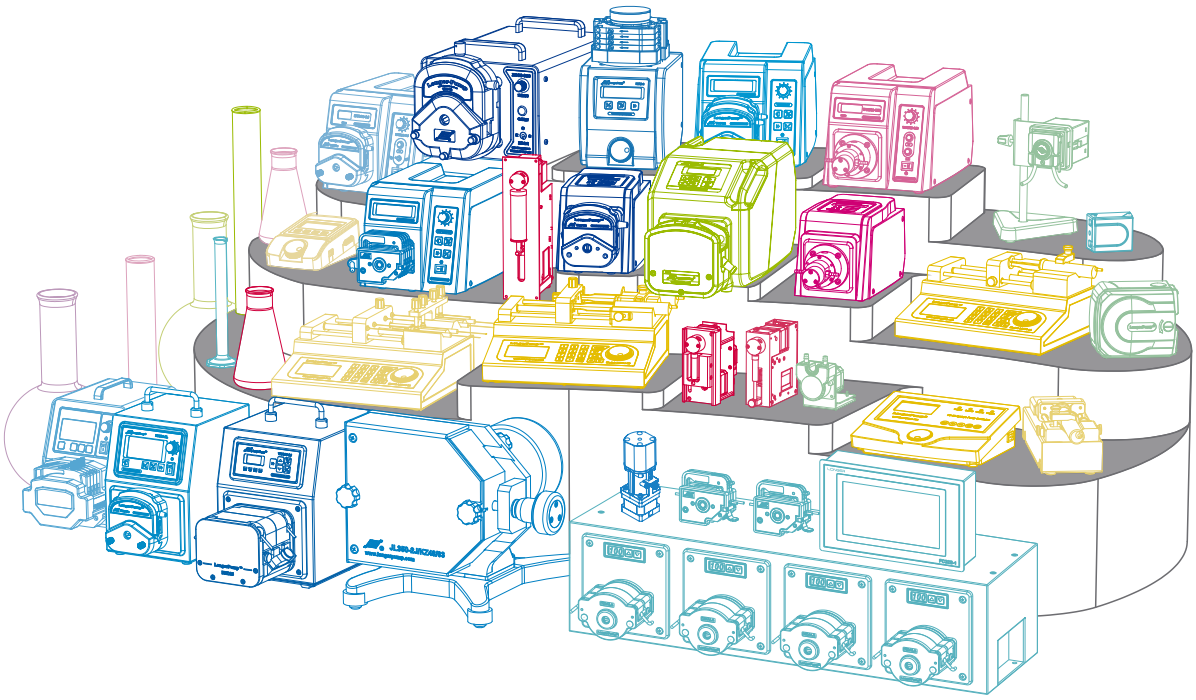
LONGER
PRECISION FLUID TRANSFER

A HALMA COMPANY

Peristaltic Pump
Laboratorial Syringe Pump
Industrial Syringe Pump
Precise Gear Pump
Piston Pump
Pump System
OEM



Longer Precision Pump Co., Ltd.

www.longerpump.com

2018 / 2019

LONGER
PRECISION FLUID TRANSFER

About Us

Longer precision pump Co., Ltd., a wholly owned subsidiary of Halma plc and operates in its Medical Sector, was founded in 1997 and specializes in development, production and sale of precise fluid transferring & handling devices.

Being customer-oriented, Longer provides safe, high precision and high quality fluid transferring and handling devices and solution. Our products include not only standard peristaltic pumps, laboratorial syringe pumps, industrial syringe pumps, micro-gear pumps, dispensing and filling systems, but also OEM pumps which are custom designed and developed according to customers'specific requirements. There are more than 40 series of products with more than 300 models in Longer Company. We are dedicated and committed to providing high quality, on-time delivered, high customer value products and services for customers in industries such as pharmaceutical equipment, medical devices, environmental monitoring devices, laboratory & research applications, etc.

As a leading fluid transferring and handling solution provider, innovation is the continuous driving force of Longer, currently Longer has 32 patents and 25 copyrights. We have product development center in both Guangzhou and Baoding. About 20 percent of our employees are in research and development.

Halma plc, established in 1894, is a market leader in safety, health and environmental technology. Halma is a FTSE 250 company quoted on the London Stock Exchange. Halma is an international group of companies that make products for hazard detection, life protection, personal and public health improvement, and environmental protection. We have nearly 50 businesses in 23 countries and major operations in Europe, the USA and Asia. Globally we have over 5,400 employees.

Enterprise Intellectual Property

Product Qualification Certificate

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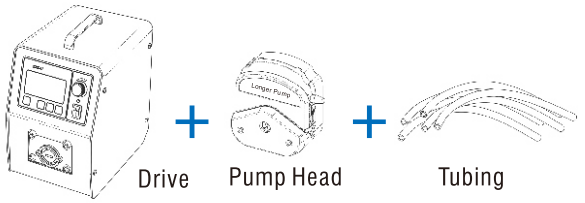
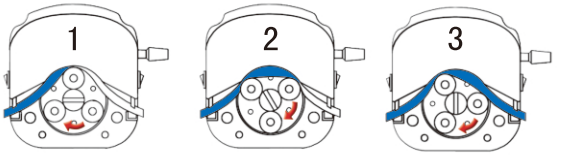
Peristaltic Pump Configuration



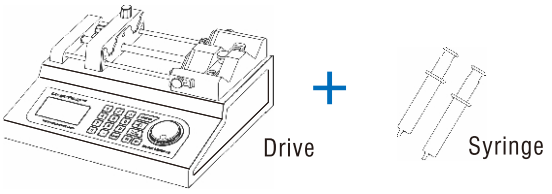
Peristaltic Pump Features

Non-contamination, easy to clean, low shear, simple maintenance

Peristaltic Pump Working Principle



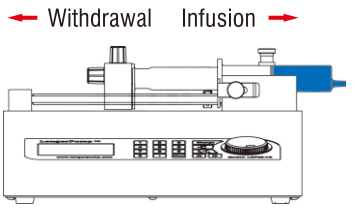
Laboratorial Syringe Pump Configuration



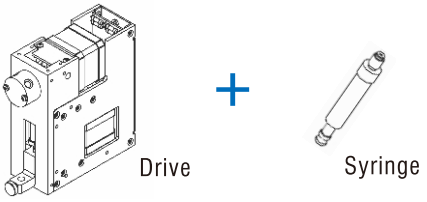
Laboratorial Syringe Pump Features

High accuracy, diversification, laboratory use only

Laboratorial Syringe Pump Working Principle



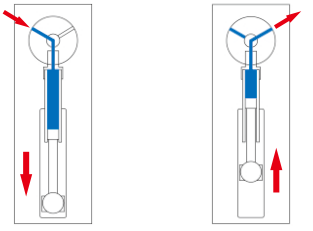
Industrial Syringe Pump Configuration



Industrial Syringe Pump Features

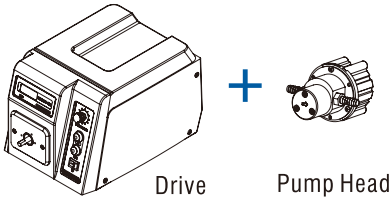
Intelligential, high accuracy,
embedded installation and OEM use only

Industrial Syringe Pump Working Principle



Withdrawal Dispensing

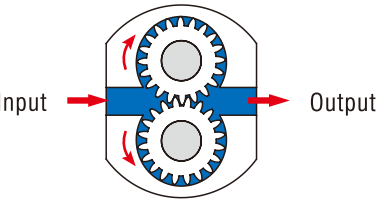
Gear Pump Configuration



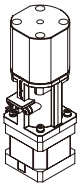
Gear Pump Features

Low pulse constant flow rate, higher pressure than peristaltic pump

Gear Pump Working Principle



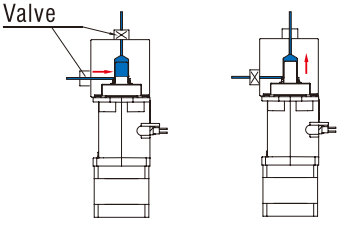
Piston Pump Configuration



Piston Pump Features

High accuracy, compact size, non-worn and long life

Piston Pump Working Principle



Withdrawal Dispensing

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High IP rating (IP65)
Good electromagnetic compatibility
The pump could be used in wet and dusty environments with intense electromagnetic interference.

NEW

Industrial Peristaltic Pump
(G300-3F/G600-1J-1)

Higher precision, longer lifetime.
It can meet the strict requirement of In Vitro Diagnostic medical devices and analytical instruments for fluid transfer.

The next generation of piston pump

Easy-load Pump Head

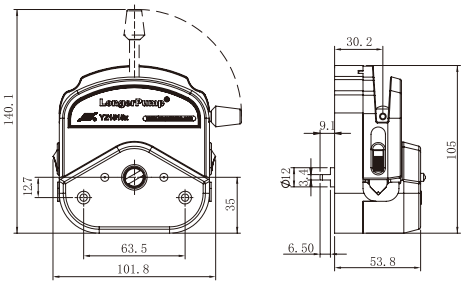
Max. Flow Rate

5000 mL/min

2200 mL/min

YZ1515x, YZ2515x

Classic design, simple operation, wide flow range.



PPS housing
(Excellent chemical resistance)

PUMP HEADS

Max. Flow Rate

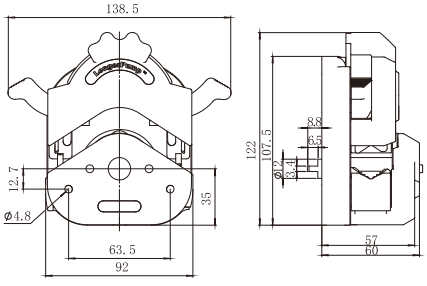
5000 mL/min

3000 mL/min

YZII15, YZII25

Patented Design
Patent Number: 200620026529.1

Based on the classic design of YZ1515x/YZ2515x, YZII15/YZII25 have a special tubing retention linkage which makes tubing loading easily and rapidly. YZII25 accepts more suitable tubing than YZ2515x and provides a wider flow range.



Tubing Loading Comparison

Tubing clamper needs to be lifted manually
YZ1515X/YZ2515X

Tubing clamper can be automatically opened
YZII15/YZII25

Model	Product Code	Roller Number	Roller Material	Housing Material	Speed (rpm)	Tubing	Max. Flow Rate (mL/min)	Weight (kg)
YZ1515x-A	05.01.52A	3	Stainless steel	PESU	≤600	13# 14# 19# 16# 25# 17# 18#	2200	0.4
YZ1515x-B	05.01.52B	6					1450	
YZ1515x-C	05.01.52C	3		PPS			2200	
YZ1515x-D	05.01.52D	6					1450	
YZ2515x-A	05.01.53A	3		PESU		15# 24#	1600	
YZ2515x-C	05.01.53C			PPS				
YZII15	05.01.55A	3	Stainless steel	PESU	≤600	13# 14# 19# 16# 25# 17# 18#	2200	0.35
YZII25	05.01.56A					15# 24# 35# 36#	3000	

Easy-load Industrial Pump Head

Max. Flow Rate

YZ35-13

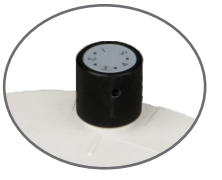
PUMP HEADS

Mainly for industrial applications

Two tubing retention modes

- *Continuous tubing*
- *Tubing with fittings*

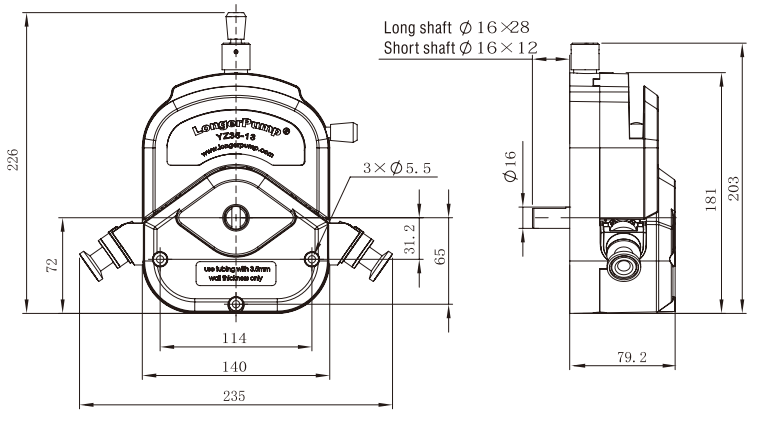
Occlusion Adjustment



① Standard position

② Decrease occlusion

③ Increase occlusion



For continuous tubing

For tubing with fittings

Tubing Fitting Assembly

Model	Shaft	Product Code	Roller Number	Roller Material	Housing Material	Speed (rpm)	Tubing	Max. Flow Rate (mL/min)	Weight (kg)
YZ35-13-A	Long	05.01.58A	3	Stainless steel	PSU	≤600	73# 82#	11000	1.65
YZ35-13-B	Short	05.01.58B							

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Standard Pump Head

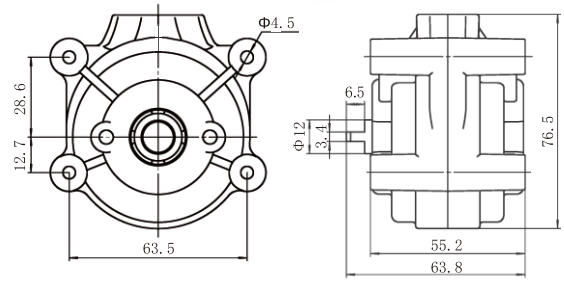
Max. Flow Rate

5000 mL/min

1600 mL/min

BZ Series

Original design, stable flow rate, each pump head accommodates a single size of tubing.



PUMP HEADS

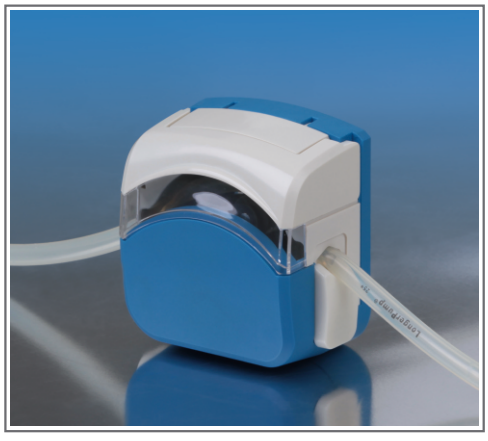
Flip-type Pump Head

Max. Flow Rate

5000 mL/min

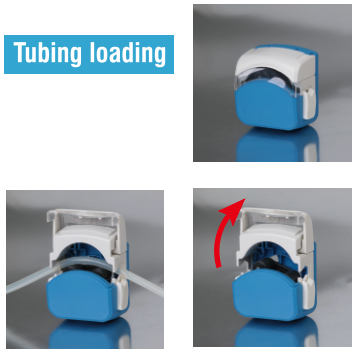
2400 mL/min

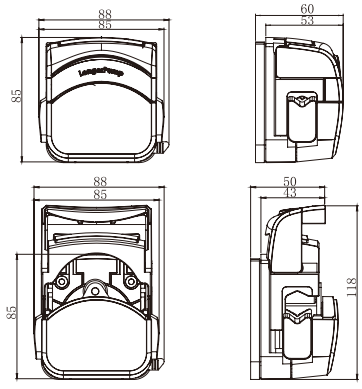
FG15-13, FG25-13



Distinctive design, unique installation mode.

