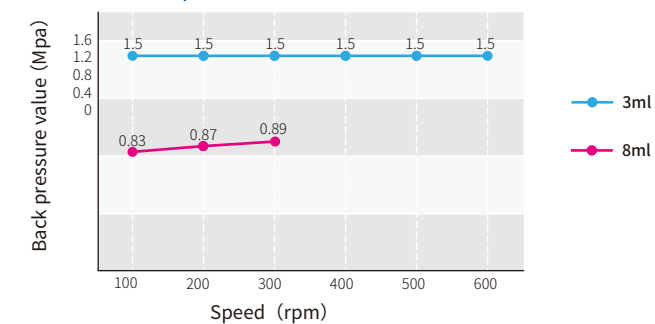
- ◆ Compact size,easy mounting,space-saving,long service life
- ◆ Multiple pumps can be used in series together
- ◆ Dual protocol control: ASCII protocol, custom protocol
- ◆ CE/RoHS Certified

As a core accessory, it is applied in fluid transmission systems with high precision and stability, such as laboratory instrument solutions, medical in vitro diagnostic analysis equipment, chromatographic analyzers, automatic biochemical analyzers, blood analyzers, trace element analyzers, electrolyte analyzers, food and beverage detection and analysis systems, water quality online analyzers, petroleum detection equipment, biopharmaceutical extraction devices, etc

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
Back Pressure ^(Note 1)	1.5Mpa	0.89Mpa
Rated Stroke(control steps)	18mm (3600 steps)	19.2mm(3840 steps)
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,PTFE piston	
Max. Pressure	0-0.8Mpa, Negative:0-0.06Mpa (retention time based on test)	
Connection	1/4-28UNF	
Baud rate	RS232/RS485: 9600bps、19200bps、38400bps、57600bps、115200bps	
Power supply	DC24V/3A	
Rated power	15W	
Operating temperature	5 ~ 55°C	
Operating humidity	≤80% relative humidity,non condensing	
Net Weight	0.56kg	0.62kg

Note 1:Back pressure



This curve graph shows the pressure exerted on the fluid discharged by the injection pump at the outlet or secondary side, which is opposite to the flow direction. Experimental conditions: room temperature, normal pressure, pure water.

For specific values, please contact Runze Sales Engineer



SY-09S Syringe Pump

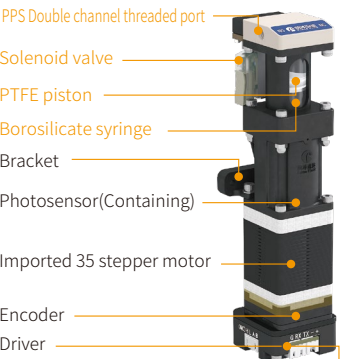
- ◆ Equipped with solenoid valve, saving more installation space
- ◆ Compact size,easy mounting,space-saving,long service life
- ◆ Multiple pumps can be used in series together
- ◆ Dual protocol control: ASCII protocol, custom protocol

As a core accessory, it is applied in fluid transmission systems with high precision and stability, such as laboratory instrument solutions, medical in vitro diagnostic analysis equipment, chromatographic analyzers, automatic biochemical analyzers, blood analyzers, trace element analyzers, electrolyte analyzers, food and beverage detection and analysis systems, water quality online analyzers, petroleum detection equipment, biopharmaceutical extraction devices, etc

Technical Parameter

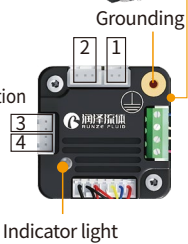
Accuracy	≤1%@100 (rated stroke)	
Precision(Repeatability)	0.3%~0.7%@100% (rated stroke)	
Service life	3 million times no leakage (media:water;1 rated stroke=one time)	
Volume	3ml	8ml
Back Pressure	--	--
Rated Stroke(control steps)	18mm (3600 steps)	19.2mm(3840 steps)
Maximum speed	600rpm	300rpm
Linear speed	0.017~10mm/s	0.017~5mm/s
Running time (per rated stroke)	1.8~1080s	3.84~1152s
Resolution	0.005mm/0.833μl	0.005mm/2.083μl
Syringe ID	14.55mm	23.03mm
Actuator	Trapezoidal screw(Lead 1mm)	
Wetted Material	Borosilicate glass, PTFE, PPS, PEEK, EPDM, FKM (solenoid valve)	
Max. Pressure	0.075~0.2Mpa	
Connection	1/4-28UNF	
Baud rate	RS232/RS485: 9600bps、19200bps、38400bps、57600bps、115200bps	
Power supply	DC24V/3A	
Rated power	15W	
Operating temperature	5 ~ 55℃	
Operating humidity	≤ 80% relative humidity,non condensing	
Net Weight	0.56kg	0.62kg

Product Structure

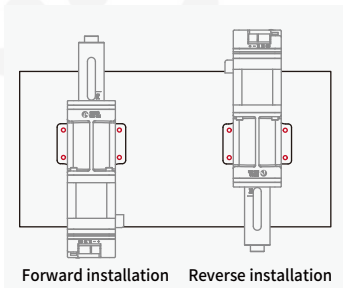
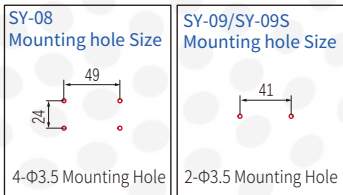


Driver Port Definition

- 1: Power supply
- 2: RS232
- 3: RS485
- 4: CAN (NC)



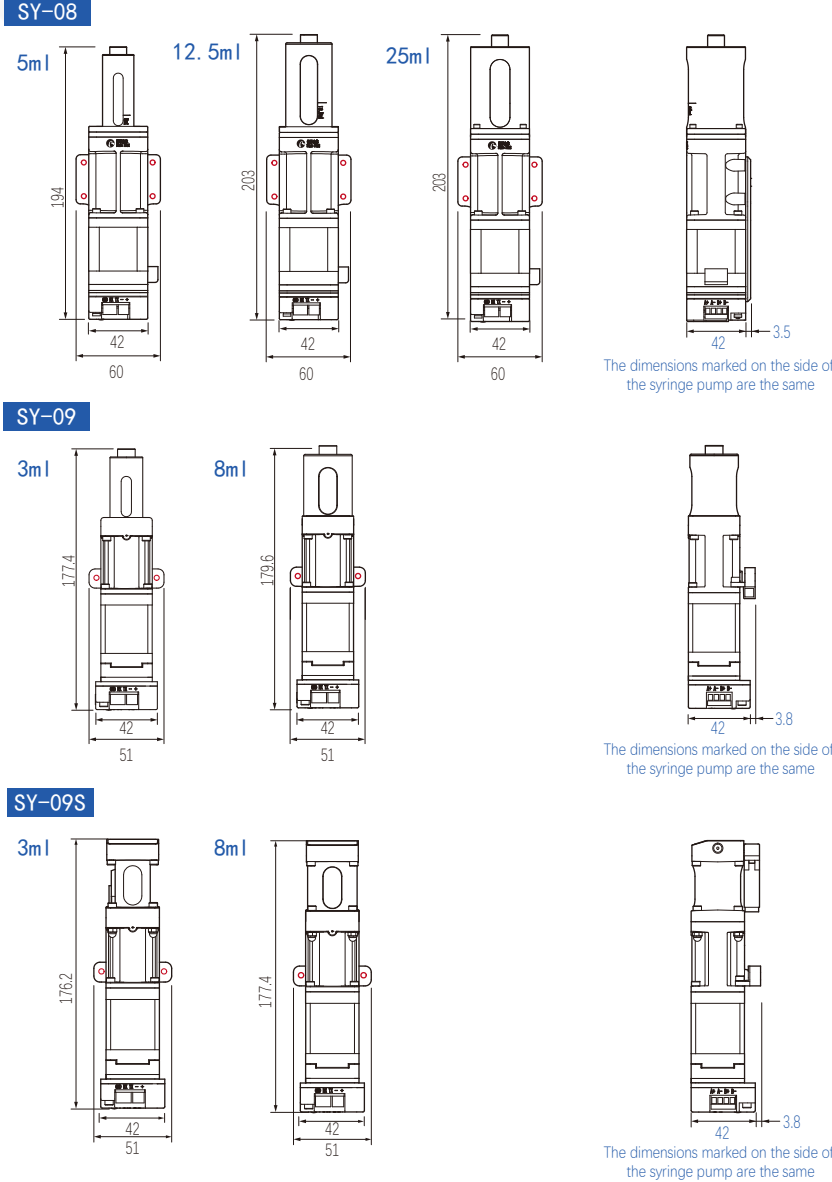
Application Note



Forward installation of syringe pump:
more convenient for maintenance, repair, and cleaning,It can also effectively reduce the resistance and pressure loss of pipelines

Reverse installation of syringe pump:
more suitable for situations with limited space, it can better utilize the height difference to generate sufficient suction; In addition, the reverse installation method can also ensure that gas is automatically discharged from the inside of the pump, making it less prone to cavitation

Dimensions (Unit:mm)



Syringe Pump

SKU	Model No.	Volume	Channel	Driver configuration	Qty
SY-08					
1001080001	ZSB08-LS-0.9-1-5-1-Q	5ml	Single channel	with drive controller	1 piece
1001080002	ZSB08-LS-0.9-1-12.5-1-Q	12.5ml	Single channel	with drive controller	1 piece
1001080003	ZSB08-LS-0.9-1-25-1-Q	25ml	Single channel	with drive controller	1 piece
SY-09					
1001090003	ZSB-LS-1.8-1-3-M-Q	3ml	Single channel	with encoder, drive controller	1 piece
1001090004	ZSB-LS-1.8-1-8-M-Q	8ml	Single channel	with encoder, drive controller	1 piece
SY-09S					
1001130001	ZSB-LS-1.8-1-3-M-Q-S	3ml	Double channel	with encoders, drive controller and solenoid valve	1 piece
1001130002	ZSB-LS-1.8-1-8-M-Q-S	8ml	Double channel	with encoders, drive controller and solenoid valve	1 piece
Related accessories (flangeless fittings)					
SKU	Model No.	Thread	Tube OD	Material	
1006010170	WF10A-28P * YE-016P	1/4-28UNF	1.6mm OD	PP	
1006010169	WF10A-28P * YE-020P	1/4-28UNF	2.0mm OD	PP	
1006010168	WD10A-28P * YC-025P	1/4-28UNF	2.5mm OD	PP	
1006010167	WD10A-28P * YC-030P	1/4-28UNF	3.0mm OD	PP	
1006010166	WD10A-28P * YC-032P	1/4-28UNF	3.2mm OD	PP	
Related accessories (FEP tube)					
SKU	Model (ID*OD)	Material			
1005040001	TFLG00001 (0.8*1.6)	FEP Transparent			
1005040002	TFLG00002 (1*2)	FEP Transparent			
1005040003	TFLG00003 (1.5*2.5)	FEP Transparent			
1005040004	TFLG00004 (2*3)	FEP Transparent			
1005040005	TFLG00005 (2.175*3.175)	FEP Transparent			

Note: For other fittings and accessories, please refer to the RUNZE FLUID PLASTIC FITTINGS & TUBE CATALOGUE

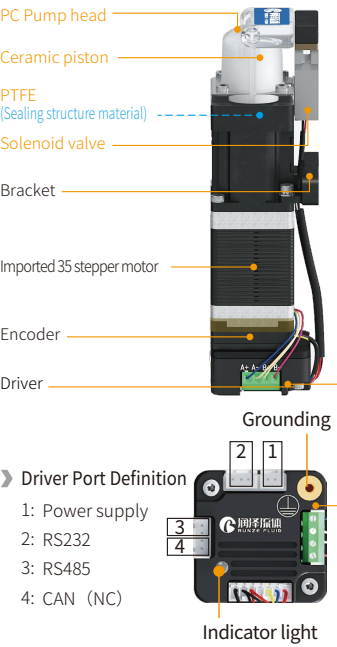


Rp-01 Piston Pump

- ◆ A new type of piston pump independently developed, mainly used in biological laboratories. The controller and execution unit are split structures, and the execution unit has a clamping mechanism
- ◆ Precision, compact and compact in structure, easy to install and operate
- ◆ Dual protocol control: ASCII protocol, custom protocol

The vertical installation structure can be conveniently used in conjunction with biological instruments such as microscopes and brain stereotaxics, and is widely used in various biological experimental fields

★ Product Structure

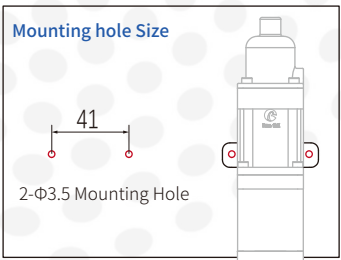


Technical Parameter

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)		
Initial position detection	Photoelectric detects original piston position		
Volume	6ml		
Valve head	Single hole	L-type Double Channel	Double-hole with valve
Dead volume	1.45ml	1.387ml	1.716ml
Wetted material	PC、Ceramics、PTFE		PC、Ceramics、PTFE Solenoid valve(PEEK/EPDM/ FKM)
Maximum pressure (hold time 1min)	Positive air pressure 0~0.8Mpa Negative air pressure 0~0.06Mpa		0.075~0.2 (COM→NC、NO)
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	Trapezoidal screw(Lead 1mm)		
Connection	1/4-28UNF		
Power supply	DC24V/1.5A		
Operating temperature	5°C~55°C		
Operating humidity	<80% relative humidity,non condensing		
Dimension(L*W*H)	51*45.8*160mm (With Driver/Encoder)		
Net weight	0.462kg (With Driver/Encoder)		

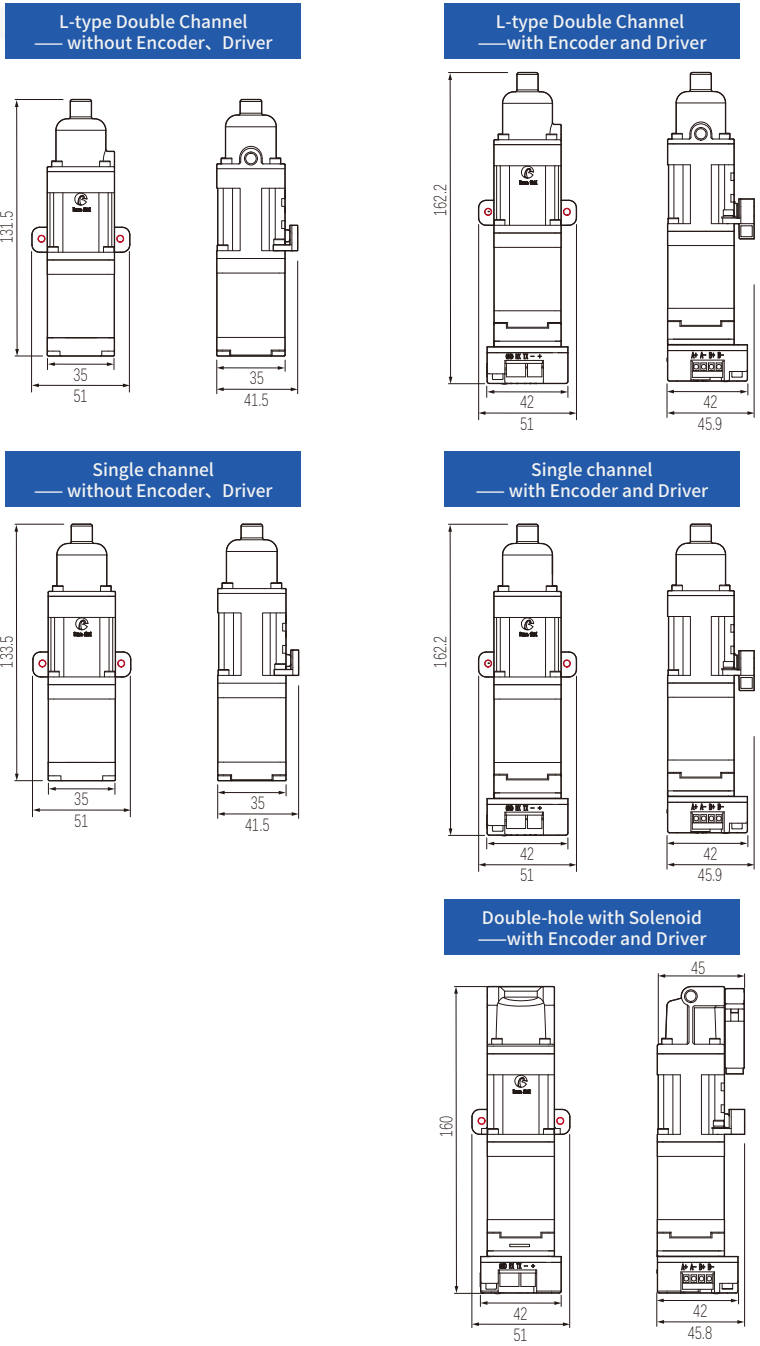
SKU	Model No.	Volume	Channel	Driver configuration	Qty
Rp-01					
1010010001	ZSB-RP01-LS-1.8-1-6-2	6ml	L-type Double Channel	Without driver, encoder, solenoid valve	1 Piece
1010010005	ZSB-RP01-LS-1.8-1-6-M-Q-2	6ml	L-type Double Channel	with encoder, driver, without solenoid valve	1 Piece
1010010007	ZSB-RP01-LS-1.8-1-6-1	6ml	Single channel	without driver, encoder, solenoid valve	1 Piece
1010010009	ZSB-RP01-LS-1.8-1-6-M-Q-1	6ml	Single channel	with encoder, driver, solenoid valve	1 Piece
1010010006	ZSB-RP01-LS-1.8-1-6-M-Q-F-2	6ml	Double channel	with encoder, driver, solenoid valve	1 Piece

★ Application Note



Piston pump is recommended for forward installation: it is more convenient for inspection, maintenance, and cleaning, and can effectively reduce pipeline resistance and pressure force loss

Dimensions(Unit:mm)



SKU	Model No.	Volume	Channel	Encoder/driver/solenoid valve configuration	Qty
Rp-01					
1010010001	ZSB-RP01-LS-1.8-1-6-2	6ml	L-type Double Channel	Without driver, encoder, solenoid valve	1 Piece
1010010005	ZSB-RP01-LS-1.8-1-6-M-Q-2	6ml	L-type Double Channel	with encoder, driver, without solenoid valve	1 Piece
1010010007	ZSB-RP01-LS-1.8-1-6-1	6ml	Single channel	without driver, encoder, solenoid valve	1 Piece
1010010009	ZSB-RP01-LS-1.8-1-6-M-Q-1	6ml	Single channel	with encoder, driver, without solenoid valve	1 Piece
1010010006	ZSB-RP01-LS-1.8-1-6-M-Q-F-2	6ml	Double channel	with encoder, driver, solenoid valve	1 Piece

Related accessories (flangeless fittings)					Related accessories (FEP tube)	
SKU	Model No.	Thread	Tube OD	Material	SKU	Model (ID*OD)
1006010170	WF10A-28P * YE-016P	1/4-28UNF	1.6mm OD	PP	1005040001	TFLG00001 (0.8*1.6)
1006010169	WF10A-28P * YE-020P	1/4-28UNF	2.0mm OD	PP	1005040002	TFLG00002 (1*2)
1006010168	WD10A-28P * YC-025P	1/4-28UNF	2.5mm OD	PP	1005040003	TFLG00003 (1.5*2.5)
1006010167	WD10A-28P * YC-030P	1/4-28UNF	3.0mm OD	PP	1005040004	TFLG00004 (2*3)
1006010166	WD10A-28P * YC-032P	1/4-28UNF	3.2mm OD	PP	1005040005	TFLG00005 (2.175*3.175)

Note: For other fittings and accessories, please refer to the RUNZE FLUID PLASTIC FITTINGS & TUBE CATALOGUE



Rpm-01 Syringe Pump

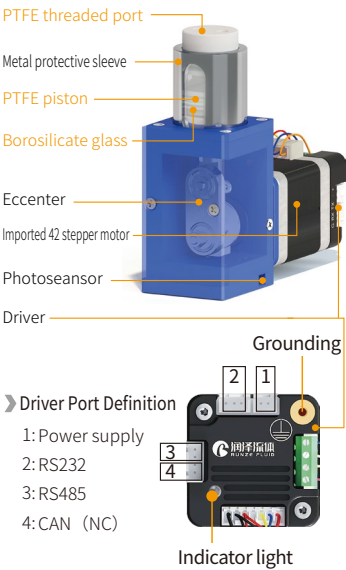
- ◆ Small size, saving installation space; Can run for a long time, free of consumables and maintenance, high cost-effectiveness
- ◆ High precision continuous liquid transferring instead of peristaltic pump
- ◆ RS232/RS485/CAN communication driver optional

Mainly used in biological laboratories, the controller and execution unit have a split structure, and the execution unit has a clamping mechanism. The syringe pump is compact, easy to install, and easy to operate. The installation structure can be easily used in conjunction with biological instruments such as microscopes and brain stereotaxics, making it widely used in various fields of biological analysis

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
Min.speed	1rpm/min
Actuator	Eccenter
Wetted Material	Borosilicate glass, PTFE
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)	98.6*42*117.4mm
Net weight	0.8kg

Product Structure



Product Components:

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

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

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

Application

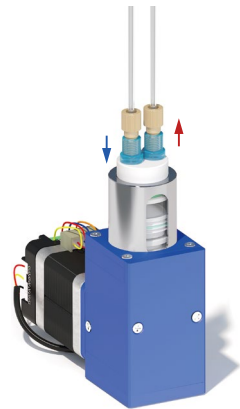
01.Flexible Tube Connection:

Barbed check valv+Male-to-barb adapter

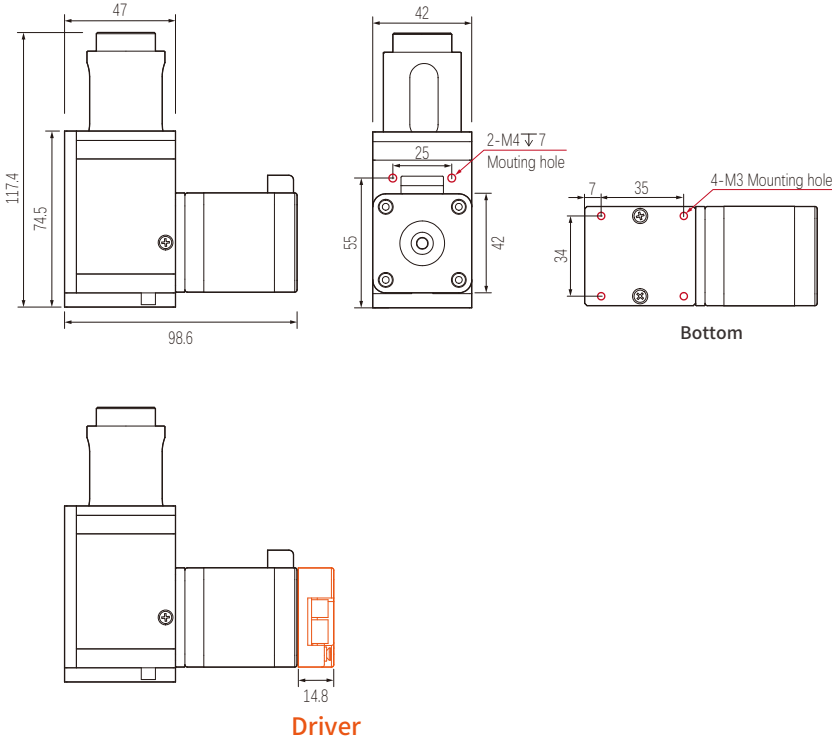


02.Rigid Tube Connection

Threaded check valve+Flangeless fittings



Dimension(Unit:mm)



SKU	Model No.	Volume	Note	Qty
Rpm-01				
1001040001	Rpm-01-D-42-1-W00	1ml	Without Driver, Without Optocoupler	1 Piece
1001040002	Rpm-01-D-42-1-W01	1ml	With Panasonic Optocoupler, Without Driver	1 Piece
1001040003	Rpm-01-D-42-1-Y02	1ml	With Driver Optocoupler, With. Driver	1 Piece
1001040004	Rpm-01-D-42-2-W00	2ml	Without Driver, Without Optocoupler	1 Piece
1001040005	Rpm-01-D-42-2-W01	2ml	With Panasonic Optocoupler, Without Driver	1 Piece
1001040006	Rpm-01-D-42-2-Y02	2ml	With Driver Optocoupler, Without Driver	1 Piece
1001040007	Rpm-01-D-42-3-W00	3ml	Without Driver, Without Optocoupler	1 Piece
1001040008	Rpm-01-D-42-3-W01	3ml	With Panasonic Optocoupler, Without Driver	1 Piece
1001040009	Rpm-01-D-42-3-Y02	3ml	With Driver Optocoupler, With. Driver	1 Piece
Related Accessories(Fitting)				
SKU	Model No.	Tubing ID	Note	Material
1008040178	RZ-BV316PPFVMQ	4.5~6.0mm	Sealing material for coned check valve:fluorosilicone	PP
1007030012	WZ-048L-PP	4.0~4.8 mm	Barbed-to-male adapter, thread 1/4-28 UNF	PP
1008010007	T-048	4.0~4.8mm		PP
Related Accessories(Hose)				
SKU	Model (ID*OD)			Material
1005030024	96418 (4.8*6.8)			Imported silicone tube
1005030033	GCGJG00006 (4*6)			Domestic silicone tube

Note: For other fittings and accessories, please refer to the RUNZE FLUID PLASTIC FITTINGS & TUBE CATALOGUE



› Fixation method for syringe: Universal Runze K30 series syringe and ILS series syringe

› Improved EMC functionality, increased common mode interference suppression circuit in power supply circuit, self recovery fuse and transient suppression diode, enhancing overall surge resistance capability

› Add an address switch knob to set the device address, allowing users to directly issue instructions to specific pumps

Enabling a new type of optical encoder disk system has three advantages:

- ① Enhance the anti-interference ability of input signals;
- ② Improve/simplify the internal structure of the product;
- ③ Effectively improving error correction ability during rotation

› Improved surface treatment level and corrosion resistance

› Valve Model (C connected with syringe)

M01: Non distribution valve - Y flow path



M02: Non distribution valve - T flow path



M03: 3-way distribution valve



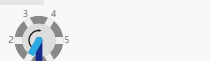
M04: Non distribution valve - Single choice flow path



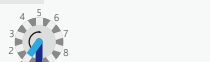
M05: Non distribution valve - Dual selection flow path



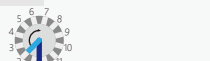
M06: 6-way distribution valve



M10: 9-way distribution valve



M12: 12-way distribution valve



Smart SY-01B/Smart SY-01C Industrial Syringe Pump

◆ The independently developed high-precision micro syringe pump can be equipped with various distribution valves and syringes to meet the needs of most users for high-precision liquid transfer

◆ Multiple pumps can be used in series

◆ Smart SY-01B Dual protocol control: ASCII Code, custom protocol.
Smart SY-01C Single protocol control: ASCII Code

◆ CE/RoHS Certified(Smart SY-01B)

As a core accessory, it is applied in fluid transmission systems with high precision and stability, such as laboratory instrument solutions, medical in vitro diagnostic analysis equipment, chromatographic analyzers, automatic biochemical analyzers, blood analyzers, trace element analyzers, electrolyte analyzers, food and beverage detection and analysis systems, water quality online analyzers, petroleum detection equipment, biopharmaceutical extraction devices, etc.

Technical Parameter (ASCII Code)

Accuracy	≤1%@100(rated stroke)	
Precision(Repeatability)	0.3%~0.5%@100%(rated stroke)	
Model	Smart SY-01B	Smart SY-01C
Rated stroke	30mm	30mm
Control Steps	12000 steps	3000 steps
Maximum speed	450rpm	900rpm
Linear speed	0.0025 ~ 15mm/s	0.0005~ 30mm/s
Running time(per rated stroke)	2s ~ 12000s	1s ~ 60000s
Resolution	0.0025mm/1 step	0.01mm/1 step
Max.Pressure Rating	/	/
Syringe configuration(Optional)	25μl, 50μl, 125μl, 250μl, 500μl, 1.25ml, 2.5ml, 5ml Optional Runze K30 Syringe or imported ILS Syringe	
Valve model(Optional)	M01、M02、M03、M04、M05、M06、M10、M12	
Wetted Material	Borosilicate glass, PTFE,Sapphire,PCTFE	
Actuator	Trapezoidal screw(Lead 2mm)	
Connection	1/4-28UNF	
Baud rate	RS232/RS485: 9600bps、19200bps、38400bps、57600bps、115200bps CAN: 100kbps、200kbps、500kbps、1Mbps	
Communication address	Up to 15 individual addresses can be provide	
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	



› Fixation method for syringe: Universal Runze K60 series syringe and ILS series syringe

› Improved EMC functionality, increased common mode interference suppression circuit in power supply circuit, self recovery fuse and transient suppression diode, enhancing overall surge resistance capability

› Add an address switch knob to set the device address, allowing users to directly issue instructions to specific pumps

› Enabling a new type of optical encoder disk system has three advantages:

- ① Enhance the anti-interference ability of input signals;
- ② Improve/simplify the internal structure of the product;
- ③ Effectively improving error correction ability during rotation

› Improved surface treatment level and corrosion resistance

› Valve Model (C connected with syringe)

M01: Non distribution valve - Y flow path



M02: Non distribution valve - T flow path



M03: 3-way distribution valve



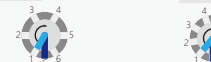
M04: Non distribution valve - Single choice flow path



M05: Non distribution valve - Dual selection flow path



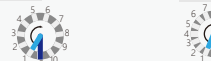
M06: 6-way valve



M07: 8-way valve



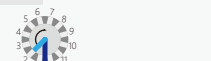
M08: 10-way valve



M09: 15-way valve



M10: 12-way distribution valve



SY-03B Industrial Syringe Pump

◆ The independently developed high-precision micro syringe pump can be equipped with various distribution valves and syringes to meet the needs of most users for high-precision liquid transfer

◆ Multiple pumps can be used in series

◆ Dual protocol control: ASCII Code, custom protocol

◆ CE/RoHS Certified

As a core accessory, it is applied in fluid transmission systems with high precision and stability, such as laboratory instrument solutions, medical in vitro diagnostic analysis equipment, chromatographic analyzers, automatic biochemical analyzers, blood analyzers, trace element analyzers, electrolyte analyzers, food and beverage detection and analysis systems, water quality online analyzers, petroleum detection equipment, biopharmaceutical extraction devices, etc

Technical Parameter (ASCII Code)

Accuracy	≤1%@100(rated stroke)
Precision(Repeatability)	0.3%~0.5%@100%(rated stroke)
Rated stroke	60mm
Control Steps	6000 steps
Maximum speed	900rpm
Linear speed	0.067 ~ 60mm/s
Running time(per rated stroke)	1s ~ 900s
Resolution	0.01mm/1 step
Max.Pressure Rating	0.7Mpa
Syringe configuration(Optional)	50μl, 100μl, 250μl, 500μl, 1ml, 1.25ml, 2.5ml, 5ml, 10ml, 25ml Optional Runze K60 Syringe or imported ILS Syringe
Valve model(Optional)	M01、M02、M03、M04、M05、M06、M07、M08、M09、M10
Wetted Material	Borosilicate glass, PTFE,Sapphire,PCTFE
Actuator	Trapezoidal screw(Lead 6mm)
Connection	1/4-28UNF
Baud rate	RS232/RS485: 9600bps、19200bps、38400bps、57600bps、115200bps CAN: 100kbps、200kbps、500kbps、1Mbps
Communication address	Up to 15 individual addresses can be provide
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



- › Fixation method for syringe: Universal Runze K60 series syringe and ILS series syringe
- › Improved EMC functionality, increased common mode interference suppression circuit in power supply circuit, self recovery fuse and transient suppression diode, enhancing overall surge resistance capability
- › Add an address switch knob to set the device address, allowing users to directly issue instructions to specific pumps
- › Enabling a new type of optical encoder disk system has three advantages:
 - ① Enhance the anti-interference ability of input signals;
 - ② Improve/simplify the internal structure of the product;
 - ③ Effectively improving error correction ability during rotation
- › Improved surface treatment level and corrosion resistance

▶ Valve Model (C connected with syringe)

M01: Non distribution valve - Y flow path

M02: Non distribution valve - T flow path

M03: 3-way distribution valve

M04: Non distribution valve - Single choice flow path

M05: Non distribution valve - Dual selection flow path

M06: 6-way distribution valve

M10: 9-way distribution valve

M12: 12-way distribution valve

SY-06B

Industrial Syringe Pump

- ◆ The independently developed high-precision micro syringe pump can be equipped with various distribution valves and syringes to meet the needs of most users for high-precision liquid transfer.
 - ◆ Multiple pumps can be used in series
 - ◆ ASCII Code control
 - ◆ CE/RoHS Certified
- As a core accessory, it is applied in fluid transmission systems with high precision and stability, such as laboratory instrument solutions, medical in vitro diagnostic analysis equipment, chromatographic analyzers, automatic biochemical analyzers, blood analyzers, trace element analyzers, electrolyte analyzers, food and beverage detection and analysis systems, water quality online analyzers, petroleum detection equipment, biopharmaceutical extraction devices, etc.