Tubing loading



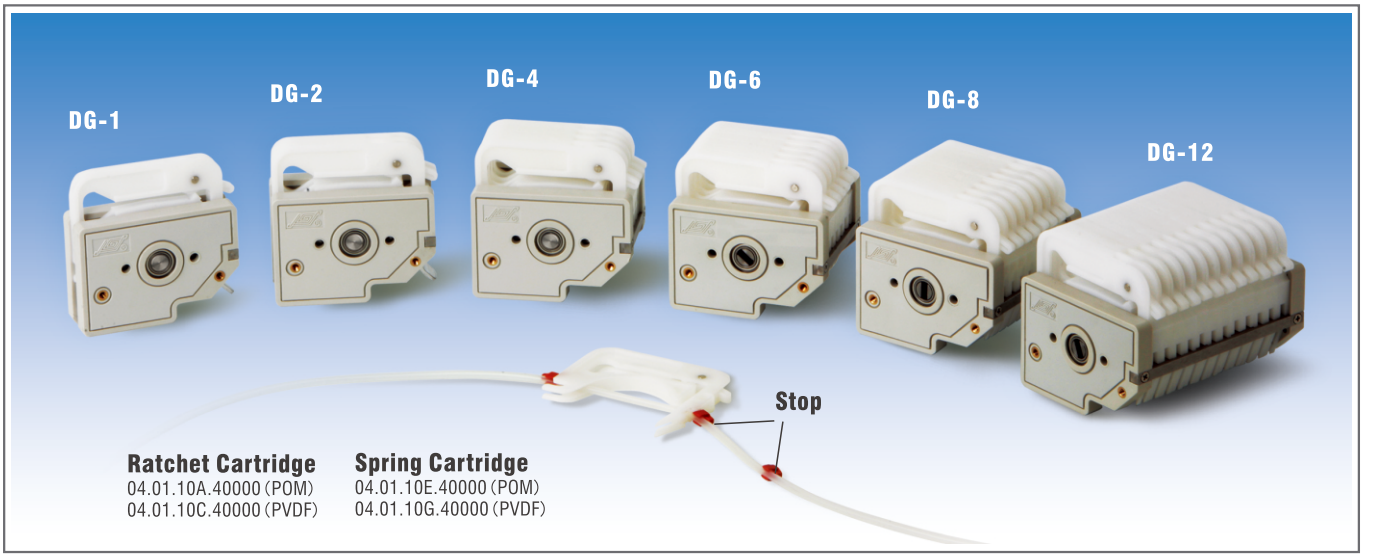


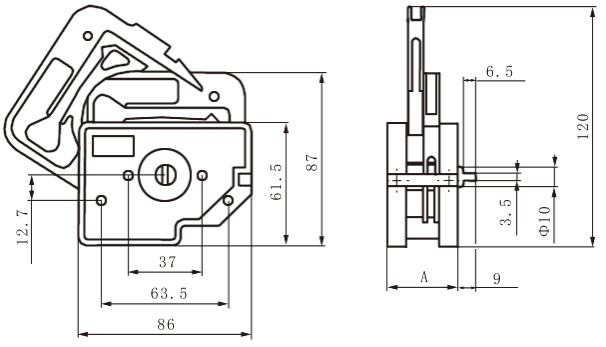
Model	Product Code	Roller Number	Roller Material	Housing Material	Speed (rpm)	Tubing	Max. Flow Rate (mL/min)	Weight (kg)
BZ15-13-A	05.01.01A	3	Stainless steel	PC	≤600	14#	150	0.31
BZ15-13-B	05.01.01B					16#	460	
BZ15-13-C	05.01.01C					25#	960	
BZ15-13-D	05.01.01D					17#	1600	
BZ25-13-B	05.01.00B					24#	1600	
FG15-13-A (Slot)	05.01.63A	3	PA6	IXEF	≤600	13# 14# 19# 16# 25# 17# 18#	2400	0.28
FG15-13-B (Tang)	05.01.63B							
FG25-13-A (Slot)	05.01.64A					15# 24#	2200	
FG25-13-B (Tang)	05.01.64B							

Multi-channel small flow Pump Head

Max. Flow Rate

DG Series





Spring Cartridge

Ratchet Cartridge

Discrete cartridge, special tubing sets, trigger structure of DG-1&DG-2.
Spring cartridge can adjust the occlusion automatically to accept several different tubing wall thicknesses.
Ratchet cartridge can adjust the occlusion by adjusting ratchet position to accept several different tubing wall thicknesses.

Model	Roller Number	Product Code	Cartridge Type	Roller Material	Cartridge Material	Channel Number	Speed (rpm)	Tubing	Max. Flow Rate (mL/min)	Weight (kg)
DG-1-A/C	6	05.01.10A/C	Ratchet	Stainless Steel	DG-*-A/B cartridge material is POM 04.01.10A.40000 DG-*-C/D cartridge material is PVDF 04.01.10C.40000 DG-*-E/F cartridge material is POM 04.01.10E.40000 DG-*-G/H cartridge material is PVDF 04.01.10G.40000 (* is 1,2,4,6,8,12)	1	≤100	ID≤3.17mm Wall Thickness 0.8mm-1.0mm	48 (Single Channel)	0.20
DG-1-B/D	10	05.01.10B/D							32 (Single Channel)	0.21
DG-1-E/G	6	05.01.10E/G	Spring						48 (Single Channel)	0.20
DG-1-F/H	10	05.01.10F/H							32 (Single Channel)	0.21
DG-2-A/C	6	05.01.11A/C	Ratchet			2			48 (Single Channel)	0.26
DG-2-B/D	10	05.01.11B/D							32 (Single Channel)	0.27
DG-2-E/G	6	05.01.11E/G	Spring						48 (Single Channel)	0.26
DG-2-F/H	10	05.01.11F/H							32 (Single Channel)	0.27
DG-4-A/C	6	05.01.12A/C	Ratchet			4			48 (Single Channel)	0.39
DG-4-B/D	10	05.01.12B/D							32 (Single Channel)	0.40
DG-4-E/G	6	05.01.12E/G	Spring						48 (Single Channel)	0.39
DG-4-F/H	10	05.01.12F/H							32 (Single Channel)	0.40
DG-6-A/C	6	05.01.13A/C	Ratchet			6			48 (Single Channel)	0.51
DG-6-B/D	10	05.01.13B/D							32 (Single Channel)	0.54
DG-6-E/G	6	05.01.13E/G	Spring						48 (Single Channel)	0.51
DG-6-F/H	10	05.01.13F/H							32 (Single Channel)	0.54
DG-8-A/C	6	05.01.14A/C	Ratchet			8			48 (Single Channel)	0.63
DG-8-B/D	10	05.01.14B/D							32 (Single Channel)	0.67
DG-8-E/G	6	05.01.14E/G	Spring						48 (Single Channel)	0.63
DG-8-F/H	10	05.01.14F/H							32 (Single Channel)	0.67
DG-12-A/C	6	05.01.15A/C	Ratchet			12			48 (Single Channel)	0.88
DG-12-B/D	10	05.01.15B/D							32 (Single Channel)	0.95
DG-12-E/G	6	05.01.15E/G	Spring						48 (Single Channel)	0.88
DG-12-F/H	10	05.01.15F/H							32 (Single Channel)	0.95

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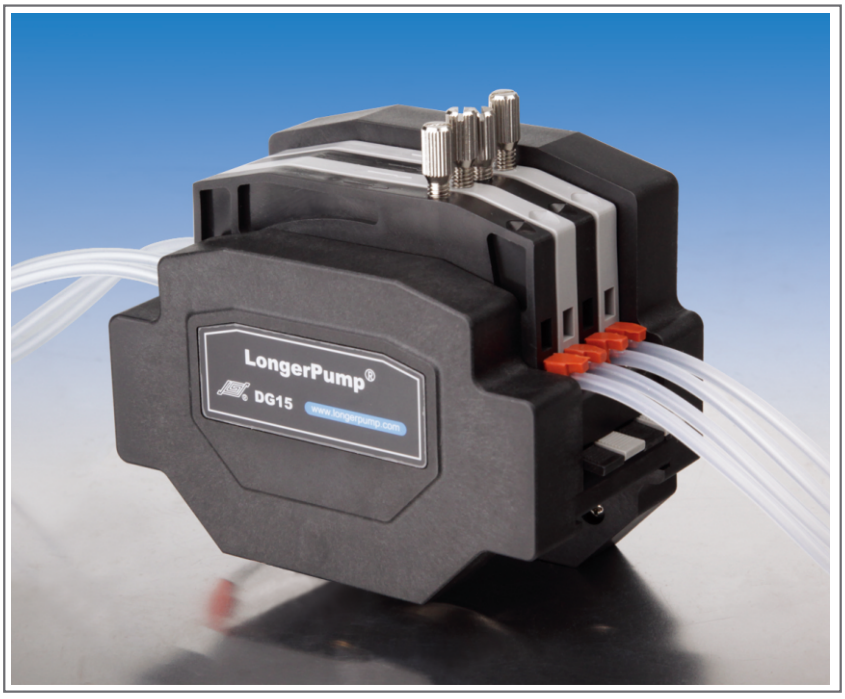
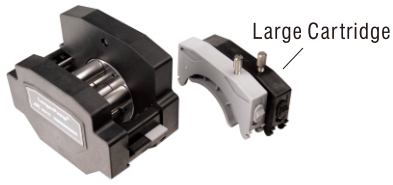
Multi-channel medium flow Pump Head

Max. Flow Rate

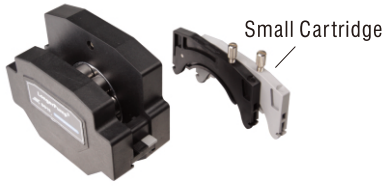
DG15 Series



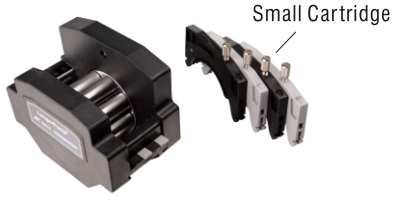
Pump Head type



DG15-24

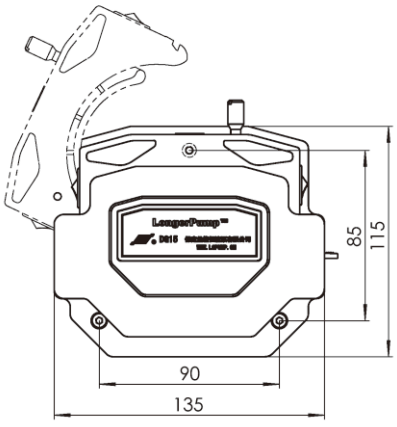


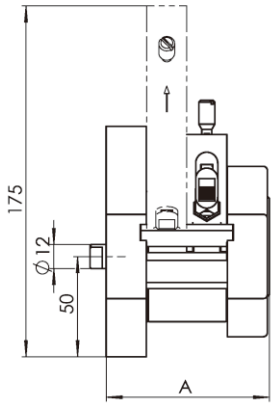
DG15-28



DG15-48

DG15 - 24: 2 Channels 4 Rollers
DG15 - 28: 2 Channels 8 Rollers
DG15 - 48: 4 Channels 8 Rollers



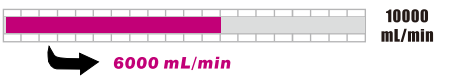


Patented design (Patent Number: 200520026479.2), DG15-24 can replace two stacked YZ1515X.
DG15-28 and DG15-48 can provide bigger flow rates than DG-2 and DG-4.
Adjustable occlusion can accept several different tubing wall thicknesses.

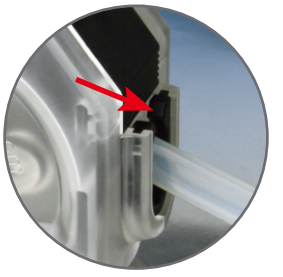
Model	Product Code	Channel Number	Roller Number	Roller Material	Cartridge Material	Speed (rpm)	Tubing	Max. Flow Rate (mL/min)	Weight (kg)
DG15-24	05.01.16A	2	4	Stainless steel	POM	≤600	16# 25# 17#	1800 (Single Channel)	0.82
DG15-28	05.01.17A	2	8			≤100	13# 14# ID≤3.17mm Wall thickness 0.8mm-1.0mm	75 (Single Channel)	0.67
DG15-48	05.01.18A	4	8						0.87

Quick-load Pump Head

Max. Flow Rate



KZ25



For continuous tubing

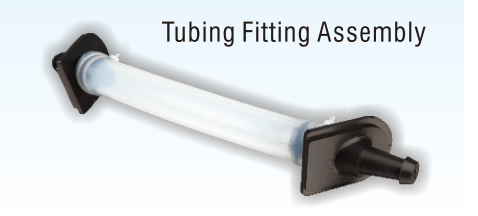
For tubing with fittings

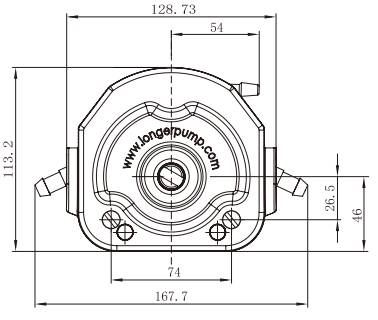
PUMP HEADS

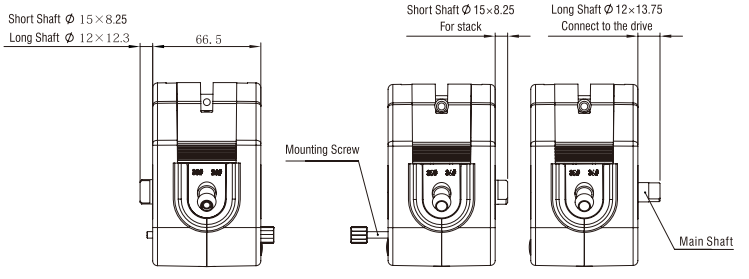
Big flow rate up to 6000 mL/min, easy to load tubing with separated structure.

Two tubing retention modes

- *Continuous tubing*
- *Tubing with fittings*







Model	Shaft	Product Code	Roller Number	Roller Material	Compression Block Material	Speed (rpm)	Tubing	Max. Flow Rate (mL/min)	Weight (kg)
KZ25-13-A	Long	05.01.25A	3	Stainless Steel	PPS	≤600	15# 24# 35# 36#	6000	0.79
KZ25-13-B	Short	05.01.25B							

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Quick-load Industrial Pump Head

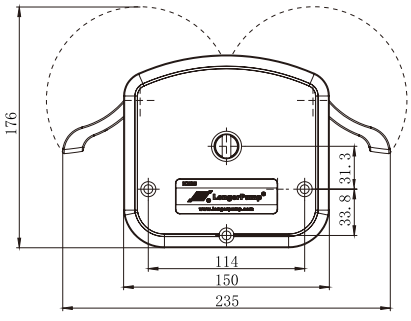
Max. Flow Rate

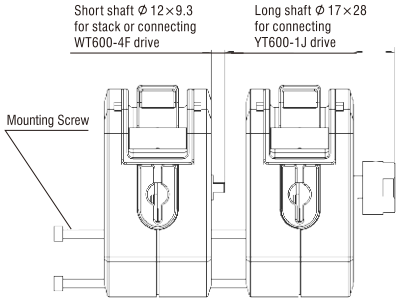
KZ35

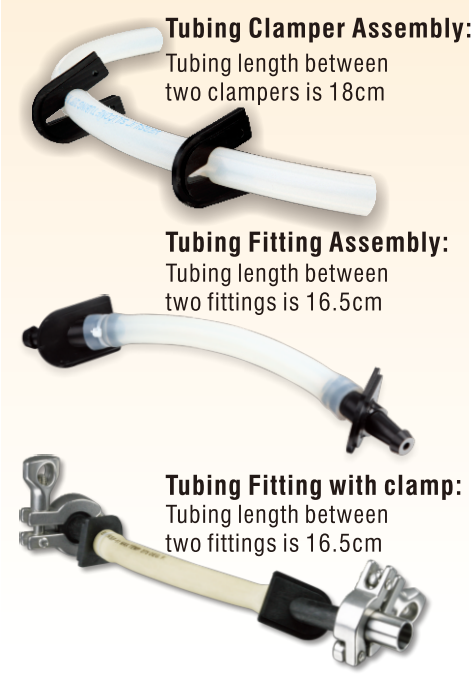
- *Similar flow rate to YZ35-13*
- *304 stainless steel*
- *Mainly for industrial applications*
- *Two tubing retention modes*
  - *Continuous tubing*
  - *Tubing with fittings*

For continuous tubing

For tubing with fittings







Model	Shaft	Product Code	Roller Number	Roller Material	Housing Material	Speed (rpm)	Tubing	Max. Flow Rate (mL/min)	Weight (kg)
KZ35-13-A	Long	05.01.26A	3	Stainless steel	Stainless steel	≤600	73# 82#	11000	3.7
KZ35-13-B	Short	05.01.26B							

Small Flow, Low Pulse, Dispensing Pump Head

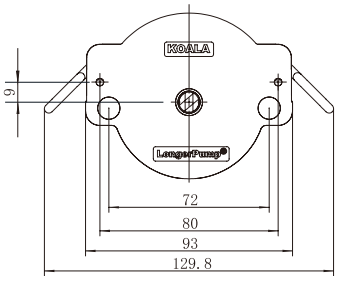
Max. Flow Rate

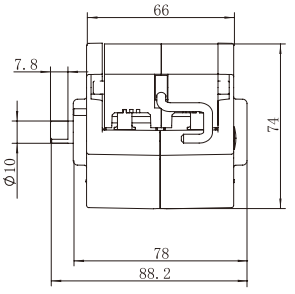
DMD15-13

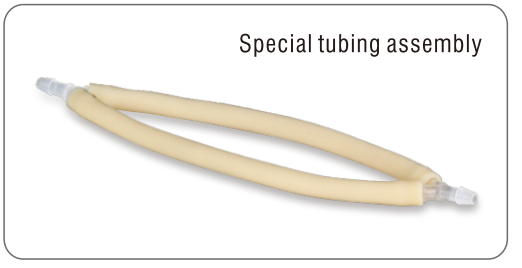
Special tubing assembly, low pulse, high accuracy.

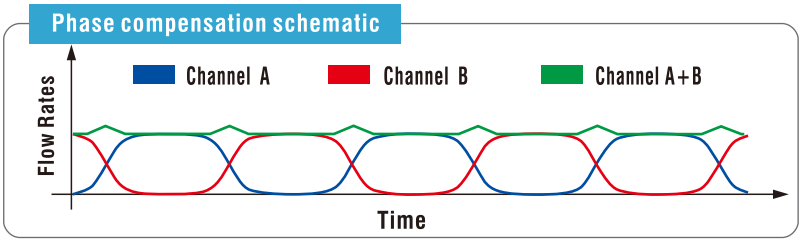
Designed for high precision and small volume dispensing

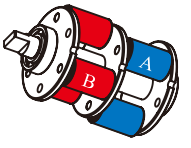
Compact size, easy to use.











Phase compensation structure diagram

Model (Product Code, Housing Material)	Roller Material	Roller Number	Speed (rpm)	Tubing	Max. Flow Rate (mL/min)	Ref. Dispensing Volume (mL)	Ref. Dispensing Time(s)	Precision	Dispensing Head ID (mm)	Weight (kg)
DMD15-13-B(05.01.04B, PESU) DMD15-13-D(05.01.04D, PPS)	Stainless Steel	3	≤600	2×13#	80	>0.8	>0.6	±2%	≤0.5	0.43
						>1.6	>1.2	±1%	≤0.5	
				2×14#	300	>3	>0.6	±2%	≤1.0	
						>6	>1.2	±1%	≤1.0	
				2×19#	620	>6.2	>0.6	±2%	≤1.5	
						>12.4	>1.2	±1%	≤1.5	
				2×16#	960	>9.6	>0.6	±2%	≤2.0	
						>19.2	>1.2	±1%	≤2.0	
				2×25#	2070	>20.7	>0.6	±2%	≤3.0	
						>41.4	>1.2	±1%	≤3.0	

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Standard Peristaltic Pump

L100-1S-2

Flow Rate

1000 mL/min

0-500 mL/min

* Product L100-1S-1(product code:050241A) has same performance and parameters as L100-1S-2, but only can be controlled by keypad.

Mainly designed for Laboratory and light industry applications.
With precise speed control in 0.01rpm resolution (10000:1 turndown ratio), and flow rate calibration function, the pump has more accurate and wider range of flow rate.
With the intelligent fan control, the pump has lower noise and better energy efficiency.
LCD with specially designed run screen displays parameters and running status, which provides enough information for correct operation.

Pump Head Options

YZ1515x、YZ2515x

YZII15、YZII25

BZ15、BZ25

DMD15-13-B、DMD15-13-D

FG15-13、FG25-13

DG15-24、DG15-28

DG-1、DG-2、DG-4、DG-6、DG-8

LAB

Speed	0.01rpm-100rpm, CW/CCW.
Speed resolution	0.01rpm resolution within the speed of 0.01rpm-10rpm 0.1rpm resolution within the speed of 10rpm-100rpm
Display	LCD
Control mode	Keypad control, external signal control and communication control.
Work mode	Speed control mode and flow rate mode
Flow rate mode	Flow rate is displayed and the pump runs continuously at the set flow rate
Flow rate calibration	Improve the flow rate accuracy
Flow rate setting range	0.01 μ L/min-999L/min, unit could be set as μ L/min, mL/min or L/min.
External control	Start/stop control (switch signal), direction control (switch signal), speed control (0-5V, 0-10V, 4-20mA, 0-10kHz are optional with uniform interface, from 0-10rpm in 0.01rpm resolution, from 10-100rpm in 0.1rpm resolution)
Communication control	RS485 interface, Longer protocol or Modbus protocol, the communication parameters (address, baud rate, parity, stop bit) can be set through keypad.
Timing function	Set the running time (0-30min), the pump could run/stop automatically.
Parameter memory	Operating parameters will be saved automatically
Status when powered up	The pump status when powered up could be set as stop or as the status before power loss
Prime	Fast filling or emptying at full speed
Keypad lock function	Keypad can be locked to prevent the misoperation. The delay time before lock is settable.
Dimension(L×W×H)	232×142×149(mm)
Power supply	AC100V-240V/20W, 50/60Hz.
Operating temperature	0 to 40℃
Relative humidity	＜80%
IP rating	IP31
Weight	2.38kg

Model (Product code)	Pump head	Tubing	Flow Rate Reference	Weight (kg)
L100-1S-2 (05.02.42A)	YZ1515x, YZII15	13# 14# 19# 16# 25# 17# 18#	0.6 μ L/min - 380mL/min	2.78
	YZ2515x	15# 24#	16 μ L/min - 270mL/min	
	YZII25	15# 24# 35# 36#	16 μ L/min - 500mL/min	
	FG15-13	13# 14# 19# 16# 25# 17# 18#	0.5 μ L/min - 430mL/min	2.66
	FG25-13	15# 24#	22 μ L/min - 320mL/min	
	DMD15-13-B、DMD15-13-D	2×13# 2×14# 2×19# 2×16# 2×25#	2 μ L/min - 375mL/min	2.81
	BZ15-13-A	14#	3 μ L/min - 22mL/min	2.69
	BZ15-13-B	16#	8 μ L/min - 80mL/min	
	BZ15-13-C	25#	16 μ L/min - 150mL/min	
	BZ15-13-D	17#	27 μ L/min - 270mL/min	
	BZ25-13-B	24#	27 μ L/min - 250mL/min	
	DG15-24	16# 25# 17#	8 μ L/min - 300mL/min(Single channel)	3.2
	DG15-28	13# 14# ID≤3.17mm Wall Thickness 0.8-1mm	0.31 μ L/min - 75mL/min(Single channel)	3.05
	DG-(1,2,4,6,8)6 Rollers	ID≤3.17mm Wall Thickness 0.8-1mm	0.21 μ L/min - 48mL/min(Single channel)	2.58-3.01
	DG-(1,2,4)10 Rollers		0.15 μ L/min - 32mL/min(Single channel)	

Industrial Peristaltic Pump

G100-1J

Max. Flow Rate

1000 mL/min

500 mL/min

Using aluminium alloy housing with anti-corrosion paint treatment, the pump has good corrosive resistance and longer life time in corrosive environments.

With good electromagnetic compatibility, the pump will not behave unacceptably in an EMI environment and will not interfere with other electronic equipment.

With high IP rating, the pump could be used in wet and dusty environments.

Using high quality electronic components, optimized software design and circuit design, the pump provides long-term reliable and stable operation.

LCD with specially designed run screen displays parameters and running status, which provides enough information for correct operation.

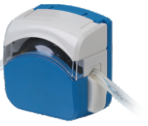
Pump Head Options

YZ1515x
YZ2515x

YZII15
YZII25

DG-1

DG-2 DG-6
DG-4 DG-8



FG15-13
FG25-13

DMD15-13-B
DMD15-13-D

BZ25
BZ15

DG15-24
DG15-28

Speed	0rpm-100rpm, CW/CCW.
Speed resolution	0.1rpm
Display	LCD
Control mode	Keypad control, external signal control and communication control are available.
External control	Start/stop control, direction control: switch signal (dry contact). Speed control: 0-5V,0-10V,4-20mA,0-10kHz are optional with uniform interface, max speed can be set between 10rpm and 100rpm.
Communication control	RS485 interface, Longer protocol or Modbus protocol, the communication parameters (baud rate, parity, stop bit) can be set through keypad.
Parameter memory	Operating parameters will be saved automatically.
Pump status when powered up	The pump status when powered up could be set as stop or as the status before power loss.
Prime	Fast filling or emptying at full speed
EMC	Comply with EMC Directive 2014/30/EU
Keypad lock function	Keypad can be locked to prevent the misoperation
Dimension(L×W×H)	240×142×152 (mm)
Power supply	AC90V-260V/20W, 50/60Hz.
Operating temperature	0 to 40°C
Relative humidity	<90%
IP rating	IP65
Weight	3.64kg

CE INDUSTRIAL

Model	Product Code	Pump Head	Tubing	Max. Flow Rate (mL/min)	Weight(kg)
G100-1J	05.02.20A	YZ1515x, YZII15	13# 14# 19# 16# 25# 17# 18#	380	4.04
		YZ2515x	15# 24#	270	
		YZII25	15# 24# 35# 36#	500	
		FG15-13-B	13# 14# 19# 16# 25# 17# 18#	430	3.92
		FG25-13-B	15# 24#	320	
		DMD15-13-B	2×13# 2×14# 2×19# 2×16# 2×25#	375	4.07
		DMD15-13-D			
		BZ15-13-A	14#	22	3.95
		BZ15-13-B	16#	80	
		BZ15-13-C	25#	150	
		BZ15-13-D	17#	270	
		BZ25-13-B	24#	250	
		DG15-24	16# 25# 17#	300(Single Channel)	4.46
		DG15-28	13# 14# ID≤3.17mm Wall Thickness 0.8-1mm	75(Single Channel)	4.31
		DG-(1,2,4,6,8)6 Rollers	ID≤3.17mm Wall Thickness 0.8-1mm	48(Single Channel)	3.84-3.91
		DG-(1,2,4)10 Rollers		32(Single Channel)	

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Industrial Peristaltic Pump

Max. Flow Rate

2000 mL/min

1500 mL/min

G300-1E, G300-1J

Compact structure, small size.

Using aluminium alloy housing with anti-corrosion paint treatment, the pump has good corrosive resistance and longer life time in corrosive environments.

With good electromagnetic compatibility, the pump will not behave unacceptably in an EMI environment and will not interfere with other electronic equipment.

With high IP rating, the pump could be used in wet and dusty environments.

Using high quality electronic components, optimized software design and circuit design, the pump provides long-term reliable and stable operation.

LCD with specially designed run screen displays parameters and running status, which provides enough information for correct operation.

PERISTALTIC PUMP

Speed	0rpm-300rpm, CW/CCW.
Speed resolution	1rpm
Display	LCD
Control mode	Keypad control, external signal control and communication control are available.
External control	Start/stop control, direction control: switch signal (dry contact). Speed control: 0-5V,0-10V,4-20mA,0-10kHz are optional with uniform interface, max speed can be set between 30rpm and 300rpm.
Communication control	RS485 interface, Longer protocol or Modbus protocol, the communication parameters (address, baud rate, parity, stop bit) can be set through keypad.
Parameter memory	Operating parameters will be saved automatically
Pump status when powered up	The pump status when powered up could be set as stop or as the status before power loss.
Prime	Fast filling or emptying at full speed
EMC	Comply with EMC Directive 2014/30/EU
Keypad lock function	Keypad can be locked to prevent the misoperation.
Dimension(L×W×H)	240×142×152(mm)
Power supply	G300-1E: AC100V - 240V/50W, 50/60Hz G300-1J: AC100V - 240V/60W, 50/60Hz
Operating temperature	0 to 40°C
Relative humidity	<90%
IP rating	IP65
Weight	3.64kg

CE INDUSTRIAL

Pump Head Options

YZ1515x
YZ2515x

YZII15
YZII25

FG15-13
FG25-13

DMD15-13-B
DMD15-13-D

BZ25
BZ15

DG15-24

Pump Head	Pump Head Weight(kg)	G300-1E (05.02.22A)		G300-1J (05.02.21A)	
		Tubing	Max. Flow Rate(mL/min)	Tubing	Max. Flow Rate(mL/min)
YZ1515x, YZII15	4.04	13# 14# 19# 16# 25# 17# 18#	1100	13# 14# 19# 16# 25# 17# 18#	1100
YZ2515x		15# 24#	800	15# 24#	800
YZII25		15# 24# 35#	1100	15# 24# 35# 36#	1500
FG15-13	3.92	13# 14# 19# 16# 25#	690	13# 14# 19# 16# 25# 17# 18#	1200
FG25-13		Not recommended	N/A	15# 24#	1100
DMD15-13-B DMD15-13-D	4.07	2×13# 2×14# 2×19# 2×16# 2×25#	1035	2×13# 2×14# 2×19# 2×16# 2×25#	1035
BZ15-13-A	3.95	14#	75	14#	75
BZ15-13-B		16#	230	16#	230
BZ15-13-C		25#	480	25#	480
BZ15-13-D		17#	800	17#	800
BZ25-13-B		24#	800	24#	800
DG15-24	4.46	16# 25# 17#	900(Single Channel)	16# 25# 17#	900(Single Channel)

Note: Only recommend silicone tubing for G300-1E.

Industrial Peristaltic Pump

G600-1J-1

Flow Rate

5000 mL/min

0-3000 mL/min

The external switching power supply has IP67 rating, better resistance to voltage surge and better reliability.

- Compact footprint for big flow rate of 3L/min.
- Powerful and suitable for many tubings with good chemical compability.
- With good electromagnetic compatibility, the pump will not behave unacceptably in the EMI environment and will not interfere with other electronic equipment.
- Using aluminium alloy housing with anti-corrosion paint treatment, the pump has good corrosive resistance and longer life time in corrosive environment.
- With high IP rating, the pump could be used in wet and dusty environment.
- LCD with specially designed run screen displays parameters and running status, which provides enough information for correct operation.

Speed Range	0rpm–600rpm, CW/CCW.
Speed resolution	1rpm
Display	LCD
Control mode	Keypad control, external signal control and communication control
External control	Start/stop control, direction control: switch signal (dry contact). Speed control: 0-5V, 0-10V, 4-20mA, 0-10kHz are optional with uniform interface, max speed can be set between 60rpm and 600rpm.
Communication Control	RS485 interface, Longer protocol or Modbus protocol, the communication parameters (baud rate, parity, stop bit) can be set through keypad.
Parameter memory	Operating parameters will be saved automatically
Pump state when power up	The pump state when power up could be set as stop or as the state before power loss.
Prime	Fast filling or emptying at full speed
EMC	Comply with EMC Directive 2014/30/EU
Keypad lock function	Keypad can be locked to prevent the misoperation
Dimension(L × W × H)	240mm×211mm×155mm(including the external power supply and mounting bracket)
Power supply	AC100V-240V/100W, 50/60Hz.
Operating temperature	0 to 40℃
Relative humidity	＜90%
IP rating	IP65
Weight	5.56kg(including the external power supply and mounting bracket)

INDUSTRIAL

Pump Head Options

YZ1515x
YZ2515x

YZII15
YZII25

FG15-13
FG25-13

DMD15-13-B
DMD15-13-D

BZ15
BZ25

DG15-24

Model	Product code	Pump head	Tubing	Max. Flow Rate (mL/min)	Weight(kg)
G600-1J-1	05.02.23A	YZ1515x, YZII15	13# 14# 19# 16# 25# 17# 18#	2200	5.96
		YZ2515x	15# 24#	1600	
		YZII25	15# 24# 35# 36#	3000	
		FG15-13	13# 14# 19# 16# 25# 17# 18#	2400	5.84
		FG25-13	15# 24#	2200	
		DMD15-13-B	2×13# 2×14# 2×19# 2×16# 2×25#	2070	5.99
		DMD15-13-D			
		BZ15-13-A	14#	150	5.87
		BZ15-13-B	16#	460	
		BZ15-13-C	25#	960	
		BZ15-13-D	17#	1600	
		BZ25-13-B	24#	1600	
		DG15-24	16# 25# 17#	1800(Single Channel)	6.38

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Industrial Peristaltic Pump

G300-3F

Flow Rate

10000 mL/min

0-5500 mL/min

Industries have very wide demands for peristaltic pumps. But industry applications have more restrict requirements, such as higher IP rating, better chemical resistance, better reliability, and good electromagnetic compatibility. Longer Pump provides professional peristaltic pump solutions for industry applications, to meet the industrial fluid transfering and handling requirements.

- Using aluminium alloy housing with anti-corrosion paint treatment, the pump has good corrosive resistance and longer life time in corrosive environment.
- With good electromagnetic compatibility, the pump will not behave unacceptably in the EMI environment and will not interfere with other electronic equipment.
- With high IP rating, the pump could be used in wet and dusty environment.
- Using high quality electronic components, optimizing software design and circuit design, the pump provides long-term reliable and stable operation.
- With precise speed control in 0.1rpm resolution (3000:1 turndown ratio), and flow rate calibration function, the pump has more accurate flow rate.