Technical Parameter (ASCII code)

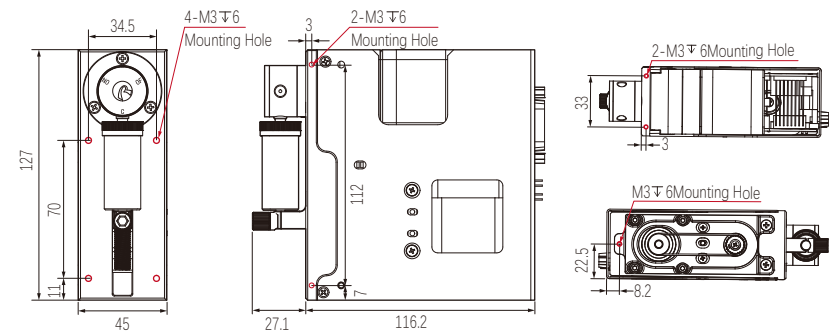
Accuracy	≤1%@100(rated stroke)
Precision(Repeatability)	0.3%~0.5%@100%(rated stroke)
Rated stroke	60mm
Control Steps	6000 steps
Maximum speed	900rpm
Linear speed	0.005 ~ 30mm/s
Running time(per rated stroke)	2s ~ 12000s
Resolution	0.01mm/1 step
Max.Pressure Rating	0.7Mpa
Syringe configuration(Optional)	50μl、100μl、250μl、500μl、1ml、1.25ml、2.5ml、5ml、10ml Optional Runze K60 Syringe or imported ILS Syringe
Valve model(Optional)	M01、M02、M03、M04、M05、M06、M10、M12
Wetted Material	Borosilicate glass, PTFE,Sapphire,PCTFE
Actuator	Trapezoidal screw(Lead 2mm)
Connection	1/4-28UNF
Baud rate	RS232/RS485: 9600bps、19200bps、38400bps、57600bps、115200bps CAN: 100kbps、200kbps、500kbps、1Mbps
Communication address	Up to 15 individual addresses can be provide
Power supply	DC24V/3A
Operating temperature	5°C~55°C
Operating humidity	<80% relative humidity,non condensing
Dimension(L*W*H)	45*132.6*228.6mm
Net weight	2.023kg

Product Structure

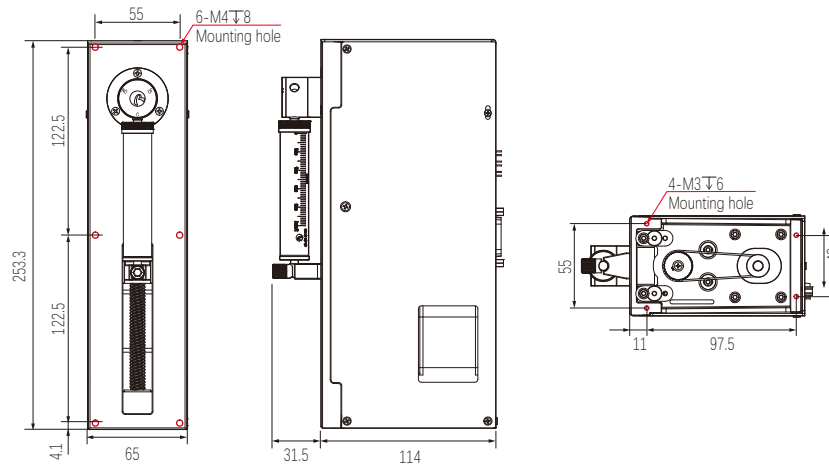


Dimension(Unit:mm)

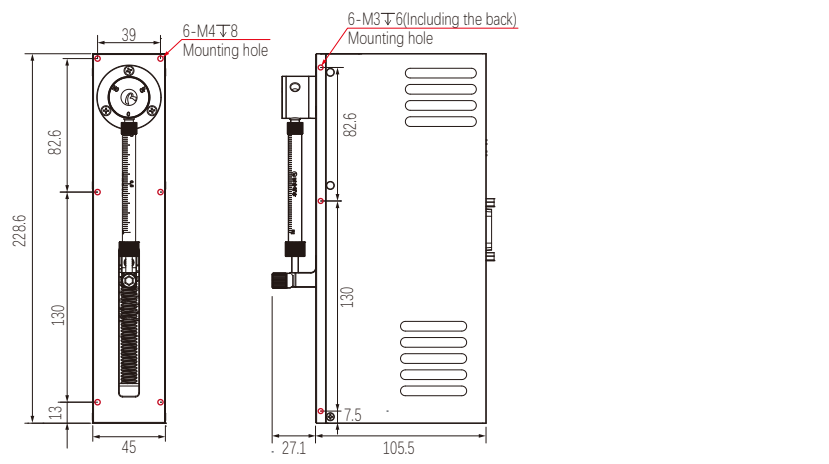
Smart SY-01B Smart SY-01C



SY-03B



SY-06B



Industrial Syringe Pump

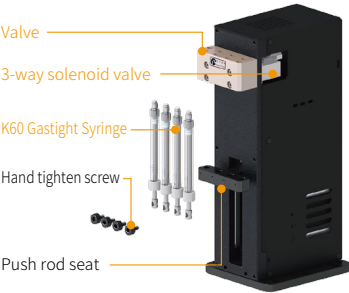
SKU	Model No.	Rated Stroke	Valve model	Note	Qty		
Smart SY-01B							
1001060016	ZSB-SY01B-30-M01-3	30mm	M01	12000 steps standard mode (ASCII Code)	1 Piece		
1001060017	ZSB-SY01B-30-M02-3	30mm	M02	12000 steps standard mode (ASCII Code)	1 Piece		
1001060018	ZSB-SY01B-30-M03-3	30mm	M03	12000 steps standard mode (ASCII Code)	1 Piece		
1001060019	ZSB-SY01B-30-M04-3	30mm	M04	12000 steps standard mode (ASCII Code)	1 Piece		
1001060020	ZSB-SY01B-30-M05-3	30mm	M05	12000 steps standard mode (ASCII Code)	1 Piece		
1001060021	ZSB-SY01B-30-M06-3	30mm	M06	12000 steps standard mode (ASCII Code)	1 Piece		
1001060022	ZSB-SY01B-30-M10-3	30mm	M10	12000 steps standard mode (ASCII Code)	1 Piece		
1001060023	ZSB-SY01B-30-M12-3	30mm	M12	12000 steps standard mode (ASCII Code)	1 Piece		
Smart SY-01C							
1001140001	ZSB-SY01C-30-M01	30mm	M01	3000 steps standard mode (ASCII Code)	1 Piece		
1001140002	ZSB-SY01C-30-M02	30mm	M02	3000 steps standard mode (ASCII Code)	1 Piece		
1001140003	ZSB-SY01C-30-M03	30mm	M03	3000 steps standard mode (ASCII Code)	1 Piece		
1001140004	ZSB-SY01C-30-M04	30mm	M04	3000 steps standard mode (ASCII Code)	1 Piece		
1001140005	ZSB-SY01C-30-M05	30mm	M05	3000 steps standard mode (ASCII Code)	1 Piece		
1001140006	ZSB-SY01C-30-M06	30mm	M06	3000 steps standard mode (ASCII Code)	1 Piece		
1001140007	ZSB-SY01C-30-M10	30mm	M10	3000 steps standard mode (ASCII Code)	1 Piece		
1001140008	ZSB-SY01C-30-M12	30mm	M12	3000 steps standard mode (ASCII Code)	1 Piece		
SY-03B							
1001070021	ZSB-SY03B-60-M01-3	60mm	M01	6000 steps standard mode (ASCII Code)	1 Piece		
1001070022	ZSB-SY03B-60-M02-3	60mm	M02	6000 steps standard mode (ASCII Code)	1 Piece		
1001070023	ZSB-SY03B-60-M03-3	60mm	M03	6000 steps standard mode (ASCII Code)	1 Piece		
1001070024	ZSB-SY03B-60-M04-3	60mm	M04	6000 steps standard mode (ASCII Code)	1 Piece		
1001070025	ZSB-SY03B-60-M05-3	60mm	M05	6000 steps standard mode (ASCII Code)	1 Piece		
1001070026	ZSB-SY03B-60-M06-3	60mm	M06	6000 steps standard mode (ASCII Code)	1 Piece		
1001070027	ZSB-SY03B-60-M07-3	60mm	M07	6000 steps standard mode (ASCII Code)	1 Piece		
1001070028	ZSB-SY03B-60-M08-3	60mm	M08	6000 steps standard mode (ASCII Code)	1 Piece		
1001070029	ZSB-SY03B-60-M09-3	60mm	M09	6000 steps standard mode (ASCII Code)	1 Piece		
1001070030	ZSB-SY03B-60-M10-3	60mm	M10	6000 steps standard mode (ASCII Code)	1 Piece		
SY-06B							
1001120001	ZSB-SY06B-60-M01	60mm	M01	6000 steps standard mode (ASCII Code)	1 Piece		
1001120002	ZSB-SY06B-60-M02	60mm	M02	6000 steps standard mode (ASCII Code)	1 Piece		
1001120003	ZSB-SY06B-60-M03	60mm	M03	6000 steps standard mode (ASCII Code)	1 Piece		
1001120004	ZSB-SY06B-60-M04	60mm	M04	6000 steps standard mode (ASCII Code)	1 Piece		
1001120005	ZSB-SY06B-60-M05	60mm	M05	6000 steps standard mode (ASCII Code)	1 Piece		
1001120006	ZSB-SY06B-60-M06	60mm	M06	6000 steps standard mode (ASCII Code)	1 Piece		
1001120007	ZSB-SY06B-60-M10	60mm	M10	6000 steps standard mode (ASCII Code)	1 Piece		
1001120008	ZSB-SY06B-60-M12	60mm	M12	6000 steps standard mode (ASCII Code)	1 Piece		
Related accessories (flangeless fittings)				Related accessories (FEP tube)			
SKU	Model No.	Thread	Tube OD	Material	SKU	Model (ID*OD)	Material
1006010170	WF10A-28P * YE-016P	1/4-28UNF	1.6mm OD	PP	1005040001	TFLG00001 (0.8*1.6)	FEP Transparent
1006010169	WF10A-28P * YE-020P	1/4-28UNF	2.0mm OD	PP	1005040002	TFLG00002 (1*2)	FEP Transparent
1006010168	WD10A-28P * YC-025P	1/4-28UNF	2.5mm OD	PP	1005040003	TFLG00003 (1.5*2.5)	FEP Transparent
1006010167	WD10A-28P * YC-030P	1/4-28UNF	3.0mm OD	PP	1005040004	TFLG00004 (2*3)	FEP Transparent
1006010166	WD10A-28P * YC-032P	1/4-28UNF	3.2mm OD	PP	1005040005	TFLG00005 (2.175*3.175)	FEP Transparent

Note: For other fittings and accessories, please refer to the *RUNZE FLUID PLASTIC FITTINGS & TUBE CATALOGUE*



- › Fixation method for syringe: Universal Runze K60 series syringe and ILS series syringe
- › Integrating multiple valve heads into one product reduces volume while enhancing functionality; In specific application scenarios, one unit (same drawing and same row) can replace multiple units to improve efficiency

★ Product Structure



SY-03B DK Syringe Pump

- ◆ The independently developed high-precision micro syringe pump can be equipped with various distribution valves and syringes to meet the needs of most users for high-precision liquid transfer
- ◆ Multiple pumps can be used in series
- ◆ ASCII Code control

As a core accessory, it is applied in fluid transmission systems with high precision and stability, such as laboratory instrument solutions, medical in vitro diagnostic analysis equipment, chromatographic analyzers, automatic biochemical analyzers, blood analyzers, trace element analyzers, electrolyte analyzers, food and beverage detection and analysis systems, water quality online analyzers, petroleum detection equipment, biopharmaceutical extraction devices, etc.

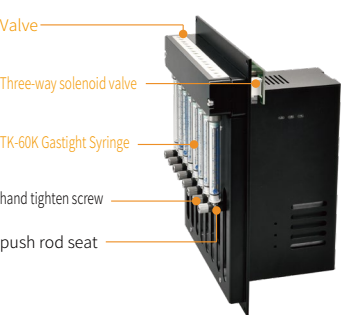
Technical Parameter(ASCII Code)

Accuracy	≤1%@100(rated stroke)
Precision(Repeatability)	0.3%~0.5%@100%(rated stroke)
Rated stroke	60mm
Control Steps	6000 steps(standard mode) 48000 steps(standard mode)
Maximum speed	900rpm
Linear speed	0.01mm/s ~ 100mm/s
Running time(per rated stroke)	0.67s ~ 6000s
Resolution	0.01mm/1 step
Valve type	3-way solenoid valve
Syringe configuration(Optional)	50μl、100μl、250μl、500μl、1ml、1.25ml、2.5ml、5ml Optional Runze K60 Syringe or imported ILS Syringe
Max.Pressure Rating	0.2Mpa
Wetted Material	Borosilicate glass, PTFE,FKM、PPS(PEEK)
Actuator	Trapezoidal screw(Lead 6mm)
Connection	1/4-28UNF
Baud rate	RS232/RS485: 9600bps / 38400bps
Communication address	Up to 15 individual addresses can be provide
Power supply	DC24V/3A
Operating temperature	5°C~55°C
Operating humidity	<80% relative humidity,non condensing
Dimension(L*W*H)	100*145.5*261.3mm
Net weight	2.2kg



- › Integrating multiple valve heads into one product reduces volume while enhancing functionality; In specific application scenarios, one unit (same drawing and same row) can replace multiple units to improve efficiency
- › Replacing and maintaining multiple valve head components is more convenient

★ Product Structure



SY-03B T-DK Syringe Pump

- ◆ A high-precision parallel micro syringe pump independently developed, which uses a stepper motor to drive the syringe and valve to extract and distribute quantitative liquid
- ◆ The valve head can be independently replaced, with good compatibility
- ◆ Programmable acceleration and deceleration curve, programmable gap compensation
- ◆ ASCII Code control

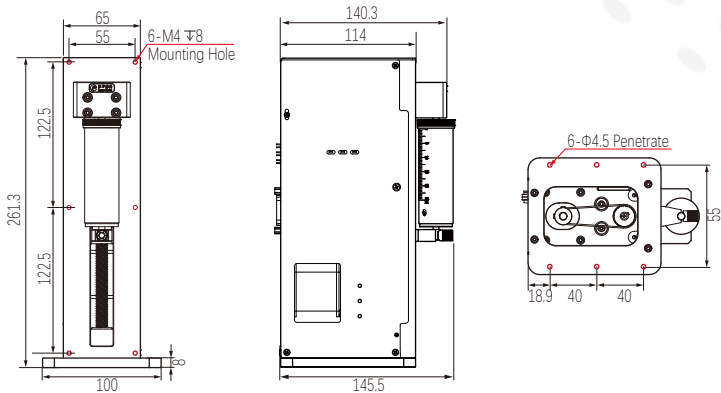
As a core accessory, it is applied in fluid transmission systems with high precision and stability, such as laboratory instrument solutions, medical in vitro diagnostic analysis equipment, chromatographic analyzers, automatic biochemical analyzers, blood analyzers, trace element analyzers, electrolyte analyzers, food and beverage detection and analysis systems, water quality online analyzers, petroleum detection equipment, biopharmaceutical extraction devices, etc.

Technical Parameter(ASCII Code)

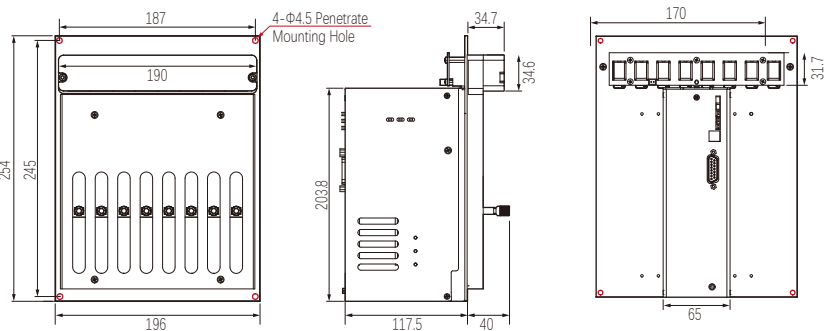
Accuracy	≤1%@100(rated stroke)
Precision(Repeatability)	0.3%~0.5%@100%(rated stroke)
Rated stroke	60mm
Control Steps	6000 steps(standard mode) 48000 steps(standard mode)
Maximum speed	900rpm
Linear speed	0.01mm/s ~ 60mm/s
Running time(per rated stroke)	1s ~ 6000s
Resolution	0.01mm/1 step
Valve type	3-way solenoid valve
Syringe configuration(Optional)	50μl、100μl、250μl、500μl、1ml、2.5ml、5ml Optional Runze K60 Syringe
Max.Pressure Rating	0.2Mpa
Wetted Material	Borosilicate glass、PTFE、FKM、PPS、PEEK
Actuator	Trapezoidal screw
Connection	1/4-28UNF
Baud rate	RS232/RS485: 9600bps、38400bps CAN
Communication address	Up to 15 individual addresses can be provide
Power supply	DC24V/3A
Operating temperature	5°C~55°C
Operating humidity	<80% relative humidity,non condensing
Dimension(L*W*H)	196*157.5*254mm
Net weight	3.8kg

Dimension(Unit:mm)

SY-03B DK



SY-03B T-DK



Syringe Pump

SKU	Model No.	Rated Stroke	Valve model	Note	Qty		
SY-03B DK							
1001100001	ZSB-SY03B DK-60-T1-Z-PPS	60mm	PPS	Single port,straight through without solenoid valve	1 Piece		
1001100002	ZSB-SY03B DK-60-T1-F-PPS	60mm	PPS	Single port with solenoid valve	1 Piece		
1001100003	ZSB-SY03B DK-60-T2-F-PPS	60mm	PPS	Two ports with solenoid valve	1 Piece		
1001100004	ZSB-SY03B DK-60-T4-F-PPS	60mm	PPS	Four ports with solenoid valve	1 Piece		
1001100005	ZSB-SY03B DK-60-T6-F-PPS	60mm	PPS	Six ports with solenoid valve	1 Piece		
1001100006	ZSB-SY03B DK-60-T8-F-PPS	60mm	PPS	Eight ports with solenoid valve	1 Piece		
1001100007	ZSB-SY03B DK-60-T1-Z-PEEK	60mm	PEEK	Single port,straight through without solenoid valve	1 Piece		
1001100008	ZSB-SY03B DK-60-T1-F-PEEK	60mm	PEEK	Single port with solenoid valve	1 Piece		
1001100009	ZSB-SY03B DK-60-T2-F-PEEK	60mm	PEEK	Two ports with solenoid valve	1 Piece		
1001100010	ZSB-SY03B DK-60-T4-F-PEEK	60mm	PEEK	Four ports with solenoid valve	1 Piece		
1001100011	ZSB-SY03B DK-60-T6-F-PEEK	60mm	PEEK	Six ports with solenoid valve	1 Piece		
1001100012	ZSB-SY03B DK-60-T8-F-PEEK	60mm	PEEK	Eight ports with solenoid valve	1 Piece		
SKU	Model No.	Rated Stroke	Valve model		Qty		
SY-03B T-DK							
1001170001	SY03B T-DK	60mm	PPS, PEEK		1 Piece		
Related accessories (flangeless fittings)				Related accessories (FEP tube)			
SKU	Model No.	Thread	Tube OD	Material	SKU	Model (ID*OD)	Material
1006010170	WF10A-28P * YE-016P	1/4-28UNF	1.6mm OD	PP	1005040001	TFLG00001 (0.8*1.6)	FEP Transparent
1006010169	WF10A-28P * YE-020P	1/4-28UNF	2.0mm OD	PP	1005040002	TFLG00002 (1*2)	FEP Transparent
1006010168	WD10A-28P * YC-025P	1/4-28UNF	2.5mm OD	PP	1005040003	TFLG00003 (1.5*2.5)	FEP Transparent
1006010167	WD10A-28P * YC-030P	1/4-28UNF	3.0mm OD	PP	1005040004	TFLG00004 (2*3)	FEP Transparent
1006010166	WD10A-28P * YC-032P	1/4-28UNF	3.2mm OD	PP	1005040005	TFLG00005 (2.175*3.175)	FEP Transparent

Note: For other fittings and accessories, please refer to the RUNZE FLUID PLASTIC FITTINGS & TUBE CATALOGUE



K30/K60 Gastight Syringe

30mm/60mm stroke,
core component of liquid processing center

- ◆Standard 1/4-28UNF thread,good tightness
- ◆Wetted material: Borosilicate (glass), PTFE (piston/syringe), high precision,corrosion resistance
- ◆Maximum pressure rating 0.68Mpa;Service life: 3 million times no leakage (water)
- ◆Easy clean and sterilization,reusable

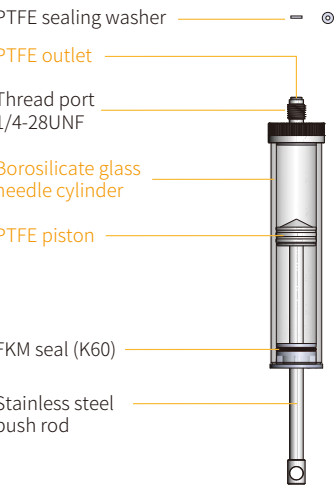


AFK60 Gastight Syringe

60mm stroke, Anti detachment syringe

- ◆Standard 1/4-28UNF thread,good tightness
- ◆SUS316L stainless steel protective sleeve to prevent detachment
- ◆Wetted material: Borosilicate (glass), PTFE (piston/syringe), high precision,corrosion resistance
- ◆Maximum pressure rating 0.68Mpa;Service life: 3 million times no leakage (water)
- ◆Easy clean and sterilization,reusable

★ Product Structure

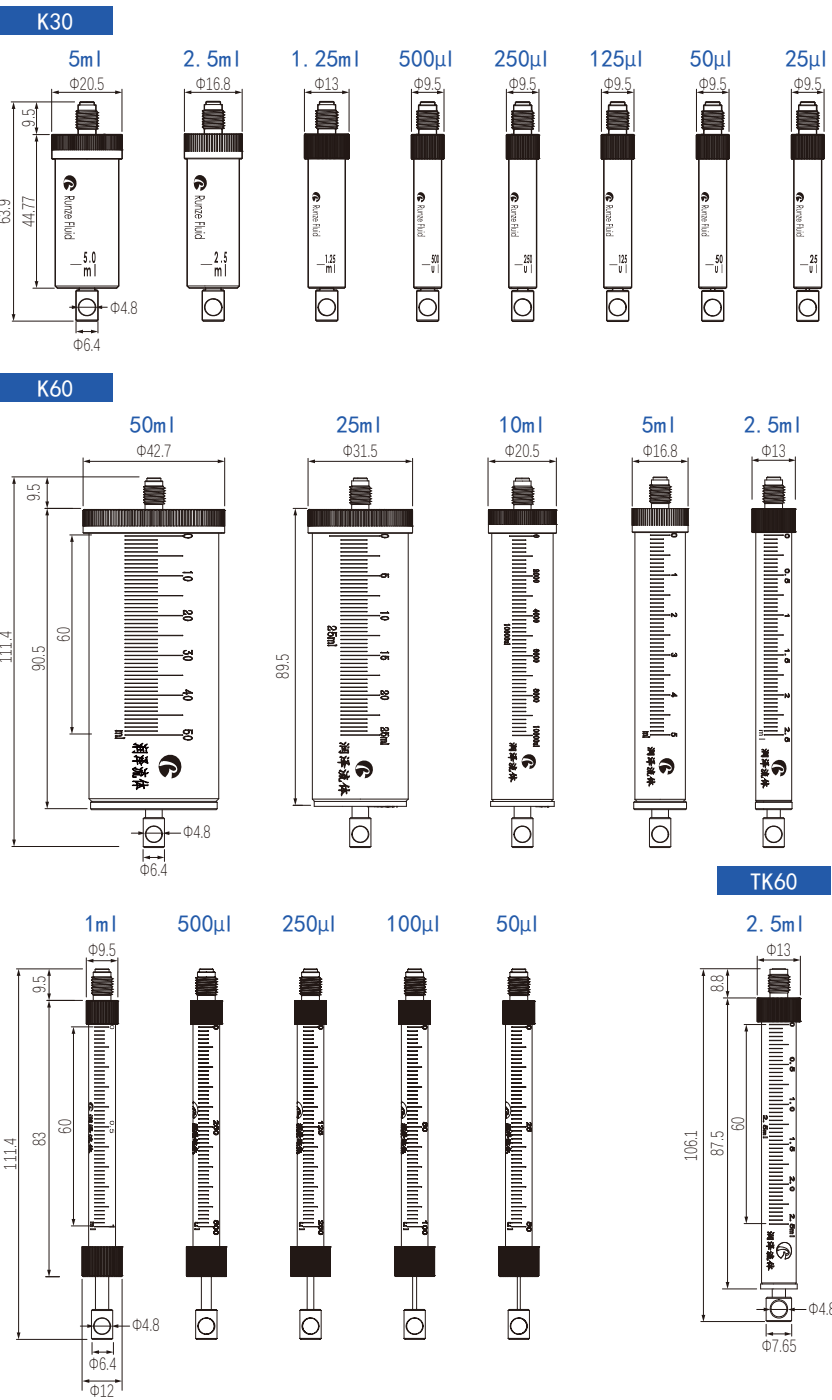


Runze Fluid can provide a wide range of analytical and experimental syringes for Smart SY-01B and Smart SY-01C syringe pumps with a 30mm stroke, or SY-03B, SY-06B, and SY-03B DK syringe pumps with a 60mm stroke. Each syringe consists of a precision produced glass syringe and a stainless steel push rod, allowing for precise volume control and step subdivision.

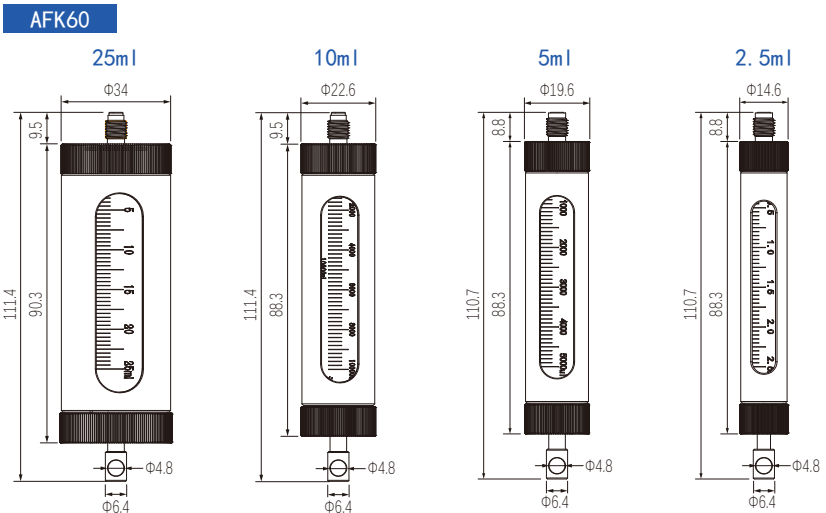
We have various volumes of syringes to choose from, and offer PTFE pistons to ensure excellent chemical resistance. The FKM black seal (only available for 60mm stroke samplers 50ml~2.5ml) also provides an ultra long service life, ensuring reliable performance and reducing maintenance costs.

Dimension Unit (mm)

Note: Some models are not labeled with the same size as the series



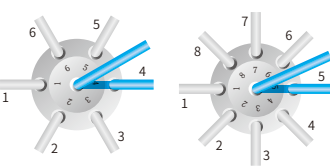
Dimension Unit (mm)



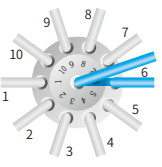
SKU	Model No.	Rated Stroke	Volume	Adaptive pump	Qty
K30					
1003130001	RZ-K30-5ML-W-1-U	30mm	5ml	Smart SY-01B、Smart SY-01C	1 Piece
1003130002	RZ-K30-2.5ML-W-1-U	30mm	2.5ml	Smart SY-01B、Smart SY-01C	1 Piece
1003130003	RZ-K30-1.25ML-W-1-U	30mm	1.25ml	Smart SY-01B、Smart SY-01C	1 Piece
1003130004	RZ-K30-500ul-W-1-U	30mm	500µl	Smart SY-01B、Smart SY-01C	1 Piece
1003130005	RZ-K30-250ul-W-1-U	30mm	250µl	Smart SY-01B、Smart SY-01C	1 Piece
1003130006	RZ-K30-125ul-W-1-U	30mm	125µl	Smart SY-01B、Smart SY-01C	1 Piece
1003130007	RZ-K30-50ul-W-1-U	30mm	50µl	Smart SY-01B、Smart SY-01C	1 Piece
1003130008	RZ-K30-25ul-W-1-U	30mm	25µl	Smart SY-01B、Smart SY-01C	1 Piece
K60					
1003120001	RZ-K60-50ML-W-1-U	60mm	50ml	SY-03B	1 Piece
1003120002	RZ-K60-25ML-W-1-U	60mm	25ml	SY-03B	1 Piece
1003120003	RZ-K60-10ML-W-1-U	60mm	10ml	SY-03B、SY-06B	1 Piece
1003120004	RZ-K60-5ML-W-1-U	60mm	5ml	SY-03B、SY-06B、SY-03B DK	1 Piece
1003120005	RZ-K60-2.5ML-W-1-U	60mm	2.5ml	SY-03B、SY-06B、SY-03B DK	1 Piece
1003120006	RZ-K60-1ML-W-1-U	60mm	1mL	SY-03B、SY-06B、SY-03B DK	1 Piece
1003120007	RZ-K60-500ul-W-1-U	60mm	500µl	SY-03B、SY-06B、SY-03B DK	1 Piece
1003120008	RZ-K60-250ul-W-1-U	60mm	250µl	SY-03B、SY-06B、SY-03B DK	1 Piece
1003120009	RZ-K60-100ul-W-1-U	60mm	100µl	SY-03B、SY-06B、SY-03B DK	1 Piece
1003120010	RZ-K60-50ul-W-1-U	60mm	50µl	SY-03B、SY-06B、SY-03B DK	1 Piece
TK60					
1003140001	RZ-TK60-2.5ML-W-1-U	60mm	2.5ml	SY-03B T-DK	1 Piece
AFK60					
1003150004	RZ- AFK60-25ML-W-1-U	60mm	25ml	SY-03B	1 Piece
1003150003	RZ- AFK60-10ML-W-1-U	60mm	10ml	SY-03B、SY-06B	1 Piece
1003150002	RZ- AFK60-5ML-W-1-U	60mm	5ml	SY-03B、SY-06B、SY-03B DK	1 Piece
1003150001	RZ- AFK60-2.5ML-W-1-U	60mm	2.5ml	SY-03B、SY-06B、SY-03B DK	1 Piece

★ Selector Valve Head

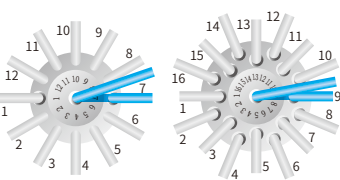
6-way valve head 8-way valve head



10-way valve head



12-way valve head 16-way valve head



Multiport Valve

The multi-channel selector valve is connected to different ports through a common channel (inlet or outlet), connecting multiple system liquids (mobile phase, reagent, buffer). In diagnostic or sequencing applications, selector valves are replaced between different reagent or sample flows.

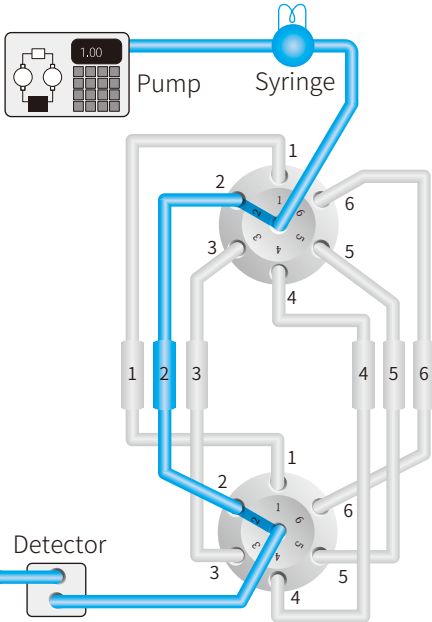
Selector valves come in a variety of different configurations (such as 6/8/10/12/16 way), and these valves typically operate between two or more positions. These ports are usually placed in a circular shape or in some form outward around the center port of the stator.

- 1.Center port is public port, valve switch to specific port by programming control. Valve head port (SV-07/SV-04/LV50 channel material is PCTFE, SV-08 channel material is PPS or UPE) and sapphire. Ensure the provision of completely non-metallic, corrosion-resistant, high-temperature resistant, and wear-resistant channels.
- 2.Flow configuration -6/8/10/12/16 port and orifice 1.0/1.2mm to meet different applications.
- 3.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.
- 4.OEM service - RUNZE supports special flow path design and customize, and its flow path configuration can meet the most common applications. RUNZE 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.

Application Note

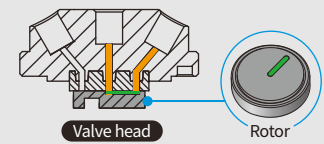
Two switching valves can complete the switching and direction selection of six chromatographic columns

This example illustrates the SD (UWtype) selector used for HPLC column selection. This allows for the permanent installation of multiple chromatography columns in the system, thereby eliminating instrument downtime and the possibility of leakage caused by the need to repeatedly replace chromatography columns.