PERISTALTIC PUMP

Speed	0rpm-300rpm, CW/CCW.
Speed Resolution	0.1rpm resolution within the speed of 0-100rpm 1rpm resolution within the speed of 100rpm-300rpm
Display	LCD
Control Mode	Keypad control, external signal control.
Work Mode	Flow rate mode or dispensing mode
Flow rate mode	Flow rate is displayed and the pump runs continuously at the set flow rate
Flow rate calibration	Improve the flow rate accuracy
Flow rate setting range	1.000mL/min-9999mL/min
Dispensing mode	The pump dispenses continuously according to the parameters: dispensing volume, cycles, interval, back suction.
Dispensing calibration	Improve the dispensing volume accuracy
Dispensing Volume	0.1mL-9999L
Dispensing cycle	0-9999
Interval time	1sec-99.9min
Back suction angle	0-1800°, resolution is 36°.
External control	Start/stop control, direction control: voltage level signal, 5V to 12V Speed control: 0-5V.
Pump status output	1 OC gate signal for start/stop, 1 OC gate signal for direction 0-4000Hz pulse signal for pump speed 0rpm-300rpm(linear function).
Power-off memory	Return to previous status when power on
Footswitch control	The pump could be start/stop controlled by footswitch accessory
Dimension(L×W×H)	360mm×215mm×243mm
Power Supply	AC220V±10%/120W, 50/60Hz.
Operating Temperature	0 to 40℃
Relative humidity	＜100%
IP rating	IP65
Weight	14kg

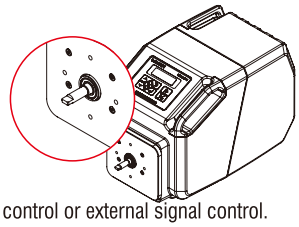
INDUSTRIAL

Customized Industrial Peristaltic Pump

Longer Pump provides customized industrial peristaltic pump based on customer's special reuqirements. G300-3F-1 and G300-3F-2 are both customized products based on G300-3F, which could drive the most common industrial pump heads in the market, could have special work mode, external control function, tubing leak detection, etc.

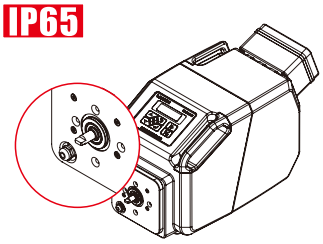
G300-3F-1

IP65



Control mode: Keypad control or external signal control.
External speed control: 0-5V
Flow rate unit: μL/min or mL/min
Flow rate range: 1μL/min-9999mL/min
Dispensing volume: 0.1μL-9999L
Other function and performance are same as G300-3F.

G300-3F-2 IP65



Work mode: Flow rate mode
Control mode: keypad control or external signal control, which could be set remotely.
External speed control: 4-20mA
Flow rate range: 0.01mL/min-9999mL/min
Tubing leak detection is available.
Interface module for external input and output is available.
Other function and performance are same as G300-3F.

Model	Product code	Pump head	Tubing	Max. Flow Rate (mL/min)	Weight(kg)
G300-3F	05.02.2CL	YZ35-13-B	73# 82#	5500	15.65
		KZ35-13-B			17.7

Basic Peristaltic Pump

BT100-2J

Max. Flow Rate

Pump Head Options

YZ1515x
YZ2515x

YZII15
YZII25

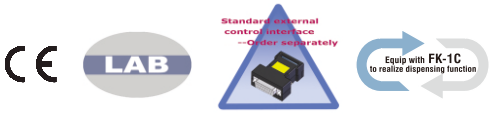
DG-1

DG-2

DG15-24
DG15-28

Speed	0.1rpm-100rpm, CW/CCW.
Speed resolution	0.1rpm
Control mode	Membrane keypad, external signal control and communication control are available.
Display	3-digit LED display for current speed, 3 LED indicators for operating status.
External control	Start/stop, direction and speed control (4-20mA, 0-5V, 0-10V, 0-10kHz external control module optional).
Communication interface	RS485
Power-off memory	Return to previous status when powered on
Prime	For fast filling and emptying at full speed
Dimension (L×W×H)	232×142×149 (mm)
Power supply	AC 90V-260V/30W
Operating temperature	0 to 40°C
Relative humidity	＜80%
IP rating	IP31
Weight	2.3kg

Commonly used in laboratorial applications



Model	Product Code	Pump Head	Tubing	Max. Flow Rate (mL/min)	Weight (kg)
BT100-2J	05.02.11A	YZ1515x, YZII15	13# 14# 19# 16# 25# 17# 18#	380	2.7
		YZ2515x, YZII25	15# 24#	270	
		DG-(1, 2)6 Rollers	ID ≤3.17(mm) Wall Thickness 0.8-1(mm)	48 (Single Channel)	2.5-2.6
		DG-(1, 2)10 Rollers		32 (Single Channel)	
		DG15-24	16# 25# 17#	300 (Single Channel)	3
		DG15-28	13#14# ID ≤3.17(mm) Wall Thickness 0.8-1(mm)	75 (Single Channel)	3.1

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Basic Peristaltic Pump

Max. Flow Rate

BT300-2J, BT600-2J

Mainly used in laboratorial applications. Higher speed and flow rate than BT100-2J.

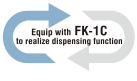
Pump Head Options

YZ1515x
YZ2515x

YZII15
YZII25

DG15-24

	BT300–2J	BT600–2J
Speed	1rpm-300rpm, CW/CCW	1rpm-600rpm, CW/CCW
Speed resolution	1rpm	
Control mode	Control panel, external signal control and communication control are available	
Display	3-digit LED display for current speed	
External control	Start/stop, direction and speed control (4-20mA, 0-5V, 0-10V, 0-10kHz External control module optional)	
Communication interface	RS485	
Power-off memory	Return to previous status when powered on	
Prime	For fast filling and emptying at full speed	
Dimension (L×W×H)	285×207×180 (mm)	
Power supply	AC 90V-260V/48W	AC 90V-260V/100W
Operating temperature	0 to 40°C	
Relative humidity	<80%	
IP rating	IP31	
Weight	3.6kg	3.8kg

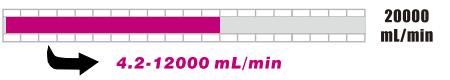


Model	Product Code	Pump Head	Tubing	Max. Flow Rate (mL/min)	Weight (kg)
BT300-2J	05.02.31A	YZ1515x, YZII15	13# 14# 19# 16# 25# 17# 18#	1140	4.0
		YZ2515x	15# 24#	840	
		YZII25	15# 24# 35# 36#	1500	
		DG15-24	16# 25# 17#	900 (Single Channel)	4.4
BT600-2J	05.02.62A	YZ1515x, YZII15	13# 14# 19# 16# 25# 17# 18#	2200	4.2
		YZ2515x	15# 24#	1600	
		YZII25	15# 24# 35# 36#	3000	
		DG15-24	16# 25# 17#	1800 (Single Channel)	4.6

Basic Peristaltic Pump

WT600-2J

Flow Rates



Pump Head Options

YZ1515x
YZ2515x

YZII15
YZII25

KZ25

DG15-24

Speed	60rpm-600rpm, CW/CCW.
Speed resolution	1rpm
Speed accuracy	≤±1%
Control mode	Control panel, external signal control and communication control are available.
Display	3-digit LED display for current speed
External control	Start/stop, direction and speed control (4-20mA, 0.5-5V, 1-10V, 1-10kHz external control module optional).
Communication interface	RS485
Power-off memory	Return to previous status when powered on
Prime	For fast filling and emptying at full speed
Dimension (L×W×H)	285×207×180 (mm)
Power supply	AC 220V±20%/200W or AC 110V±20%/200W
Operating temperature	0 to 40°C
Relative humidity	<80%
IP rating	IP31
Weight	5.2kg

Mainly used in laboratorial applications. With brushless motor, can drive multi-pump heads.

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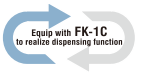

Model (Product code, Power supply)	Pump Head	Tubing	Flow Rate (mL/min)	Weight (kg)
WT600-2J-A (05.02.63A, AC220V) WT600-2J-B (05.02.63B, AC110V)	(1, 2, 3, 4)×YZ1515x	13# 14# 19# 16# 25# 17# 18#	4-2200 (Single Channel)	5.6-6.8
	(1, 2, 3, 4)×YZII15			
	(1, 2, 3, 4)×YZ2515x	15# 24#	100-1600 (Single Channel)	
	(1, 2)×YZII25	15# 24# 35# 36#	100-3000 (Single Channel)	5.6-6.0
	DG15-24	16# 25# 17#	50-1800 (Single Channel)	6.0
	(1, 2)×KZ25	15# 24# 35# 36#	200-6000 (Single Channel)	6.0-6.8

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Basic Peristaltic Pump

WT600-3J

Flow Rates

20000 mL/min

4.2-12000 mL/min

Pump Head Options

YZ1515x
YZ2515x

YZII15
YZII25

KZ25

DG15-24

PERISTALTIC PUMP

Speed	60rpm-600rpm, CW/CCW.
Speed resolution	1rpm
Speed accuracy	≤±1%
Control mode	Membrane keypad, external signal control and communication control are available.
Display	3-digit LED display for current speed, 4 LED indicators for operating status.
External control	Start/stop, direction and speed control (4-20mA, 0.5-5V, 1-10V, 1-10kHz external control module optional).
Communication interface	RS485
Power-off memory	Return to previous status when powered on
Prime	For fast filling and emptying at full speed
Dimension (L×W×H)	273×190×272 (mm)
Power supply	AC 220V±20%/200W or AC 110V±20%/200W
Operating temperature	0 to 40°C
Relative humidity	<90%
IP rating	IP55
Weight	7.3kg

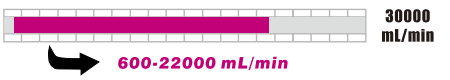
Mainly used in industrial applications.
With brushless motor, can drive multi-pump heads.
Stainless steel housing, high IP rating.

CE LAB INDUSTRIAL Equip with FK-1C to realize dispensing function

Model (Product code,Power supply,Speed control signal)	Pump Head	Tubing	Flow Rate (mL/min)	Weight (kg)
WT600-3J-A (05.02.64A, AC220V, 0.5-5V) WT600-3J-B (05.02.64B, AC220V, 1-10V) WT600-3J-C (05.02.64C, AC220V, 4-20mA) WT600-3J-D (05.02.64D, AC220V, 1kHz-10kHz) WT600-3J-E (05.02.64E, AC220V, RS485) WT600-3J-F (05.02.64F, AC110V, 0.5-5V) WT600-3J-G (05.02.64G, AC110V, 1-10V) WT600-3J-H (05.02.64H, AC110V, 4-20mA) WT600-3J-J (05.02.64J, AC110V, 1kHz-10kHz) WT600-3J-K (05.02.64K, AC110V, RS485)	(1, 2, 3, 4)×YZ1515x	13# 14# 19# 16#	4-2200 (Single Channel)	7.7-8.9
	(1, 2, 3, 4)×YZII15	25# 17# 18#		
	(1, 2, 3, 4)×YZ2515x	15# 24#	100-1600 (Single Channel)	
	(1, 2)×YZII25	15# 24# 35# 36#	100-3000 (Single Channel)	7.7-8.1
	DG15-24	16# 25# 17#	50-1800 (Single Channel)	8.1
	(1, 2)×KZ25	15# 24# 35# 36#	200-6000 (Single Channel)	8.1-8.9

Basic Peristaltic Pump

Flow Rates



YT600-1J

Pump Head Options

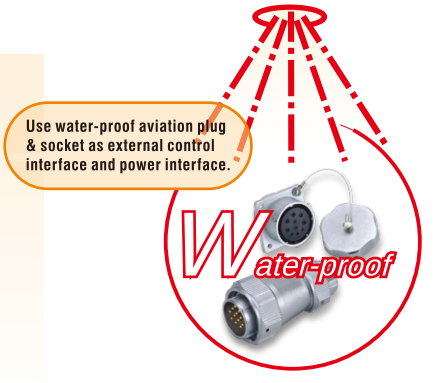
YZ35-13

KZ35

PERISTALTIC PUMP

Mainly used in industrial applications.
With DC motor, can drive multi-pump heads.
Stainless steel housing, high IP rating.

Speed	60rpm-600rpm, CW/CCW.
Control mode	Control panel and external signal control are available
External control	Start/stop, speed control (4-20mA, 1-10V, 1-10kHz external control mode optional).
Dimension (L×W×H)	325×236×193 (mm)
Power supply	AC 220V±20%/400W
Operating temperature	0 to 40℃
Relative humidity	＜80%
IP rating	IP54
Weight	20kg



CE INDUSTRIAL Equip with FK-1C to realize dispensing function

Model (Product code,Speed control signal)	Pump Head	Tubing	Flow Rate (mL/min)	Weight (kg)
YT600-1J-A (05.02.52A, 4-20mA) YT600-1J-B (05.02.52B, 1-10V) YT600-1J-C (05.02.52C, 1-10kHz)	(1, 2)×KZ35-13	73# 82#	600-11000 (Single Channel)	21.6-23.2
	(1, 2)×YZ35-13			23.7-27.4

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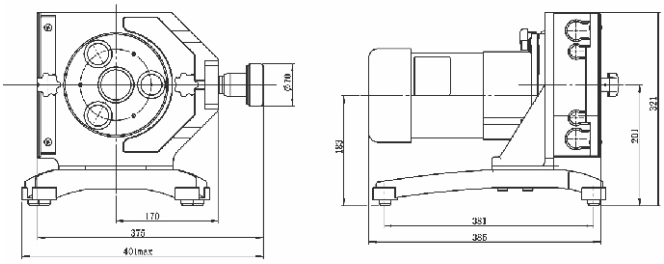
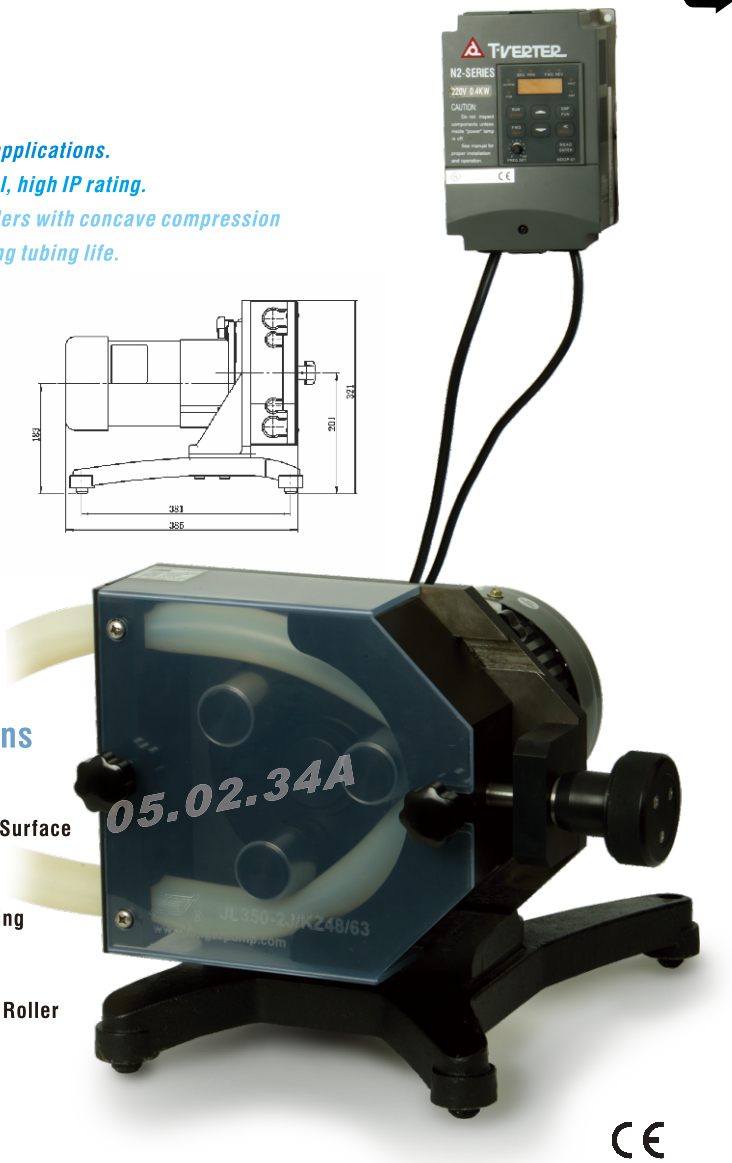
Basic Peristaltic Pump

JL350-2J

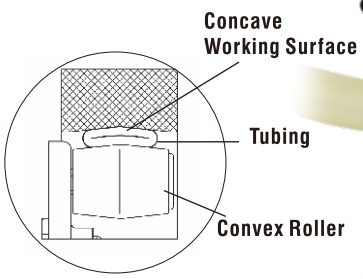
Flow Rates

Mainly used in industrial applications.
AC motor, frequency control, high IP rating.
Combine special convex rollers with concave compression block to run stably and prolong tubing life.