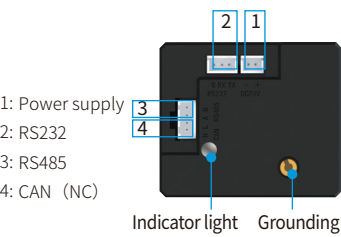
Dead volume:

- Port to Port Volume
- Rotor Slot Volume



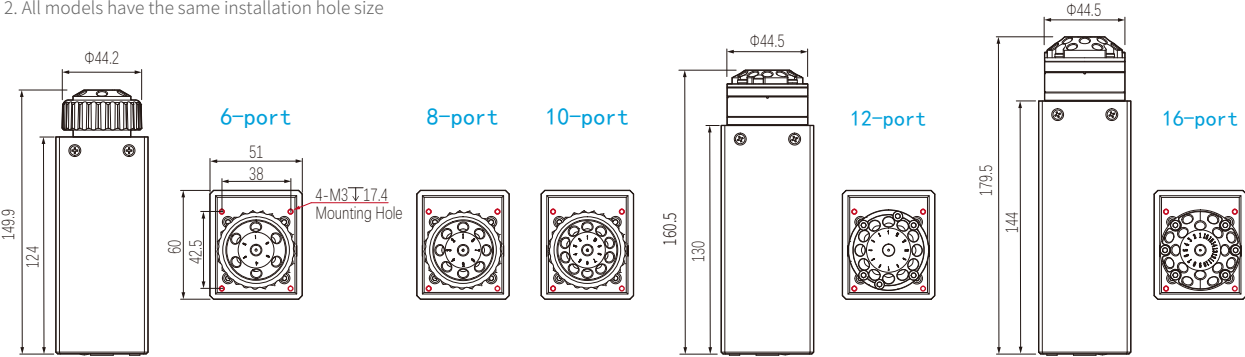
- Valve core structure: The valve core adopts a multi-directional adaptive flat fitting method, which can effectively extend the product life. (This structure has applied for a utility patent, patent number: CN204852471U);
- Power: The valve body rotation adopts NMB imported planetary gearbox motor as the power device, which has extremely high reliability;
- Positioning: The valve hole positioning adopts optical encoder positioning, effectively solving the problem of inaccurate positioning after gearbox wear and tear;
- Driver: The two-phase bipolar stepper driver module is a constant current drive chip that can efficiently control the motor current. It has built-in error detection circuits and error detection (TSD/ISD) signal output functions;
- Controller interface: XH terminals with a spacing of 2.54mm

★ Driver Port Definition



Dimensions(Unit:mm)

Note: 1. The external dimensions of the SV-07 switching valve 6/8/10 channel valve body are consistent
2. All models have the same installation hole size



SV-07 Selector Valve

- ◆ RUNZE valve core is made of sapphire material, which is resistant to corrosion, high temperature, high pressure, and ultra-high wear resistance, suitable for various special media.
- ◆ Valve head is made of PCTFE (polytetrafluoroethylene) and PPS processing combination, maintenance free.
- ◆ Supports multiple communication:RS232/RS485.
- ◆ CE Certified

Widely used in environmental detection instruments, experimental analysis instruments, medical analysis instruments, chromatographs, etc

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 Solt Volume 5.41μl	Port to Port 22.43μl Rotor Solt Volume 6.08μl	Port to Port 33.68μl Rotor Solt Volume 10.4μl
Wetted material	PCTFE Valve head、Sapphire rotor and stator		
Pressure rating	0~0.3Mpa(air)/0~1.6Mpa(water)		
Origin detection	Set automatic detection of initial position after power on (this function can be selectively turned on or off)		
Liquid temperature	0-150°C		
Connection	1/4-28UNF		
Replaceable parts	Replace stator and rotor seals		
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		
Address&Parameter setting	Via communication		
Power supply	DC24V/3A		
Power	60W		
Operating temperature	-10°C ~ +50°C		
Operating humidity	≤80% relative humidity,non-condensing		
Dimension(L*W*H)	60*51*150mm	60*51*160.5mm	60*51*179.5mm
Net Weight	0.73Kg	0.86Kg	1.02Kg



Smart SV-04 Selector Valve

- ◆ Much small volume, exquisite appearance, and compact structure
- ◆ RUNZE valve core is made of sapphire material, which is resistant to corrosion, high temperature, high pressure, and ultra-high wear resistance, suitable for various special media.
- ◆ Valve head is made of PCTFE and PPS processing combination, maintenance free.
- ◆ Supports multiple communication:RS232/RS485.

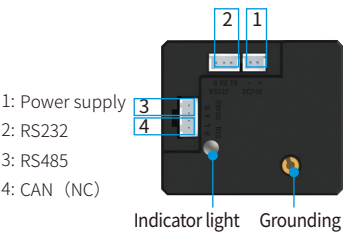
◆ CE Certified.

Widely used in environmental detection instruments, experimental analysis instruments, medical analysis instruments, chromatographs, etc

参数表

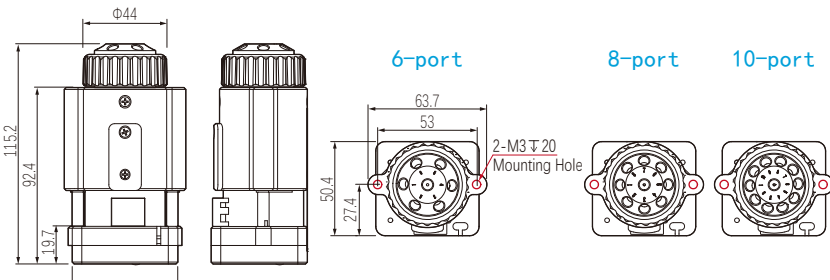
Configuration	6/8/10-port
Flow Passage Diameters	1.2mm
Dead Volume	Port to Port 27.5μl Rotor Solt Volume 5.41μl
Wetted material	PCTFE Valve head、Sapphire rotor and stator
Pressure rating	0~0.3Mpa(air)/0~0.8Mpa(water)
Origin detection	Set automatic detection of initial position after power on (this function can be selectively turned on or off)
Liquid temperature	0-150°C
Connection	1/4-28UNF
Replaceable parts	Replace stator and rotor seals
Transposition	Random start to any specific port
Driver	Non-optional
Valve drive	≤4s/circle
Baud rate	RS232/RS485: 9600bps / 19200bps / 38400bps / 57600bps / 115200bps
Address&Parameter setting	Via communication
Power supply	DC24V/1A
Power	24W
Operating temperature	-10°C ~ +50°C
Operating humidity	≤80% relative humidity,non-condensing
Dimension(L*W*H)	63.7*50.4*115.2mm
Net Weight	0.437kg

★ Driver Port Definition



Dimensions(Unit:mm)

Note: 1. Smart SV-04 Switching Valve 6/8/10 Channel Valve Body Dimensions Consistent
2. All models have the same installation hole size



LV50

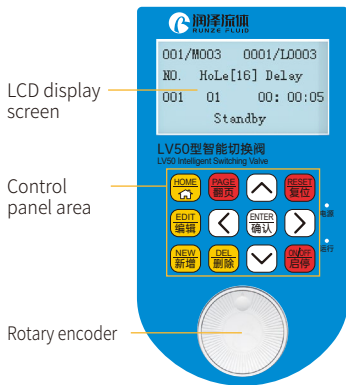
- ◆ LV50 series intelligent switching valve can achieve basic programming , which can realize the port switching in accordance with the predetermined logical sequence
- ◆ LV50 can be regarded as a programmable control switching valve. The logical sequence,stay time (hour/minute/second), and cycle index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

◆ CE Certified

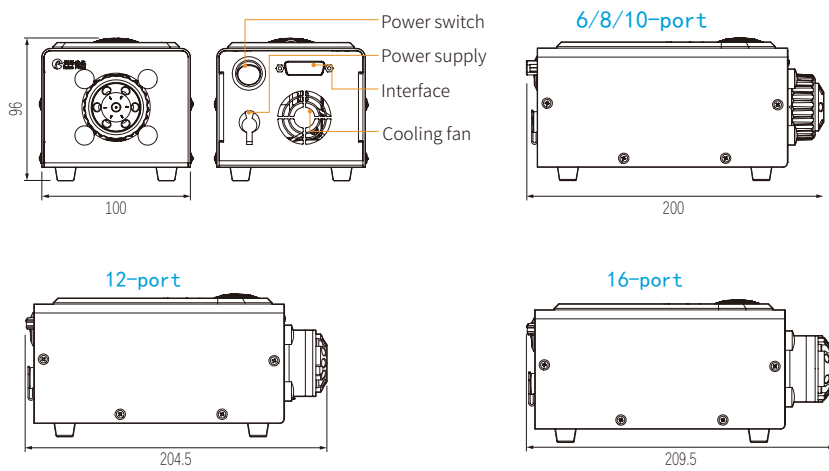
Technical Parameter

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 Solt Volume 5.41μl	Port to Port 22.43μl Rotor Solt Volume 6.08μl	Port to Port 33.68μl Rotor Solt Volume 0.4μl
Wetted material	PCTFE Valve head、Sapphire rotor and stator		
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		
Rotation encoding control interface	Easy for human-computer interaction		
Power supply	DC24V±10%		
Power	20W		
Working environment	Temperature 0-40 °C;relative humidity < 80%		
IP rate	IP31		
Dimension(L*W*H)	200*100*96mm	204.5*100*96mm	209.5*100*96mm
Weight	1.58kg~1.68kg		

★ Control panel



Dimension(Unit:mm)



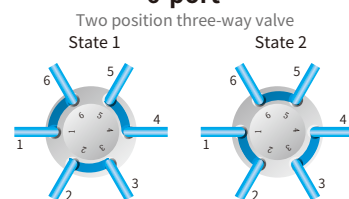
Selector Valve

SKU	Model No.	Configuration	Orifice	Valve head material	Qty		
SV-07							
1002120001	QHF-SV07-X-S-T06-K1.2-S	6-port	1.2mm	PCTFE	1 Piece		
1002120002	QHF-SV07-X-S-T08-K1.2-S	8-port	1.2mm	PCTFE	1 Piece		
1002120003	QHF-SV07-X-S-T10-K1.2-S	10-port	1.2mm	PCTFE	1 Piece		
1002120004	QHF-SV07-X-S-T12-K1.0-S	12-port	1.0mm	PCTFE	1 Piece		
1002120005	QHF-SV07-X-S-T16-K1.0-S	16-port	1.0mm	PCTFE	1 Piece		
1002120014	QHF-SV07-X-S-T06-K3.0-S	6-port	3.0mm	PCTFE	1 Piece		
1002120015	QHF-SV07-X-S-T08-K3.0-S	8-port	3.0mm	PCTFE	1 Piece		
Smart SV-04							
1002110001	QHF-SV04-X-S-T06-K1.2-S	6-port	1.2mm	PCTFE	1 Piece		
1002110002	QHF-SV04-X-S-T08-K1.2-S	8-port	1.2mm	PCTFE	1 Piece		
1002110003	QHF-SV04-X-S-T10-K1.2-S	10-port	1.2mm	PCTFE	1 Piece		
LV50							
1002100001	QHF-LV50-T06-K1.2	6-port	1.2mm	PCTFE	1 Piece		
1002100002	QHF-LV50-T08-K1.2	8-port	1.2mm	PCTFE	1 Piece		
1002100003	QHF-LV50-T10-K1.2	10-port	1.2mm	PCTFE	1 Piece		
1002100004	QHF-LV50-T12-K1.0	12-port	1.0mm	PCTFE	1 Piece		
1002100005	QHF-LV50-T16-K1.0	16-port	1.0mm	PCTFE	1 Piece		
Related accessories (flangeless fittings)				Related accessories (FEP tube)			
SKU	Model No.	Thread	Tube OD	Material	SKU	Model (ID*OD)	Material
1006010170	WF10A-28P * YE-016P	1/4-28UNF	1.6mm OD	PP	1005040001	TFLG00001 (0.8*1.6)	FEP Transparent
1006010169	WF10A-28P * YE-020P	1/4-28UNF	2.0mm OD	PP	1005040002	TFLG00002 (1*2)	FEP Transparent
1006010168	WD10A-28P * YC-025P	1/4-28UNF	2.5mm OD	PP	1005040003	TFLG00003 (1.5*2.5)	FEP Transparent
1006010167	WD10A-28P * YC-030P	1/4-28UNF	3.0mm OD	PP	1005040004	TFLG00004 (2*3)	FEP Transparent
1006010166	WD10A-28P * YC-032P	1/4-28UNF	3.2mm OD	PP	1005040005	TFLG00005 (2.175*3.175)	FEP Transparent

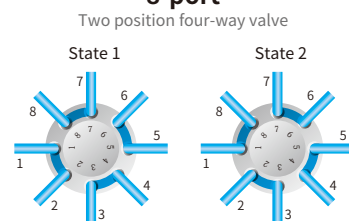
Note: For other fittings and accessories, please refer to the RUNZE FLUID PLASTIC FITTINGS & TUBE CATALOGUE

★ Valve head status

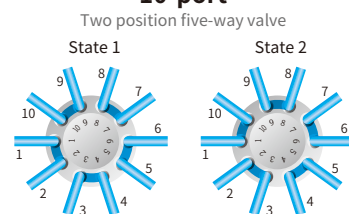
6-port



8-port



10-port



Injector Valve

The injector valve dynamically switches between two flow paths without manually disconnecting the channel. In chromatographic analysis, these valves can be used for column switching, backwashing, sample enrichment, and other techniques. In diagnostic or sequencing applications, quantitative valves can convert flow paths and perform backwashing or other fluid tasks within the instrument.

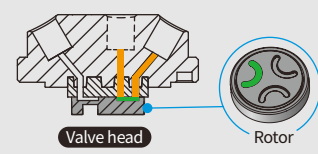
Runze valve operates between two positions and may have 6, 8, or 10 ports (two three-way, two four-way, or two five way) on the stator surface. The flow path connects the ports around the stator.

Dead volume:

Port to Port Volume



Rotor Slot Volume



Application Note

Runze Injector valves, through combination and combination, can be suitable for various situations. The following are common application examples for you. If you have other connection and usage needs, please contact us, and our engineers will assist you in valve selection and flow path layout.

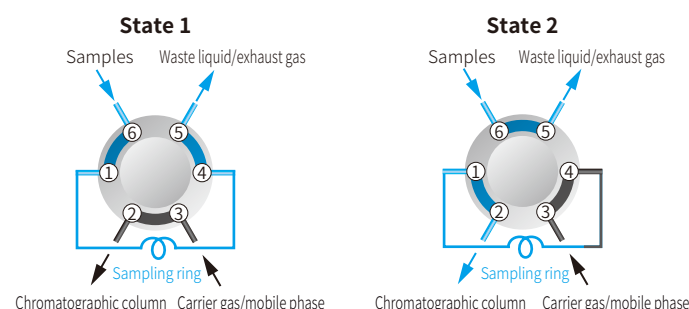
6-way - External sampling ring injection

Inject

State 1: The sample flows through the sampling ring, and the mobile phase flows directly through the chromatographic column.

State 2: The sample in the groove of the sampling ring and valve rotor is blown into the chromatographic column.

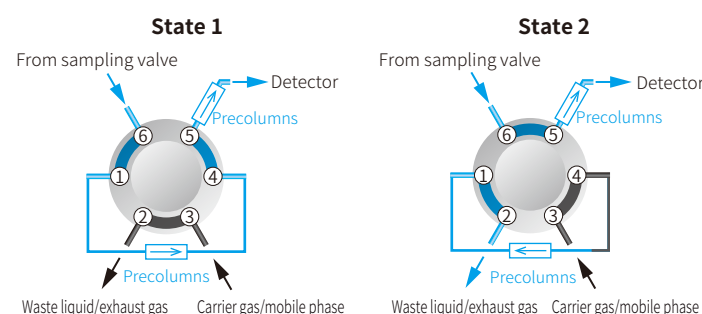
Attention: The flow direction of the mobile phase in the sampling loop should be opposite to the flow direction of the sampling loop when flowing through the sample (i.e. backflow).



6-way - External sampling ring injection/switching valve

Pre column backflushing

This pipeline scheme allows for the backflushing of slower elution components that do not require analysis to the discharge outlet. Short analytical columns are usually used as pre columns. Once all the components to be tested enter the analysis column (at port 5), the valve will switch, blow back the pre column, and shorten the analysis time

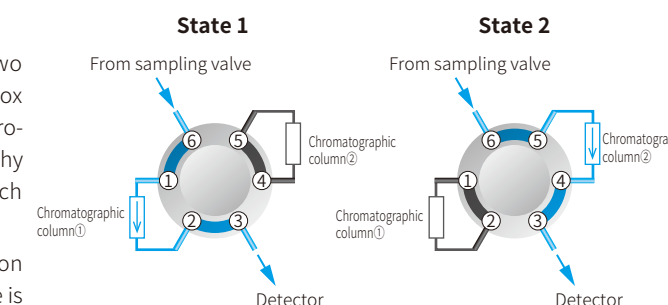


6-way - Sampling

Switching of chromatographic columns

When it is necessary to frequently switch between two different chromatography columns at similar column box temperatures, the 6-way valve can quickly select the chromatography column to be used. Unused chromatography columns are protected by an inert mobile phase, which can quickly reach equilibrium when needed.

Note: If it is necessary to maintain the flow rate of a non selected chromatographic column, an 8 or 10 way valve is required.



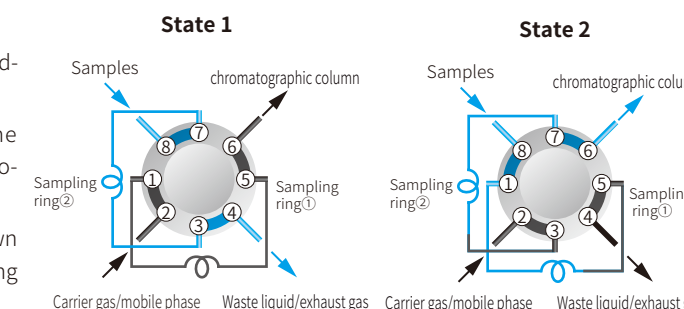
8-way Dual sampling loop injection

Quick loading of samples

This flow configuration can achieve uninterrupted loading and injection of samples.

State 1: Sampling loop 2 loads the sample, and the sample in sampling loop 1 is blown into the chromatographic column.

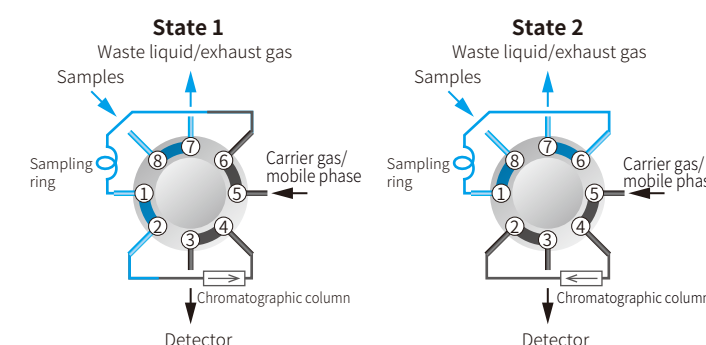
State 2: The sample inside the sampling ring ② is blown into the chromatographic column, and the sampling ring ① is loaded with the sample.



8-way - Single sampling ring injection

Sampling and Blowback

A valve simultaneously achieves the functions of injection and backflushing, simplifying operation and reducing costs. When the component of interest is detected, the remaining components will be blown out without the need to continue the program heating.



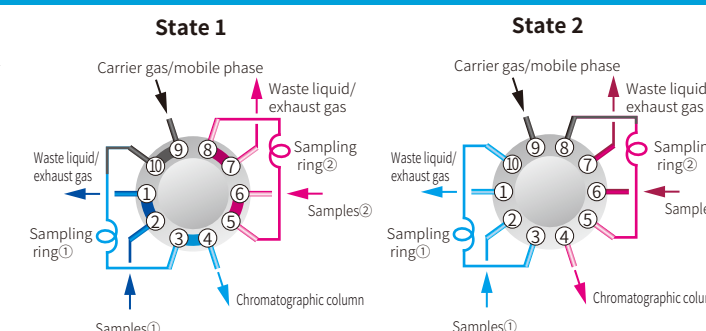
10-way - Dual sampling loop injection

Two samples to one chromatographic column

The 10 way valve can achieve alternating injection of samples of different volumes (determined by the sampling ring) by connecting two sampling rings.

State 1: Sample ② is loaded into the sampling ring ②, and sample ① inside the sampling ring ① flows into the chromatographic column.

State 2: The sample inside the sampling ring ② flows into the chromatographic column, and the sampling ring ① loads the sample



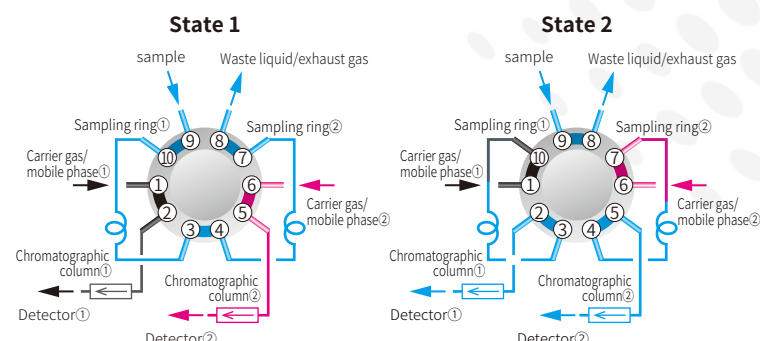
10-way - Dual sampling loop injection

One sample to two chromatography columns

This flow configuration can enable different operations to be performed simultaneously on the same sample.

State 1: Two sampling rings load the sample sequentially.

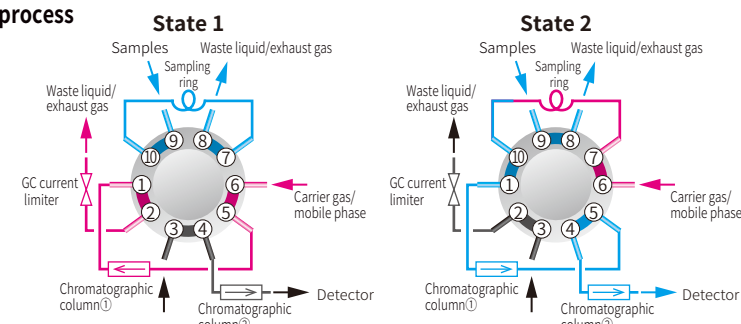
State 2: Samples from two sampling rings flow into different chromatographic columns or subsequent operations respectively



10 way - Single sampling ring injection

Implementing backflushing during the analysis process

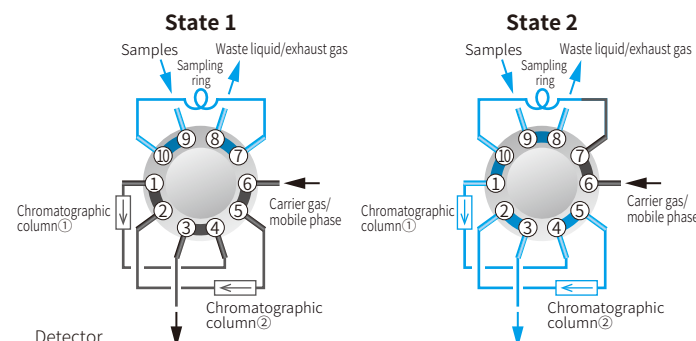
In state 2, the samples in the sampling loop flow sequentially into column ① and column ②. When switching state 1, the samples in the column continue to flow into the detector, while the heavy components in column ① are purged and discharged, with the aim of reducing overall analysis time during the analysis process.



10 way - Single sampling ring injection

Reversal of column sequence in chromatography

This flow path design is very suitable for permanent gas analysis of carbon dioxide without high boiling point substances. State 1: The sample flows into the sampling loop. State 2: The sample inside the sampling ring flows into the chromatographic column ①. As inorganic gases and methane enter column ② from column ①, the valve switches to state 1 and reverses the column sequence. State 1: Carbon dioxide is blown out of the chromatographic column ①, resulting in the first peak. Inorganic substances and methane flow out of the molecular sieve and reach the detector through a porous polymer column.

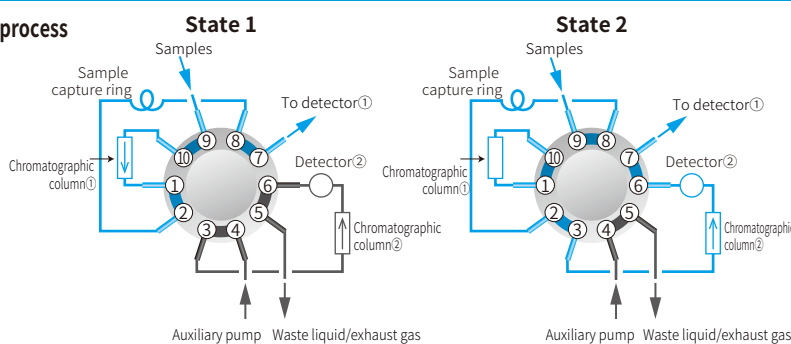


10 way- Cutting of sample components

Implementing backflushing during the analysis process

State 1: The sample flows into the chromatographic column ①. The early elution components (pre cut) flow into the detector after passing through the sample capture loop.

State 2: The sample components retained in the sample capture ring flow into the chromatographic column ②. The late eluted recombinant fraction (end cutting) is captured in the chromatographic column ①. When the valve switches again, the recombinant (end cutting) reaches the first detector through the capture circuit to complete the analysis.



SV-07B Injector Valve

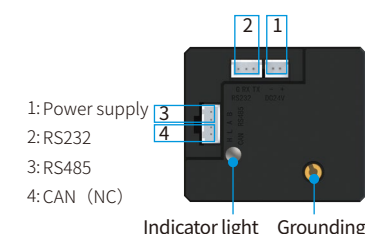
- ◆ RUNZE valve core is made of sapphire material, which is resistant to corrosion, high temperature, high pressure, and ultra-high wear resistance, suitable for various special media.
- ◆ Valve head is made of PCTFE (polytetrafluoroethylene) and PPS processing combination, maintenance free.
- ◆ Supports multiple communication: RS232/RS485.

Widely used in environmental detection instruments, experimental analysis instruments, medical analysis instruments, chromatographs, etc

Technical Parameter

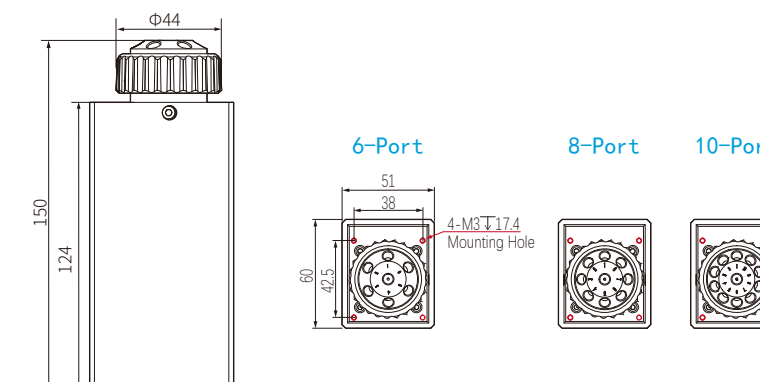
Configuration	6-port	8-port	10-port
Flow Passage Diameters	1.2mm	1.2mm	1.2mm
Dead Volume	Port to Port 28.121μl Rotor Solt Volume 5.207μl	Port to Port 28.67μl Rotor Solt Volume 5.756μl	Port to Port 28.129μl Rotor Solt Volume 5.215μl
Wetted material	UPE, Sapphire rotor and stator		
Pressure rating	0~0.3Mpa(air)/0~1.6Mpa(water)		
Origin detection	Auto reset to initial position when powered on (this function can be opened or off)		
Liquid temperature	0-150°C		
Connection	1/4-28UNF		
Replaceable parts	Replace stator and rotor seals		
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		
Address&Parameter setting	Via communication		
Power supply	DC24V/3A		
Power	60W		
Operating temperature	-10°C ~ +50°C		
Operating humidity	≤80% relative humidity, non-condensing		
Dimension(L*W*H)	60*51*150mm		
Net Weight	0.73Kg		

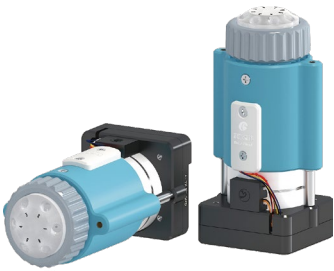
★ Driver Port Definition



Dimensions(Unit:mm)

- Note: 1. The external dimensions of the SV-07B switching valve 6/8/10 channel valve body are consistent
2. All models have the same installation hole size



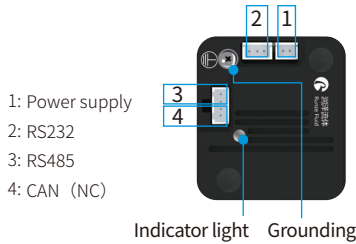


Smart SV-04B Injector Valve

- ◆ Much small volume, exquisite appearance, and compact structure
- ◆ RUNZE valve core is made of sapphire material, which is resistant to corrosion, high temperature, high pressure, and ultra-high wear resistance, suitable for various special media
- ◆ Valve head is made of PCTFE and PPS processing combination, maintenance free.
- ◆ Supports multiple communication:RS232/RS485

Widely used in environmental detection instruments, experimental analysis instruments, medical analysis instruments, chromatographs, etc

★ Driver Port Definition

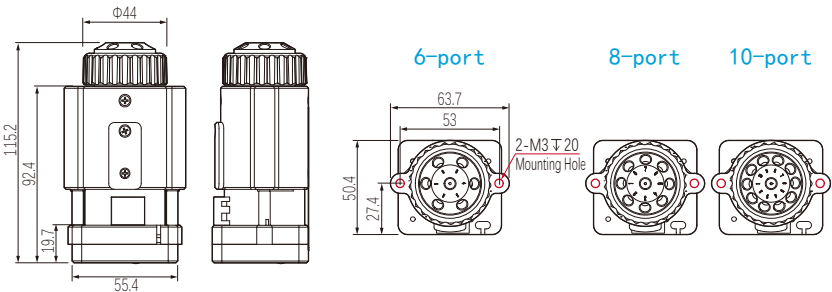


Technical Parameter

Configuration	6-port	8-port	10-port
Flow Passage Diameters	1.2mm	1.2mm	1.2mm
Dead Volume	Port to Port 28.12μl Rotor Solt Volume 5.2071μl	Port to Port 28.67μl Rotor Solt Volume 5.7561μl	Port to Port 28.129μl Rotor Solt Volume 5.215μl
Wetted material	PCTFE、Sapphire		
Pressure rating	0~0.3Mpa(air)/0~0.8Mpa(water)		
Origin detection	Set automatic detection of initial position after power on (this function can be selectively turned on or off)		
Liquid temperature	0-150°C		
Connection	1/4-28UNF		
Replaceable parts	Replace stator and rotor seals		
Transposition	Random start to any specific port		
Driver	Non-optional		
Valve drive	≤4s/circle		
Baud rate	RS232/RS485: 9600bps / 19200bps / 38400bps / 57600bps / 115200bps		
Address&Parameter setting	Via communication		
Power supply	DC24V/1A		
Power	24W		
Operating temperature	-10°C至 +50°C		
Operating humidity	≤80% relative humidity,non-condensing		
Dimension(L*W*H)	63.7*50.4*115.2mm		
Net Weight	0.437kg		

Dimensions(Unit:mm)

Note: 1. The external dimensions of the SV-04B switching valve 6/8/10 channel valve body are consistent
2. All models have the same installation hole size



Injector Valve

SKU	Model No.	Configuration	Orifice	Qty			
SV-07B							
1002140001	QHF-SV07B-X-T06-K1.2-S	6-port	1.2mm	1 Piece			
1002140002	QHF-SV07B-X-T08-K1.2-S	8-port	1.2mm	1 Piece			
1002140003	QHF-SV07B-X-T10-K1.2-S	10-port	1.2mm	1 Piece			
Smart SV-04B							
1002130001	QHF-SV04B-X-T06-K1.2-S	6-port	1.2mm	1 Piece			
1002130002	QHF-SV04B-X-T08-K1.2-S	8-port	1.2mm	1 Piece			
1002130003	QHF-SV04B-X-T10-K1.2-S	10-port	1.2mm	1 Piece			
Related accessories (flangeless fittings)				Related accessories (FEP tube)			
SKU	Model No.	Thread	Tube OD	Material	SKU	Model (ID*OD)	Material
1006010170	WF10A-28P * YE-016P	1/4-28UNF	1.6mm OD	PP	1005040001	TFLG00001 (0.8*1.6)	FEP Transparent
1006010169	WF10A-28P * YE-020P	1/4-28UNF	2.0mm OD	PP	1005040002	TFLG00002 (1*2)	FEP Transparent
1006010168	WD10A-28P * YC-025P	1/4-28UNF	2.5mm OD	PP	1005040003	TFLG00003 (1.5*2.5)	FEP Transparent
1006010167	WD10A-28P * YC-030P	1/4-28UNF	3.0mm OD	PP	1005040004	TFLG00004 (2*3)	FEP Transparent
1006010166	WD10A-28P * YC-032P	1/4-28UNF	3.2mm OD	PP	1005040005	TFLG00005 (2.175*3.175)	FEP Transparent

Note: For other fittings and accessories, please refer to the RUNZE FLUID PLASTIC FITTINGS & TUBE CATALOGUE



Mrv-01B

High Pressure Valve

- ◆ High pressure resistance, positive pressure 1.2Mpa, negative pressure 0.06Mpa, with status feedback
- ◆ Valve body can be heated up to 80 °C
- ◆ When switching valves, there will be no fluctuation or pulsation of the liquid, ensuring the stability of the liquid outlet
- ◆ Stepper motor driver, compared to solenoid valves, can be opened or closed for a long time

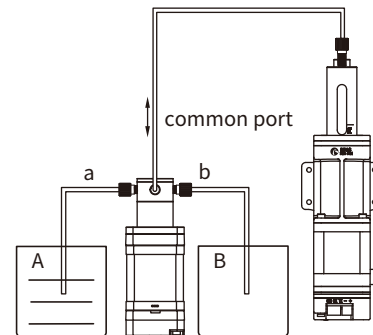
High pressure valves are widely used for the collection and distribution of fluid samples, suitable for environmental detection instruments, experimental analysis instruments, medical analysis instruments, chromatographs and other equipment

Technical Parameter

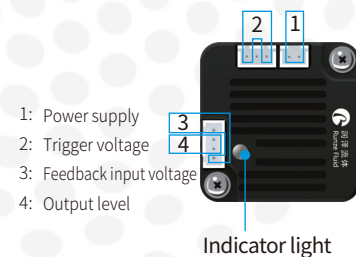
Flow Passage Diameters 1.5mm					
Wetted material	Ceramics				
Valve model	M01	M02	M03	M04	M05
Dead Volume	52.93μl	50.68μl	52.93μl	101.35μl	51.32μl
Pressure rating	0~1.0Mpa(air)/0~1.2Mpa(water)				
Liquid temperature	0-80℃				
Connection	1/4-28UNF				
Replaceable parts	Replace stator and rotor seals				
Transposition	否				
Driver	≤530ms (response time)				
Transposition	Two states, random start				
Trigger signal	DC7-33V				
Feedback input signal	DC3.3V-24V high low level output				
Power supply	DC24V/1A				
Max. current	2A				
Power	15W				
Operating temperature	0℃~50℃				
Operating humidity	<70% relative humidity,non-condensing				
Dimension(L*W*H)	42.1*42.1*120.9mm				
Net Weight	0.487kg				

Application

1. The high-pressure valve adopts M02 valve head, and the connection method is shown in the left figure:
2. Working process: When the syringe pump extracts liquid, the a end of the high-pressure valve is connected to the common end, and the liquid in the A box is pumped into the syringe pump chamber; When the syringe pump discharges liquid outward, the high-pressure valve is energized. At this time, the b-end of the high-pressure valve is connected to the common end, and the liquid in the syringe pump chamber is discharged to the B-box.

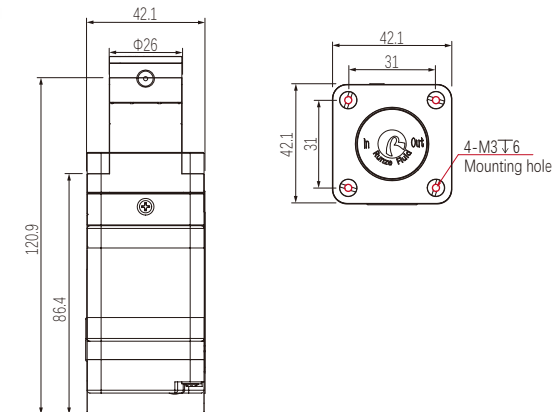


★ Driver Port Definition



Dimensions(Unit:mm)

Note: The external dimensions of the high-pressure valve body are consistent, and the installation hole size is the same for all models



SKU	Model No.	Valve Model	Orifice	Qty
Mrv-01B				
1002070013	Mrv-01B-T02-K1.5-C-M01	M01	1.5mm	1 Piece
1002070014	Mrv-01B-T03-K1.5-C-M02	M02	1.5mm	1 Piece
1002070015	Mrv-01B-T04-K1.5-C-M03	M03	1.5mm	1 Piece
1002070016	Mrv-01B-T04-K1.5-C-M04	M04	1.5mm	1 Piece
1002070017	Mrv-01B-T03-K1.5-C-M05	M05	1.5mm	1 Piece
1002070018	Mrv-01B-T02-K3.0-C-M01	M01	3.0mm	1 Piece
1002070019	Mrv-01B-T03-K3.0-C-M02	M02	3.0mm	1 Piece
1002070020	Mrv-01B-T04-K3.0-C-M03	M03	3.0mm	1 Piece
1002070021	Mrv-01B-T04-K3.0-C-M04	M04	3.0mm	1 Piece
1002070022	Mrv-01B-T03-K3.0-C-M05	M05	3.0mm	1 Piece

Related accessories (flangeless fittings)					Related accessories (FEP tube)		
SKU	Model No.	Thread	Tube OD	Material	SKU	Model (ID*OD)	Material
1006010170	WF10A-28P * YE-016P	1/4-28UNF	1.6mm OD	PP	1005040001	TFLG00001 (0.8*1.6)	FEP Transparent
1006010169	WF10A-28P * YE-020P	1/4-28UNF	2.0mm OD	PP	1005040002	TFLG00002 (1*2)	FEP Transparent
1006010168	WD10A-28P * YC-025P	1/4-28UNF	2.5mm OD	PP	1005040003	TFLG00003 (1.5*2.5)	FEP Transparent
1006010167	WD10A-28P * YC-030P	1/4-28UNF	3.0mm OD	PP	1005040004	TFLG00004 (2*3)	FEP Transparent
1006010166	WD10A-28P * YC-032P	1/4-28UNF	3.2mm OD	PP	1005040005	TFLG00005 (2.175*3.175)	FEP Transparent

Note: For other fittings and accessories, please refer to the **RUNZE FLUID PLASTIC FITTINGS & TUBE CATALOGUE**



PS-10 System

High reliability and low maintenance

- ◆ Using the world's leading sequential injection platform, the reagent consumption is low, accounting for 1/20 of the conventional chemical method instrument reagent usage, making it suitable for long-term online monitoring
- ◆ High integration multi-channel switching valve, with a single valve body capable of switching between 6-16 valve positions, with a simple construction
- ◆ Innovative liquid storage ring structure, where samples or reagents do not come into direct contact with the syringe, avoiding wear and corrosion of the syringe flow path

Accurate measurement and wide applicability

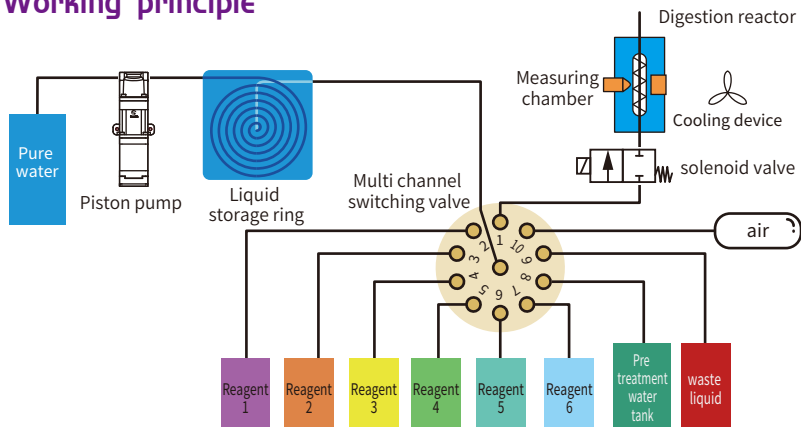
- ◆ Adopting analytical methods consistent with national standards, industry standards, and calibration standards, suitable for automatic monitoring of chemical oxygen demand (COD) at environmental pollution source discharge outlets
- ◆ Sample and reagent volume quantification is accurate, with good repeatability, far higher than conventional chemical methods and instruments
- ◆ Unique bubble stirring mixing technology ensures thorough mixing of samples and reagents.

Application area

In addition to containing a certain amount of inorganic pollutants, wastewater from daily life or industrial production also contains a large amount of organic pollutants. After these organic pollutants enter the environment, they mainly have an impact on the entire ecosystem in the form of toxicity and reducing dissolved oxygen in water bodies. Related studies have shown that the vast majority of toxic substances in wastewater are organic compounds, so organic pollution indicators are currently very important indicators in water quality monitoring.

Runze closely follows the trend of industry development, seizes the opportunity, and takes the opportunity to develop a new generation of PS-10 non cross pollution flow system, which can be used as accessories for **monitoring COD concentration in water such as environmental pollution source discharge outlets, municipal sewage, industrial sewage, and industrial production process water.**

Working principle



The instrument adopts the world's leading sequential injection technology, which sucks the test sample and reagent into a storage ring in a certain order through a plunger pump and a multi-channel switching valve, and then switches through the multi-channel switching valve and the reverse operation of the plunger pump. Move the reagent in the zone towards the reaction chamber, where the sample and reagent are digested under high temperature and pressure. After digestion, the light absorption signal is collected and processed in the digestion tank.

Then, after rapid cooling, the fluid is discharged through a multi-channel directional valve, and the detected fluid is discharged into a waste liquid collection bottle. After cleaning the pipeline, a detection is completed.

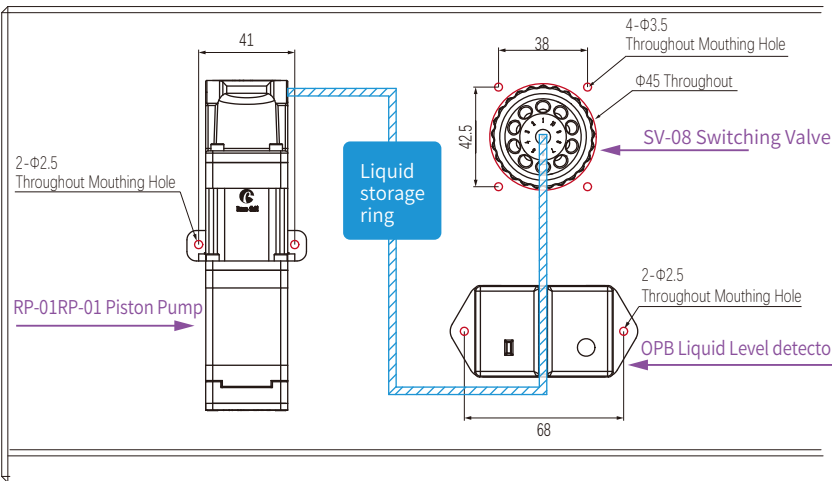
Throughout the entire process, the liquid storage ring is utilized, and reagents and samples do not come into direct contact with the syringe

Recommended Installation Schematic(unit:mm)

The PS-10 system consists of the following parts:

PS-10 driver, SV-08 multi-channel switching valve, RP-01 piston pump, liquid level detector (optional), liquid storage ring (self equipped), and digestion reactor (self equipped), with the blue part indicating the pipeline

Note: The liquid level detector can determine whether there is liquid in the pipeline by the color change of the light on the liquid level detector.



PS-10 Portduct Port Definition:



SKU	Model No	Configuration	Qty
PS-10 System			
1012010002	SV08-T10-PPS*RP01-6-M-F-2*DMC30	SV-08 switching valve (10 way, PPS valve head) + RP-01Piston Pump(Double hole with solenoid valve, including encoder, without drive) + PS-10 supporting control module	1set
1012010003	SV08-T12-PPS*RP01-6-M-F-2*DMC30	SV-08 switching valve (12 way, PPS valve head) + RP-01Piston Pump(Double hole with solenoid valve, including encoder, without drive) + PS-10 supporting control module	1set
1012010004	SV08-T10-PPS*RP01-6-M-1*DMC30	SV-08 switching valve (10 way, PPS valve head) + RP-01Piston Pump(Single hole with solenoid valve, including encoder, without drive) + PS-10 supporting control module	1set
1012010005	SV08-T12-PPS*RP01-6-M-1*DMC30	SV-08 switching valve (12 way, PPS valve head) + RP-01Piston Pump(Single hole with solenoid valve, including encoder, without drive) + PS-10 supporting control module	1set

Peristaltic Pump Head

RZ1030-4 Small flow peristaltic pump head

- ◆ Easy replace tubing
- ◆ ABS housing, Compact structure, 4 rollers moderate pulsation
- ◆ Designed with flexible block, self-adapt to different tube sizes
- ◆ Mainly used for small flow liquid transferring and metering
- ◆ Maximum flow: 170ml/min (For reference only)



SN15/SN25 Standard peristaltic pump head

- ◆ 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
- ◆ Maximum flow: 1725ml/min (For reference only)



YZ1515X/YZ2515X Easy to install peristaltic pump head

- ◆ 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
- ◆ Maximum flow: 1862ml/min (For reference only)



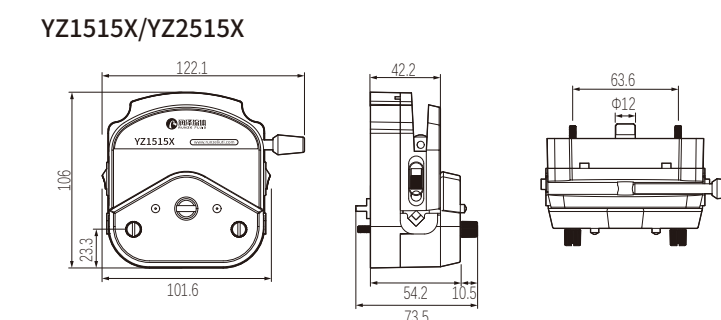
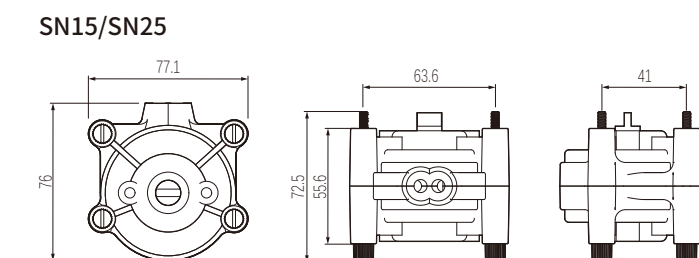
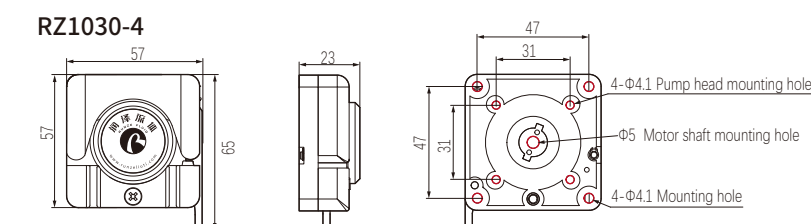
RZ35-3H-U

Easy to install industrial peristaltic pump head

- ◆ Industrial easy-to-install, automatically adapts to the tube device, meet different needs
- ◆ 304 SST 3/6 rollers, PSU housing, corrosion-resistant and durable
- ◆ Pump head stackable
- ◆ OEM Support
- ◆ Maximum flow: 14.283L/min (For reference only)



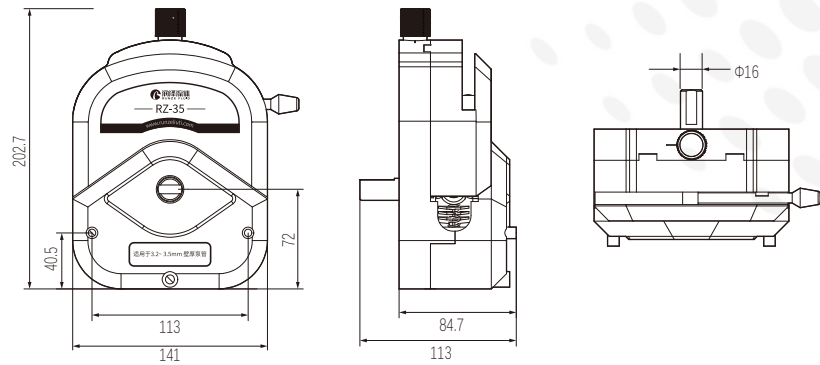
Dimension (unit: mm)



Note: All peristaltic pumps need to be lubricated before use for proper rotation



RZ35-3H-U



Peristaltic Pump Head

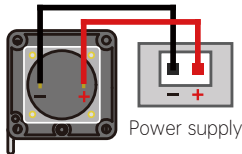
SKU	Model No.	Describe	Rollers	Suitable pump tube	Weight	Qty
RZ1030-4						
1004010001	RZ1030-4	Black Pump Head, ABS Housing POM Rollers	4	ID (0.64~3mm) WT (0.8~1mm)	56g	1 Piece
SN15/SN25						
1004020001	SN15-3-14#	Transparent Pump Head, PC Housing 304 stainless steel rollers	3	14#	302g	1 set (including 4 screws)
1004020002	SN15-3-16#	Transparent Pump Head, PC Housing 304 stainless steel rollers	3	16#	302g	1 set (including 4 screws)
1004020003	SN15-3-25#	Transparent Pump Head, PC Housing 304 stainless steel rollers	3	25#	302g	1 set (including 4 screws)
1004020004	SN15-3-17#	Transparent Pump Head, PC Housing 304 stainless steel rollers	3	17#	302g	1 set (including 4 screws)
1004020005	SN15-3-18#	Transparent Pump Head, PC Housing 304 stainless steel rollers	3	18#	302g	1 set (including 4 screws)
1004020006	SN15-6-14#	Transparent Pump Head, PC Housing 304 stainless steel rollers	6	14#	355g	1 set (including 4 screws)
1004020007	SN15-6-16#	Transparent Pump Head, PC Housing 304 stainless steel rollers	6	16#	355g	1 set (including 4 screws)
1004020008	SN15-6-25#	Transparent Pump Head, PC Housing 304 stainless steel rollers	6	25#	355g	1 set (including 4 screws)
1004020009	SN15-6-17#	Transparent Pump Head, PC Housing 304 stainless steel rollers	6	17#	355g	1 set (including 4 screws)
1004020011	SN25-3-15#	Transparent Pump Head, PC Housing 304 stainless steel rollers	3	15#	355g	1 set (including 4 screws)
1004020012	SN25-3-24#	Transparent Pump Head, PC Housing 304 stainless steel rollers	3	24#	355g	1 set (including 4 screws)
YZ1515X/YZ2515X						
1004030001	YZ1515X-3B	White Pump Head, ABS Housing 304 stainless steel rollers	3	14#、16#、25#、17#、18#	390g	1 set (including 2 screws)
1004030002	YZ1515X-3H	Black Pump Head, ABS Housing 304 stainless steel rollers	3	14#、16#、25#、17#、18#	390g	1 set (including 2 screws)
1004030003	YZ1515X-6B	White Pump Head, ABS Housing 304 stainless steel rollers	6	14#、16#	435g	1 set (including 2 screws)
1004030004	YZ1515X-6H	Black Pump Head, ABS Housing 304 stainless steel rollers	6	14#、16#	435g	1 set (including 2 screws)
1004030005	YZ2515X-3B	White Pump Head, ABS Housing 304 stainless steel rollers	3	15#、24#	390g	1 set (including 2 screws)
1004030006	YZ2515X-3H	Black Pump Head, ABS Housing 304 stainless steel rollers	3	15#、24#	390g	1 set (including 2 screws)
1004030007	YZ2515X-6B	White Pump Head, ABS Housing 304 stainless steel rollers	6	15#	435g	1 set (including 2 screws)
1004030008	YZ2515X-6H	Black Pump Head, ABS Housing 304 stainless steel rollers	6	15#	435g	1 set (including 2 screws)
RZ35						
1004110001	RZ35-3H-U	Large flow peristaltic pump head, PSU Housing 304 stainless steel rollers	3	73#、82#		1 set (including 3 screws)
Accessories						
1000000058	Peristaltic pump lubricant20g/bottle					1 bottle

SKU	Model No.	Description	Rollers	Speed	Net Weight	Qty
DC Motor Peristaltic Pump						
1004010005	ZL12-RZ1030-4-300R	12V DC motor 15W peristaltic pump	4	300rpm	250g	1 Piece
1004010009	ZL24-RZ1030-4-300R	24V DC motor 15W peristaltic pump	4	300rpm	250g	1 Piece
Accessories						
1000000058	Peristaltic pump lubricants	20g/bottle				1 bottle
3002020020	Rubber-bumper	Nitrile Butadiene Rubber (NBR)				1 Set



★ Application Note

Peristaltic pump forward rotation:



1. There are two protruding pieces of metal at the tail of the DC motor, with an engraved+and-
2. When+is connected to the power supply+,and - is connected to the power supply -, the peristaltic pump rotates (clockwise) ;When+is connected to the power supply +, and - is connected to the power supply+, the peristaltic pump reverses (counterclockwise).

ZL12(24)-RZ1030-4

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
- ◆ Widely used in medical, environmental, industrial analyzers

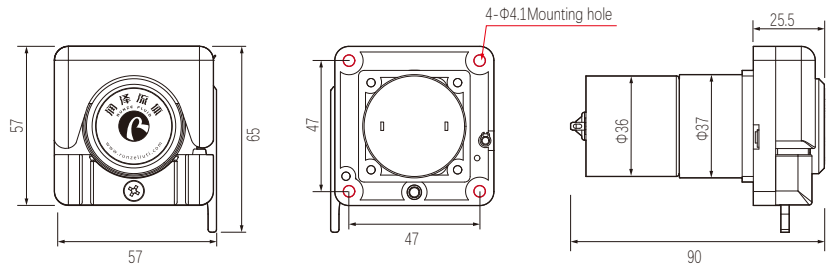


Flow Rate Table (300 rpm for this test)

Tubing ID*WT(mm)	Peristaltic Pump(ml/min)	
	ZL12-RZ1030-4-300R	ZL24-RZ1030-4-300R
0.64*0.8	6	10
0.76*0.8	9	13
0.89*0.8	10	16
1.02*0.8	13	22
1.14*0.8	14	24
1.30*0.8	22	32
1.42*0.8	28	36
1.52*0.8	31	41
1.65*0.8	37	46
1.85*0.8	46	54
2.06*0.8	55	67
2.29*0.8	58	96
2.54*0.8	95	112
2.79*0.8	105	125
1.0*1.0	15	23
2.0*1.0	47	86
3.0*1.0	122	140

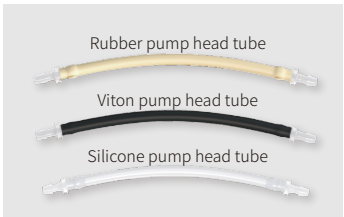
Note: Test under room temperature 20°C and no external pressure (water), flow rate may vary from different media, condition, pressure, humidity, temperature etc.

Dimension (unit:mm)



SKU	Model No.	Description	Rollers	Maximum flow	Speed	Net Weight	Qty
DC Motor Peristaltic Pump							
1004010005	ZL12-RZ1030-4-300R	12V DC motor 15W peristaltic pump	4	122 ml/min	300rpm	250g	1Piece
1004010009	ZL24-RZ1030-4-300R	24V DC motor 15W peristaltic pump	4	140 ml/min	300rpm	250g	1Piece

SKU	Description:Connectors+Tube	ID*OD (mm)	WT (mm)	Pump tube length	Adapted pump head	Qty
Rubber pump head tube						
1013010110	DI-016+BPT-0064-008	0.64*2.24	0.80	9.7cm	RZ1030B	1 set
1013010112	DI-016+BPT-0076-008	0.76*2.36	0.80	9.7cm	RZ1030B	1 set
1013010114	DI-016+BPT-0089-008	0.89*2.49	0.80	9.7cm	RZ1030B	1 set
1013010116	DI-016+BPT-0102-008	1.02*2.62	0.80	9.7cm	RZ1030B	1 set
1013010118	DI-016+BPT-0130-008	1.30*2.90	0.80	9.7cm	RZ1030B	1 set
1013010120	DI-024+BPT-0142-008	1.42*3.02	0.80	9.7cm	RZ1030B	1 set
1013010122	DI-024+BPT-0152-008	1.52*3.12	0.80	9.7cm	RZ1030B	1 set
1013010124	DI-024+BPT-0165-008	1.65*3.25	0.80	9.7cm	RZ1030B	1 set
1013010126	DI-024+BPT-0185-008	1.85*3.45	0.80	9.7cm	RZ1030B	1 set
1013010128	DI-024+BPT-0206-008	2.06*3.66	0.80	9.7cm	RZ1030B	1 set
1013010130	DI-032+BPT-0229-008	2.29*3.89	0.80	9.7cm	RZ1030B	1 set
1013010132	DI-032+BPT-0254-008	2.54*4.14	0.80	9.7cm	RZ1030B	1 set
1013010134	DI-032+BPT-0279-008	2.79*4.39	0.80	9.7cm	RZ1030B	1 set
1013010137	DI-016+BPT-0114-0086	1.14*2.86	0.86	9.7cm	RZ1030/RZ1030B	1 set
1013010143	DI-024+BPT-0200-010	2.0*4.0	1.0	9.7cm	RZ1030/RZ1030B	1 set
1013010145	DI-032+BPT-0300-010	3.0*5.0	1.0	9.7cm	RZ1030/RZ1030B	1 set
Viton pump head tube						
1013020014	DI-024+9763238(1.65*3.25)	1.65*3.25	0.80	8.9cm	RZ1030B	1 set
1013020016	DI-024+9763242(2.06*3.66)	2.06*3.66	0.80	8.9cm	RZ1030B	1 set
1013020018	DI-032+9763246(2.54*4.14)	2.54*4.14	0.80	8.9cm	RZ1030B	1 set
1013020032	DI-016+9763228(1.02*2.62)	1.02*2.62	0.80	8.9cm	RZ1030B	1 set
Silicone pump head tube						
1013030030	DI-032+96406(2.4*4.0)	2.4*4.0	0.8	8.9cm	RZ1030B	1 set
1013030032	DI-016+96410(1.0*3.0)	1.0*3.0	1.0	8.9cm	RZ1030B	1 set
1013030034	DI-032+96411(2.0*4.0)	2.0*4.0	1.0	8.9cm	RZ1030B	1 set
Accessories						
1000000058	Peristaltic pump lubricants(20g/bottle)					1 bottle
3002020020	Rubber-bumper (Nitrile Butadiene Rubber (NBR)					1 Set



Pump head tube

- * Temp——Rubber tube: -60°C~135°C; Viton tube: -32°C~204°C; Silicone tube: -50°C~200°C
- * Service life——Rubber tube (1000h) >Viton tube (500h) >Silicone tube300h)
- * Corrosion resistance——Viton tube(Resistant to strong acid, alkali,etc) >Rubber tube(Resistant to weak acids and bases, etc)>Silicone tube
- * Hardness——Viton tube (75A) >Rubber tube (64A) >Silicone tube (55A)

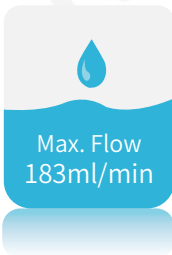
Note: Data is for reference only



BJ-RZ1030

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
- ◆ ROHS Certified

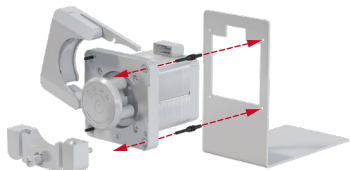


42 stepper motor

Step angle	1.8°
Phase	2
Phase volt	4.6V
Phase current	1.1A
Resistance	4.2Ω±0.42
Inductance	5.2mH REF
Insulation	100m Ω MIN

Motor wire & color

Line color	Definition
Orange	A+
Blue	A-
Red	B+
Yellow	B-



※Optional Runze rubber shock-absorbing pad for easy installation and reduced vibration.
Note: After installation, excess protruding parts can be cut off



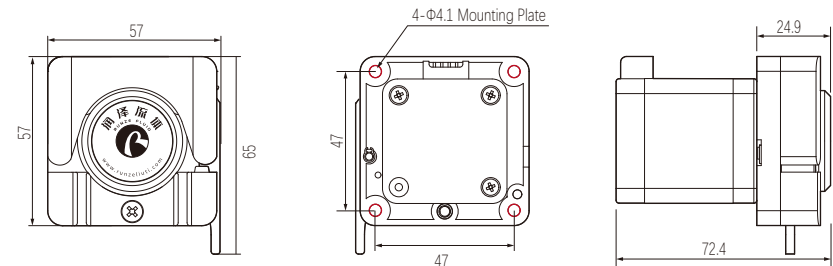
Installation Steps of Pump Hose



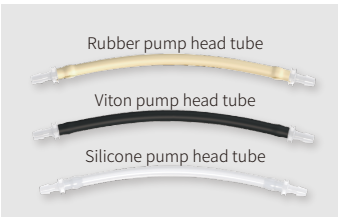
Max.Flow Rate Table

Tubing D*WT(mm)	Peristaltic Pump (ml/min)		
	BJ-RZ1030-4	BJ-RZ1030B-4	BJ-RZ1030B-8
0.64*0.8	12	12	9
0.76*0.8	15	15	14
0.89*0.8	18	18	17
1.02*0.8	25	25	21
1.14*0.8	32	32	27
1.30*0.8	38	38	32
1.42*0.8	47	47	38
1.52*0.8	50	50	42
1.65*0.8	56	56	43
1.85*0.8	70	70	55
2.06*0.8	87	87	61
2.29*0.8	94	94	71
2.54*0.8	113	113	77
2.79*0.8	128	128	81
1.0*1.0	26	24	17
2.0*1.0	105	74	57
3.0*1.0	170	183	114

Dimension (unit: mm)



SKU	Model No.	Description	Rollers	Maximum flow	Speed	Net Weight	Qty
Stepper Motor Peristaltic Pump							
1004010002	BJ-RZ1030-4	ABS Pump head, Rated current 1.1 A	4	170 ml/min	≤400rpm	425g	1Piece
1004100001	BJ-RZ1030B-4	PPS Pump head, Rated current 1.1 A	4	183 ml/min	≤400rpm	435g	1Piece
1004100002	BJ-RZ1030B-8	PPS Pump head, Rated current 1.1 A	8	114 ml/min	≤400rpm	435g	1Piece
SKU	Description:Connectors+Tube	ID*OD (mm)	WT (mm)	Pump tube length	Adapted pump head	Qty	
Rubber pump head tube							
1013010110	DI-016+BPT-0064-008	0.64*2.24	0.80	9.7cm	RZ1030B	1 set	
1013010112	DI-016+BPT-0076-008	0.76*2.36	0.80	9.7cm	RZ1030B	1 set	
1013010114	DI-016+BPT-0089-008	0.89*2.49	0.80	9.7cm	RZ1030B	1 set	
1013010116	DI-016+BPT-0102-008	1.02*2.62	0.80	9.7cm	RZ1030B	1 set	
1013010118	DI-016+BPT-0130-008	1.30*2.90	0.80	9.7cm	RZ1030B	1 set	
1013010120	DI-024+BPT-0142-008	1.42*3.02	0.80	9.7cm	RZ1030B	1 set	
1013010122	DI-024+BPT-0152-008	1.52*3.12	0.80	9.7cm	RZ1030B	1 set	
1013010124	DI-024+BPT-0165-008	1.65*3.25	0.80	9.7cm	RZ1030B	1 set	
1013010126	DI-024+BPT-0185-008	1.85*3.45	0.80	9.7cm	RZ1030B	1 set	
1013010128	DI-024+BPT-0206-008	2.06*3.66	0.80	9.7cm	RZ1030B	1 set	
1013010130	DI-032+BPT-0229-008	2.29*3.89	0.80	9.7cm	RZ1030B	1 set	
1013010132	DI-032+BPT-0254-008	2.54*4.14	0.80	9.7cm	RZ1030B	1 set	
1013010134	DI-032+BPT-0279-008	2.79*4.39	0.80	9.7cm	RZ1030B	1 set	
1013010137	DI-016+BPT-0114-0086	1.14*2.86	0.86	9.7cm	RZ1030/RZ1030B	1 set	
1013010143	DI-024+BPT-0200-010	2.0*4.0	1.0	9.7cm	RZ1030/RZ1030B	1 set	
1013010145	DI-032+BPT-0300-010	3.0*5.0	1.0	9.7cm	RZ1030/RZ1030B	1 set	
Viton pump head tube							
1013020014	DI-024+9763238(1.65*3.25)	1.65*3.25	0.80	8.9cm	RZ1030B	1 set	
1013020016	DI-024+9763242(2.06*3.66)	2.06*3.66	0.80	8.9cm	RZ1030B	1 set	
1013020018	DI-032+9763246(2.54*4.14)	2.54*4.14	0.80	8.9cm	RZ1030B	1 set	
1013020032	DI-016+9763228(1.02*2.62)	1.02*2.62	0.80	8.9cm	RZ1030B	1 set	
Silicone pump head tube							
1013030030	DI-032+96406(2.4*4.0)	2.4*4.0	0.8	8.9cm	RZ1030B	1 set	
1013030032	DI-016+96410(1.0*3.0)	1.0*3.0	1.0	8.9cm	RZ1030B	1 set	
1013030034	DI-032+96411(2.0*4.0)	2.0*4.0	1.0	8.9cm	RZ1030B	1 set	
Accessories							
1000000058	Peristaltic pump lubricants(20g/bottle)						1 bottle
3002020020	Rubber-bumper (Nitrile Butadiene Rubber (NBR))						1 Set



Pump head tube

- * Temp——Rubber tube: -60°C~135°C; Viton tube: -32°C~204°C; Silicone tube: -50°C~200°C
 - * Service life——Rubber tube (1000h) > Viton tube (500h) > Silicone tube(300h)
 - * Corrosion resistance——Viton tube(Resistant to strong acid, alkali,etc) > Rubber tube(Resistant to weak acids and bases, etc)> Silicone tube
 - * Hardness——Viton tube (75A) > Rubber tube (64A) > Silicone tube (55A)
- Note: Data is for reference only



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
- ◆ Maximum flow: 183ml/min (For reference only)
- ◆ CE/ROHS Certified



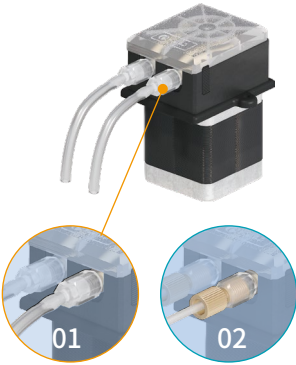
42 stepper motor

Step angle	1.8°
Phase	2
Phase volt	4.6V
Phase current	1.1A
Resistance	4.2Ω±0.42
Inductance	5.2mH REF
Insulation	100m Ω MIN

Motor wire & color

Line color	Definition
Orange	A+
Blue	A-
Red	B+
Yellow	B-

Pump Tube Application Note



01 Hose connection:
Barb-to-Male Adapters + Barb-to-Female Adapters



02 Rigid tube connection:
Flangeless Fittings + Barb-to-Female Adapters



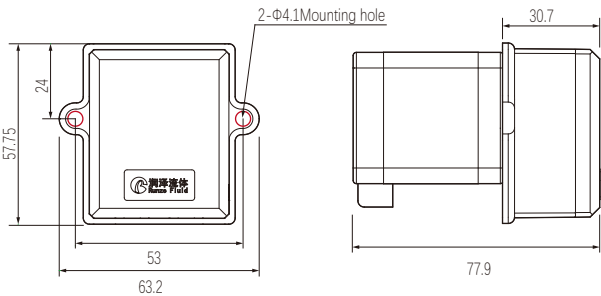
Installation Steps of Pump Hose



Max.Flow Rate Table

Tubing ID * WT(mm))	Peristaltic Pump (ml/min)	
	RZ01-0.8-4	RZ01-1.6-4
0.64*0.8	12	—
0.76*0.8	13	—
0.89*0.8	16	—
1.02*0.8	22	—
1.14*0.8	28	—
1.30*0.8	34	—
1.42*0.8	42	—
1.52*0.8	44	—
1.65*0.8	47	—
1.85*0.8	60	—
2.06*0.8	65	—
2.29*0.8	88	—
2.54*0.8	90	—
2.79*0.8	96	—
1.6*1.6	—	48
2.4*1.6	—	94
3.2*1.6	—	152

Dimension (unit: mm)