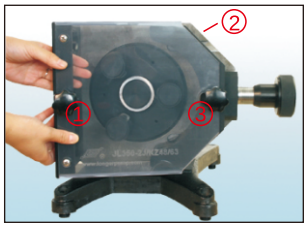




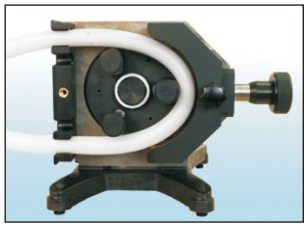
Fluid transferring in industrial applications



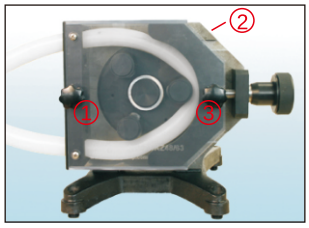
Tubing Loading



A
1. Turn the knob ①、② counter clockwise.
2. Turn the hand wheel to loose the compression block.
3. Pull the knob ③ and take off the front cover.



B
4. Select suitable tubing slots, place the tubing between the roller and the compression block, then put the tubing in the corresponding tubing slots.



C
5. Pull the knob ③, insert the front cover, tighten the knob CW to fix the front cover ①.
6. Turn the hand wheel and adjust the occlusion between the roller and the compression block.
7. Tighten the knob ② and fix the compression block.

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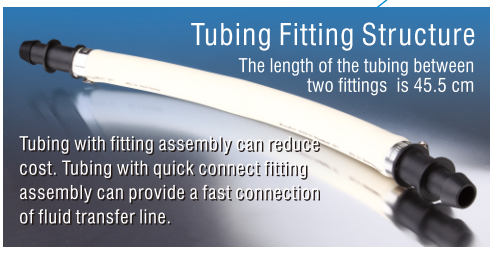
IP55

Speed	30rpm-350rpm, CW/CCW.
Speed resolution	0.6rpm
Control mode	Control panel, external analog control and communication control are available.
Display	LCD for running information
Speed control	0-5V, 0-10V, 4-20mA linear control.
Start/stop signal input	Switch signal control
Direction signal input	Switch signal control
Communication interface	RS485 or RS232
Memory function	Storing the running parameter automatically
Dimension (L×W×H)	417×401×321 (mm)
Power supply	AC 220V±10%/400W
Operating temperature	0 to 40°C
Relative humidity	＜80%
IP rating	IP55(excluding frequency converter)
Weight	32kg

Tubing with fitting assembly

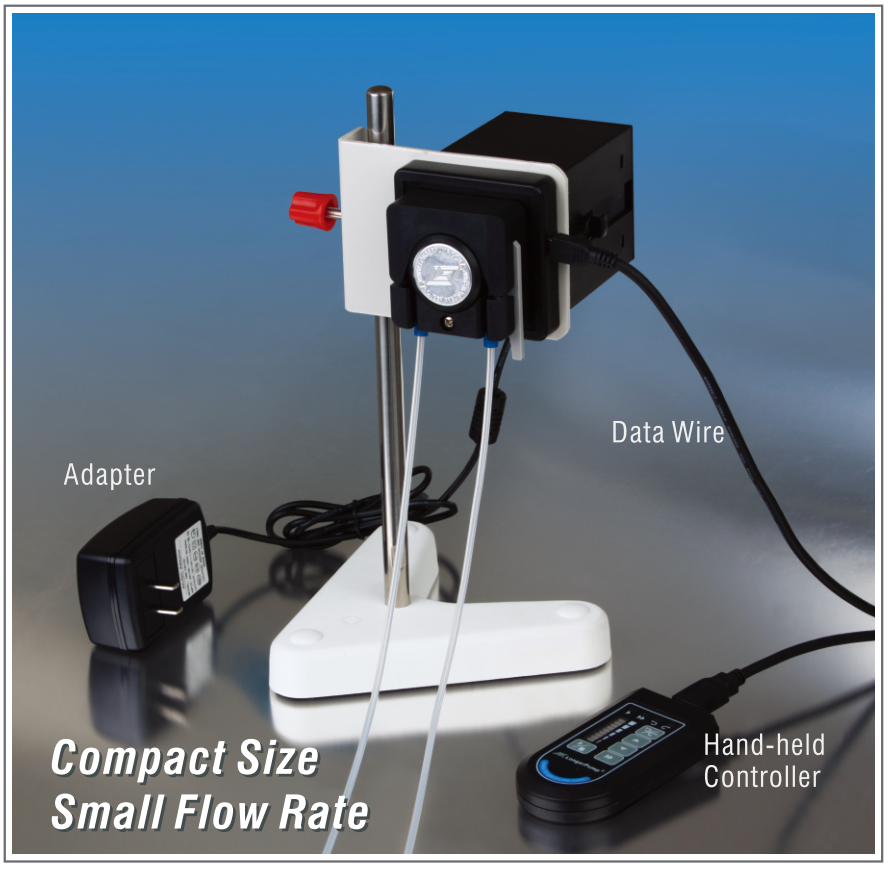


Model	Product Code	Pump Head	Tubing	Flow Rate (L/min)	Weight (kg)
JL350-2J	05.02.34A	KZ48	88#	1.3-15	32
			92#	3-35	

Basic Peristaltic Pump

BQ50-1J

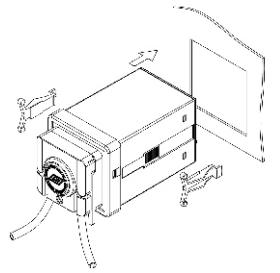
Max. Flow Rate



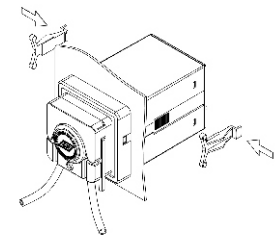
Mainly used in laboratorial applications.
Embedded or rack-mounted.

Speed	1rpm-50rpm, CW/CCW
Speed resolution	1rpm (manually control), 0.1rpm (external control)
Control mode	Hand-held controller, external signal control and communication control are available
Display	Hand-held controller displays speed and running status
External control	Start/stop, direction and speed control (4-20mA, 0-5V, 0-10V, 0-10kHz external control module optional)
Communication	RS485
Power-off memory	Return to previous status when powered on
Prime	For fast filling and emptying at full speed
Dimension (L×W×H)	135mm×72mm×72mm (drive + pump head)
	105mm×50mm×16mm (hand-held controller)
Power supply	DC 12V/10W (pump)
	AC 90V-260V/10W (adapter)
Operating temperature	0 to 40°C
Relative humidity	＜80%
IP rating	IP31
Weight	0.5kg
Standard configuration	Drive with pump head, hand-held controller, adapter, data wire
Optional accessories (Order separately)	Small V-base, polished stainless steel pole, fixing plate, specific tubing

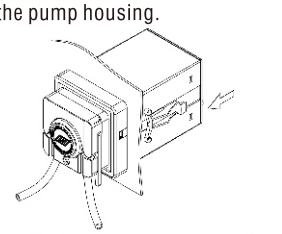
Installation Drawing



1. Insert pump into the mounting hole of user instrument.



2. Insert the clips into the slots of the pump housing.



3. Push the clips and fix the pump in user instrument.

Model	Product Code	Color	Pump Head	Pump Head Material	Tubing	Max. Flow Rate (mL/min)	Weight (kg)
BQ50-1J-A	05.02.02A	Black	WX10-14-A	POM	ID ≤3.17 (mm) Wall Thickness 0.8-1 (mm)	20	0.5
BQ50-1J-B	05.02.02B		WX10-14-C	PVDF			
BQ50-1J-E	05.02.02E	White	WX10-14-B	POM			
BQ50-1J-F	05.02.02F		WX10-14-D	PVDF			

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Flow Rate Peristaltic Pump

Max. Flow Rate

5000 mL/min

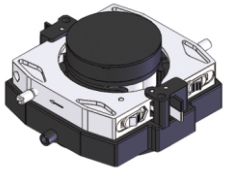
1200 mL/min

LEAD-2

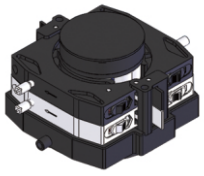
Mainly used in laboratorial applications.

Top-mounted pump head.

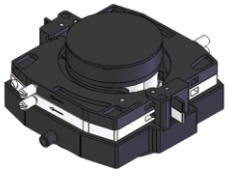
Pump Head Options



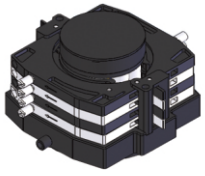
LEAD15-24
(2 channels, 4 rollers)



LEAD15-44
(4 channels, 4 rollers)



LEAD15-48
(4 channels, 8 rollers)



LEAD15-88
(8 channels, 8 rollers)

Speed	1rpm-100rpm, CW/CCW.
Speed resolution	0.1rpm
Control mode	Control panel, external signal control and communication control are available.
Display	128×32 graphic LCD for current running status
Calibration function	Improve flow rate accuracy
External control	Start/stop, direction and speed control (4-20mA, 0-5V, 0-10V, external control module optional).
Communication interface	RS485
Power-off memory	Return to previous status when powered on
Prime	For fast filling and emptying at full speed
Dimension (L×W×H)	190×162×275 (mm)
Power supply	AC 90V-260V/50W
Operating temperature	0 to 40°C
Relative humidity	＜80%
IP rating	IP31
Weight	3.5kg

LAB

Model (Product code, Language)	Pump Head	Channel/rollers	Tubing	Max. Flow Rate (mL/min)	Weight (kg)
LEAD-2-A (05.02.19A, Chinese) LEAD-2-C (05.02.19C, English)	LEAD15-24	2/4	16# 25# 17#	300 (Single Channel)	4.36
	LEAD15-44	4/4			4.42
	LEAD15-48	4/8	13# 14# ID≤3.17 (mm) Wall Thickness 0.8-1 (mm)	75 (Single Channel)	4.48
	LEAD15-88	8/8			

Flow Rate Peristaltic Pump

Max. Flow Rate

BT100-1L

Pump Head Options

YZ1515x
YZ2515x

YZII15
YZII25

DG-2
~
DG-24

DG15-24
DG15-28
DG15-48

DMD15-13-B
DMD15-13-D

Speed	0.1rpm-100rpm, CW/CCW.
Speed resolution	0.1rpm
Control mode	Control panel, external signal control and communication control are available.
Display	128×32 graphic LCD for current running status
Calibration function	Improve flow rate accuracy
External control	Start/stop, direction and speed control (4-20mA, 0-5V, 0-10V, external control module optional).
Communication interface	RS485
Power-off memory	Return to previous status when powered on
Prime	For fast filling and emptying at full speed
Dimension (L×W×H)	202×160×239 (mm)
Power supply	AC 110V±10%/50W or AC220V±10%/50W optional
Operating temperature	0 to 40°C
Relative humidity	<80%
IP rating	IP31
Weight	5.3kg

Mainly used in laboratorial applications.
Can drive multi-pump heads.

LAB

Model (Product code, Power supply)	Pump Head	Tubing	Max. Flow Rate (mL/min)	Weight (kg)
BT100-1L-A (05.02.12A, AC220V) BT100-1L-B (05.02.12B, AC110V)	DG15-24	16# 25# 17#	300 (Single Channel)	6.1
	DG15-28	13# 14# ID ≤3.17 (mm) Wall Thickness 0.8-1 (mm)	75 (Single Channel)	5.9
	DG15-48			
	DG- (2, 4, 6, 8, 12, 16, 24) 6 Rollers	ID≤3.17 (mm) Wall Thickness 0.8-1 (mm)	48 (Single Channel)	5.7-8.6
	DG- (2, 4, 6, 8, 12, 16, 24)10 Rollers		32 (Single Channel)	
	(1, 2, 3, 4)×YZ1515x	13# 14# 19# 16# 25# 17# 18#	380 (Single Channel)	5.7-6.9
	(1, 2, 3, 4)×YZII15			
	(1, 2, 3, 4)×YZ2515x	15# 24#	270 (Single Channel)	
	(1, 2)×YZII25	15# 24# 35# 36#	500 (Single Channel)	5.7-6.1
	(1, 2)×DMD15-13-B/DMD15-13-D	13# 14# 19# 16# 25#	350 (Single Channel)	5.7-6.1

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Dispensing Peristaltic Pump

BT100-1F

Max. Flow Rate

1000 mL/min

600 mL/min

Mainly used in laboratorial applications.

Speed	0.1rpm-100rpm, CW/CCW.
Speed resolution	0.1rpm
Control mode	Control panel, external signal control and communication control are available.
Display	LCD for running status
Work mode	Flowrate mode and dispensing mode
Flowrate calibration	Improve flow rate accuracy
Dispensing volume	0.01mL-9.99L
Dispensing calibration	Calibrate dispensing volume to improve accuracy
Copy number	1 to 9999, “0” means unlimited cycle.
Pause time	0.1s-99.9min, resolution is 0.1s.
Back suction time	0s-99.9s, resolution is 0.1s.
External control	Start/stop, direction and speed control (4-20mA, 0-5V, 0-10V, 0-10kHz external control module optional).
Speed output	10Hz-10kHz corresponding to 0.1-100rpm
Start/stop output	OC gate signal
Direction output	OC gate signal
Communication interface	RS485
Power-off memory	Return to previous status when powered on
Prime	For fast filling and emptying at full speed
Dimension (L×W×H)	285×207×180 (mm)
Power supply	AC 90V-260V/40W
Operating temperature	0 to 40°C
Relative humidity	＜80%
IP rating	IP31
Weight	3.8kg

Pump Head Options

YZ1515x
YZ2515x

YZII15
YZII25

DG-1, DG-2, DG-4

DG15-24
DG15-28

DMD15-13-B
DMD15-13-D

LAB

Model (Product code, Language)	Pump Head	Tubing	Max. Flow Rate(mL/min)	Weight(kg)
BT100-1F (05.02.13A, Chinese) BT100-1F-B (05.02.13B, English)	YZ1515x,YZII15	13# 14# 19# 16# 25# 17# 18#	380	4.2
	YZ2515x	15# 24#	270	
	YZII25	15# 24# 35# 36#	500	
	DG- (1, 2, 4) 6 Rollers	ID≤3.17 (mm) Wall Thickness 0.8-1 (mm)	48	4-4.3
	DG- (1, 2, 4)10 Rollers		32	
	DMD15-13-B, DMD15-13-D	13# 14# 19# 16# 25#	350	4.2
	DG15-24	16# 25# 17#	300 (Single Channel)	4.6
	DG15-28	13#14# ID ≤3.17 (mm) Wall Thickness 0.8-1 (mm)	75 (Single Channel)	4.5

Dispensing Peristaltic Pump

BT300-1F

Max. Flow Rate

5000 mL/min

1800 mL/min

Mainly used in laboratorial applications.

Speed	1rpm-300rpm, CW/CCW.
Speed resolution	1rpm
Control mode	Control panel, external signal control and communication control are available.
Display	LCD for running status
Work mode	Flowrate mode and dispensing mode
Flowrate calibration	Improve flow rate accuracy
Dispensing volume	0.1mL-99.9L
Dispensing calibration	Calibrate dispensing volume to improve accuracy
Copy number	1 to 999, “0” means unlimited cycle.
Pause time	1s to 999s, resolution is 1s.
Back suction angle	0-360°, resolution is 18°.
External control	Start/stop, direction and speed control (4-20mA, 0-5V, 0-10V, external control module optional).
Speed output	0-5V corresponding to 1-300rpm
Start/stop output	OC gate signal
Direction output	OC gate signal
Communication interface	RS485
Power-off memory	Return to previous status when powered on
Prime	For fast filling and emptying at full speed
Dimension (L×W×H)	202×160×239 (mm)
Power supply	AC 220V±10%/50W or AC 110V±10%/50W
Operating temperature	0 to 40°C
Relative humidity	＜80%
IP rating	IP31
Weight	4.3kg

Pump Head Options

YZ1515x
YZ2515x

YZII15
YZII25

DMD15-13-B
DMD15-13-D

DG15-24

Standard external control interface
--Order separately

LAB

Model (Product code, Power supply, Language)	Pump Head	Tubing	Max. Flow Rate(mL/min)	Weight(kg)
BT300-1F-A(05.02.32A, AC220V, Chinese) BT300-1F-B(05.02.32B, AC110V, Chinese) BT300-1F-C(05.02.32C, AC220V, English) BT300-1F-D(05.02.32D, AC110V, English)	YZ1515x, YZII15	13# 14# 19# 16# 25# 17# 18#	1140	4.7
	YZ2515x	15# 24#	840	
	YZII25	15# 24# 35# 36#	1500	
	DMD15-13-B, DMD15-13-D	13# 14# 19# 16# 25#	1040	4.7
	DG15-24	16# 25# 17#	900 (Single Channel)	5.1

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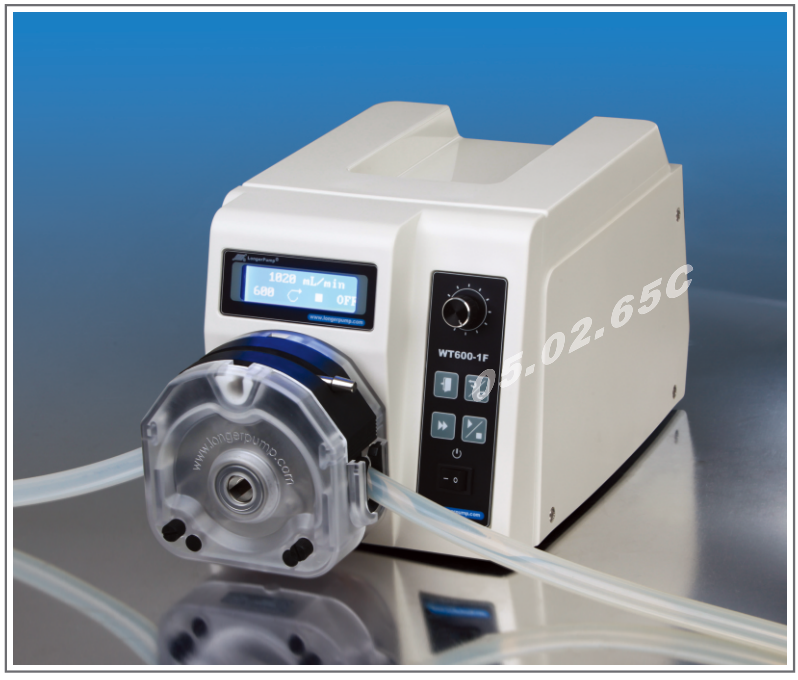
Dispensing Peristaltic Pump

WT600-1F



Flow Rates

Mainly used in laboratorial applications.
With brushless motor, can drive multi-pump heads.

Pump Head Options

YZ1515x
YZ2515x

YZII15
YZII25

KZ25

DMD15-13-B
DMD15-13-D

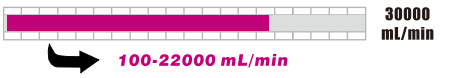
DG15-24

Speed	10rpm-600rpm, CW/CCW.
Speed resolution	1rpm
Control mode	Control panel, external signal control and communication control are available.
Display	LCD for running status
Work mode	Flowrate mode and dispensing mode
Flowrate calibration	Improve flow rate accuracy
Dispensing volume	0.1mL-99.9L
Dispensing calibration	Calibrate dispensing volume to improve accuracy
Copy number	1 to 9999, “O” means unlimited cycle.
Pause time	0.1s to 99.9min, resolution is 0.1s.
Back suction circle	0 to 9.9 circle, resolution is 0.1 circle.
External control	Start/stop, direction and speed control (4-20mA, 0-5V, 0-10V, 0-10kHz external control module optional).
Speed output	166.7Hz-10kHz corresponding to 10-600rpm
Start/stop output	OC gate signal
Direction output	OC gate signal
Communication interface	RS485
Power-off memory	Return to previous status when powered on
Prime	For fast filling and emptying at full speed
Dimension (L×W×H)	285×207×180 (mm)
Power supply	AC 220V±20%/140W or AC 110V±20%/140W
Operating temperature	0 to 40°C
Relative humidity	＜80%
IP rating	IP31
Weight	5.2kg

Model (Product code, Power supply)	Pump Head	Tubing	Flow Rate(mL/min)	Weight(kg)
WT600-1F-A (05.02.65A, AC220V) WT600-1F-B (05.02.65B, AC110V)	(1, 2, 3)×YZ1515x	13# 14# 19# 16# 25# 17# 18#	0.7-2200 (Single Channel)	5.6-6.4
	(1, 2, 3)×YZII15			
	(1, 2, 3)×YZ2515x	15# 24#	17-1600 (Single Channel)	
	(1, 2)×YZII25	15# 24# 35# 36#	17-3000 (Single Channel)	5.6-6.0
	DG15-24	16# 25# 17#	8-1800 (Single Channel)	6.0
	(1, 2)×DMD15-13-B/DMD15-13-D	13# 14# 19# 16# 25#	1.5-2070 (Single Channel)	5.6-6.0
	KZ25	15# 24# 35# 36#	34-6000	6.0

Dispensing Peristaltic Pump

Flow Rates



WT600-4F

Mainly used in laboratorial and industrial applications. With brushless motor, can drive multi-pump heads.

Aluminum alloy housing, high IP rating.

INDUSTRIAL

PERISTALTIC PUMP

Speed	10rpm-600rpm, CW/CCW.
Speed resolution	1rpm
Control mode	Control panel, external signal control and communication control are available.
Display	LCD for running status
Work mode	Flowrate mode and dispensing mode
Flowrate calibration	Improve flow rate accuracy
Dispensing volume	100mL-999L
Dispensing calibration	Calibrate dispensing volume to improve accuracy
Copy number	1 to 9999, 0 means unlimited cycle.
Pause time	0.1s to 99.9min, resolution is 0.1s.
Back suction circle	0 to 9.9 circle, resolution is 0.1 circle.
External control	Start/stop, direction and speed control (4-20mA, 0-5V, 0-10V, 0-10kHz external control module optional).
Speed output	125Hz-7.5kHz corresponding to 10-600rpm
Start/stop output	OC gate signal
Direction output	OC gate signal
Communication interface	RS485
Power-off memory	Return to previous status when powered on
Prime	For fast filling and emptying at full speed
Dimension (L×W×H)	360×215×243(mm)
Power supply	AC110V±20%/300W or AC220V±20%/300W
Operating temperature	0 to 40°C
Relative humidity	＜100%
IP rating	IP65
Weight	12kg

Pump Head Options

YZ35-13

KZ35

Model (Product code, Power supply, Speed control signal)	Pump Head	Tubing	Flow Rate(mL/min)	Weight(kg)
WT600-4F-A (05.02.66A, AC220V, 0-5V) WT600-4F-B (05.02.66B, AC220V, 0-10V) WT600-4F-C (05.02.66C, AC220V, 4-20mA) WT600-4F-D (05.02.66D, AC220V, 0-10kHz) WT600-4F-E (05.02.66E, AC220V, RS485) WT600-4F-F (05.02.66F, AC110V, 0-5V) WT600-4F-G (05.02.66G, AC110V, 0-10V) WT600-4F-H (05.02.66H, AC110V, 4-20mA) WT600-4F-J (05.02.66J, AC110V, 0-10kHz) WT600-4F-K (05.02.66K, AC110V, RS485)	(1, 2)×YZ35-13-B	73# 82#	100-11000 (Single Channel)	13.65-15.3
	(1, 2)×KZ35-13-B			15.7-19.4

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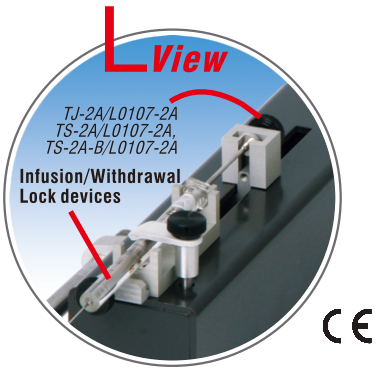
Laboratorial Syringe Pump

L0107 Series

Mainly used in laboratorial applications. Controller and drive unit are separated. The drive unit has syringe holder and clamp.



SYRINGE PUMP

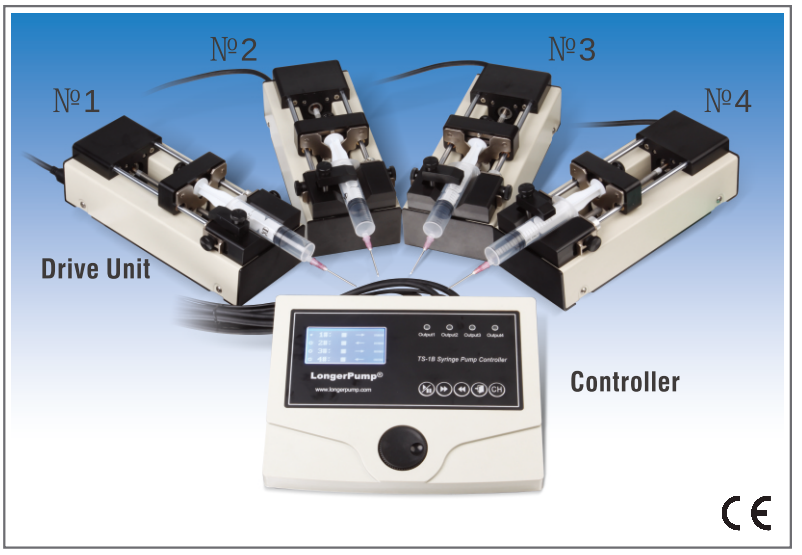
Specifications \ Model	TJ-1A/L0107-1A	TS-1A/L0107-1A, TS-1A-B/L0107-1A	TJ-2A/L0107-2A	TS-2A/L0107-2A, TS-2A-B/L0107-2A
Work mode	Infusion		Infusion, withdrawal, infusion/withdrawal, withdrawal/infusion, continuous	
Drive unit	1	1 to 4	1	1 to 4
Stroke of drive unit	70mm			
Pusher advance per microstep	0.165μm			
Linear speed	7.94μm/min-79.4mm/min (Flow rate=Linear speed * Section area of the barrel)			
Linear speed resolution	7.94μm/min			
Linear travel accuracy	≤±0.5% when travel ≥30% of drive unit stroke			
Linear force(max.)	>20N			
Syringe selection	Built-in syringe branches, sizes and IDs for selection			
Syringe user-defined	Can store four user-defined syringe IDs			
Flow rate calibration	Improve flow rate accuracy			
Running parameters setting	Parameters, such as dispensing volume, can be set by each channel. Or all channels use the parameters of the specified channel			
Start setting	Each drive unit can be started separately, simultaneously or according to each delay time			
Display setting	Display volume, flow rate or linear speed			
Power-off memory	Select keeping previous status or resetting parameters when powered on			
Fast forward/backward	Infuse or withdraw liquid at full speed			
status signal output	2 output signals (OC gate signal) to indicate start/stop and direction			
Control signal input	3 input signals (TTL signal) to control start/stop, fast forward and fast backward			
Communication interface	RS485			
Controller dimensions (L×W×H)	170×108×65 (mm)	235×178×74 (mm)	170×108×65 (mm)	235×178×74 (mm)
Controller weight	0.5kg	0.8kg	0.5kg	0.8kg
Drive unit dimensions (L×W×H)	180×46×78 (mm)			
Drive unit weight	0.6kg			
Power supply	AC 90V-260V/10W	AC 90V-260V/40W	AC 90V-260V/10W	AC 90V-260V/40W
Operating temperature	0 to 40°C			
Relative humidity	<80%			

Controller Model(Product code, Language) /Drive Unit Model(Product code)	Syringe (μL)	Syringe Id(mm)	Flow Rate(nL/min-μL/min)
TJ-1A(05.03.10A, Chinese and English)/L0107-1A(05.03.00A) TJ-2A(05.03.11A, Chinese and English)/L0107-2A(05.03.01A) TS-1A(05.03.15A, Chinese)/L0107-1A(05.03.00A) TS-1A-B(05.03.15B, English)/L0107-1A(05.03.00A) TS-2A(05.03.16A, Chinese)/L0107-2A(05.03.01A) TS-2A-B(05.03.16B, English)/L0107-2A(05.03.01A)	5	0.35	0.764-7.64
	10	0.50	1.559-15.59
	25	0.80	3.991-39.91
	50	1.10	7.546-75.46
	100	1.60	15.96-159.6
	250	2.30	32.99-329.9
	500	3.25	65.87-658.7
	1000	4.61	132.5-1325

Laboratorial Syringe Pump

TJ-3A/W0109-1B, TS-1B/W0109-1B

Mainly used in laboratorial applications.
Controller and drive unit are separated.



SYRINGE PUMP

Specifications / Model	TJ-3A/W0109-1B	TS-1B/W0109-1B, TS-1B-B/W0109-1B
Work mode	Infusion, withdrawal, infusion/withdrawal, withdrawal/infusion, continuous	
Drive unit	1	1 to 4
Stroke of drive unit	90mm	
Pusher advance per microstep	0.165μm	
Linear speed	7.94μm/min-79.4mm/min (Flow rate=Linear speed * Section area of the barrel)	
Linear speed resolution	7.94μm/min	
Linear travel accuracy	≤±0.5% when travel ≥30% of drive unit stroke	
Linear force(max.)	>90N	
Syringe selection	Built-in syringe branches, sizes and IDs for selection	
Syringe user-defined	Can store four user-defined syringe IDs	
Flow rate calibration	Improve flow rate accuracy	
Running parameters setting	Parameters, such as dispensing volume, can be set by each channel. Or all channels use the parameters of the specified channel	
Start setting	Each drive unit can be started separately, simultaneously or according to each delay time	
Display setting	Display volume, flow rate or linear speed	
Power-off memory	Select keeping previous status or resetting parameters when powered on	
Fast forward/backward	Infuse or withdraw liquid at full speed	
status signal output	2 output signals (OC gate signal) to indicate start/stop and direction	
Control signal input	3 input signals (TTL signal) to control start/stop, fast forward and fast backward	
Communication interface	RS485	
Controller dimensions (L×W×H)	170×108×65 (mm)	235×178×74 (mm)
Controller weight	0.5kg	0.8kg
Drive unit dimensions (L×W×H)	245×100×95 (mm)	
Drive unit weight	1.3kg	
Power supply	AC 90V-260V/10W	AC 90V-260V/40W
Operating temperature	0 to 40°C	
Relative humidity	<80%	

Controller Model (Product code, Language)	Drive Unit Model (Product code)	Syringe (mL)	Syringe ID(mm)	Flow Rate (μL/min-mL/min)
TJ-3A (05.03.12A, Chinese and English) TS-1B (05.03.17A, Chinese) TS-1B-B (05.03.17B, English)	W0109-1B (05.03.02A)	1	4.72	0.139-1.39
		2	9.00	0.505-5.05
		5	13.10	1.07-10.7
		10	16.60	1.718-17.18
		20	19.00	2.251-22.51
		30	23.00	3.298-32.98
		60	29.14	5.295-52.95

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Laboratorial Syringe Pump

TJP-3A/W0109-1B

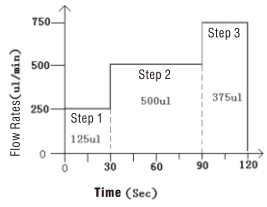
Mainly used in laboratorial applications. Controller and drive unit are separated. With the programmable function, you can customize complex infusion/withdrawal process, such as stepped infusion, combination constant speed and ramped speed infusion, trigger dispense or periodic dispense.