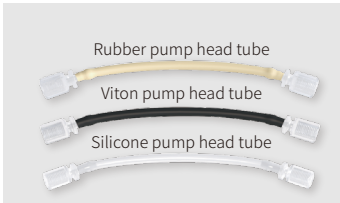
SKU	Model No.	Rollers	Description	Maximum flow	Speed	Net Weight	Qty
Stepper Motor Peristaltic Pump							
1004080003	RZ01-1.6-4	4	rated current 1.1 A	96ml/min	≤400rpm	435g	1Piece
1004080004	RZ01-0.8-4	4	rated current 1.1 A	152ml/min	≤400rpm	435g	1Piece

SKU	Description:Connectors+Tube	ID*OD (mm)	WT (mm)	Pump tube length	Adapted pump head	Qty
Pump Head Tube						
Rubber pump head tube						
1013010153	RZ01-NI08-16-28P+BPT-0064-008	0.64*2.24	0.8	8.7cm	RZ01-0.8	1 set
1013010154	RZ01-NI08-16-28P+BPT-0076-008	0.76*2.36	0.8	8.7cm	RZ01-0.8	1 set
1013010155	RZ01-NI08-16-28P+BPT-0089-008	0.89*2.49	0.8	8.7cm	RZ01-0.8	1 set
1013010156	RZ01-NI08-16-28P+BPT-0102-008	1.02*2.62	0.8	8.7cm	RZ01-0.8	1 set
1013010157	RZ01-NI08-16-28P+BPT-0130-008	1.30*2.90	0.8	8.7cm	RZ01-0.8	1 set
1013010158	RZ01-NI08-24-28P+BPT-0142-008	1.42*3.02	0.8	8.7cm	RZ01-0.8	1 set
1013010159	RZ01-NI08-24-28P+BPT-0152-008	1.52*3.12	0.8	8.7cm	RZ01-0.8	1 set
1013010160	RZ01-NI08-24-28P+BPT-0165-008	1.65*3.25	0.8	8.7cm	RZ01-0.8	1 set
1013010161	RZ01-NI08-24-28P+BPT-0185-008	1.85*3.45	0.8	8.7cm	RZ01-0.8	1 set
1013010162	RZ01-NI08-24-28P+BPT-0206-008	2.06*3.66	0.8	8.7cm	RZ01-0.8	1 set
1013010163	RZ01-NI08-32-28P+BPT-0229-008	2.29*3.89	0.8	8.7cm	RZ01-0.8	1 set
1013010164	RZ01-NI08-32-28P+BPT-0254-008	2.54*4.14	0.8	8.7cm	RZ01-0.8	1 set
1013010165	RZ01-NI08-32-28P+BPT-0279-008	2.79*4.39	0.8	8.7cm	RZ01-0.8	1 set
1013010167	RZ01-NI08-16-28P+BPT-0114-0086	1.14*2.86	0.86	8.7cm	RZ01-0.8	1 set
1013010169	RZ01-NI08-24-28P+BPT-0200-010	2.0*4.0	1.0	8cm	RZ01-0.8	1 set
1013010170	RZ01-NI08-32-28P+BPT-0300-010	3.0*5.0	1.0	8cm	RZ01-0.8	1 set
1013010166	RZ01-NI08-32-28P+19#BPT-0240-016	2.4*5.6	1.6	8.7cm	RZ01-1.6	1 set
1013010168	RZ01-NI08-16-28P+13#BPT-0080-016	0.8*4.0	1.6	8.7cm	RZ01-1.6	1 set
1013010152	RZ01-NI08-24-28P+14#BPT-0160-016	1.6*4.8	1.6	8.7cm	RZ01-1.6	1 set
1013010151	RZ01-NI08-32-28P+16#BPT-0320-016	3.2*6.4	1.6	8.7cm	RZ01-1.6	1 set

Viton pump head tube						
1013020034	RZ01-NI08-16-28P+9763228(1.02*2.62)	1.02*2.62	0.8	8cm	RZ01-0.8	1 set
1013020035	RZ01-NI08-24-28P+9763238(1.65*3.25)	1.65*3.25	0.8	8cm	RZ01-0.8	1 set
1013020036	RZ01-NI08-24-28P+9763242(2.06*3.66)	2.06*3.66	0.8	8cm	RZ01-0.8	1 set
1013020037	RZ01-NI08-32-28P+9763246(2.54*4.14)	2.54*4.14	0.8	8cm	RZ01-0.8	1 set
1013020038	RZ01-NI08-16-28P+13#96412-13	0.8*4.0	1.6	8.7cm	RZ01-1.6	1 set
1013020039	RZ01-NI08-24-28P+14#96412-14	1.6*4.8	1.6	8.7cm	RZ01-1.6	1 set

Silicone pump head tube						
1013030045	RZ01-NI08-32-28P+96406(2.4*4)	2.4*4.0	0.8	8cm	RZ01-0.8	1 set
1013030046	RZ01-NI08-16-28P+96410(1*3)	1.0*3.0	1.0	8cm	RZ01-0.8	1 set
1013030047	RZ01-NI08-32-28P+96411(2*4)	2.0*4.0	1.0	8cm	RZ01-0.8	1 set
1013030048	RZ01-NI08-16-28P+13#96402-13	0.8*4.0	1.6	8.7cm	RZ01-1.6	1 set
1013030049	RZ01-NI08-24-28P+14#96402-14	1.6*4.8	1.6	8.7cm	RZ01-1.6	1 set
1013030050	RZ01-NI08-32-28P+19#96402-19	2.4*5.6	1.6	8.7cm	RZ01-1.6	1 set

Accessories						
1000000058	Peristaltic pump lubricants(20g/bottle)					1 bottle



Pump head tube

- * Temp—Rubber tube: -60°C~135°C; Viton tube: -32°C~204°C; Silicone tube: -50°C~200°C
 - * Service life—Rubber tube (1000h) > Viton tube (500h) > Silicone tube(300h)
 - * Corrosion resistance—Viton tube(Resistant to strong acid, alkali,etc) > Rubber tube(Resistant to weak acids and bases, etc) > Silicone tube
 - * Hardness—Viton tube (75A) > Rubber tube (64A) > Silicone tube (55A)
- Note: Data is for reference only



RZ-02

42 Stepper Motor Peristaltic Pump

- ◆ The pump head and rotor are both made of PPS, which is resistant to high temperature and corrosion.
 - ◆ Install spring mounting buckles for easier disassembly and assembly of pump tubes.
 - ◆ Imported 42 stepper motor has low noise, high stability, and long service life, ensuring accuracy.
 - ◆ Mainly used for medical instruments and various small flow liquid transmission analysis instruments.
- ◆ CE/ROHS Certified

Max. Flow
236ml/min

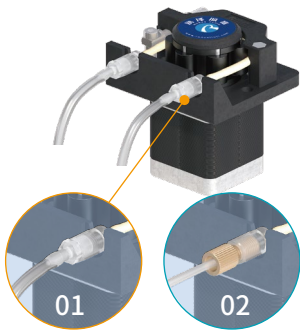
42 stepper motor

Step angle	1.8°
Phase	2
Phase volt	4.6V
Phase current	1.1A
Resistance	4.2Ω±0.42
Inductance	5.2mH REF
Insulation	100m Ω MIN

Motor wire & color

Line color	Definition
Orange	A+
Blue	A-
Red	B+
Yellow	B-

Pump Tube Application Note



01 Hose connection:

Barb-to-Male Adapters + Barb-to-Female Adapters



02 Rigid tube connection:

Flangeless Fittings + Barb-to-Female Adapters



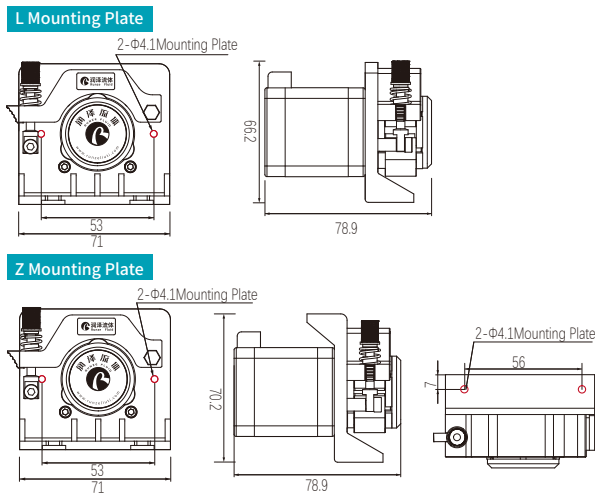
Installation Steps of Pump Hose



Max.Flow Rate Table

Tubing ID * WT(mm)	Peristaltic Pump(ml/min)			
	RZ02-0.8-3	RZ02-0.8-6	RZ02-1.6-3	RZ02-1.6-6
0.64*0.8	16	13	—	—
0.76*0.8	18	16	—	—
0.89*0.8	27	21	—	—
1.02*0.8	30	26	—	—
1.14*0.8	37	31	—	—
1.30*0.8	47	39	—	—
1.42*0.8	59	45	—	—
1.52*0.8	64	48	—	—
1.65*0.8	71	55	—	—
1.85*0.8	94	61	—	—
2.06*0.8	104	82	—	—
2.29*0.8	126	86	—	—
2.54*0.8	153	105	—	—
2.79*0.8	161	114	—	—
0.8*1.6	—	—	23	19
1.6*1.6	—	—	57	51
2.4*1.6	—	—	112	105
3.2*1.6	—	—	236	183

Dimension (unit: mm)

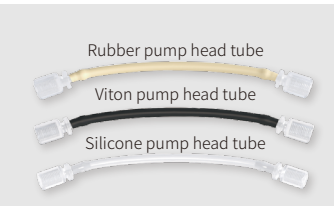


Installation Diagram



SKU	Model No.	Rollers	Description	Maximum flow	Speed	Net Weight	Qty
Stepper Motor Peristaltic Pump							
1004080001	RZ02-0.8-6-Z	6	Z Mounting Plater ated current 1.1 A	114 ml/min	≤400rpm	475g	1 Piece
1004080002	RZ02-1.6-6-Z	6	Z Mounting Plate rated current 1.1 A	183 ml/min	≤400rpm	475g	1 Piece
1004080005	RZ02-0.8-3-Z	3	Z Mounting Plate rated current 1.1 A	161 ml/min	≤400rpm	475g	1 Piece
1004080006	RZ02-1.6-3-Z	3	Z Mounting Plate rated current 1.1 A	236 ml/min	≤400rpm	475g	1 Piece
1004080007	RZ02-0.8-6-L	6	L Mounting Plate rated current 1.1 A	114 ml/min	≤400rpm	475g	1 Piece
1004080008	RZ02-1.6-6-L	6	L Mounting Plate rated current 1.1 A	183 ml/min	≤400rpm	475g	1 Piece
1004080009	RZ02-0.8-3-L	3	L Mounting Plate rated current 1.1 A	161 ml/min	≤400rpm	475g	1 Piece
1004080010	RZ02-1.6-3-L	3	L Mounting Plate rated current 1.1 A	236 ml/min	≤400rpm	475g	1 Piece

SKU	Description:Connectors+Tube	ID*OD (mm)	WT (mm)	Pump tube length	Adapted pump head	Qty
Pump Head Tube						
Rubber pump head tube						
1013010109	NI06-16-28P + BPT-0064-008	0.64*2.24	0.8	9.7cm	RZ02-0.8	1 set
1013010111	NI06-16-28P + BPT-0076-008	0.76*2.36	0.8	9.7cm	RZ02-0.8	1 set
1013010113	NI06-16-28P + BPT-0089-008	0.89*2.49	0.8	9.7cm	RZ02-0.8	1 set
1013010115	NI06-16-28P + BPT-0102-008	1.02*2.62	0.8	9.7cm	RZ02-0.8	1 set
1013010117	NI06-16-28P + BPT-0130-008	1.30*2.90	0.8	9.7cm	RZ02-0.8	1 set
1013010119	NI06-24-28P + BPT-0142-008	1.42*3.02	0.8	9.7cm	RZ02-0.8	1 set
1013010121	NI06-24-28P + BPT-0152-008	1.52*3.12	0.8	9.7cm	RZ02-0.8	1 set
1013010123	NI06-24-28P + BPT-0165-008	1.65*3.25	0.8	9.7cm	RZ02-0.8	1 set
1013010125	NI06-24-28P + BPT-0185-008	1.85*3.45	0.8	9.7cm	RZ02-0.8	1 set
1013010127	NI06-24-28P + BPT-0206-008	2.06*3.66	0.8	9.7cm	RZ02-0.8	1 set
1013010129	NI06-32-28P + BPT-0229-008	2.29*3.89	0.8	9.7cm	RZ02-0.8	1 set
1013010131	NI06-32-28P + BPT-0254-008	2.54*4.14	0.8	9.7cm	RZ02-0.8	1 set
1013010133	NI06-32-28P + BPT-0279-008	2.79*4.39	0.8	9.7cm	RZ02-0.8	1 set
1013010138	NI06-16-28P + BPT-0114-0086	1.14*2.86	0.86	9.7cm	RZ02-0.8	1 set
1013010144	NI06-24-28P + BPT-0200-010	2.0*4.0	1.0	9.7cm	RZ02-0.8	1 set
1013010146	NI06-32-28P + BPT-0300-010	3.0*5.0	1.0	9.7cm	RZ02-0.8	1 set
1013010140	NI06-16-28P + 13#BPT-0080-016	0.8*4.0	1.6	10.5cm	RZ02-1.6	1 set
1013010104	NI06-24-28P + 14#BPT-0160-016	1.6*4.8	1.6	10.5cm	RZ02-1.6	1 set
1013010135	NI06-32-28P + 19#BPT-0240-016	2.4*5.6	1.6	10.5cm	RZ02-1.6	1 set
1013010101	NI06-32-28P + 16#BPT-0320-016	3.2*6.4	1.6	10.5cm	RZ02-1.6	1 set
Viton pump head tube						
1013020013	NI06-16-28P + 9763228(1.02*2.62)	1.02*2.62	0.8	9 cm	RZ02-0.8	1 set
1013020015	NI06-24-28P + 9763238(1.65*3.25)	1.65*3.25	0.8	9 cm	RZ02-0.8	1 set
1013020017	NI06-24-28P + 9763242(2.06*3.66)	2.06*3.66	0.8	9 cm	RZ02-0.8	1 set
1013020019	NI06-32-28P + 9763246(2.54*4.14)	2.54*4.14	0.8	9.7cm	RZ02-0.8	1 set
1013020020	NI06-16-28P + 13#96412-13	0.8*4.0	1.6	9.7cm	RZ02-1.6	1 set
1013020022	NI06-24-28P + 14#96412-14	1.60*4.80	1.6	9.7cm	RZ02-1.6	1 set
Silicone pump head tube						
1013030031	NI06-32-28P + 96406(2.4*4)	2.4*4.0	0.8	9 cm	RZ02-0.8	1 set
1013030033	NI06-16-28P + 96410(1*3)	1.0*3.0	1.0	9.7cm	RZ02-0.8	1 set
1013030035	NI06-32-28P + 96411(2*4)	2.0*4.0	1.0	9.7cm	RZ02-0.8	1 set
1013030036	NI06-16-28P + 13#96402-13	0.8*4.0	1.6	9.7cm	RZ02-1.6	1 set
1013030038	NI06-24-28P + 14#96402-14	1.6*4.8	1.6	9.7cm	RZ02-1.6	1 set
1013030042	NI06-32-28P + 19#96402-19	2.4*5.6	1.6	9.7cm	RZ02-1.6	1 set
Accessories						
1000000058	Peristaltic pump lubricants(20g/bottle)					1 bottle



Pump head tube

- * Temp—Rubber tube: -60°C~135°C; Viton tube: -32°C~204°C; Silicone tube: -50°C~200°C
 - * Service life—Rubber tube (1000h) >Viton tube (500h) >Silicone tube300h)
 - * Corrosion resistance—Viton tube(Resistant to strong acid, alkali,etc) >Rubber tube(Resistant to weak acids and bases, etc) >Silicone tube
 - * Hardness—Viton tube (75A) >Rubber tube (64A) >Silicone tube (55A)
- Note: Data is for reference only



泵管安装步骤请参考相同泵头的所示步骤

[57-50] motor

Max. power	12W
Step angle	1.8°
Phase	2
Phase volt	2.6V
Phase current	2.3A
Resistance	1.15Ω±0.17
Inductance	1.85mH REF
Insulation	100m Ω MIN
Temp.	80°C MAX
Insulation grade	B

[57-77] motor

Max. power	18.8W
Step angle	1.8°
Phase	2
Phase volt	4.0V
Phase current	2.35A
Resistance	1.7Ω±0.17
Inductance	7mH REF
Insulation	100m Ω MIN
Temp.	80°C MAX
Insulation grade	B

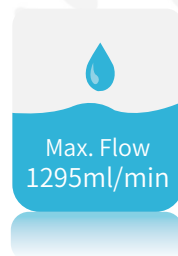
Motor Wire

Definition	57-50 motor	57-77 motor
A+	Red	Orange
A-	Yellow	Blue
B+	Blue	Red
B-	Orange	Yellow

BJ30 Series

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
- ◆ Widely used in medical, environmental, industrial analyzer
- ◆ OEM support
- ◆ CE Certified



Max.Flow Rate Table

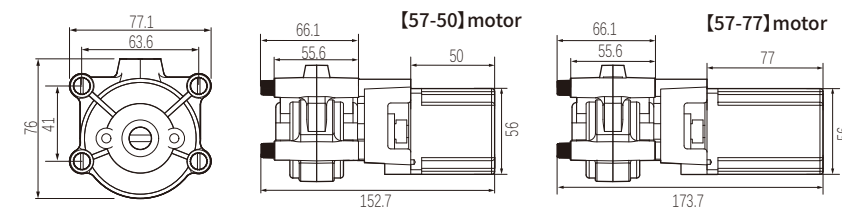
(note: 14# 16# - 57 small motor; 15# 17# 18# 24# 25# 57 big motor)

Tubing --ID*WT(mm)	Pump head (ml/min)			
	SN15-3-14#	SN15-3-16#	SN15-3-25#	SN15-3-17#
14# --1.6*1.6	68	—	—	—
16# --3.2*1.6	—	270	—	—
25# --4.8*1.6	—	—	573	—
17# --6.4*1.6	—	—	—	997
15# --4.8*2.4	—	—	—	—
24# --6.4*2.4	—	—	—	—

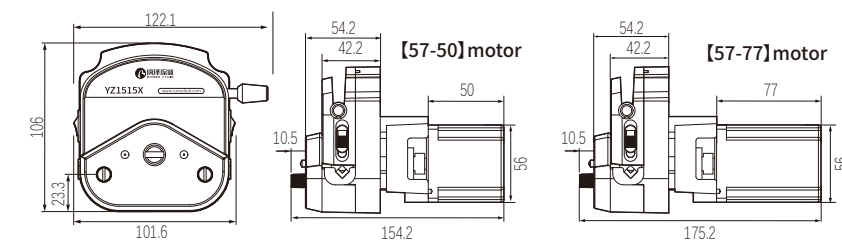
Tubing --ID*WT(mm)	Pump head (ml/min)					
	YZ1515X-3B	YZ1515X-3H	YZ1515X-6B	YZ1515X-6H	YZ2515X-3B	YZ2515X-3H
14# --1.6*1.6	117	117	76	76	—	—
16# --3.2*1.6	389	389	244	244	—	—
25# --4.8*1.6	752	752	—	—	—	—
17# --6.4*1.6	1249	1249	—	—	—	—
15# --4.8*2.4	—	—	—	—	783	783
24# --6.4*2.4	—	—	—	—	1295	1295

Dimension (unit: mm)

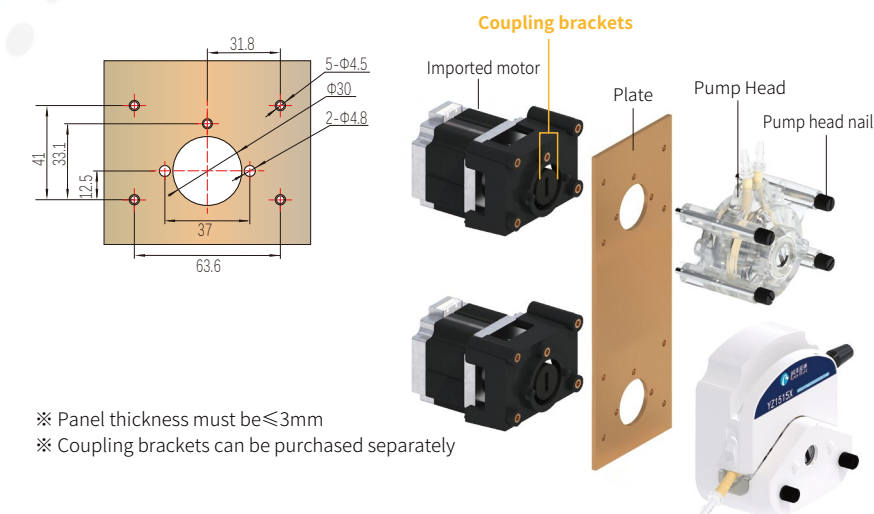
BJ30-SN15 (SN25)



BJ30-YZ1515X (YZ2515X)



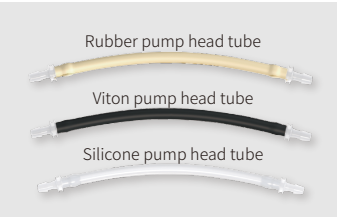
Installation Diagram: Panel Mounting Hole Dimension (Unit: mm)



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

SKU	Model No	Rollers	Description	Suitable pump tube	Speed	Net Weight	Qty
Stepper Motor Peristaltic Pump							
1004020015	BJ30-SN15-3-DX-14#	3	SN15-3-14# pump head with [57-50] motor rated current 1.5 A	14#	≤300rpm	995g	1 Piece
1004020016	BJ30-SN15-3-DX-16#	3	SN15-3-16# pump head with [57-50] motor rated current 1.5 A	16#	≤300rpm	995g	1 Piece
1004020017	BJ30-SN15-3-DD-25#	3	SN15-3-25# pump head with [57-77] motor rated current 2.3 A	25#	≤300rpm	1450g	1 Piece
1004020018	BJ30-SN15-3-DD-17#	3	SN15-3-17# pump head with [57-77] motor rated current 2.3 A	17#	≤300rpm	1450g	1 Piece
1004020019	BJ30-SN15-3-DD-18#	3	SN15-3-18# pump head with [57-77] motor rated current 2.3 A	18#	≤300rpm	1450g	1 Piece
1004020020	BJ30-SN15-6-DX-14#	6	SN15-6-14# pump head with [57-50] motor rated current 1.5 A	14#	≤300rpm	1030g	1 Piece
1004020021	BJ30-SN15-6-DX-16#	6	SN15-6-16# pump head with [57-50] motor rated current 1.5 A	16#	≤300rpm	1030g	1 Piece
1004020026	BJ30-SN25-3-DD-24#	3	SN25-3-24#pump head with [57-77] motor rated current 2.3 A	24#	≤300rpm	1450g	1 Piece
1004030021	BJ30-YZ1515X-3B-DD	3	White YZ1515X pump head with [57-77] motor rated current 2.3 A	14#, 16#, 25#, 17#, 18#	≤400rpm	1540g	1 Piece
1004030022	BJ30-YZ1515X-3B-DX	3	White YZ1515X pump head with [57-50] motor rated current 1.5 A	14#, 16#	≤400rpm	1065g	1 Piece
1004030023	BJ30-YZ1515X-3H-DD	3	Black YZ1515X pump head with [57-77] motor rated current 2.3 A	14#, 16#, 25#, 17#, 18#	≤400rpm	1540g	1 Piece
1004030024	BJ30-YZ1515X-3H-DX	3	Black YZ1515X pump head with [57-50] motor rated current 1.5 A	14#, 16#	≤400rpm	1065g	1 Piece
1004030025	BJ30-YZ1515X-6B-DD	6	White YZ1515X pump head with [57-77] motor rated current 2.3 A	14#, 16#	≤400rpm	1585g	1 Piece
1004030026	BJ30-YZ1515X-6B-DX	6	White YZ1515X pump head with [57-50] motor rated current 1.5 A	14#, 16#	≤400rpm	1110g	1 Piece
1004030027	BJ30-YZ1515X-6H-DD	6	Black YZ1515X pump head with [57-77] motor rated current 2.3 A	14#, 16#	≤400rpm	1585g	1 Piece
1004030028	BJ30-YZ1515X-6H-DX	6	Black YZ1515X pump head with [57-50] motor rated current 1.5 A	14#, 16#	≤400rpm	1110g	1 Piece
1004030029	BJ30-YZ2515X-3B-DD	3	White YZ1515X pump head with [57-77] motor rated current 2.3 A	15#, 24#	≤400rpm	1540g	1 Piece
1004030030	BJ30-YZ2515X-3H-DD	3	Black YZ1515X pump head with [57-77] motor rated current 2.3 A	15#, 24#	≤400rpm	1540g	1 Piece

SKU	Description:Connectors+Tube	ID*OD (mm)	WT (mm)	Pump tube length	Adapted pump head	Qty
Suitable tube for SN15 pump head						
Rubber pump head tube						
1013010102	DI-064+17#BPT-0640-016	1.60*4.8	1.60	20cm	SN15-3/SN15-6	1 set
1013010099	DI-048+25#BPT-0480-016	3.20*6.4	1.60	20cm	SN15-3/SN15-6	1 set
1013010097	DI-040+16#BPT-0320-016	4.80*8.0	1.60	20cm	SN15-3/SN15-6	1 set
1013010095	DI-024+14#BPT-0160-016	6.40*9.6	1.60	20cm	SN15-3/SN15-6	1 set
1013010142	DI-087+BPT-0790-016	7.90*11.1	1.60	20cm	SN15-3	1 set
Viton pump head tube						
1013020030	DI-024+14#96412-14	1.60*4.8	1.60	18cm	SN15-3/SN15-6	1 set
1013020028	DI-040+16#96412-16	3.20*6.4	1.60	18cm	SN15-3/SN15-6	1 set
1013020026	DI-048+25#96412-25	4.80*8.0	1.60	18cm	SN15-3/SN15-6	1 set
1013020024	DI-064+17#96412-17	6.40*9.6	1.60	18cm	SN15-3/SN15-6	1 set
1013020033	DI-087+18#96412-18	7.90*11.1	1.60	18cm	SN15-3	1 set
Silicone pump head tube						
1013030024	DI-024+14#96402-14	1.60*4.8	1.60	20cm	SN15-3/SN15-6	1 set
1013030022	DI-040+16#96402-16	3.20*6.4	1.60	20cm	SN15-3/SN15-6	1 set
1013030020	DI-048+25#96402-25	4.80*8.0	1.60	20cm	SN15-3/SN15-6	1 set
1013030018	DI-064+17#96402-17	6.40*9.6	1.60	20cm	SN15-3/SN15-6	1 set
1013030039	DI-087+18#96402-18	7.90*11.1	1.60	20cm	SN15-3/SN15-6	1 set
Suitable tube for YZ1515 pump head						
Rubber pump head tube						
1013010139	DI-016+13#BPT-0080-016	0.8*4.0	1.60	16cm	YZ1515-3/YZ1515-6	1 set
1013010103	DI-024+14#BPT-0160-016	1.6*4.8	1.60	16cm	YZ1515-3/YZ1515-6	1 set
1013010136	DI-032+19#BPT-0240-016	2.4*5.6	1.60	16cm	YZ1515-3/YZ1515-6	1 set
1013010100	DI-040+16#BPT-0320-016	3.2*6.4	1.60	16cm	YZ1515-3/YZ1515-6	1 set
1013010147	DI-048+BPT-0400-016	4.0*7.2	1.60	16cm	YZ1515-3/YZ1515-6	1 set
1013010098	DI-048+25#BPT-0480-016	4.8*8.0	1.60	16cm	YZ1515-3/YZ1515-6	1 set
1013010096	DI-064+17#BPT-0640-016	6.4*9.6	1.60	16cm	YZ1515-3/YZ1515-6	1 set
1013010141	DI-087+BPT-0790-016	7.9*11.1	1.60	16cm	YZ1515-3/YZ1515-6	1 set
Viton pump head tube						
1013020021	DI-016+13#96412-13	0.8*4.0	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013020031	DI-024+14#96412-14	1.6*4.8	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013020029	DI-040+16#96412-16	3.2*6.4	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013020027	DI-048+25#96412-25	4.8*8.0	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013020025	DI-064+17#96412-17	6.4*9.6	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013020023	DI-087+18#96412-18	7.9*11.1	1.60	15cm	YZ1515-3/YZ1515-6	1 set
Suitable tube for YZ1515 pump head						
Silicone pump head tube						
1013030037	DI-016+13#96402-13	0.8*4.0	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013030025	DI-024+14#96402-14	1.6*4.8	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013030041	DI-032+19#96402-19	2.4*5.6	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013030023	DI-040+16#96402-16	3.2*6.4	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013030021	DI-048+25#96402-25	4.8*8.0	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013030019	DI-064+17#96402-17	6.4*9.6	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013030040	DI-087+18#96402-18	7.9*11.1	1.60	15cm	YZ1515-3/YZ1515-6	1 set
Accessories						
1000000058	Peristaltic pump lubricants (20g/bottle)					1 set
2003020021	Coupling bracket (White bracket+Coupling)					1 set
2003020022	Coupling bracket (Black bracket+Coupling)					1 bottle



Pump head tube

- * Temp——Rubber tube: -60°C~135°C; Viton tube: -32°C~204°C; Silicone tube: -50°C~200°C
- * Service life——Rubber tube (1000h) >Viton tube (500h) >Silicone tube300h)
- * Corrosion resistance——Viton tube(Resistant to strong acid, alkali,etc) >Rubber tube(Resistant to weak acids and bases, etc)>Silicone tube
- * Hardness——Viton tube (75A) >Rubber tube (64A) >Silicone tube (55A)

Note: Data is for reference only



Please refer to the installation steps of a stepper motor peristaltic pump with the same pump head for the installation of the pump tube

LM40 Series Peristaltic Pump

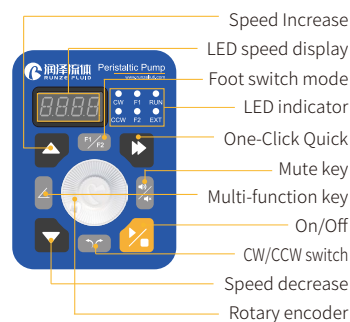
Box-type Peristaltic Pump

- ◆ The minimum speed can reach 0.1 rpm.
- ◆ 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.
- ◆ CE Certified

LM40A:Max. Flow
1295ml/min

LM40B:Max. Flow
236ml/min

★ Keypad



★ 接口

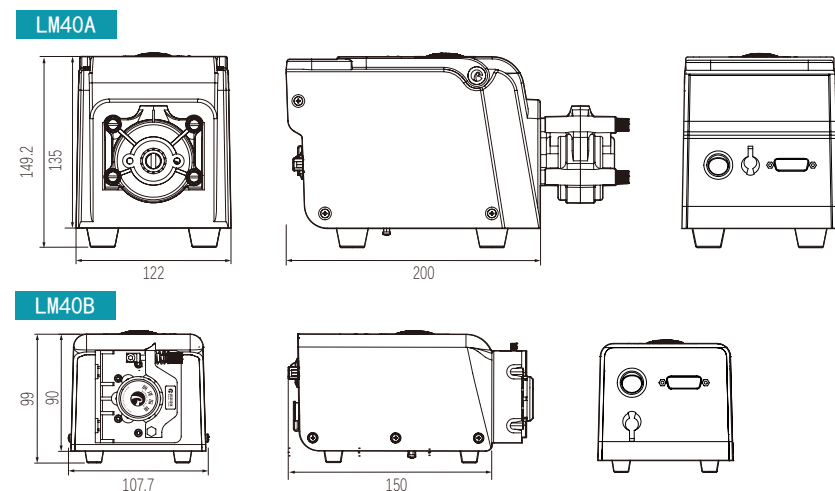
1. Foot pedal input interface: Foot switch control start and stop (Keypad control mode only)
2. Input interface for external control signal of regulating speed: Support switching multiple control inputs (External control mode only)
3. Input interface for external control veer signal: Support veer switching control inputs (External control mode/ Foot switch mode only)
4. Input interface for external control start signal: Support start/stop switching control inputs (External control mode only)
5. Communication Control: RS485 (Communication control mode only)



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	
Power Supply	DC24V±10%	
Power	35W	20W
Operating temperature	0°C ~ 40 °C	
Operating temperature	< 80% relative humidity, non-condensing	
Dimension (L*W*H)	122*200*149.2mm (without pump head)	107.7*150*99mm(without pump head)
Net weight	1.64Kg(without pump head)	0.90Kg(without pump head)
IP Grade	IP31	

Dimension (unit: mm)



Max.Flow Rate Table

◆ LM40A —Max.Flow Rate Table (ml/min)

Tubing --ID*WT(mm)	Pump head							
	SN15-3-14#	SN15-3-16#	SN15-3-25#	SN15-3-17#	YZ1515X-3B	YZ1515X-3H	YZ1515X-6B	YZ1515X-6H
14# --1.6*1.6	68	—	—	—	117	117	76	76
16# --3.2*1.6	—	270	—	—	389	389	244	244
25# --4.8*1.6	—	—	573	—	752	752	—	—
17# --6.4*1.6	—	—	—	997	1249	1249	—	—
15# --4.8*2.4	—	—	—	—	—	—	—	783
24# --6.4*2.4	—	—	—	—	—	—	—	1295

◆ LM40B —Max.Flow Rate Table (ml/min)

Tubing ID*WT(mm)	Pump head							
	BJ-RZ1030-4	BJ-RZ1030B-4	BJ-RZ1030B-8	RZ01-0.8-4	RZ01-1.6-4	RZ02-0.8-3	RZ02-0.8-6	RZ02-1.6-3
0.64*0.8	12	12	9	12	—	16	13	—
0.76*0.8	15	15	14	13	—	18	16	—
0.89*0.8	18	18	17	16	—	27	21	—
1.02*0.8	25	25	21	22	—	30	26	—
1.14*0.8	32	32	27	28	—	37	31	—
1.30*0.8	38	38	32	34	—	47	39	—
1.42*0.8	47	47	38	42	—	59	45	—
1.52*0.8	50	50	42	44	—	64	48	—
1.65*0.8	56	56	43	47	—	71	55	—
1.85*0.8	70	70	55	60	—	94	61	—
2.06*0.8	87	87	61	65	—	104	82	—
2.29*0.8	94	94	71	88	—	126	86	—
2.54*0.8	113	113	77	90	—	153	105	—
2.79*0.8	128	128	81	96	—	161	114	—
1.0*1.0	26	24	17	—	—	—	—	—
2.0*1.0	105	74	57	—	—	—	—	—
3.0*1.0	170	183	114	—	—	—	—	—
0.8*1.6	—	—	—	—	14	—	—	23
1.6*1.6	—	—	—	—	48	—	—	57
2.4*1.6	—	—	—	—	94	—	—	112
3.2*1.6	—	—	—	—	152	—	—	236

SKU	Model No.	Rollers	Description	Suitable pump tube	Max. Flow Rate	Speed	Qty
LM40A							
1004090002	LM40A-SN15-3-14#	3	SN15-3-14# Pump Head	14#	68 ml/min	≤300rpm	1 Piece
1004090003	LM40A-SN15-3-16#	3	SN15-3-16# Pump Head	16#	270 ml/min	≤300rpm	1 Piece
1004090004	LM40A-SN15-3-25#	3	SN15-3-25# Pump Head	25#	573 ml/min	≤300rpm	1 Piece
1004090005	LM40A-SN15-3-17#	3	SN15-3-17# Pump Head	17#	997 ml/min	≤300rpm	1 Piece
1004090016	LM40A-YZ1515X-3B	3	White YZ1515X Pump Head	14#, 16#, 25#, 17#, 18#	1249 ml/min (17#)	≤400rpm	1 Piece
1004090017	LM40A-YZ1515X-3H	3	Black YZ1515X Pump Head	14#, 16#, 25#, 17#, 18#	1249 ml/min (17#)	≤400rpm	1 Piece
1004090018	LM40A-YZ1515X-6B	6	White YZ1515X Pump Head	14#, 16#	244 ml/min (16#)	≤400rpm	1 Piece
1004090019	LM40A-YZ1515X-6H	6	Black YZ1515X Pump Head	14#, 16#	244 ml/min (16#)	≤400rpm	1 Piece
1004090020	LM40A-YZ2515X-3B	3	White YZ1515X Pump Head	15#, 24#	1295 ml/min (24#)	≤400rpm	1 Piece
1004090021	LM40A-YZ2515X-3H	3	Black YZ1515X Pump Head	15#, 24#	1295 ml/min (24#)	≤400rpm	1 Piece
LM40B							
1004090001	LM40B-RZ1030-4	4	RZ1030-4 Pump Head	ID (0.64~3mm) WT (0.8~1mm)	170 ml/min	≤400rpm	1 Piece
1004090054	LM40B-RZ1030B-4	4	RZ1030B-4 Pump Head	ID (0.64~3mm) WT (0.8~1mm)	183 ml/min	≤400rpm	1 Piece
1004090059	LM40B-RZ1030B-8	8	RZ1030B-8 Pump Head	ID (0.64~3mm) WT (0.8~1mm)	114 ml/min	≤400rpm	1 Piece
1004090053	LM40B-RZ01-4-0.8	4	RZ-01-4 Pump Head	ID (0.64~3.2mm) WT 0.8mm	96 ml/min	≤400rpm	1 Piece
1004090052	LM40B-RZ01-4-1.6	4	RZ-01-4 Pump Head	ID (0.8~3.2mm) WT 1.6mm	152 ml/min	≤400rpm	1 Piece
1004090055	LM40B-RZ02-6-0.8-L	6	RZ-02-6 Pump Head	ID (0.64~3.2mm) WT 0.8mm	161 ml/min	≤400rpm	1 Piece
1004090056	LM40B-RZ02-6-1.6-L	6	RZ-02-6 Pump Head	ID (0.8~3.2mm) WT 1.6mm	114 ml/min	≤400rpm	1 Piece
1004090057	LM40B-RZ02-3-0.8-L	3	RZ-02-3 Pump Head	ID (0.64~3.2mm) WT 0.8mm	236 ml/min	≤400rpm	1 Piece
1004090058	LM40B-RZ02-3-1.6-L	3	RZ-02-3 Pump Head	ID (0.8~3.2mm) WT 1.6mm	183 ml/min	≤400rpm	1 Piece



Please refer to the installation steps of a stepper motor peristaltic pump with the same pump head for the installation of the pump tube

★ Working mode

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

★ Control mode (Interface)

1. Keyboard control mode

Foot input interface; Foot pedal control start stop

2.External control mode

External control speed control signal input interface; Supports multiple speed control signals

External control turn signal input interface; Support steering switching control

External control start signal input interface; Support start/stop switching control

3.Communication control mode:

External communication control interface: RS232/RS485

LM60 Series

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 highaccuracy 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
- ◆ **CE Certified**

LM60A: Max. Flow
1295ml/min

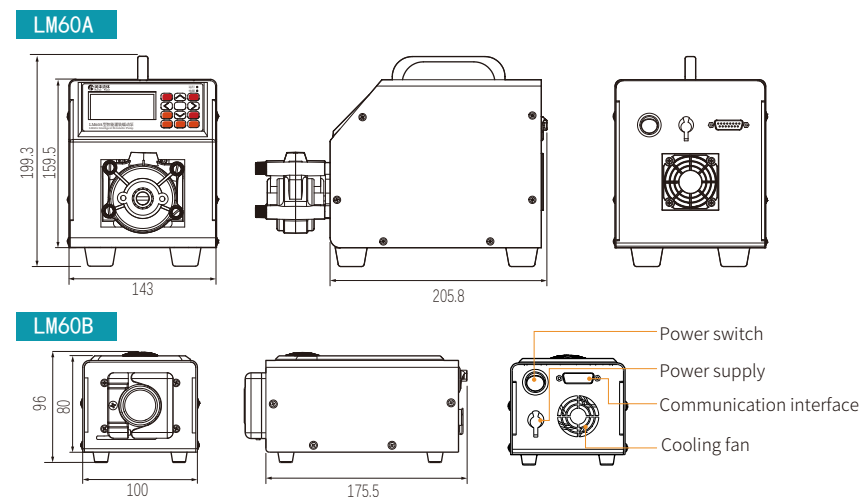
LM60B:Max. Flow
236ml/min



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	
Rotary coding port	—	Can rotate to change editing positionand content
Power supply	DC24V±10%	
Power	35W	20W
Operating temperature	0 ~ 40°C	
Operating humidity	<80%	
Dimension (L*W*H)	143*205.8*199.3mm(without pump head)	100*175.5*96mm(without pump head)
Net weight	3.5kg (without pump head)	1.45kg (without pump head)
Protection level	IP31	

Dimension (unit: mm)



Max.Flow Rate Table

◆ LM60A —Max.Flow Rate Table (ml/min)

Tubing ID*WT(mm)	Pump head									
	SN15-3-14#	SN15-3-16#	SN15-3-25#	SN15-3-17#	YZ1515X-3B	YZ1515X-3H	YZ1515X-6B	YZ1515X-6H	YZ2515X-3B	YZ2515X-3H
14# -1.6*1.6	68	—	—	—	117	117	76	76	—	—
16# -3.2*1.6	—	270	—	—	389	389	244	244	—	—
25# -4.8*1.6	—	—	573	—	752	752	—	—	—	—
17# -6.4*1.6	—	—	—	997	1249	1249	—	—	—	—
15# -4.8*2.4	—	—	—	—	—	—	—	—	783	783
24# -6.4*2.4	—	—	—	—	—	—	—	—	1295	1295

◆ LM60B —Max.Flow Rate Table (ml/min)

Tubing ID*WT(mm)	Pump head									
	BJ-RZ1030-4	BJ-RZ1030B-4	BJ-RZ1030B-8	RZ01-0.8-4	RZ01-1.6-4	RZ02-0.8-3	RZ02-0.8-6	RZ02-1.6-3	RZ02-1.6-6	
0.64*0.8	12	12	9	12	—	16	13	—	—	
0.76*0.8	15	15	14	13	—	18	16	—	—	
0.89*0.8	18	18	17	16	—	27	21	—	—	
1.02*0.8	25	25	21	22	—	30	26	—	—	
1.14*0.8	32	32	27	28	—	37	31	—	—	
1.30*0.8	38	38	32	34	—	47	39	—	—	
1.42*0.8	47	47	38	42	—	59	45	—	—	
1.52*0.8	50	50	42	44	—	64	48	—	—	
1.65*0.8	56	56	43	47	—	71	55	—	—	
1.85*0.8	70	70	55	60	—	94	61	—	—	
2.06*0.8	87	87	61	65	—	104	82	—	—	
2.29*0.8	94	94	71	88	—	126	86	—	—	
2.54*0.8	113	113	77	90	—	153	105	—	—	
2.79*0.8	128	128	81	96	—	161	114	—	—	
1.0*1.0	26	24	17	—	—	—	—	—	—	
2.0*1.0	105	74	57	—	—	—	—	—	—	
3.0*1.0	170	183	114	—	—	—	—	—	—	
0.8*1.6	—	—	—	—	14	—	—	23	19	
1.6*1.6	—	—	—	—	48	—	—	57	51	
2.4*1.6	—	—	—	—	94	—	—	112	105	
3.2*1.6	—	—	—	—	152	—	—	236	183	

SKU	Model No.	Rollers	Description	Suitable pump tube	Max. Flow Rate	Speed	Qty
LM60A							
1004070002	LM60A-SN15-3-16#	3	SN15-3-16# Pump Head	16#	270 ml/min	≤300rpm	1 Piece
1004070003	LM60A-SN15-3-25#	3	SN15-3-25# Pump Head	25#	573 ml/min	≤300rpm	1 Piece
1004070004	LM60A-SN15-3-17#	3	SN15-3-17# Pump Head	17#	997 ml/min	≤300rpm	1 Piece
1004070015	LM60A-YZ1515X-3B	3	White YZ1515X Pump Head	14#, 16#, 25#, 17#, 18#	1249 ml/min (17#)	≤400rpm	1 Piece
1004070016	LM60A-YZ1515X-3H	3	Black YZ1515X Pump Head	14#, 16#, 25#, 17#, 18#	1249 ml/min (17#)	≤400rpm	1 Piece
1004070017	LM60A-YZ1515X-6B	6	White YZ1515X Pump Head	14#, 16#	244 ml/min (16#)	≤400rpm	1 Piece
1004070018	LM60A-YZ1515X-6H	6	Black YZ1515X Pump Head	14#, 16#	244 ml/min (16#)	≤400rpm	1 Piece
1004070019	LM60A-YZ2515X-3B	3	White YZ1515X Pump Head	15#, 24#	1295 ml/min (24#)	≤400rpm	1 Piece
1004070020	LM60A-YZ2515X-3H	3	Black YZ1515X Pump Head	15#, 24#	1295 ml/min (24#)	≤400rpm	1 Piece
LM60B							
1004070051	LM60B-RZ1030-4	4	RZ1030-4 Pump Head	ID (0.64-3mm) WT (0.8-1mm)	170 ml/min	≤400rpm	1 Piece
1004070058	LM60B-RZ1030B-4	4	RZ1030B-4 Pump Head	ID (0.64-3mm) WT (0.8-1mm)	183 ml/min	≤400rpm	1 Piece
1004070059	LM60B-RZ1030B-8	8	RZ1030B-8 Pump Head	ID (0.64-3mm) WT (0.8-1mm)	114 ml/min	≤400rpm	1 Piece
1004070053	LM60B-RZ01-4-0.8	4	RZ-01-4 Pump Head	ID (0.64-3.2mm) WT 0.8mm	96 ml/min	≤400rpm	1 Piece
1004070052	LM60B-RZ01-4-1.6	4	RZ-01-4 Pump Head	ID (0.8-3.2mm) WT1.6mm	152 ml/min	≤400rpm	1 Piece
1004070054	LM60B-RZ02-6-0.8-L	6	RZ-02-6 Pump Head	ID (0.64-3.2mm) WT0.8mm	161 ml/min	≤400rpm	1 Piece
1004070055	LM60B-RZ02-6-1.6-L	6	RZ-02-6 Pump Head	ID (0.8-3.2mm) WT1.6mm	114 ml/min	≤400rpm	1 Piece
1004070056	LM60B-RZ02-3-0.8-L	3	RZ-02-3 Pump Head	ID (0.64-3.2mm) WT0.8mm	236 ml/min	≤400rpm	1 Piece
1004070057	LM60B-RZ02-3-1.6-L	3	RZ-02-3 Pump Head	ID (0.8-3.2mm) WT1.6mm	183 ml/min	≤400rpm	1 Piece

SKU	Description:Connectors+Tube	ID*OD (mm)	WT (mm)	Pump tube length	Adapted pump head	Qty
Suitable tube for SN15 pump head						
Rubber pump head tube						
1013010102	DI-064+17#BPT-0640-016	1.60*4.8	1.60	20cm	SN15-3/SN15-6	1 set
1013010099	DI-048+25#BPT-0480-016	3.20*6.4	1.60	20cm	SN15-3/SN15-6	1 set
1013010097	DI-040+16#BPT-0320-016	4.80*8.0	1.60	20cm	SN15-3/SN15-6	1 set
1013010095	DI-024+14#BPT-0160-016	6.40*9.6	1.60	20cm	SN15-3/SN15-6	1 set
1013010142	DI-087+BPT-0790-016	7.90*11.1	1.60	20cm	SN15-3	1 set
Viton pump head tube						
1013020030	DI-024+14#96412-14	1.60*4.8	1.60	18cm	SN15-3/SN15-6	1 set
1013020028	DI-040+16#96412-16	3.20*6.4	1.60	18cm	SN15-3/SN15-6	1 set
1013020026	DI-048+25#96412-25	4.80*8.0	1.60	18cm	SN15-3/SN15-6	1 set
1013020024	DI-064+17#96412-17	6.40*9.6	1.60	18cm	SN15-3/SN15-6	1 set
1013020033	DI-087+18#96412-18	7.90*11.1	1.60	18cm	SN15-3	1 set
Suitable tube for SN15 pump head						
Silicone pump head tube						
1013030024	DI-024+14#96402-14	1.60*4.8	1.60	20cm	SN15-3/SN15-6	1 set
1013030022	DI-040+16#96402-16	3.20*6.4	1.60	20cm	SN15-3/SN15-6	1 set
1013030020	DI-048+25#96402-25	4.80*8.0	1.60	20cm	SN15-3/SN15-6	1 set
1013030018	DI-064+17#96402-17	6.40*9.6	1.60	20cm	SN15-3/SN15-6	1 set
1013030039	DI-087+18#96402-18	7.90*11.1	1.60	20cm	SN15-3/SN15-6	1 set
Suitable tube for YZ1515 pump head						
Rubber pump head tube						
1013010139	DI-016+13#BPT-0080-016	0.8*4.0	1.60	16cm	YZ1515-3/YZ1515-6	1 set
1013010103	DI-024+14#BPT-0160-016	1.6*4.8	1.60	16cm	YZ1515-3/YZ1515-6	1 set
1013010136	DI-032+19#BPT-0240-016	2.4*5.6	1.60	16cm	YZ1515-3/YZ1515-6	1 set
1013010100	DI-040+16#BPT-0320-016	3.2*6.4	1.60	16cm	YZ1515-3/YZ1515-6	1 set
1013010147	DI-048+BPT-0400-016	4.0*7.2	1.60	16cm	YZ1515-3/YZ1515-6	1 set
1013010098	DI-048+25#BPT-0480-016	4.8*8.0	1.60	16cm	YZ1515-3/YZ1515-6	1 set
1013010096	DI-064+17#BPT-0640-016	6.4*9.6	1.60	16cm	YZ1515-3/YZ1515-6	1 set
1013010141	DI-087+BPT-0790-016	7.9*11.1	1.60	16cm	YZ1515-3/YZ1515-6	1 set
Viton pump head tube						
1013020021	DI-016+13#96412-13	0.8*4.0	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013020031	DI-024+14#96412-14	1.6*4.8	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013020029	DI-040+16#96412-16	3.2*6.4	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013020027	DI-048+25#96412-25	4.8*8.0	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013020025	DI-064+17#96412-17	6.4*9.6	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013020023	DI-087+18#96412-18	7.9*11.1	1.60	15cm	YZ1515-3/YZ1515-6	1 set
Silicone pump head tube						
1013030037	DI-016+13#96402-13	0.8*4.0	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013030025	DI-024+14#96402-14	1.6*4.8	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013030041	DI-032+19#96402-19	2.4*5.6	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013030023	DI-040+16#96402-16	3.2*6.4	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013030021	DI-048+25#96402-25	4.8*8.0	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013030019	DI-064+17#96402-17	6.4*9.6	1.60	15cm	YZ1515-3/YZ1515-6	1 set
1013030040	DI-087+18#96402-18	7.9*11.1	1.60	15cm	YZ1515-3/YZ1515-6	1 set
Suitable tube for RZ1030/RZ1030B pump head						
Rubber pump head tube						
1013010110	DI-016+BPT-0064-008	0.64*2.24	0.80	9.7cm	RZ1030B	1 set
1013010112	DI-016+BPT-0076-008	0.76*2.36	0.80	9.7cm	RZ1030B	1 set
1013010114	DI-016+BPT-0089-008	0.89*2.49	0.80	9.7cm	RZ1030B	1 set
1013010116	DI-016+BPT-0102-008	1.02*2.62	0.80	9.7cm	RZ1030B	1 set
1013010118	DI-016+BPT-0130-008	1.30*2.90	0.80	9.7cm	RZ1030B	1 set
1013010120	DI-024+BPT-0142-008	1.42*3.02	0.80	9.7cm	RZ1030B	1 set
1013010122	DI-024+BPT-0152-008	1.52*3.12	0.80	9.7cm	RZ1030B	1 set
1013010124	DI-024+BPT-0165-008	1.65*3.25	0.80	9.7cm	RZ1030B	1 set
1013010126	DI-024+BPT-0185-008	1.85*3.45	0.80	9.7cm	RZ1030B	1 set

SKU	Description:Connectors+Tube	ID*OD (mm)	WT (mm)	Pump tube length	Adapted pump head	Qty
Suitable tube for RZ1030/RZ1030B pump head						
Rubber pump head tube						
1013010128	DI-024+BPT-0206-008	2.06*3.66	0.80	9.7cm	RZ1030B	1 set
1013010130	DI-032+BPT-0229-008	2.29*3.89	0.80	9.7cm	RZ1030B	1 set
1013010132	DI-032+BPT-0254-008	2.54*4.14	0.80	9.7cm	RZ1030B	1 set
1013010134	DI-032+BPT-0279-008	2.79*4.39	0.80	9.7cm	RZ1030B	1 set
1013010137	DI-016+BPT-0114-0086	1.14*2.86	0.86	9.7cm	RZ1030/RZ1030B	1 set
1013010143	DI-024+BPT-0200-010	2.0*4.0	1.0	9.7cm	RZ1030/RZ1030B	1 set
1013010145	DI-032+BPT-0300-010	3.0*5.0	1.0	9.7cm	RZ1030/RZ1030B	1 set
Viton pump head tube						
1013020014	DI-024+9763238(1.65*3.25)	1.65*3.25	0.80	8.9cm	RZ1030B	1 set
1013020016	DI-024+9763242(2.06*3.66)	2.06*3.66	0.80	8.9cm	RZ1030B	1 set
1013020018	DI-032+9763246(2.54*4.14)	2.54*4.14	0.80	8.9cm	RZ1030B	1 set
1013020032	DI-016+9763228(1.02*2.62)	1.02*2.62	0.80	8.9cm	RZ1030B	1 set
Silicone pump head tube						
1013030030	DI-032+96406(2.4*4.0)	2.4*4.0	0.8	8.9cm	RZ1030B	1 set
1013030032	DI-016+96410(1.0*3.0)	1.0*3.0	1.0	8.9cm	RZ1030B	1 set
1013030034	DI-032+96411(2.0*4.0)	2.0*4.0	1.0	8.9cm	RZ1030B	1 set
Suitable tube for RZ01 Peristaltic Pump						
Rubber pump head tube						
1013010153	RZ01-NI08-16-28P+BPT-0064-008	0.64*2.24	0.8	8.7cm	RZ01-0.8	1 set
1013010154	RZ01-NI08-16-28P+BPT-0076-008	0.76*2.36	0.8	8.7cm	RZ01-0.8	1 set
1013010155	RZ01-NI08-16-28P+BPT-0089-008	0.89*2.49	0.8	8.7cm	RZ01-0.8	1 set
1013010156	RZ01-NI08-16-28P+BPT-0102-008	1.02*2.62	0.8	8.7cm	RZ01-0.8	1 set
1013010157	RZ01-NI08-16-28P+BPT-0130-008	1.30*2.90	0.8	8.7cm	RZ01-0.8	1 set
1013010158	RZ01-NI08-24-28P+BPT-0142-008	1.42*3.02	0.8	8.7cm	RZ01-0.8	1 set
1013010159	RZ01-NI08-24-28P+BPT-0152-008	1.52*3.12	0.8	8.7cm	RZ01-0.8	1 set
1013010160	RZ01-NI08-24-28P+BPT-0165-008	1.65*3.25	0.8	8.7cm	RZ01-0.8	1 set
1013010161	RZ01-NI08-24-28P+BPT-0185-008	1.85*3.45	0.8	8.7cm	RZ01-0.8	1 set
1013010162	RZ01-NI08-24-28P+BPT-0206-008	2.06*3.66	0.8	8.7cm	RZ01-0.8	1 set
1013010163	RZ01-NI08-32-28P+BPT-0229-008	2.29*3.89	0.8	8.7cm	RZ01-0.8	1 set
1013010164	RZ01-NI08-32-28P+BPT-0254-008	2.54*4.14	0.8	8.7cm	RZ01-0.8	1 set
1013010165	RZ01-NI08-32-28P+BPT-0279-008	2.79*4.39	0.8	8.7cm	RZ01-0.8	1 set
1013010167	RZ01-NI08-16-28P+BPT-0114-0086	1.14*2.86	0.86	8.7cm	RZ01-0.8	1 set
1013010169	RZ01-NI08-24-28P+BPT-0200-010	2.0*4.0	1.0	8cm	RZ01-0.8	1 set
1013010170	RZ01-NI08-32-28P+BPT-0300-010	3.0*5.0	1.0	8cm	RZ01-0.8	1 set
1013010166	RZ01-NI08-32-28P+19#BPT-0240-016	2.4*5.6	1.6	8.7cm	RZ01-1.6	1 set
1013010168	RZ01-NI08-16-28P+13#BPT-0080-016	0.8*4.0	1.6	8.7cm	RZ01-1.6	1 set
1013010152	RZ01-NI08-24-28P+14#BPT-0160-016	1.6*4.8	1.6	8.7cm	RZ01-1.6	1 set
1013010151	RZ01-NI08-32-28P+16#BPT-0320-016	3.2*6.4	1.6	8.7cm	RZ01-1.6	1 set
Viton pump head tube						
1013020034	RZ01-NI08-16-28P+9763228(1.02*2.62)	1.02*2.62	0.8	8cm	RZ01-0.8	1 set
1013020035	RZ01-NI08-24-28P+9763238(1.65*3.25)	1.65*3.25	0.8	8cm	RZ01-0.8	1 set
1013020036	RZ01-NI08-24-28P+9763242(2.06*3.66)	2.06*3.66	0.8	8cm	RZ01-0.8	1 set
1013020037	RZ01-NI08-32-28P+9763246(2.54*4.14)	2.54*4.14	0.8	8cm	RZ01-0.8	1 set
1013020038	RZ01-NI08-16-28P+13#96412-13	0.8*4.0	1.6	8.7cm	RZ01-1.6	1 set
1013020039	RZ01-NI08-24-28P+14#96412-14	1.6*4.8	1.6	8.7cm	RZ01-1.6	1 set
Silicone pump head tube						
1013030045	RZ01-NI08-32-28P+96406(2.4*4)	2.4*4.0	0.8	8cm	RZ01-0.8	1 set
1013030046	RZ01-NI08-16-28P+96410(1*3)	1.0*3.0	1.0	8cm	RZ01-0.8	1 set
1013030047	RZ01-NI08-32-28P+96411(2*4)	2.0*4.0	1.0	8cm	RZ01-0.8	1 set
1013030048	RZ01-NI08-16-28P+13#96402-13	0.8*4.0	1.6	8.7cm	RZ01-1.6	1 set
1013030049	RZ01-NI08-24-28P+14#96402-14	1.6*4.8	1.6	8.7cm	RZ01-1.6	1 set
1013030050	RZ01-NI08-32-28P+19#96402-19	2.4*5.6	1.6	8.7cm	RZ01-1.6	1 set



TS600

Industrial High Flow Peristaltic Pump

- ◆ LCD display screen and membrane buttons works together to control speed, flow rate, volume and time
- ◆ Metering mode: continuous, booking, rationing, calibration
- ◆ Control mode: Keyboard control/Communication control (RS232/RS485)/Foot control/Analog control
- ◆ Adding suction angle settings for rich application scenarios
- ◆ Can be used in series with two pump heads, convenient for
- ◆ OEM matching

Max. Flow
14283ml/min

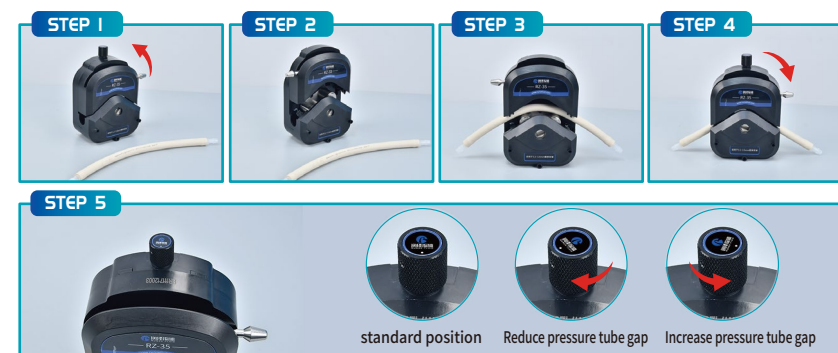
86 Stepper motor parameters

Torque force	5N
Step angle	1.8°
Current	6A
Temp	80°Cmax
Insulation	100MQ Min, 500VDC
Ambient temperature	-20°C~+50°C
Holding torque	8.5N.m

Motor interface

Define	86 Stepper motor
A+	Red
A-	Green
B+	Yellow
B-	Blue

Installation Steps of Pump Hose

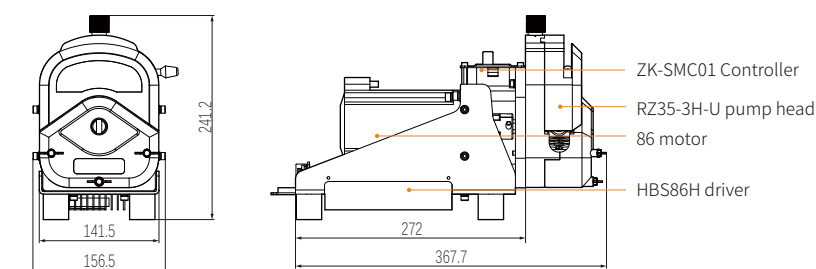


Max.Flow Rate Table

◆ **TS600** —Max.Flow Rate Table (ml/min)

Tubing --ID*WT(mm)	Speed(rpm)									
	100	200	300	400	500	600	700	800	900	
73#Viton tube --9.5*15.9	1291	2606	3700	5133	6716	7200	8766	9100	8800	
73#Rubber tube --9.6*16.6	1383	2783	4300	6016	6733	8400	9266	9566	11383	
82#Viton tube --12.7*19.1	1816	3850	5166	7733	8750	9383	11366	10550	10350	
82#Rubber tube --12.7*19.7	2216	4733	6583	9233	11400	11833	14283	13833	12983	

Dimension(Unit:mm)



SKU	Model No.	Description	Suitable pump tube	Rollers	Speed	Net weight	Qty
TS600							
1004110003	TS600-RZ35-3H	Black RZ35-3H-U pump head	73#, 82#	3	≤900rpm	8.75Kg	1 piece
Accessories							
1000000058		Peristaltic pump lubricants(20g/bottle)					1 bottle



LM80C

Large Flow Box-type Peristaltic Pump

- ◆ LCD display screen and membrane buttons works together to control speed, flow rate, volume and time
- ◆ Metering mode: continuous, booking, rationing, calibration
- ◆ Control mode: Keyboard control/Communication control (RS232/RS485)/Foot control/Analog control
- ◆ Adding suction angle settings for rich application scenarios
- ◆ Can be used in series with two pump heads, convenient for
- ◆ OEM matching

Max. Flow
9616ml/min

Working mode

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

Control mode (Interface)

1. Keyboard control mode

Foot input interface; Foot pedal control start stop

2. External control mode

External control speed control signal input interface; Supports multiple speed control signals

External control turn signal input interface; Support steering switching control

External control start signal input interface; Support start/stop switching control

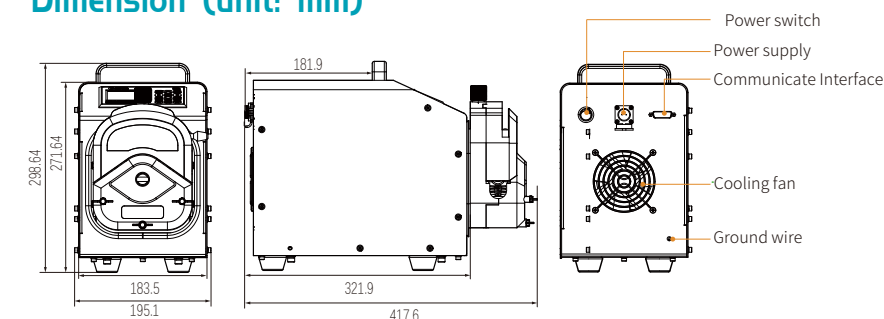
3. Communication control mode:

External communication control interface: RS232/RS485

Technical Parameter

Model No	LM80C-RZ35-3H-U
Speed range	1rpm ~ 500rpm (Maximum speed vary from different pump heads, tube type and tube sizes)
Speed resolution	1rpm
Working mode	Continuous mode, Rationing mode, Booking mode, Calibration mode
Rotary coding port	—
Power supply	DC48V±10%
Power	144W
Operating temperature	0 ~ 40°C
Operating humidity	<80%
Dimension (L*W*H)	422*195*298.6mm
Net weight	13 kg
Protection level	IP31

Dimension (unit: mm)



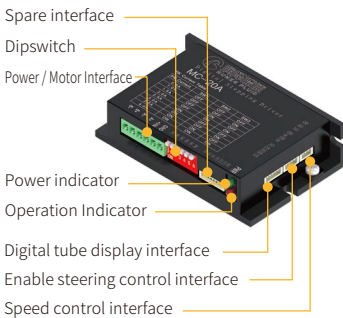
Max.Flow Rate Table (ml/min)

Tubing --ID*WT(mm)	Speed									
	50rpm	100rpm	150rpm	200rpm	250rpm	300rpm	350rpm	400rpm	450rpm	500rpm
73#Viton tube --9.5*15.9	692	1233	2075	2617	3217	3917	4683	5817	6017	6100
73#Rubber tube --9.6*16.6	700	1367	1967	2567	3233	4083	4800	5433	5833	6517
82#Viton tube --12.7*19.1	917	1800	3000	4100	4900	5733	6900	8500	9300	8500
82#Rubber tube --12.7*19.7	1067	2033	3200	4167	5067	6183	7767	8600	9083	9616

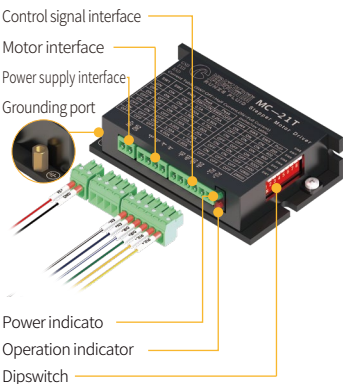
SKU	Model No.	Description	Suitable pump tube	Rollers	Speed	Qty
LM80C						
1004150001	LM80C RZ35-3H-U	Black RZ35-3H-U pump head	73#, 82#	3	≤500rpm	1 Piece
Accessories						
1000000058		Peristaltic pump lubricants (20g/bottle)				1 bottle
2003020052		Pedal switch				1 Piece



★ Product Structure Diagram



★ Product Structure Diagram



MC-20A

Analog Digital Control Stepper Motor Driver

- ◆ 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.

Electrical index parameters

Instruction	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

MC-21T

Pulse Stepper Motor Driver

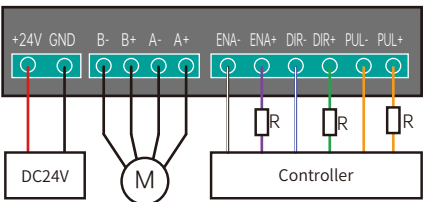
- ◆ Pulse stepper motor driver, 8 motor subdivision and current value can be set for wide application, output current range 0.25~4A
- ◆ External equipped with motor subdivision brings smooth and ultra-quiet operation at low / medium / high speeds
- ◆ MC-21T driver was integrate with automatic parameter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

Electrical index parameters

Instruction	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

★ Driver interface

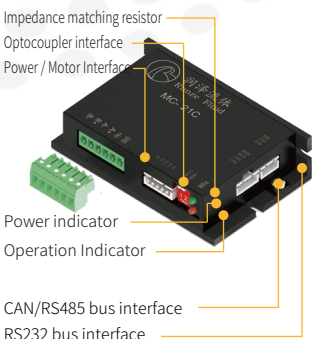
The driver adopts a double-ended signal input and output, which is suitable for common-anode and common-cathode wiring. It equipped with built-in high-speed optocoupler, open collector and NPN circuit output signal, the interface circuit is illustrated in the following diagram



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.