SYRINGE PUMP

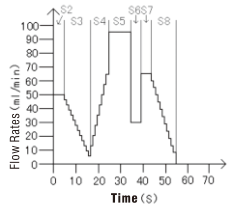
Work mode	Infusion, withdrawal, infusion/withdrawal, withdrawal/infusion, continuous, programmable.
Drive unit	1
Stroke of drive unit	90mm
Pusher advance per microstep	0.165μm
linear speed	7.94μm/min-79.4mm/min (Flow rate=Linear speed * Section area of the barrel).
Linear speed resolution	7.94μm/min
Linear travel accuracy	≤±0.5% when travel ≥30% of drive unit stroke
Linear force(max.)	＞90N
Syringe selection	Built-in syringe branches, sizes and IDs for selection.
Syringe user-defined	Can store four user-defined syringe IDs
Flow rate calibration	Improve flow rate accuracy
Running parameters setting	Parameters, such as dispensing volume, can be set by each channel. Or all channels use the parameters of the specified channel.
Display setting	Display volume, flow rate or linear speed.
Power-off memory	Select keeping previous status or resetting parameters when powered on.
Fast forward/backward	Infuse or withdraw liquid at full speed
status signal output	2 output signals (OC gate signal) to indicate start/stop and direction.
Control signal input	Falling edge or TTL signal to control Start/stop
Communication interface	RS485
Controller dimensions (L×W×H)	170×108×65 (mm)
Controller weight	0.5kg
Drive unit dimensions (L×W×H)	245×100×95 (mm)
Drive unit weight	1.3kg
Power supply	AC 90V-260V/10W
Operating temperature	0 to 40°C
Relative humidity	＜80%

TJP-3A Programmable Functions

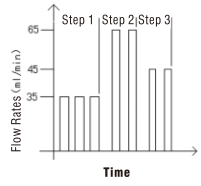
TJP-3A/W0109-1B Programmable Functions



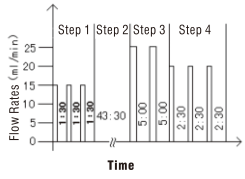
1. Multi-step uniform speed (profile) infusion



2. Complicated curve of Uniform Speed & Uneven Speed



3. Trigger Dispense

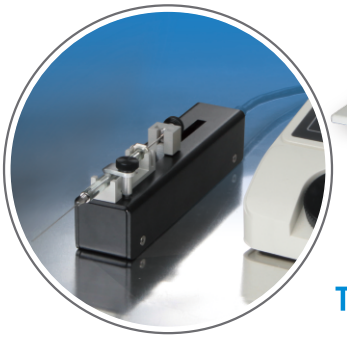


4. Periodic Dispense

Controller Model (Product Code)	Drive Unit Model (Product Code)	Syringe (mL)	Syringe ID(mm)	Flow Rate (μL/min-mL/min)
TJP-3A(05.03.13A)	W0109-1B(05.03.02A)	1	4.72	0.139-1.39
		2	9.00	0.505-5.05
		5	13.10	1.07-10.7
		10	16.60	1.718-17.18
		20	19.00	2.251-22.51
		30	23.00	3.298-32.98
		60	29.14	5.295-52.95

Laboratorial Syringe Pump

TJ-4A/SL0104-1A, TJ-4A/SL0107-1A



TJ-4A/SL0107-1A

SYRINGE PUMP

Mainly used in veterinary medicine applications for intracellular injections or biological chemical dosing with small volume in picoliters.
Drive unit has small size and lightweight, can be mounted on stereotaxic apparatus and micromanipulator.

Specifications \ Model	TJ-4A/SL0104-1A	TJ-4A/SL0107-1A
Work mode	Infusion, withdrawal, infusion/withdrawal, withdrawal/infusion, continuous	
Drive unit	1	
Stroke of drive unit	40mm	70mm
Pusher advance per step	3.048μm	
Linear speed	3.048μm/min-128.016mm/min(Flow rate＝linear speed * section area of the barrel)	
Linear speed resolution	3.048μm/min	
Linear travel accuracy	≤±0.5%(when travel≥30% drive unit stroke)	
Linear force (max.)	＞10N	
Syringe selection	Built-in syringe branches, sizes and IDs for selection	
Syringe user-defined	Can store four user-defined syringe IDs	
Flow rate calibration	Improve flow rate accuracy	
Running parameters setting	Parameters, such as dispensing volume, dispensing time, can be set through controller	
Display setting	Display volume, flow rate or linear speed	
Power-off memory	Select keeping previous status or resetting parameters when powered on	
Fast forward/ backward	Infuse or withdraw liquid at full speed	
status signal output	2 output signals (OC gate signal) to indicate start/stop and direction	
Control signal input	3 input signals (TTL signal) to control start/stop, fast forward and fast backward	
Communication interface	RS485	
Controller dimensions (L×W×H)	170×108×65(mm)	
Controller weight	0.5kg	
Drive unit dimensions (L×W×H)	130×35×34(mm)	160×35×34(mm)
Drive unit weight	258g	289g
Power supply	AC 90V-260V/10W	
Operating temperature	0 to 40℃	
Relative humidity	＜80%	

Controller Model(Product Code)	Drive Unit Model(Product Code)	Syringe(μL)	Syringe ID(mm)	Flow Rate(nL/min-μL/min)
TJ-4A (05.03.14A)	SL0104-1A (05.03.03A)	0.5	0.15	0.054-2.26
		1	0.20	0.096-4.02
		2	0.35	0.293-12.32
		5	0.50	0.598-25.1
		10	0.80	1.53-64.35
		25	1.10	2.90-121.66
		50	1.46	5.08-213.3
	SL0107-1A (05.03.04A)	0.5	0.10	0.024-1.0
		1	0.15	0.054-2.26
		2	0.20	0.096-4.02
		5	0.35	0.293-12.32
		10	0.50	0.598-25.1
		25	0.80	1.53-64.35
		50	1.10	2.90-121.66
		100	1.46	5.08-213.3

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Laboratorial Syringe Pump

LSP Series

Mainly used in laboratorial applications.
Integrated structure.

LSP01-1A/2A

LSP02-1B

LSP02-2A

LSP04-1A

LSP10-1B

SYRINGE PUMP

Specifications \ Model	LSP01-2A	LSP02-2A	LSP01-1A	LSP04-1A	LSP02-1B	LSP10-1B
Work mode	Infusion				Infusion, withdrawal, infusion/withdrawal, withdrawal/infusion, continuous	
Channel	1	2	1	4	2	10
Stroke of pump	140mm					
Pusher advance per microstep	0.03125μm		0.156μm			
Linear speed	1μm/min-13mm/min		5μm/min-65mm/min	5μm/min-130mm/min(Flow rate=Linear speed * Section area of the barrel)		
Linear speed resolution	1μm/min		5μm/min			
Linear travel accuracy	≤±0.5% when travel ≥30% of pump stroke					
Linear force(max.)	>90N	>290N	>90N	>180N		
Syringe selection	Built-in syringe branches, sizes and IDs for selection					
Syringe user-defined	Can store four user-defined syringe IDs					
Flow rate calibration	Improve flow rate accuracy					
Running parameters setting	Infusion volume, infusion time, etc				Infusion/Withdrawal volume, infusion time, withdrawal time, pause time, etc	
Display setting	Display volume, flow rate or linear speed					
Power-off memory	Storing the running parameters automatically					
status signal output	2 output signals (OC gate signal) to indicate start/stop and direction					
Control signal input	Falling edge or TTL signal to control Start/stop					
Communication interface	RS485					
Dimensions (L×W×H)	280×210×140(mm)			280×250×140(mm)		280×330×140(mm)
Weight	3.6kg			4.5kg	4.3kg	5.3kg
Power supply	AC 90V-260V/15W			AC 90V-260V/20W		
Operating temperature	0 to 40°C					
Relative humidity	<80%					

Controller Model (Product Code)		LSP01-2A(05.03.41A) LSP02-2A(05.03.47A)	LSP01-1A(05.03.40A)	LSP04-1A(05.03.45A)	LSP02-1B(05.03.44A)	LSP10-1B(05.03.46A)
Syringe	Syringe ID(mm)	Flow Rate(μL/min - mL/min)				
10μL	0.50	0.0002-0.0026	0.001-0.0128	0.001-0.0255	0.001-0.0255	0.001-0.0255
25μL	0.80	0.0005-0.0065	0.0025-0.0327	0.0025-0.0653	0.0025-0.0653	0.0025-0.0653
50μL	1.10	0.0095-0.0124	0.0048-0.0618	0.0048-0.1235	0.0048-0.1235	0.0048-0.1235
100μL	1.60	0.002-0.026	0.0101-0.1307	0.0101-0.2614	0.0101-0.2614	0.0101-0.2614
250μL	2.30	0.0042-0.054	0.0208-0.2701	0.0208-0.5401	0.0208-0.5401	0.0208-0.5401
500μL	3.25	0.0083-0.1078	0.0415-0.5392	0.0415-1.0784	0.0415-1.0784	0.0415-1.0784
1mL	4.72	0.0175-0.2275	0.0875-1.1373	0.0875-2.2747	0.0875-2.2747	0.0875-2.2747
2mL	9.00	0.0636-0.827	0.3181-4.1351	0.3181-8.2702	0.3181-8.2702	0.3181-8.2702
5mL	13.10	0.1348-1.7522	0.6739-8.7608	0.6739-17.522	0.6739-17.522	0.6739-17.522
10mL	16.60	0.2164-2.8135	1.0821-14.068	1.0821-28.135	1.0821-28.135	1.0821-28.135
20mL	19.00	0.2835-3.6859	1.4176-18.429	-	1.4176-36.859	-
30mL	23.00	0.4155-5.4012	2.0774-27.006	-	2.0774-54.012	-
60mL	29.14	0.6669-8.6699	3.3346-43.349	-	3.3346-86.699	-

Laboratorial Systematic Syringe Pump

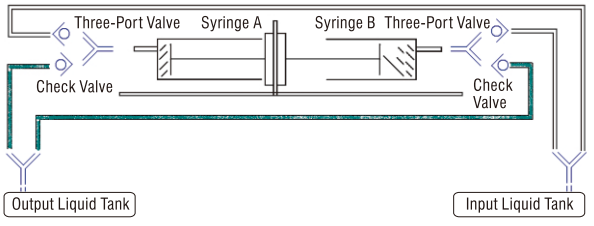
LSP01-1C

SYRINGE PUMP

Mainly used in laboratorial applications. High accuracy, suitable for continuous transferring of low-flow liquid.

Work mode	Infusion and withdrawal synchronous and continuous
Channel	1
Stroke of pump	140mm
Pusher advance per microstep	0.156μm
Linear speed	5μm/min-65mm/min
Linear speed resolution	5μm/min
Linear travel accuracy	≤±0.5% when travel ≥30% of pump stroke
Linear force(max.)	＞90N
Syringe selection	Built-in syringe branches, sizes and IDs for selection.
Syringe user-defined	Can store four user-defined syringe IDs
Flow rate calibration	Improve flow rate accuracy
Running parameters setting	Dispensing volume, infusion time, etc.
Display setting	Display volume, flow rate or linear speed
Power-off memory	Storing the running parameters automatically
status signal output	1 OC gate signal to indicate start/stop
Control signal input	Falling edge or TTL signal to control Start/stop
Communication	RS485
Dimensions (L×W×H)	280×220×140 (mm)
Weight	3.6kg
Power supply	AC 90V-260V/15W
Operating temperature	0 to 40℃
Relative humidity	＜80%

LSP01-1C Tubing Connection Illustration



Model	Product Code	Syringe	Syringe ID(mm)	Flow Rate(μL/min-mL/min)
LSP01-1C	05.03.42A	10μL	0.50	0.001-0.0128
		25μL	0.80	0.0025-0.0327
		50μL	1.10	0.0048-0.0618
		100μL	1.60	0.0101-0.1307
		250μL	2.30	0.0208-0.2701
		500μL	3.25	0.0415-0.5392
		1mL	4.72	0.0875-1.1373
		2mL	9.00	0.3181-4.1351
		5mL	13.10	0.6739-8.7608
		10mL	16.60	1.0821-14.068

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Laboratorial High-pressure Syringe Pump

LSP01-1BH

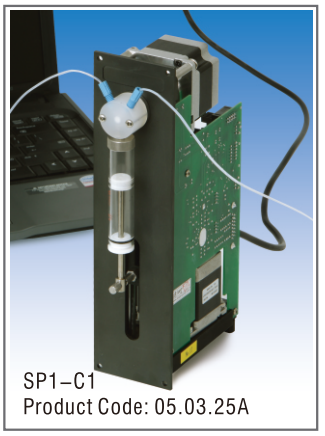
Mainly used in laboratorial applications. Suitable for viscous and high pressure liquid transferring.

Work mode	Infusion, withdrawal, infusion/withdrawal, withdrawal/infusion, continuous
Channel	1
Stroke of pump	140mm
Pusher advance per microstep	0.156μm
Linear speed	5μm/min-130mm/min
Linear speed resolution	5μm/min
Linear travel accuracy	≤±0.5% when travel ≥30% of pump stroke
Linear force(max.)	＞450N
Syringe selection	Built-in syringe branches, sizes and IDs for selection
Syringe user-defined	Can store four user-defined syringe IDs
Flow rate calibration	Improve flow rate accuracy
Running parameters setting	Infusion volume, infusion time, withdrawal time, pause time, etc
Display setting	Display volume, flow rate or linear speed
Power-off memory	Storing the running parameters automatically
status signal output	2 output signals (OC gate signal) to indicate start/stop and direction
Control signal input	Falling edge or TTL signal to control Start/stop
Communication interface	RS485
Dimensions (L×W×H)	280×250×140 (mm)
Weight	6.3kg
Power supply	AC 90V-260V/25W
Operating temperature	0 to 40°C
Relative humidity	＜80%

Model	Product Code	Syringe(mL)	Syringe ID(mm)	Flow Rate (μL/min-mL/min)	Outlet Pressure (Mpa)
LSP01-1BH	05.03.43A	2.5	4.79	0.0901-2.3426	19.48
		8	9.53	0.3567-9.2730	5.05
		20	19.13	1.4371-37.3648	1.25
		50	28.6	3.2121-83.5152	0.56
		100	34.9	4.7831-124.361	0.37

Industrial Syringe Pump

SP1-C1, MSP1-C2, MSP1-D1, MSPI-E1


SP1–C1
Product Code: 05.03.25A

MSP1-C2
Product Code: 05.03.20B

MSP1–D1
Product Code: 05.03.21A

MSP1–E1
Product Code: 05.03.22A

SYRINGE PUMP

Mainly used in OEM equipment and instruments, especially for automation systems.
Rotating valve, panel installation, RS485 or RS232 communication control.

Specifications \ Model	SP1-C1	MSP1-C2	MSP1-D1	MSP1-E1
Accuracy	⩽1%(rated stroke)			
Precision	Repeatability⩽0.5%(rated stroke)			
Rated stroke (steps)	60mm(6000 steps)	30mm(3000 steps)	30mm(1000 steps)	
Linear speed	0.05mm/s-50mm/s	0.025mm/s-25mm/s	0.5mm/s-15mm/s	
Time for rated stroke	1.2s-1200s		2s-60s	
Control resolution	0.01mm(1 step)		0.03mm(1 step)	
Transmission mechanism	Ball screw drive		Rack and pinion drive	
Plunger drive force (max.)	⩾68N			
Secondary plunger drive force (max.)	⩾34N		–	
Syringe	50μL、100μL、250μL、500μL、1mL、2.5mL、5mL、10mL、25mL	50μL、100μL、250μL、500μL、1mL、2.5mL、5mL	500μL、1mL、2.5mL、5mL	
Valve	Standard:3 port 120°; Optional:4 port 90°; T type 90°; 90° distribution valve		3 port 120°	3-way solenoid valve
Valve plug turn time	⩽280ms between adjacent ports			⩽100ms
Wetted material	Borosilicate glass, PTFE, PCTFE			Borosilicate glass, PTFE, PEEK
Max. pressure	0.68Mpa			0.1Mpa
Tubing fitting	1/4"-28 thread			
Syringe fitting	1/4"-28 thread			
Signal input	2 input signals (TTL signal, drive current > 16mA)		1 input signals (TTL signal, drive current > 16mA)	
Signal output	3 output signals (OC gate signal) to indicate the working status		1 output signals (OC gate signal) to indicate the working status	
Communication interface	RS485 or RS232			
Bit rate	9600bps or 38400bps			
Pump ID setting	Set the pump ID through BCD dial switch (0 to E corresponding to pump address 1-15)			
Pump parameters setting	Set the parameters through DIP switch			
Dimension (L×W×H)	114×65×254(mm)	110×44.4×127(mm)	100×65×127(mm)	
Power supply	DC 24V/1.5A			
Operating temperature	15 to 40°C			
Relative humidity	＜80%			
Weight	2.15kg	1.23kg	0.9kg	

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Industrial Multi-Channel Syringe Pump

SP4-D1, SP4-E1

Product Code: 05.03.26A

Product Code: 05.03.27A

Mainly used in OEM equipment and instruments, especially for automation systems.
Four channels synchronously running, high strength housing, panel or soleplate installation, RS485 or RS232 communication control.