★ Product Structure Diagram



MC-21C

Digital Stepper Motor Driver

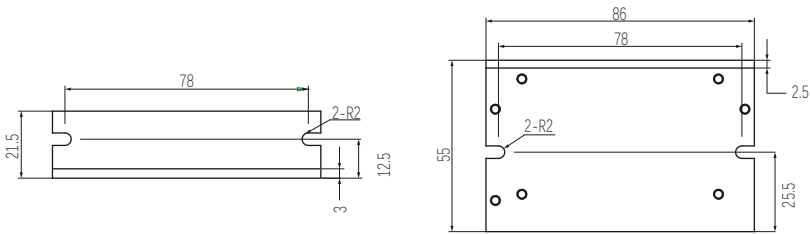
- ◆ A variety of parameter queries, parameter settings, command control, etc. can be carried out between the host computer (computer, microprocessor, PLC, etc.) and the driver
 - ◆ Support RS232, RS485, CAN bus communications.
 - ◆ Able to drive 4, 6, 8-wire two-phase/four-phase stepper motor
 - ◆ Can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

Electrical index parameters

Instruction	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

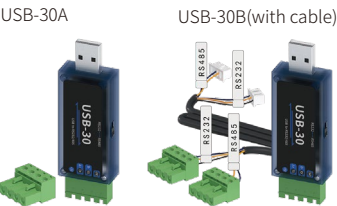
Dimension (unit: mm)

Note: 1. The external dimensions of MC-20A/MC-21T/MC-21C are consistent



SKU	Model No.	Description	Net Weight	Qty
Stepper motor driver				
1009010001	MC-20A	Analog Digital Control Stepper Motor Driver	85g	1 Piece
1009010012	MC-21T	Pulse Stepper Motor Driver	92g	1 Piece
1009010009	MC-21C	Digital Stepper Motor Driver	85g	1 Piece

Accessories (for pump and valve products)



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



Isolated RS485 Repeater

Isolated RS485 repeater is a high-performance industrial signal amplifier for RS485 communication.

- * The product can automatically sense data flow and communication baud without any control and handshaking, thus to ensure transparent data transfer. Device power supply and communication signal are completely isolated, surge and electrostatic can also be protected.
- * Support multi-computer communication, up to 127 nodes can be connected, with a maximum transmission distance of 1,200 meters



RS232-TTL-10 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.

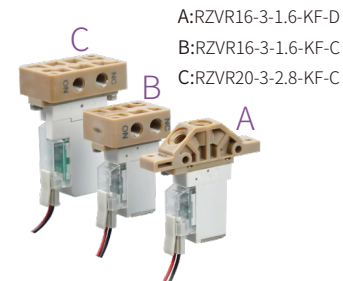
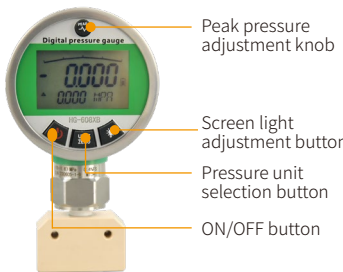
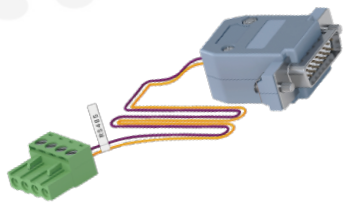


Power Supply Adapter

Plug-in Power Supply Adapter

- * Input Voltage/Current: 100~240V/1.0A-2.5A
- * Output Voltage/Current: 24V/5A
- * Suitable for Runze Multiport Switching Valve, Vertical Syringe Pump, Piston Pump, etc.

A:External Control Module
B:External Control Module with cable



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

Fluid Pressure Test Kit

High-precision LCD display Easy operation, Record peak pressure

- * 1/4-28UNF female port for tubing connection
- * In a specific test period, if accidental peak pressure exceeds the maximum pressure rating of pump or valve, it may cause leakage or stalling.

Three-way Solenoid Valve

Small high flow valve

- * Thread:1/4-28UNF
- * Orifice diameter:1.6/2.8mm Wetted material:PEEK+FKM
- * Application scenarios: Environmental testing instruments, experimental analysis instruments, medical analysis instruments, etc

SKU	Model Name	Description	Qty
Accessories			
1009000001	USB-30A	USB-30 to RS232/RS485 Serial Port Converter, with green pin terminal	1Unit
1009000006	USB-30B	USB-30 to RS232/RS485 Serial Port Converter, with RS232/RS485 wire and the green pin terminal	1Unit
1009000003	LW-10	Suitable for surge protection of precision instrument supplied by DC power in more complex environments.	1Piece
1009000004	RS485-ISO-10	Function as signal amplifier for RS485 communication	1Piece
1009000002	RS232-TTL-10	Used to translate signals between PC serial ports and peripheral devices	1Piece
1066080001	DC-24V-5A Black+5.5*2.1 female end adapte	2-piece power supply kit: suitable for Runze switching valve , syringe pump , peristaltic pump etc.	1Unit
1009000008	RZ-A04-20 Current Control Module	Current range: 4-20mA, suitable for external control of peristaltic pump	1Unit
1009000009	RZ-V05 Voltage control module	Voltage range: 0-5V, suitable for external control of peristaltic pump	1Piece
1009000010	RZ-V10 Voltage control module	Voltage range: 0-10V, suitable for external control of peristaltic pump	1Piece
1009000011	RZ-A04-20 Current Control Module with cable	Current range: 4-20mA, suitable for external control of peristaltic pump	1Unit
1009000012	RZ-V05 Voltage control module with cable	Voltage range: 0-5V, suitable for external control of peristaltic pump	1Unit
1009000013	RZ-V10 Voltage control module with cable	Voltage range: 0-10V, suitable for external control of peristaltic pump	1Unit
1009000007	DB15-485	DB15 to RS485 signal, suitable for Runze LM40/LM60 peristaltic pumps	1Piece
1066080006	Fluid Pressure Test Kit	Pressure gauge and base set for record the peak pressure	1Unit
1009020002	RZVR16-3-1.6-KF-D	Three-way solenoid valve Orifice diameter 1.6mm Dimensions: length 49.8mm * width 10mm * height 51.5mm	1Piece
1009020003	RZVR16-3-1.6-KF-C	Three-way solenoid valve Orifice diameter 1.6mm Dimensions: length 29mm * width 22mm * height 48.5mm	1Piece
1009020004	RZVR20-3-2.8-KF-C	Three-way solenoid valve Orifice diameter 2.8mm Dimensions: length 40mm * width 24mm * height 60.55mm	11Piece

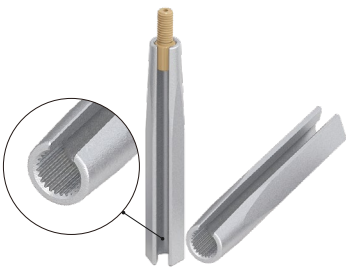
Accessories (for tubes/plastic fittings)



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

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.



Torque Tooling

Easy operation / Time-saving & High efficiency / Adjustable torque

- * The handle is longer and larger, with a larger force area, which makes it easier to tighten with less effort.
- * Threaded fittings in small spaces are more suitable for tightening with torque tooling.
- * Prevent leakage due to untightened fittings.
- * Prevent the tube from falling off due to excessive torque.

How to use torque tooling

- ① Screw the flangeless fitting to the equipment by hand, no need to tighten.
- ② Turn the torque detector adjustment wheel to set the torque value.
- ③ Assemble the strong magnetic sleeve to the torque detector, then install the wrench to the strong magnetic sleeve, finally slowly clockwise tighten the flangeless fittings with this assembly set.
- ④ When the torque value is reached, the torque detector rotates and slips and makes a "click click" sound.



RZ01 Barb-to-female Adapter

RZ01 pump head special fitting

This special connector improves the problem of hose compression during the operation of the peristaltic pump, which causes the connector to shake up and down

SKU	Model No.	D escription	Adapt to Strong magnetic sleeve	Qty	
Accessories					
3005000020	QGQ	Used for pipe cutting	—	1Piece	
1011010100	SNGZ-1-X	Suitable for : WF09B、WP08B、WK11A、WF01B、WD01B、WF15E、WF25E、WF16B、WF16BL、WF20B、WF20BL、WD25B、WD25BL、WD30B、WD30BL、WD32B、WD30BL、WF35E、WF21B、WF26B、WD33B flangeless fittings	10*42	1Piece	
1011010103	SNGZ-5-X	Suitable for: WF10C-6-40-K flangeless fittings	10*42	1Piece	
1006010472	SNGZ-10-1	Suitable for: WF05EL、WF05E、WD05EL、WD05E、WF06EL、WD06EL、WD16EL、WF16EL、WD36EL、WDD11F-32K、WK11F-10-32-K flangeless fittings	10*42	1Piece	
1006010473	SNGZ-YX-X	Suitable for : WF10A、WD10A、WD020A、WDD flangeless fittings	13*42	1Piece	
1011010101	SNGZ-2-X	Suitable for : WF06B、WD06B、WF07B、WP07B flangeless fittings	13*42	1Piece	
1011010126	SNGZ-8-X	Suitable for : WK11C-10-32-K、WF13G-10-32-K flangeless fittings	13*42	1Piece	
1006010489	SNGZ-11-X	Suitable for : WF03G、WD03G、WD06G、WF16G、WF20G、WD25G、WD30G、WD32G、WF21G、WF26G、WD33G flangeless fittings	13*42	1Piece	
1011010104	SNGZ-6-X	Suitable for : WD06B-20K-Black flangeless fittings	19*65	1Piece	
1006020073	SNGZ-HX	For Waved nut head pre-torque flangeless nut with Hand tighten tooling	—	1Piece	
1006020074	SNGZ-YJLDZ-YX	For Knueted nut head pre-torque flangeless nut with Hand tighten tooling	—	1Piece	
1066080004	10*42	Strong magnetic sleeve:Total length 42mm, ID of sleeve 10mm	—	1Piece	
1066080014	13*42	Strong magnetic sleeve:Total length 42mm, ID of sleeve 13mm	—	1Piece	
1066080015	19*65	Strong magnetic sleeve:Total length 65mm, ID of sleeve 19mm	—	1Piece	
1066080003	N20LTDK	Torque detector:The torque value can be set to tighten the fitting within the torque range	—	1Piece	
SKU	Model No.	Thread	Tubing ID	Material	Qty
Barb-to-female Adapter					
1007020007	RZ01-NI08-16-28P	1/4-28UNF	1.0~1.6 mm	PP	1 Piece
1007020009	RZ01-NI08-24-28P	1/4-28UNF	1.6~2.4 mm	PP	1 Piece
1007020011	RZ01-NI08-32-28P	1/4-28UNF	2.4~3.2 mm	PP	1 Piece
1007020020	RZ01-NI08-40-28P	1/4-28UNF	3.2~4.0mm	PP	1 Piece
1007020008	RZ01-NI08-16-28E	1/4-28UNF	1.0~1.6 mm	PTFE	1 Piece
1007020010	RZ01-NI08-24-28E	1/4-28UNF	1.6~2.4 mm	PTFE	1 Piece
1007020012	RZ01-NI08-32-28E	1/4-28UNF	2.4~3.2 mm	PTFE	1 Piece
1007020022	RZ01-NI08-40-28E	1/4-28UNF	3.2~4.0mm	PTFE	1 Piece



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

Imported silicone tube

- Application: Special matching tube for peristaltic pump

Domestic silicone tube

- Application: Special external connecting tube for peristaltic pump

SKU	Model No.	WT (mm)	ID	OD	Colour
Imported silicone tube					
1005030022	96405 (0.5*2.1)	0.8	0.5	2.1	Transparent
1005030018	96408 (0.4*2.4)	1.0	0.4	2.4	Transparent
1005030004	96421 (1.5*3)	0.75	1.5	3.0	Transparent
1005030001	96410 (1*3)	1.0	1.0	3.0	Transparent
1005030023	96406 (2.4*4)	0.8	2.4	4.0	Transparent
1005030002	96411 (2*4)	1.0	2.0	4.0	Transparent
1005030016	96402-13 (13#)	1.6	0.8	4.0	Transparent
1066040024	2.4*4.8	1.2	2.4	4.8	Transparent
1005030005	96402-14 (14#)	1.6	1.6	4.8	Transparent
1005030003	96413 (3*5)	1.0	3.0	5.0	Transparent
1005030009	96402-19 (19#)	1.6	2.4	5.6	Transparent
1005030006	96402-16 (16#)	1.6	3.2	6.4	Transparent
1005030017	96521 (1.6*6.4)	2.4	1.6	6.4	Transparent
1005030024	96418 (4.8*6.8)	1.0	4.8	6.8	Transparent
1005030012	96402-25 (25#)	1.6	4.8	8.0	Transparent
1005030007	96402-17 (17#)	1.6	6.4	9.6	Transparent
1005030011	96402-15 (15#)	2.5	4.8	9.8	Transparent
1005030008	96402-18 (18#)	1.6	7.9	11.1	Transparent
1005030010	96402-24 (24#)	2.5	6.4	11.4	Transparent
1005030013	96402-35 (35#)	2.5	7.9	12.9	Transparent
1066040018	6.4*13	3.3	6.4	13	Transparent
1005030014	96402-36 (36#)	2.5	9.6	14.6	Transparent
1066040062	9.6*14.8	2.6	9.6	14.8	Transparent
1005030015	96402-73 (73#)	3.5	9.6	16.6	Transparent
1005030057	BS-GJG-φ10*φ18	4.0	10.0	18.0	Transparent
1005030019	96402-82 (82#)	3.5	12.7	19.7	Transparent
1066040019	9.5*22.1 (86#)	6.3	9.5	22.1	Transparent
1066040021	12.7*22.3 (88#)	4.8	12.7	22.3	Transparent
1066040020	16*22.4	3.2	16.0	22.4	Transparent
1066040061	20.0*26.0	3.0	20.0	26.0	Transparent
1066040022	19*31.6 (90#)	6.3	19.0	31.6	Transparent
1066040023	25.4*35 (92#)	4.8	25.4	35.0	Transparent

SKU	Model No.	WT (mm)	ID	OD	Colour
Domestic silicone tube					
1005030038	GCGJG00014 (7*12)	2.5	7.0	12.0	Transparent
1005030048	BS-GCGJG-Φ8*Φ12	2	8.0	12.0	Transparent
1005030039	GCGJG00004 (8*11)	1.5	8.0	11.0	Transparent
1005030037	GCGJG00007 (7*10)	1.5	7.0	10.0	Transparent
1005030036	GCGJG00005 (6*9)	1.5	6.0	9.0	Transparent
1005030035	GCGJG00009 (5*8)	1.5	5.0	8.0	Transparent
1005030053	BS-GCGJG-Φ6*Φ8	1	6.0	8.0	Transparent
1005030034	GCGJG00015 (4*7)	1.5	4.0	7.0	Transparent
1005030032	GCGJG00008 (3*6)	1.5	3.0	6.0	Transparent
1005030033	GCGJG00006 (4*6)	1	4.0	6.0	Transparent
1005030031	GCGJG00002 (2*4)	1	2.0	4.0	Transparent
1005030029	GCGJG00001 (1*3)	1	1.0	3.0	Transparent
1005030030	GCGJG00010 (1.5*3)	0.75	1.5	3.0	Transparent
1005030042	BS-GCGJG-Φ2*Φ3	0.5	2.0	3.0	Transparent
1005030041	GCGJG00017 (1.5*2.5)	0.5	1.5	2.5	Transparent
1005030028	GCGJG00011 (0.5*1)	0.25	0.5	1.0	Transparent

Rubber Tube

Brand: Saint-Globain
Hardness: 61 A
Application: Saint-Gobain is standard choice for peristaltic pumps

Peristaltic Pump Tubing

- Excellent mechanical strength, autoclavable, stretchable, non-toxic, nonhemolytic
- Continuous operating temperature: -60°C to + 135°C
- Compatible with most CIP solutions and SIP
- Breathability: 80 (for nitrogen test, the higher the value, the better the tube breathability, and vice versa. ozone resistance, and UV resistance
- 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
- ROHS Certified

* Test conditions for pump tube service life : 17 tubes (6.4*9.6*1.6), at room temperature 23 degrees, with U.S. MasterFlex peristaltic pump and 3 roller Easy-Load pump head, at 600rpm, displacement back pressure: 0psi, media: water, continuous uninterrupted operation until the pump tube cracks (the data is provided by Saint-Gobain, for reference only)

Long-Life,Temperature-Resistant Food & Beverage Tubing

- Continuous operating temperature:-59 °C~135 °C
- Features:
 1. Can withstand almost all commonly used disinfectants and cleaning agents
 2. Resistance to ozone and ultraviolet radiation
 3. Can be repeatedly heated and pressurized
 4. Has chemical resistance to various foods and cleaning agents
 5. Has excellent bending fatigue resistance

High-precision,Chemical Dispensing Tubing

- Continuous operating temperature:-60 °C~135 °C
- Features:
 1. Excellent weather resistance
 2. It has excellent resistance to inorganic acids and alkalis
 3. Wear resistance, better airtightness than rubber hoses
 4. It is resistant to ozone (300pphm) and ultraviolet radiation, and even after being exposed to high temperatures or ozone for many years, it will not experience performance degradation or cracking, making it suitable for long-term use in industrial applications and chemical cleaning agent transportation industries.

Long-Life,Chemical Transfer Tubing

- Continuous operating temperature:-60 °C~74 °C
- Certification: Food grade, compliant with FDA certification
- Features:
 1. Excellent chemical resistance
 2. Plasticizer free inner chamber
 3. Anti fluid adsorption
 4. Almost unaffected by chemical disinfectants and cleaning agents
 5. Elastic outer layer ensures long pump tube life

SKU	Model No	WT (mm)	ID	OD	Colour
Peristaltic Pump Tubing					
1005010038	Pharmed BPT-0038-008	0.8	0.38	1.98	Opaque beige
1005010040	Pharmed BPT-0064-008	0.8	0.64	2.24	Opaque beige
1005010041	Pharmed BPT-0076-008	0.8	0.76	2.36	Opaque beige
1005010042	Pharmed BPT-0089-008	0.8	0.89	2.49	Opaque beige
1005010043	Pharmed BPT-0102-008	0.8	1.02	2.62	Opaque beige
1005010028	Pharmed BPT-0114-008	0.86	1.14	2.86	Opaque beige
1005010044	Pharmed BPT-0130-008	0.8	1.3	2.9	Opaque beige
1005010045	Pharmed BPT-0142-008	0.8	1.42	3.02	Opaque beige
1005010046	Pharmed BPT-0152-008	0.8	1.52	3.12	Opaque beige
1005010047	Pharmed BPT-0165-008	0.8	1.65	3.25	Opaque beige
1005010048	Pharmed BPT-0185-008	0.8	1.85	3.45	Opaque beige
1005010035	Pharmed BPT-0206-008	0.8	2.06	3.66	Opaque beige
1005010056	Pharmed BPT-0050-016	1.6	0.5	3.7	Opaque beige
1005010049	Pharmed BPT-0229-008	0.8	2.29	3.89	Opaque beige
1005010057	Pharmed BPT-0200-010	1.0	2.0	4.0	Opaque beige
1005010031	Pharmed BPT-0080-016 (13#)	1.6	0.8	4.0	Opaque beige
1005010050	Pharmed BPT-0254-008	0.8	2.54	4.14	Opaque beige
1005010039	Pharmed BPT-0279-008	0.8	2.79	4.39	Opaque beige
1005010026	Pharmed BPT-0160-016 (14#)	1.6	1.6	4.8	Opaque beige
1005010058	Pharmed BPT-0300-010	1.0	3.0	5.0	Opaque beige
1005010034	Pharmed BPT-0240-016 (19#)	1.6	2.4	5.6	Opaque beige
1005010060	Pharmed BPT-0400-010	1.0	4.0	6.0	Opaque beige
1005010029	Pharmed BPT-0320-016 (16#)	1.6	3.2	6.4	Opaque beige
1005010059	Pharmed BPT-0400-016	1.6	4.0	7.2	Opaque beige
1005010027	Pharmed BPT-0480-016 (25#)	1.6	4.8	8.0	Opaque beige
1005010033	Pharmed BPT-0640-016 (17#)	1.6	6.4	9.6	Opaque beige
1005010030	Pharmed BPT-0480-025 (15#)	2.5	4.8	9.8	Opaque beige
1005010037	Pharmed BPT-0800-016 (18#)	1.6	7.9	11.1	Opaque beige
1005010052	Pharmed BPT-0640-024 (24#)	2.4	6.4	11.2	Opaque beige
1005010036	Pharmed BPT-0950-032 (73#)	3.2	9.5	15.9	Opaque beige
1005010053	Pharmed BPT-0127-032 (82#)	3.2	12.7	19.1	Opaque beige
Long-Life,Temperature-Resistant Food & Beverage Tubing					
1066020102	A-60-F-0160-016 (14#)	1.6	1.6	4.8	Opaque beige
1066020104	A-60-F-0320-016 (16#)	1.6	3.2	6.4	Opaque beige
1066020106	A-60-F-0480-016 (25#)	1.6	4.8	8.0	Opaque beige
1066020107	A-60-F-0640-016 (17#)	1.6	6.4	9.6	Opaque beige
1066020108	A-60-F-0640-025	2.5	6.4	11.4	Opaque beige
1066020109	A-60-F-0960-033	3.3	9.6	16.2	Opaque beige
1066020110	A-60-F-1270-033	3.3	12.7	19.3	Opaque beige
High-precision,Chemical Dispensing Tubing					
1066020111	A-60-G-0160-016 (14#)	1.6	1.6	4.8	Opaque black
1066020112	A-60-G-0320-016 (16#)	1.6	3.2	6.4	Opaque black
1066020113	A-60-G-0480-016 (25#)	1.6	4.8	8.0	Opaque black
Long-Life,Chemical Transfer Tubing					
1066020138	Chemical-0080-016 (13#)	1.6	0.8	4.0	Opaque beige+Teflon Transparen
1066020115	Chemical-0320-016 (16#)	1.6	3.2	6.4	Opaque beige+Teflon Transparen
1066020116	Chemical-0480-016 (25#)	1.6	4.8	8.0	Opaque beige+Teflon Transparen
1066020117	Chemical-0640-016 (17#)	1.6	6.4	9.6	Opaque beige+Teflon Transparen



MasterFlex Viton Tube

Viton is strong, resilient and flexible, provides excellent resistance to corrosive 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% concentrated sulphuric acid), some corrosive organic solvents (e.g. chloroform)
- Pump tube service life: ≥ 500 hours
- Opaque black color helps protect light sensitive fluid
- Certification: FDA and ADCF compliant

SKU	Model No.	WT (mm)	ID	OD	Colour
MasterFlex Viton Tube					
1005020016	9763228 (1.02*2.62)	0.8	1.02	2.62	Opaque black
1005020001	9763238 (1.65*3.25)	0.8	1.65	3.25	Opaque black
1005020004	9763242 (2.06*3.66)	0.8	2.06	3.66	Opaque black
1005020025	96412-13(13#)	1.6	0.8	4.0	Opaque black
1005020002	9763246 (2.54*4.14)	0.8	2.54	4.14	Opaque black
1005020005	96412-14(14#)	1.6	1.6	4.8	Opaque black
1005020003	96412-16(16#)	1.6	3.2	6.4	Opaque black
1005020008	96412-25(25#)	1.6	4.8	8.0	Opaque black
1005020006	96412-17(17#)	1.6	6.4	9.6	Opaque black
1005020007	96412-18(18#)	1.6	7.9	11.1	Opaque black



FEP tube

FEP tube - transparent

- Good optical clarity (96% UV transmission)
- Continuous operating temperature: FEP: -51~50°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



PTFE tube

PTFE tube - milk white

- Good optical clarity (96% UV transmission)
- Continuous operating temperature: 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

SKU	Model No.	WT (mm)	ID	OD	Colour
FEP Tube					
1005040028	BS-TFLG-Φ1*Φ1.6	0.3	1.0	1.6	Transparent
1005040001	TFLG00001 (0.8*1.6)	0.4	0.8	1.6	Transparent
1005040025	TFLG00025 (0.5*Φ1.6)	0.55	0.5	1.6	Transparent
1066050008	TFLG-Φ1.2*Φ2.0	0.4	1.2	2.0	Transparent
1005040002	TFLG00002 (1*2)	0.5	1.0	2.0	Transparent
1005040003	TFLG00003 (1.5*2.5)	0.5	1.5	2.5	Transparent
1005040004	TFLG00004 (2*3)	0.5	2.0	3.0	Transparent
1005040011	TFLG00009 (1.2*3)	0.9	1.2	3.0	Transparent
1005040005	TFLG00005 (2.175*3.175)	0.5	2.175	3.175	Transparent
1005040006	TFLG00006 (1.6*3.175)	0.7875	1.6	3.175	Transparent
1005040007	TFLG00007 (1.6*3.2)	0.8	1.6	3.2	Transparent
1005040024	TFLG-Φ3*Φ4	0.5	3.0	4.0	Transparent
1005040008	TFLG00008 (2.65*4)	0.675	2.65	4.0	Transparent
1005040014	BS-TFLG-Φ2*Φ4	1.0	2.0	4.0	Transparent
1066050003	TFLG-Φ3.2*Φ4.8	0.8	3.2	4.8	Transparent
1066050002	TFLG-Φ4*Φ6	1.0	4.0	6.0	Transparent
1005040027	BS-TFLG-Φ4.35*Φ6.35	1.0	4.35	6.35	Transparent
1066050001	TFLG-Φ6*Φ8	1.0	6.0	8.0	Transparent
1066050005	TFLG-Φ8*Φ10	1.0	8.0	10	Transparent

SKU	Model No.	WT (mm)	ID	OD	Colour
PTFE Tube					
1066050007	TFLG-E-Φ1.0*Φ1.6	0.3	1.0	1.6	Milk white
1005040013	TFLG00001-E (0.8*1.6)	0.4	0.8	1.6	Milk white
1005040021	BS-TFLG-E-Φ0.5*Φ1.6	0.55	0.5	1.6	Milk white
1005040009	BS-TFLG-E-Φ1*Φ2	0.5	1.0	2.0	Milk white
1005040018	TFLG00003-E (1.5*2.5)	0.5	1.5	2.5	Milk white
1066050009	TFLG-E-Φ1.2*Φ2.5	0.65	1.2	2.5	Milk white
1066050010	TFLG-E-Φ1.2*Φ3.0	0.9	1.2	3.0	Milk white
1005040019	TFLG00004-E (2*3)	0.5	2.0	3.0	Milk white
1005040017	TFLG00005-E (2.175*3.175)	0.5	2.175	3.175	Milk white
1005040012	TFLG00007-E (1.6*3.2)	0.8	1.6	3.2	Milk white
1005040010	BS-TFLG-E-Φ3*Φ4	0.5	3.0	4.0	Milk white
1005040029	BS-TFLG-E-Φ2*Φ4	1.0	2.0	4.0	Milk white
1066050004	TFLG-E-Φ3.2*Φ4.8	0.8	3.2	4.8	Milk white
1005040026	BS-TFLG-E-Φ4*Φ6	1.0	4.0	6.0	Milk white
1005040020	BS-TFLG-E-Φ4.35*Φ6.35	1.0	4.35	6.35	Milk white
1005040030	BS-TFLG-E-Φ5*Φ8	1.5	5.0	8.0	Milk white
1066050006	TFLG-E-Φ8*Φ10	1.0	8.0	10.0	Milk white

Chemical resistance of rubber tube

The evaluation values in the charts on this page have been provided by Saint-Gobain and reflect the relative resistance of various hose formulations to specific chemicals.

Note: The evaluation values in the table do not specifically reflect the extent to which extraction and changes in the physical properties or composition of the media may occur in contact with the hose. No representations or warranties are therefore made regarding the sensitivity of the media to contamination or changes in properties/composition due to possible extraction of the tube components by the transported media.

Prolonged exposure to certain corrosive substances which may have a damaging effect on the tube will still provide satisfactory results as they are rinsed with water after use. All evaluated values were measured at room temperature (23°C). Chemical resistance decreases with increasing temperature.

E= excellent G= good F= normal X= not recommended

- Notes : 1. w= water solution; % concentration, if concentration is not indicated, it means 100% concentration or maximum percentage solubility in water.
2. The concentration of a fluid at room temperature is expressed as a percentage concentration by volume and the concentration of a solid as a percentage concentration by weight.

	Pharmed BPT	Pharmed BPT	Pharmed BPT
acetaldehyde	X	ASTM No. 3 oil	X
acetamide67%w	G	barium carbonate, 1%w	E
acetate solvent (general)	G	barium hydroxide, 5-10%	E
acetic acid , 10%w	E	beer	E
acetic acid , 50-60%w	G	benzaldehyde	X
glacial acetic acid, 100%	G	benzene	X
acetic anhydride	E	benzenesulfonic acid	X
acetone	X	benzoic acid	G
acetonitrile	G	benzyl alcohol	E
acetyl bromide	F	bleach, 22%w	E
acetyl chloride	F	borax, 6% w	E
acetylene gas	E	boric acid, 4%w	E
acrylonitrile	G	liquid bromine	X
adipic acid, 100%(alcohol solution)	G	butadiene	E
air	E	butane	E
common alcohols	E	butyl acetate	G
aliphatic hydrocarbon	X	butanoll	X
allyl alcohol	F	butyric acid	G
alum, 5%w	E	calcium carbonate, dilute acid25%	E
aluminium chloride,, 53%w	E	calcium chloride, 30%w	E
aluminium hydroxide, 2%w	E	calcium hydroxide, 10% glycerin solution	E
potassium aluminium sulphate , 50%w	E	calcium hypochlorite, 20%w	E
aluminium salt	E	calcium nitrate, 55%w	E
amine	F	calcium salt	E
ammonia	E	calcium sulphate, 1%w	E
liquid ammonia	E	carbon dioxide, dry/wet	E
ammonium acetate, 45%w	E	carbon disulfide	X
ammonium carbonate, 50%w	E	carbon monoxide	E
ammonia water, 5-10%	E	tetrachlorocarbon	X
ammonia water, 30%w	E	carbonic acid	E
ammonium persulphate, 30%w	E	castor oil	F
ammonium salt	E	methylcellosolve	F
ammonium sulphate, 30%w	E	acetic acid fibrinolytic agent	F
amyl acetate	G	chlorine, dry	F
amyl alcohols	X	chlorine, wet	X
amyl chloride	F	chloroacetic acid, 20%w	G
aniline	F	trichlorobenzene, Mono Di	X
aniline hydrochloride	F	chloroform	F
antimony salt	E	chlorosulfonic acid	X
aqua regia	X	chromic acid, 10-20%w	E
aromatic hydrocarbon	X	chromic acid50%w	F
arsenic acid, 20%w	F	citric acid , 20%w	E
arsenite	E	coconut oil	F
ASTM No. 1 oil	F	corn syrup	E
ASTM No. 2 oil	X	cottonseed oil	F
		(o, m, p) methylphenol	X
		tolyl acid	G
		copper chloride, 40%w	E
		copper nitrate, 70%w	E
		copper sulphate, 13%w	E
		cyclohexane	X
		cyclohexanol	X
		detergents	G
		dibutyl phthalate	E
		diesel	X
		diethylamine, 2, 5%w	E
		diethylene glycol	E
		dimethyl formamide (DMF)	G
		dimethyl sulfoxide	E
		dioctyl phthalate	E
		dioxane	X
		ether	F
		acetic acid ethyl ester	G
		alcohol(ethanol)	F
		ethyl benzoate	X
		ethyl chloride	F
		ether	F
		ethylene bromide	X
		dichloroethanol	E
		dichloroethane	F
		glycol	E
		ethylene oxide	E
		atty acids	F
		ferric chloride, 43%w	E
		ferric nitrate, 60%w	E
		ferric sulfate, 5%w	E
		ferrous chloride, 40%w	E
		ferrous sulfate, 5%w	E
		fluoroboric acid, 48%w	X
		fluorine gas	X
		fluorosilicic acid25%w	F
		formaldehyde, 37%w	X
		formic acid, 25%w	E
		formic acid, 40-50%w	G
		formic acid, 98%w	G
		freon 11	E
		freon 12	E
		freon 22	E
		fruit juices	E
		fuel	X

	Pharmed BPT	Pharmed BPT	Pharmed BPT
furfurol	X	methyl bromide	F
gallic acid 17% (acetone solution)	G	methyl chloride	F
motor gasoline	X	methyl ethyl ketone (MEK)	X
gelatins	E	milk	E
glucose 50% w	E	mineral oil	X
glycerol(glycerine)	E	solvent oil	X
glycolic acid , 70%w	G	molasses	E
heptane	X	Monoethanolamine	F
n-hexane	X	engine oil	X
hydrazines	F	naphtha	X
hydrobromic acid, 20%-50%w	X	naphthalene	X
hydrobromic acid, 100%w	X	natural gas	E
hydrochloric acid, 10%w	E	nickel chloride, 40%w	E
hydrochloric acid, 37%w	G	nickel nitrate, 75%w	E
hydrocyanic acid	E	nickel salt	E
hydrofluoric acid , 10%w	X	nickel sulfate, 25%w	E
hydrofluoric acid , 25%w	X	nitric acid, 10%w	E
hydrofluoric acid , 40-48%w	X	nitric acid, 35%w	E
hydrogen	E	acid, 68-71%w	X
hydrogen peroxide, 3%w	E	nitrobenzene	X
hydrogen peroxide, 10%w	E	nitromethane	X
hydrogen peroxide, 30%w	E	nitrite, 10%w	E
hydrogen peroxide, 90%w	G	nitrous oxide	E
hydrogen sulphide	E	animal oil	F
hydroquinone , 7%w	G	oil, basic	X
potassium hypochlorite, 25%w	E	hydraulic oil (phosphate ester)	X
iodine, 50ppm w	E	hydrocarbon oil	X
isobutanol	F	vegetable oil	F
isooctan	X	oleic acid	F
isopropyl acetate	G	oleum, 25%w	E
isopropanol	F	o-dichlorobenzene	X
Isopropyl ether	F	oxalate, 12%w	G
Jet engine fuel, JP8	X	oxygen	E
kerosene	X	ozone, 300pphm	E
ketone	X	palmitic acid, 100% ether	F
Paint solvent	G	paraffin wax	X
lactic acid, 3-10%w	E	perchloric acid, 67%w	E
lactic acid, 85%w	G	perchloroethylene	F
lard, animal fat	F	phenol, 5-10%	E
lead acetate, 35%w	E	phenol, 91%w	E
lead salt	E	phosphoric acid<10%w	E
lemon oil	X	phosphoric acid, 25% w	E
D-lemon essence	X	phosphoric acid, 85%w	E
linoleic acid	F	phosphoric acid trichloride	G
linseed oil	F	developer	G
lubricating oil, petroleum	X	phthalate, 9% (alcohol solution)	E
magnesium carbonate, 1%w	E	phthalate anhydride, 9% (alcohol solution)	E
magnesium chloride, 35%w	E	picric acid, 1% w	X
magnesium hydroxide, (dilute acid solution) 10%	E	electroplating solution	E
magnesium nitrate, 50%w	E	potassium carbonate, 55% w	E
magnesium sulphate, 25%w	E	potassium fluoride, 33% w	E
maleic acid, 30%w	F	health theory suit 70w	E
malic acid, 36%w	E	potassium hydroxide, <10%w	E
manganese salt	E	potassium iodide, 56%w	E
mercuric chloride, 6%w	E	potassium permanganate, 6%w	E
mercuric cyanide, 8%w	E	potassium salt	E
mercury	E	propane	E
mercuric salt	E	propanol	E
methane gas	E	propylene glycol	E
		pyridine	F
		salicylic acid, 1%w	E
		silicone oil	F
		silver nitrate55%w	E
		special hydraulic oil, 500A	X
		soapy liquid	G
		sodium acetate, 55%w	E
		sodium benzoate, 22%w	E
		sodium bicarbonate, 7%w	E
		sodium carbonate, 7%w	E
		sodium chlorate, 45%w	E
		sodium chloride, 20%w	E
		sodium cyanide, 30%w	E
		sodium fluoride, 3%w	E
		sodium hydroxide, 10-15%w	E
		sodium hydroxide, 30-40%w	E
		sodium hypochlorite, 5, 5%w	E
		sodium hypochlorite, 12, 2%w	E
		sodium nitrate, 3,5% w	E
		sodium salt	E
		sodium sulfate, 5% w	E
		sodium sulfide, 45% w	E
		sodium sulfite, 10% w	E
		tin tetrachloride, 50% w	E
		tin dichloride, 45% w	E
		stearic acid, 5% (alcohol solution)	F
		styrene monomer	X
		sulfur chloride	X
		sulfur dioxide, dry gas	E
		sulfur dioxide, moisture	E
		sulfur trioxide, wet	G
		sulphuric acid, 10%w	E
		sulphuric acid, 30%w	E
		sulphuric acid, 95-98%w	X
		sulfite	E
		tannic acid, 75%w	G
		tartaric acid, 56%w	E
		tetrahydrofuran	E
		thionyl chloride	X
		stannic salt	E
		titanium salt	E
		toluene	X
		trichloroacetic acid, 90%w	G
		trichloroethane	F
		triethanolamine	F
		trichloroethylene	X
		trichloropropane	F
		trimethylbenzene phosphate	E
		trisodium phosphate	E
		turpentine	X
		urea, 20% w	E
		uric acid	E
		vinegar	E
		vinyl acetate	G
		deionized water	E
		distilled water	E
		xylene	X
		zinc chloride, 80% w	E
		zinc salt	E

Chemical resistance of viton tube

The evaluated values in the charts on this page are provided by MasterFlex, all values were measured at room temperature (20°C) and are for reference only.

1=excellent 2=good 3=normal X=not recommended

	Viton		Viton		Viton
accumulator acid (sulphuric acid 30%)	1	amyl borate	1	boric acid,	1
acetaldehyde	2	amyl chloride	2	brake fluid, ATS	1
acetamide	1 to 2	aniline (aminobenzene)	1 to 2	brandy, all kinds	1
acetic acid 10%	2	aniline dyes	1	brine (table or common salt solution)*1	1
acetic acid 100% (conc.)	x	aniline hydrochloride	x	bromine	1
acetic acid 25%	2	animal fats (oils and greases, adipose)	1	bromine water	1
acetic acid 3%	2	anol (cyclohexanol)	1	bromobenzene	1
acetic acid 50%	2	anone (cyclohexanone)	x	butadiene	2
acetic acid anhydride 50%	x	anthraquinone sulfonic acid,	1	butan diols (butylene glycols)	2
acetic acid ethyl ester (ethyl acetate)	x	antichlorine (sodium thiosulphate)	1	butane diacid	1
acetone	x	antimony chloride 50%	1	butane gas	1
acetyl salicylic acid (aspirin)	1	antimony chloride, anhydrous	1 to 2	butane, liquid	1
acetylacetone	x	apple acid, (apple juice)	1	butanol (butyl alcohol)	2 to 3
acetylene gas	1	aqua fortis (nitric acid 50%)	1 to 2	butanone (methyl ethyl ketone MEK)	x
acids see spec. designation, applicable in general	1-2	aqua regia (nitrohydrochloric acid)	2	butine diol	3
acrylic acid ethyl ester (ethyl acrylate)	x	argon gas	1	butter milk	1
acrylonitrile	2	aromatics see benzene, toluene, xylene	1-2	butter	1
adipic acid (hexane diacid)	1	homologues, applicable in general	1	butyl acetate (acetic acid butyl ester)	x
adipic acid diethyl ester	x	arsenic acid	1	butyl benzoate	1
adipose (animal grease)	1	ascorbic acid (vitamin C)	1	butyl carbitol	1
air, atmospheric, oil-free, to +°C	200	asphalt (pitch)	1	butyl ether	x
air, oil-saturated, to +°C	200	ASTM fuel A (isooctane, free of aromatics)	1	butyl glycol	1
alcohols see specific designations, applicable in general	1-2	ASTM fuel B	1	butyl oleate	1
aliphatics see gasoline low aromatic, applicable in general	1	ASTM fuel C	1	butyl phenols	3
aldehyde see specific designations, applicable in general	2-x	ATS-brake fluid	1	butyl stearate	1
allyl alcohol (propenol)	3	avgas, aviation gasoline (kerosene)	1	butylamine	x
allyl chloride (3-chloropropene)	x	bacon fat	1	butylene, liquid (butene)	1
alum (potassium aluminium sulphate)	1	baking soda (sodium bicarbonate,)	1	butyraldehyde	x
aluminium acetate, (basic aluminium acetate)	x	barium chloride,	1	butyric acid,	2
aluminium chloride,	1	barium hydroxide	1	calcium acetate	x
aluminium fluoride	1	barium sulphate (barite)	1	calcium bisulphate,	1
aluminium hydroxide	1	barium sulphide	1	calcium bisulphite,	1
aluminium nitrate,	1	barm (yeast),	1	calcium carbonate	1
aluminium phosphate,	1	bases (lyes) see exact designation,applicable in general	2	calcium chloride,	1
aluminium sulphate,	1	beer	1	calcium hydroxide, (slaked lime)	1
amines see specific designations, applicable in general	2-3	benzaldehyde (oil of bitter almonds, benzoic aldehyde)	2 to 3	calcium hypochlorite,	1
amino acetic acid (glycine)	1	benzene see also gasoline	2-3	calcium nitrate	1
ammonia nitrate,	3	benzoic acid,	1	calcium oxide = calcinated lime	1
ammonia, 25% (ammonia water)	1	benzyl alcohol	1	calcium sulphate (gypsum),	1
ammonia, gaseous 20°C	1	benzyl benzoate	1	calcium sulphide	1
ammonia, liquid 100%	x	benzyl chloride	1	camphor (camphor oil)	3-x
ammonium acetate,	x	bicarb, bicarbonate of soda (sodium bicarbonate)	1	cane sugar (sugar),	1
ammonium carbonate,	1	bio-gas clean	1	carbamide, urea,	1
ammonium chloride, 3%	1	biphenyl (diphenyl)	1	carbitol (diethylene glycol monoethyl ether)	2
ammonium diphosphate,	1	biphenyls, polychlorinated (pyranols,transformer oils)	1	carbolic acid (phenol)	1
ammonium fluoride,	1 to 2	bis (2-hydroxyethyl) ether	1	carbolineum,	1
ammonium hydroxide, (ammonia,)	1	bismuth carbonate	1	carbon bisulphide	1
ammonium metaphosphate	1	bisulphite lye containing SO2	1	carbon dioxide, gaseous, wet and dry	1
ammonium nitrate	1	bitter-salt (magnesium sulphate)	1	carbon monoxide	1
ammonium persulphate,	1	bitumen 20°C (see also hot bitumen)	1	carbon tetrachloride (tetrachloromethane)	1
ammonium phosphate,	1	black lye (cellulose extraction)	1	castor oil, ricinus oil	1
ammonium sulphate	1	blanc-fixe (barium sulphate)	1	caustic lime (calcium oxide)	1
ammonium thiocyanate	1	bleaching lye (javelle-lye, potassium hypochlorite)	1	cellulube (hydraulic oil, phosphate ester based)	1
amyl acetate (acetic acid pentyl ester, banana oil)	x	bone oil	1	ceolithe	1
amyl alcohols (pentanols)	2	borax (sodium borate)	1	chile salpetre (sodium nitrate)	1

	Viton		Viton		Viton
china wood oil (wood oil)	1	dichloroethylene (dichloroethene)	2	fluorhydric acid see hydrofluoric acid	2
chloral hydrate (trichlorcetal dehydrate)	3	dichloro-isopropyl ether	3	fluorine, liquid	1
chloramine	1	dichloromethane (methylene chloride)	2	fluorobenzene	2
chloric acid,	x	diesel oil	1	fluoroboric acid 65%	1
chlorinated hydrocarbons see specific desig, applicable in general	2	diethyl ether (ether)	3-x	fluorosilicic acid,	2 to 3
chlorinated lime (calcium hypochlorite)	1	diethyl sebacate	2	with 8 -12 % methyl alcohol additive)	1
chlorinated water 3%	1	diethylamine	2	formamide	2 to 3
chlorine dioxide	1	diethylbenzene	1	formic acid:	
chlorine, dry	1	diethylene glycol monoethyl ether (carbitol)	2	0,03	2
chlorine, wet	1	diethylene glycol (diglycol)	1	0,1	3
chloroacetic acid (monochloroacetic acid)	x	diglycolic acid,	1	1	x
chlorobenzene (monochlor benzene)	1	dilutions for paints and lacquers determine composition		fruit juices*1	1
chlorobiphenyl (clophen)	1	dimethyl ether (methyl ether)	3	fruit pulp*1	1
chlorobromomethan	1	dimethyl formamide (DMF)	3	fuming sulphuric acid: (oleum)	1
chlorocalcium (calcium chloride)	1	dimethyl heptanone (diisobutyl keton)	x	fungi (microbes)	1
chloroethanol (ethylene chlorhydrine)	x	dimethyl phthalate	2	furan	x
chloroethyl (ethyl chloride)	1-2	dimethyl sulphoxide (DMSO)	x	furfural alcohol (furfurol)	3
chloroform (trichloromethane)	1	dimethylamine	x	gallic acid	1
chloromethane (methyl chloride)	2	dimethylaniline (xylydine)	1	gasoline in general (see specific designations)	1
chloroprene (chlorinated butadiene)	1	dioctyl phthalate (DOP)	1 to 2	gasoline, lead-free	1
chlorosulfonic acid	x	dioctyl sebacate	2	gasoline, super	1
chlorothene (trichloroethane)	1	dioxane (diethylene dioxide)	x	gasoline, ASTM fuel A (isooctan, free of aromatics)	1
chromic acid 10%	2	dipentene (limonene)	1	gasoline, ASTM fuel B	1
chromic acid 25%	1	diphenyl	1	gasoline, ASTM fuel C	1
chromic acid 50%	1	diphenyl oxid (diphenyl ether)	2 to 3	gasoline, diesel, heating oil	1
citric acid	1	dipropylene glycol	1	gasoline, aviation (kerosene)	1
clophen (chlorobiphenyl)	1	dodecyl alcohol (lauryl alcohol)	1	gasoline, high aromatic	1
coal tar (see also hot tar, creosote)	1	Eau de Javelle (potassium hypochlorite)	1	gasoline, low aromatic	1
coconut grease and oil	1	epichlorohydrin, liquid	x	gasoline, test- (heavy g., white spirit, mineral turpentine)	1
cod-liver oil	1	epsom salt (magnesium sulphate)	1	gasoline/benzene (50/50)	2
common salt (sodium chloride)	1	esters see specific designations, applicable in general	3-x	gasoline/benzene (60/40)	2
compressed air, oil-saturated, to +°C	200	ethane (gas)	1	gasoline/benzene (70/30)	1
copper acetate	x	ethanol (ethyl alcohol)	1	gasoline/benzene (80/20)	1
copper chloride,	1	ethanolamine (2-aminoethanol)	3	gasoline/benzene/ethanol (50/30/20)	x
copper cyanide	1	ethene (ethylene)	1	gelatins, *1	1
copper fluoride	1	ethers see specific designations, applicable in general	3-x	glacial acetic acid (acetic acid pure)	x
copper nitrate,	1	ether (ethyl ether, diethyl ether)	3-x	Glauber's salt (sodium sulphate)	1
copper sulphate, (blue vitriol)	1	etheric oils *1	1	glue, animal	1
corn oil	2	ethyl acetate	x	glycerine (glycerine, propane-1,2,3-triol)	1
corn sugar (glucose, dextrose, grape sugar)	1	ethyl acrylate (acryl acid ethyl ester)	x	glycine (amino acetic acid), 10%	1
cottonseed oil	1	ethyl alcohol (denatured = spirits)*1	2 to 3	glycolic acid (hydroxy acetic acid), 30%	1
cow suet	1	ethyl benzene	2	grape juice unfermented*1	1
creosote	1	ethyl bromide (bromomethane)	1	greases in general, see oils and greases	1
cresols, cresylic acids	1	ethyl chloride (chloroethane)	1 to 2	gypsum (calcium sulphate)	x
crotonaldehyde (2-butenal)	1	ethyl dichloride (dichloroethylene)	2	halogenes (look at: fluorine, chlorine, bromine,iodine)	1
crude oil, high aromatic	1	ethyl ether (ether)	3-x	halogenated hydrocarbons see spec. design.applicable in general	1-2
cumene (isopropylbenzene)	1	ethyl glycol acetate	x	heavy gasoline (white spirit or mineral turpentine)	1
cyankali (potassium cyanide)	2	ethylene chloride (dichloroethylene)	2	helium	1
cyclohexane (hexahydrobenzene)	1	ethylene chlorhydrine (chloroethanol)	x	heptane	1
cyclohexanol (hexaline)	1	ethylene diamine	1	hexahydrobenzene (cyclohexane)	1
cyclohexanone	x	ethylene (gas) (ethene)	1	hexaldehyde	x
cyclohexylamine	x	ethylene glycol (glycol, ethane-1,2-diol)	x	hexaline (cyclohexanol)	1
decalin (decahydronaphthalene)	1	ethylene oxid (1,2-epoxy methane), liquid	x	hexane (n-hexane)	1
detergents, synth. 20°C	1	fats in general see oils and greases	1	hexanol (hexyl alcohol)	2
diacetone alcohol	x	fatty acids, with >7 C-atoms, in general	1	hexane-triol	1
dibenzyl ether	1	fatty acids, with 1-7 C-atoms, in general	2	hexene	1
dibutyl amine	x	fatty alcohols (longchain, aliphatic alcohols)	1	hot bitumen to °C	180
dibutyl phthalate	2	fermented fruit juice*1	1	hydraulic oils and -liquids:	
dibutyl sebacate	2	ferric chloride (ferri),	1	~mineral oil based	1
dichlorobenzene	2 to 3	ferric sulphate, ferric vitriol	1	~phosphate ester based (pydraul)	1
dichloroethane	2-3	fertilizing salt	1	hydrazines (diamides)	2 to 3

fluorhydric acid see hydroflouric acid	2
fluorine, liquid	1
fluorobenzene	2
fluoroboric acid 65%	1
fluorosilicic acid,	2 to 3
with 8 -12 % methyl alcohol additive)	1
formamide	2 to 3
formic acid:	
0,03	2
0,1	3
1	x
fruit juices*1	1
fruit pulp*1	1
fuming sulphuric acid: (oleum)	1
fungi (microbes)	1
furan	x
furfural alcohol (furfural)	3
gallic acid	1
gasoline in general (see specific designations)	1
gasoline, lead-free	1
gasoline, super	1
gasoline, ASTM fuel A (isooctan, free of aromatics)	1
gasoline, ASTM fuel B	1
gasoline, ASTM fuel C	1
gasoline, diesel, heating oil	1
gasoline, aviation (kerosene)	1
gasoline, high aromatic	1
gasoline, low aromatic	1
gasoline, test- (heavy g., white spirit, mineral turpentine)	1
gasoline/benzene (50/50)	2
gasoline/benzene (60/40)	2
gasoline/benzene (70/30)	1
gasoline/benzene (80/20)	1
gasoline/benzene/ethanol (50/30/20)	x
gelatins, *1	1
glacial acetic acid (acetic acid pure)	x
Glauber's salt (sodium sulphate)	1
glue, animal	1
glycerine (glycerine, propane-1,2,3-triol)	1
glycine (amino acetic acid), 10%	1
glycolic acid (hydroxy acetic acid), 30%	1
grape juice unfermented*1	1
greases in general, see oils and greases	1
gypsum (calcium sulphate)	x
halogenes (look at: fluorine, chlorine, bromine,iodine)	1
halogenated hydrocarbons see spec. design.applicable in general	1-2
heavy gasoline (white spirit or mineral turpentine)	1
helium	1
heptane	1
hexahydrobenzene (cyclohexane)	1
hexaldehyde	x
hexaline (cyclohexanol)	1
hexane (n-hexane)	1
hexanol (hexyl alcohol)	2
hexane-triol	1
hexene	1
hot bitumen to °C	180
hydraulic oils and -liquids:	
~mineral oil based	1
~phosphate ester based (pydraul)	1
hydrazines (diamides)	2 to 3

	Viton
hydrazine hydratee,	1
hydrobromic acid	1
hydrocarbons aliphatic general(see spec. designation)	1
hydrocarbons aromatic general(see spec. designation.	1-2
hydrocarbons halogenated general (see spec.designation.)	1-2
hydrochloric acid 15%	1
hydrochloric acid 38% (conc.)	1
hydrochloric acid, (hydrochlorous) gaseous	1
hydrofluoric acid 10%	1 to 2
hydrofluoric acid 30%	1 to 2
hydrofluoric acid 75%	2
hydrofluoricsilicic acid,	2 to 3
hydrogen (gaseous)	1
hydrogen peroxide 10%	1 to 2
hydrogen peroxide 30%	1
hydrogen sulphide, dry	1
hydrogen sulphide, wet	1
hydroquinone,	2
hydroxylamine sulphate,	1
ink	1
iodine tincture (5-10% alcohol iodine solution)	1
isobutanol (isobutyl alcohol)	1
isooctane	1
isooctanol (isooctyl alcohol)	1
isophoron	x
isopropanol (isopropyl alcohol)	1
isopropyl acetate	x
isopropyl benzene (cumen)	1
isopropyl chloride	1
isopropyl ether	3
Javelle lye (potassium hypochlorite)	1
jet fuel DP1-IPS	1
kerosene	1
ketones see specific designations, applicable in general	x
lactic acid*1	1
lanolin (wool grease)	1
laughing-gas (nitrous oxide)	1
lauryl alcohol (dodecyl alcohol)	1
lavender oil*1	1
lead acetate,	1
lead nitrate	1
lead sulphate	1
lignite tar oil (see coal tar)	1
lime, slaked (calcium hydroxide)	1
limestone (calcium carbonate)	1
linseed oil*1	1
lithium chloride,	1
lyes see exact designation, applicable in general	2
magnesium chloride,	1
magnesium hydroxide	1
magnesium silicate (talc)	1
magnesium sulphates	1
magnesium sulphite,	1
maize oil*1	1
maleic acid,	1
maleic anhydride	3
manure	1
margarine-greases and oils*1	1
marsh gas (mine damp, methane)	1
mash*1	1
MEK (methyl ethyl ketone)	x

	Viton
melamine	1
menthol	1
mercury	1
mercuric chloride (sublimite)	1
mercurious nitrate	1
mesityl oxide	x
methane (gas)	1
methanol (methyl alcohol)	2
methyl acetate (acetic acid methyl ester)	x
methyl acrylate	x
methyl alcohol	2
methyl bromid (bromomethane)	2
methyl chloride (chloromethane)	2
methyl chloroform (trichloroethane)	1
methyl ethyl ketone (MEK)	x
methyl glycol (methylcellosolve)	x
methyl glycol acetate	x
methyl isobutyl keton	x
methyl oxiran (propylene oxide)	x
methyl phthalate (dimethyl phthalate)	2
methylamine,	2 to 3
methylated spirits (ethanol denaturated)	1
methylene chloride (dichloromethane)	2
microbes	1
milk*1	1
mixed acid II (sulphuric acid/phosphoric	1
mixed acid I (sulphuric acid/nitric acid/water)	x
molasses*1	1
monochloroacetic acid	x
monochlorobenzene	1
monochloromethane (methyl chloride)	2
monostyrol (styrol, styrene, monomeric)	2
morpholine	2
must fermented (fermented fruit juice)	1
must, unfermented*1	1
mustard	x
myristyl alcohol, myristic alcohol (tetradecanol)	1
naphtha	1
naphthalene (stone oil)	1
natron (sodium bicarbonate)	1
natural gas, wet	1
natural gas, dry	1
n-hexane	1
nickel acetate	x
nickel chloride,	1
nickel sulphate,	1
nitratine (nitrate of sodium)	1
nitrating acid (mixed acid I)	x
nitric acid 10%	1
nitric acid 25%	1 to 2
nitric acid 50% (aqua fortis)	1 to 2
nitric acid 60%	2
nitro-benzene	2
nitrogen	1
nitrogen oxides (nitrouse gases)	3
nitro-glycerin	1
nitro-methane	x
nitro-propane	x
nitro-toluole	3
nitrous fumes (nitrogen oxides)	3
nitrous oxide (laughing gas)	1

	Viton
N-methylpyrrolidone (NMP)	3
nonyl alcohol (nonanol)	1
octane	1
octanol = octyl alcohol	1
oils and greases:	
-animal*1	1
-ASTM-oil Nr. 1 20°C	1
-ASTM-oil Nr. 2 20°C	2
-ASTM-oil Nr. 3 20°C	2
-crude oil, high aromatic	1
-diesel oil	1
-heating oil	1
-hydraulic oils and -liquids:	
-mineral oil based	1
-phosphate ester based (pydraul)	1
-mineral, without additives, at 20°C	1
-mineral, without additives, to °C	200
-silicon based	1
-transformer oils (pyranols)	1
-vegetable oils	1
oil of bitter almonds (benzaldehyde)	2 to 3
oleic acid, olein	2
oleum (fuming sulphuric acid)	1
oleum vapours	3
olive oil*1	1
oxalic acid,	1
oxidant see specific designations, applicable in general	1
oxirane (ethylene oxide)	x
oxygen pure to +°C	200
ozone (atmospherical concentrations)	1
ozone 100%	1
palm oil, palm pip oil*1	1
palmitic acid	2
paraffin, paraffin oils	1 to 2
paraformaldehyde	2
pec+K228+J+J8:L54	1
pentane	1
pentanols (amyl alcohols)	2
perborate (sodium borate)	1
perchloric acid,	1
perchloroethylene (tetrachloroethylene)	1
permanganate (potassium permanganate) 10 %	1
petroleum, without additives, at 20°C	1
petroleum, without additives, to °C	200
petroleum spirit (white spirit, solvent naphta)	1
phenol (carbolic acid),	1
phenyl ether (diphenyl oxide)	2 to 3
phenylbenzene (biphenyl)	1
phorone (diisopropylidene aceton)	x
phosphoric acid 3%	1
phosphoric acid 50%	1
phosphoric acid 85%	1
phosphoric alumina (aluminium phosphates,)	1
phosphorus oxychloride	1
photo-emulsions, in general (see exact chem. esignation)	2
phthalic acid	x
phthalic acid anhydride,	x
phthalic acid ester (phthalates)	1
picric acid	1 to 2
pine oil*1	1
potash (potassium carbonate)	1

	Viton
potassium acetate,	2 to 3
potassium aluminium sulphate (alum)	1
potassium bicarbonate (potassium hydrogen carbonate)	1
potassium bichromate (potassium dichromate)	1
potassium bisulphate,	1
potassium borate,	1
potassium bromate, , 10%	1
potassium bromide,	1
potassium carbonate (potash)	1
potassium chlorate,	1
potassium chloride,	1
potassium chromate, , 40%	1
potassium cyanide (cyankali),	2
potassium dichromate,	1
potassium hydroxide (caustic potash,-lye) 10%	1
potassium hydroxide (caustic potash, lye) 50%	2 to 3
potassium hypochlorite (Javelle)	1
potassium iodide,	1
potassium nitrate,	1
potassium perchlorate,	1
potassium permanganate 10%,	1
potassium peroxy disulphate (potassium persulp hate)	1
potassium phosphate (mono and dibasic)	1
potassium sulphate	1
potassium sulphite	1
propane gas	1
propane, liquid	1
propanol (propyl alcohol)	1
propargyl alcohol, 7%	1
propionic acid (propane acid)	1
propyl acetates (acetic acid propyl esters)	x
propyl alcohol (propanol)	1
propylamine	x
propylene (propene)	1
propylene glycols (propandiols)	1
propylene oxide (methyloxiran)	x
prussic acid 20%	1 to 2
prussic acid 98% (conc.)	1 to 2
pydraul (hydraulic liquids phosphate ester based)	1
pyrantone (diacetone alcohol)	x
pyridine	3
pyrrol	3
quick lime (calcium oxide)	1
radiation, UV	1
radioactive radiation: applicable in general	x
rapeseed oil*1	1
raw sugar sap	1
redoil (aniline)	1 to 2
ricinus oil, castor oil*1	1
rock salt	1
sal ammoniac (ammonium chloride) 3%	1
salicylic acid (spiric acid),	1
salmiac (ammonium chloride)	1
salpetre (pottasium nitrate)	1
salt (table or common salt, sodium chloride)	1
salted water (brine, sea water)	1
sangajol = turpentine oil substitue, mineral	1
seawater	1
sebacic acid ester	3-x
sewage	1
silicon dioxideee (silicic acid, chert, silica)	1

	Viton
silicon oils and -greases	1
silver nitrate,	1
skydrol (hydraulic liquids, phosphate ester based)	1
slaked lime (calcium hydroxide)	1
soapsuds, -solution, detergents)	1
(sodium carbonate anhydrous)	1
soda salpetre (sodium nitrate)	1
soda, calcinated (sodium carbonate anhydrous)	1
soda, crystallised (sodium carbonate)	1
sodium bicarbonate (sodium-hydrogencarbonate),	1
sodium bisulphate (sodium-hydrogensulphate)	1
sodium bisulphite (sodium-hydrogensulphite),	1
sodium borate (borax)	1
sodium bromide	1
sodium carbonate (soda)	1
sodium chlorate,	1
sodium chloride (muriate of soda, common or table salt)*1	1
sodium chlorite	1
sodium cyanide	1
sodium dichromate	1
sodium fluoride	1
sodium fluoroaluminate 10%	1
sodium hydroxide (sod lye) 25%, 100°C	x
sodium hydroxide (sod lye) 25%, 20°C	3
sodium hypochlorite 10%	1
sodium hypochlorite 30%	2 to 3
sodium metaphosphate	1
sodium nitrate,	1
sodium nitrite	1
sodium perborate	1
sodium percarbonate (bleaching agent)	1
sodium peroxide	1 to 2
sodium phosphate (see also trisodium phosphate)	1
sodium silicate,	1
sodium sulphide,	x
sodium sulphate (Glauber`s salt),	1
sodium sulphite,	1
sodium thiosulphate (antichlorine)	1
solvent naphta (petroleum spirit, white spirit)	1
solvents see specific designations	
soyabeen oil*1	1
spirits (ethanol, denaturated)	1
spirits of ammonia (ammonia 25% in water)	1
spruce needle oil	1 to 2
starch syrup*1	1
starch, *1	1
steam of water to°C	150
stearin (stearic acid)	2
stone oil (naphthalene, liquid paraffine)	1
styrene, monomer	2
sublimate (mercury chloride)	1
sugar *1 (see also raw sugar juice)	1
sulfonic acids, in general	2
sulfur trioxide (sulphuric acid anhydride)	1
sulfur, molten, 90°C	1
sulphuric acid 10%	1
sulphuric acid 30%	1
sulphuric acid 50%	1
sulphuric acid 75%	1
sulphuric acid 90%	1
sulphuric acid conc. (oleum, fuming sulphuric acid)	1

	Viton
sulphuric acid 10%, moist	2
sulphuric acid 75%, moist	2
talc (magnesium silicate)	1
tannic acid (tannin)	1 to 2
tar (see also hot tar)	1
tartaric acid, *1	1
tensides (washing or cleaning agents, synth.)	1
test gasoline = white spirit	1
tetrachlorocarbon (tetrachloromethanee,tetra, carbon tetra chloride)	1
tetrachloroethans	2
tetrachloroethylene (perchloroethylene)	1
tetrahydrofurane (THF)	x
tetraline = tetrahydronaphthalene	1
thionyl chloride	3
thiophene	x
tin-II-chloride,	1
toluol	1
town gas, coal gas, illuminated gas (natural gas see later)	1
train-oil	1
tributyl phosphate (TBP)	x
trichloro acetic acid (TCA)	3
trichloroethane (methylchloroform)	1
trichloroethylene (ethylene trichloride)	1 to 2
trichloromethane (chloroform)	1
tricresyl phosphate	1 to 2
triethanolamine	1
triethylamine	x
triethylene glycol (triglycol)	1
trioctyl phosphate	x
trisodium phosphate	1
tung oil	1
turpentine (-oil)	1
turpentine, surrogate, mineral	1
urine	1
varnish	1
vinegar*1	1
vinyl acetate (acetic acid vinyl ester)	2
vinyl chloride (chloroethene), monomer	1
vitamin C	1
vitriol oil (oleum)	1
vitriol blue (copper sulphate)	1
washing agent synth. (detergent) 20°C	1
water:	1
-condensed, distilled, desalinated or demineralised	
does not effect polymers but polymers effect water	
"-drinking- or mineral water, without additives*1	150
-mineral water CO2 saturated*1	1
-seawater	1
weathering	1
white spirit (petroleum spirit, solvent naphta)	1
wines red and white*1	1
wood oil	1
wool grease (lanoline)	1
xylamon (wood protection)	2
xylene	1 to 2
xylidine (dimethyl aniline)	1
zinc acetate,	x
zinc chloride,	1 to 2
zinc sulphate,	1

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 enterprise, 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

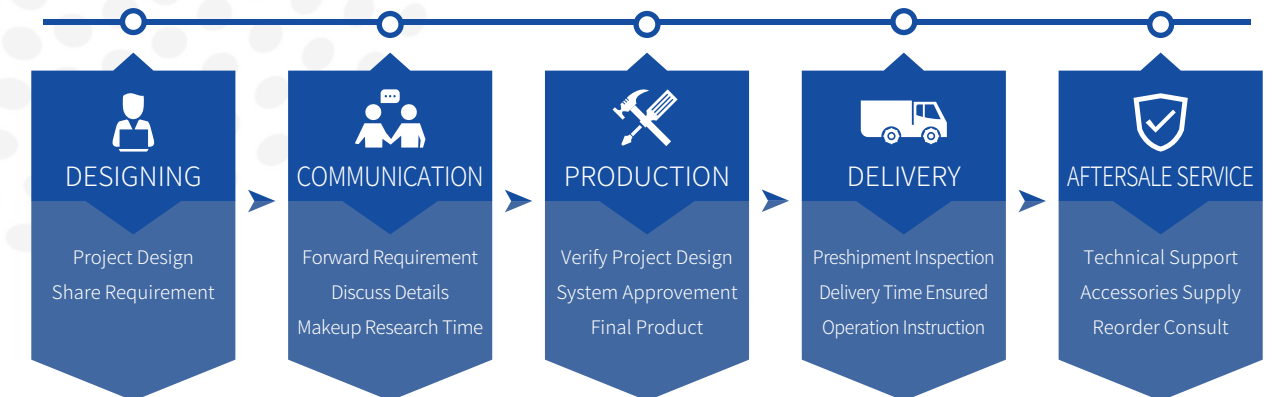
No matter how much the order quantities, we strictly inspect the whole process even on a small component, to avoid any mistakes, aim to reach the best product.

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

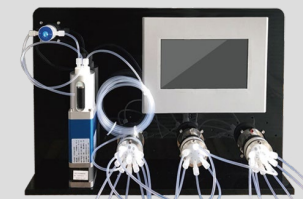


OEM Service

Robotic Sampling



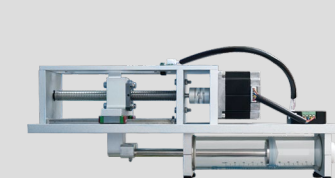
Dispensing System



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.

- Reduce the motor speed
- Liquid container was put at higher position than syringe pump, at least put at the same level with syringe pump
- 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.

- 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.

- 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.

- 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 = $360^\circ / 0.9^\circ = 400$ 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:

- Motor speed is too fast which brings air into the cylinder
- Adapters and tubing are not tightly connected
- Target liquid includes air, when motor is fast running, the air was separated from target liquid and too late to integrated into the liquid
- 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 ablents 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.

- Ensure COM port on your computer is correct, RS232/RS485 adapters are no problem, all wirelines are well connected.
- Check if the switch on the RS232/RS485 adapter have been turned to RS232.
- Don't tick " Factory mode ", input 00 into Address, input 4A into Command, input 00 into Parameter, click Send.
- 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.