Specifications \ Model	SP4-D1	SP4-E1
Accuracy	≤1% (rated stroke)	
Precision	Repeatability≤0.5% (rated stroke)	
Rated stroke (steps)	60mm (1000 steps)	
Linear speed	0.03mm/s-24mm/s	
Time for rated stroke	2.5s-2000s	
Control resolution	0.06mm (1 step)	
Transmission mechanism	Synchronous belt mechanism	
Plunger drive force (max.)	≥68N for four channels	
Syringe	50μL, 100μL, 250μL, 500μL, 1mL, 2.5mL, 5mL	
Valve	No	3-way solenoid valve
Valve plug turn time	-	≤100ms
Wetted material	Borosilicate glass, PTFE, PPS	Borosilicate glass, PTFE, PEEK
Max. pressure	0.68 MPa (valve)	0.1MPa
Tubing fitting	1/4"-28 thread	
Syringe fitting	1/4"-28 thread	
Signal input	2 input signals (TTL signal, drive current >16mA) to restart the pump after pause	
Signal output	3 output signals (OC gate signal) to indicate the working status	
External Solenoid valve control	Can control 4 pcs of independent 24VDC solenoid valve. The rated drive signal for each valve is DC24V/200mA	With built-in solenoid valve
Communication interface	RS485 or RS232	
Bit rate	9600bps or 38400bps	
Pump ID setting	Set the pump ID through BCD dial switch	
Pump parameters setting	Set the parameters through DIP switch	
Dimension (L×W×H)	140×167×261.5 (mm)	
Power supply	DC 24V/1.5A	
Operating temperature	15 to 40°C	
Relative humidity	<80%	
Weight	2.4kg	

Micro Gear Pump

WT3000 Series

GEARPUMP

Mainly used in laboratorial applications.

Brushless motor, stainless steel pump head.

Pump Specification

Specifications \ Model	WT3000-1FA	WT3000-1FB-A, WT3000-1FB-B	WT3000-1JA	WT3000-1JB-A, WT3000-1JB-B
Speed	300rpm-3000rpm			
Speed resolution	1rpm			
Dispensing volume	0.1mL-999L		Not available	
Copy number	0-9999, “0” means unlimited cycle			
Pause time	1s-999hr, resolution is 0.1s			
Calibration time	30s-1800s, resolution is 1s			
Diameter of particle in liquid	≤10μm			
Viscosity	≤200cSt			
Speed signal input	4-20mA, 0.5-5V, 1-10V, 1-10kHz corresponding to 300rpm-3000rpm			
Start/Stop signal input	TTL signal			
Speed output	1.25kHz-12.5kHz corresponding to 300rpm-3000rpm		Not available	
Start/Stop output	OC gate signal			
Communication interface	RS485			
Dimension (L×W×H)	232×142×149(mm)	290×207×180(mm)	232×142×149(mm)	290×207×180(mm)
Power supply	AC 90V-260V/50W	AC 220V±20%/150W or AC 110V±20%/150W	AC 90V-260V/50W	AC 220V±20%/150W or AC 110V±20%/150W
Operating condition	0 to 40°C			
Relative humidity	＜80%			
IP rating	IP31			
Weight	2.83kg	5.1kg	2.83kg	5.1kg

Drive Model (Product code, Power supply)	Pump Head	Gear Material	Flow Rate (mL/min)	Outlet Pressure (Mpa)	Liquid Temperature (℃)	Weight (kg)
WT3000-1JA(05.06.01A) WT3000-1FA(05.06.03A)	MG204XD0PT00000	PEEK	85.7-857.1	≤0.8	-45-120	3.25
	MG204XD0TT00000	PTFE	85.7-857.1	≤0.8	-45-50	3.25
	MG209XD0PT00000	PEEK	171.4-1714.3	≤0.8	-45-120	3.26
	MG209XD0TT00000	PTFE	171.4-1714.3	≤0.8	-45-50	3.26
	MG213XD0PT00000	PEEK	257.1-2571.4	≤0.3	-45-120	3.28
	MG213XD0TT00000	PTFE	257.1-2571.4	≤0.3	-45-50	3.28
WT3000-1JB-A(05.06.02A, AC220V) WT3000-1JB-B(05.06.02B, AC110V) WT3000-1FB-A(05.06.04A, AC220V) WT3000-1FB-B(05.06.04B, AC110V)	MS204XD0PT00000	PEEK	85.7-857.1	≤1.4	-45-120	5.39
	MS209XD0PT00000	PEEK	171.4-1714.3	≤0.9	-45-120	5.4
	MS213XD0PT00000	PEEK	257.1-2571.4	≤0.8	-45-120	5.42

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Micro Piston Pump

MP Series

PMMA

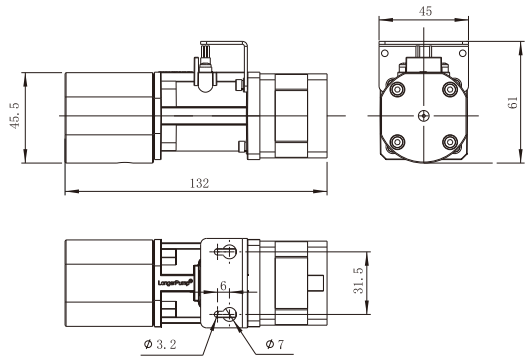
PEI

PEEK

High Precision, Long Life.
It can meet the strict requirement of In Vitro Diagnostic medical devices and analytical instruments for micro fluid transfer.

Pump Specification

Precision	Dispensing 100% of total volume	CV < 0.1%(Pump Volume < 500μL)
		CV < 0.05%(Pump Volume ≥ 500μL)
	Dispensing 10% of total volume	CV < 0.5%(Pump Volume < 500μL)
		CV < 0.1%(Pump Volume≥ 500μL)
	Dispensing 1% of total volume	CV < 2%(Pump Volume < 500μL)
		CV < 1%(Pump Volume ≥ 500μL)
Accuracy	⩾99.5% at full dispensing	
Expected life	10 Million Cycles with Distilled Water	
	5 Million Cycles with Crystallizable solution	
System pressure	≤0.68Mpa(Depending on model)	
Full stroke	12.7mm	
Resolution	2000 steps: 0.00635mm/step	
	4000 steps: 0.003175mm/step	
Pump speed	Pump volume≤1mL: the min. time for full stroke is 0.8s	
	Pump volume of 2.5ml: the min. time for full stroke is 1s	
	Pump volume of 5ml: the min. time for full stroke is 1.2s	
Home positon detection	Optical switch is used to detect the home position of the piston to initiate accurate step counts	
Dimension(L×W×H)	61×45×132(mm)	
Relative humidity	20%-80%	
Temperature	5 to 40°C	
Weight	0.51kg	



Pump Volume	Resolution(μL/step)	
	20TPI lead screw for 2000 steps	40TPI lead screw for 4000 steps
25μL	0.0125	0.00625
50μL	0.025	0.0125
100μL	0.05	0.025
250μL	0.125	0.0625
500μL	0.25	0.125
1000μL	0.5	0.25
2500μL	1.25	0.625
5000μL	2.5	1.25

Micro Piston Pump Model Configuration

MP [500] –2L– [A] [1] [C] [2] [0] [0] [0]

- Pump volume: 25=25μL, 50=50μL, 100=100μL, 250=250μL, 500=500μL, 1000=1000μL, 2500=2500μL, 5000=5000μL
- Pump head material: A=PMMA, P=PEEK, U=ULTEM
- Inlet/outlet port: 1=1/4–28, 2=M6, 3=10–32
- Piston material: C=ceramic, P=PEEK
- Steps per stroke: 2=2000 steps, 4=4000 steps
- Flushing port: 0=None, 1=1/4–28, 2=M6
- Motor encoder: 0=None, 1=400PPR encoder
- Seal: 0=UHMWPE/Viton, 1=UHMWPE/FFKM, 2=UHMWPE/Spring, 3=UHMWPE/EPDM

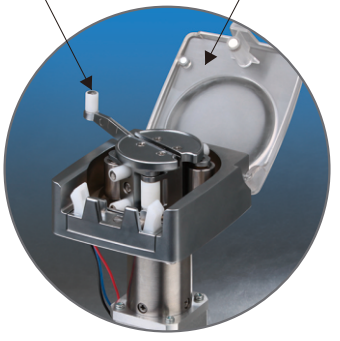
Hemodialysis Pump

MTH18-12

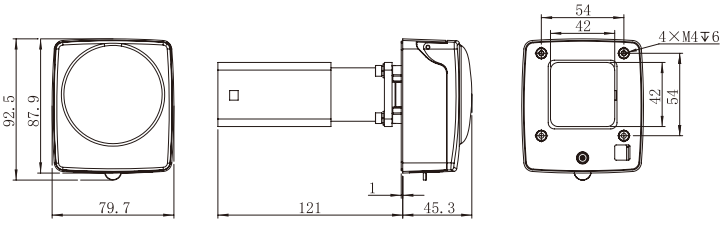
Mainly used in hemodialysis applications.
DC brushless motor, more stable, low noise.
Small size, compact structure, ideal for OEM equipment and instruments.
Brushless motor drive board (model:BLDCDRV-B1) is available. Or work with customer's specific drive board.

The lever of the rotor assembly helps to load the tubing easily and run the pump head manually.

The tubing and pump running condition can be easily monitored through the transparent PC cover.



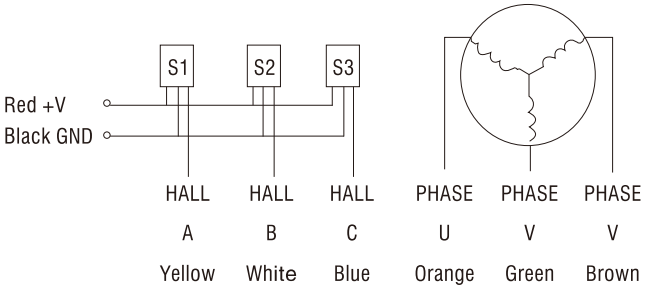
Installation Drawing



Motor Specification

Voltage rating	24VDC
Current rating	3.2A
Pole-pairs number	8
Speed rating	4000rpm
Reduction ratio	1:19

Motor Wiring



Pump Specification

Speed	0-70rpm, CW/CCW
Tubing	OD≤10mm, Wall thickness1.75±0.2mm
Flow rate	5-300mL/min(6.5mmID×10mmOD) 2-165mL/min(4.6mmID×8.4mmOD)
Dimension(L×W×H)	166×80×93mm
Relative humidity	＜80%
Operating temperature	0 to 40℃
Weight	1.23kg

Model	Product Code	Roller Number	Roller Material	Housing and Cover Material	Speed (rpm)	Tubing ID×OD(mm)	Flow Rate (Only for reference)
MTH18–12	05.21.01A	2	304SS	Housing; Zinc Alloy /Chrome Coating Cover: PC	≤70rpm	6.5×10	5-300
						4.6×8.4	2-165

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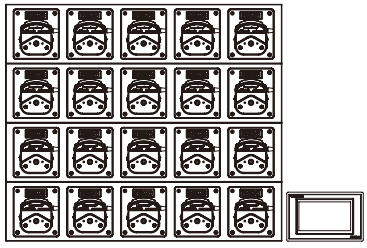
Dispensing & Filling System - Peristaltic Pump

FU4B-1&FC32S-1, FU5B-1&FC32S-1

Mainly designed for automatic filling & dispensing machine.

- 304ss housing has good corrosion resistance.
- Controller FC32S-1 and dispengsing system FU4B-1/FU5B-1 are separated, to allow flexible mounting way.
- One dispensing unit of FU4B-1 has four channels, one dispensing unit of FU5B-1 has five channels. With modular structure, one controller can control 32 channels.
- Controller adopts 7 inch industrial touchscreen interface to operate easily and friendly.
- Each channel has independent membrane key and LED display, which can be used to set the channel address and calibrate the dispensing volume when system is running or stop.

Dispensing volume	0.1ml-9999.99ml (resolution: 0.01ml)
Dispensing time	0.5s-6000s (resolution: 0.1s)
Interval time	0.5s-999.9s
Dispensing cycle	0-999999, "0" means unlimited cycle
Delay time before back suction	0-60.0s
Back suction angle	0-1000°
Channel quantity	One FU4B-1 has 4 channels, one FU5B-1 has 5 channels. The system channels can be expended by modular structure. One controller can control 32 channels
Display	LCD
Control mode	Touchscreen control,external signal control or communication control
Start control signal input	Each dispensing unit has one pair of terminals for the external start signal
No bottle signal input	Each channel has individual terminals for the no bottle signal
Communication function	RS485 communication interface, Modbus protocol, communication parameters (address, baud rate, parity, stop bit) can be set through touchscreen
Dispensing calibration	Dispensing volume of every channel can be calibrated through percentage, volume, weight or average weight method.
Channel enable	Every channel can be set as enable or disable
Fill/Backflow	All channels can be fast filling or backflowing at high speed simultaneously or separately
Channel address	Communication address of each channel can be set through independent membrane key and displayed on independent LED
Password function	Protect the system parameters and prevent misoperation through the password function
Dispensing parameter set	Dispensing parameters can be saved as a parameter set which can be invoked easily without reset it.
Dispensing unit dimension(L×W×H)	FU4B-1 (4 channels): 663mm×218mm×177mm FU5B-1 (5 channels): 823mm×218mm×177mm
Controller dimension(L×W×H)	228mm×60mm×146mm
Power supply	FU4B-1/FU5B-1: AC220V±20%/300W, FC32S-1: AC90V-260V/10W
Operating temperature	0 to 40°C
Relative humidity	＜80%
IP rating	IP31
Weight	FU4B-1: 12kg, FU5B-1: 15kg, controller: 1.7kg



Model (Product Code)	Pump Head	Ref. Dispensing Volume(mL)	Tubing	Ref.Dispensing time(s)	Accuracy	Ref. Dispensing ID(mm)	Productivity (pcs/min)
Dispensing System FU4B-1 (05.11.02A) FU5B-1(05.11.03A) Controller FC32S-1 (05.49.27A)	YZ1515x YZII15 FG15-13	0.3-0.5	13#	1-1.2	≤±2%	≤0.5	27-30
		1.0-2.3	14#			≤1.0	
		2.6-5.1	19#			≤1.5	
		4.6-9.1	16#			≤2.0	
		10-19	25#			≤3.0	
		15-30	17#			≤3.0	
	YZ2515x	8.0-17	15#			≤3.0	
		12-24	24#			≤3.0	
	YZII25	8.5-17	15#			≤3.0	
		15-24	24#			≤3.0	
		18-36	35#			≤3.0	
		25-48	36#			≤3.0	
	FG25-13	9-17	15#			≤3.0	
		12-24	24#			≤3.0	
	DMD15-13-B DMD15-13-D	0.1-0.9	2×13#			≤0.5	
		0.2-2.3	2×14#			≤1.0	
		0.5-5.9	2×19#			≤2.0	
		2.0-10	2×16#			≤3.0	
		5.0-25	2×25#			≤3.0	

Dispensing & Filling System - Peristaltic Pump

FK1-100Z

FK1-100Z is mainly designed for automatic filling & dispensing machines.
Each unit has four channels and one controller.
With modular structure, the channel number can be extended by mechanically connecting units.

Dispensing volume	0.5mL-100mL
Dispensing time	0.5 to 30s
Speed	1rpm-600 rpm
Back suction time	0 to 1s
Dispensing calibration	Calibrate dispensing volume to improve accuracy
Start/stop control signal input	1 switch signal
No bottle signal input	4 switch signals corresponding to 4 channels
Power-off memory	Storing the running parameter automatically
Communication interface	RS485
Dimension (L×W×H)	800×200×174 (mm)
Power supply	AC 220±10%/300W
Operating temperature	0 to 40°C
Relative humidity	＜80%
IP rating	IP31
Weight	18.7kg

Model	Product Code	Pump Head	Dispensing Volume (mL)	Tubing	Dispensing Time (s)	Accuracy	Dispensing Head ID(mm)	Productivity (pcs/min)
FK1-100Z-B	05.11.00B	YZ1515x	2-3	14#	1-1.5	≤±2%	≤1.5	30-24
			3-6	19#	1-2		≤2.0	30-20
			6-12	16#	1-2		≤3.0	30-20
			12-20	25#	1-1.6		≤3.0	30-23
			20-40	17#	1-2		≤3.0	30-20
		YZ2515x	12-20	15#	1-1.6		≤3.0	30-23
			20-40	24#	1-2		≤3.0	30-20

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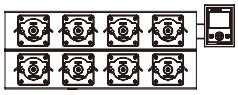
Dispensing & Filling System - Peristaltic Pump

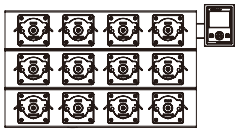
FB16-1

FB16-1 is mainly designed for automatic filling & dispensing machines. FB16-1 has higher precision than FK1-100Z. Each unit has four channels. With modular structure, one controller can control up to four units.

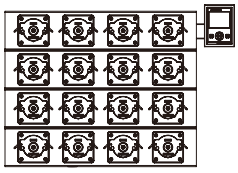
Dispensing volume	0.1mL-50mL
Dispensing time	0.5 to 30s
Speed	Automatic calculate speed according to dispensing volume and dispensing time
Back suction angle	0°-1000°
Rinse speed	Tubing rinsing or pre-filling, 15rpm-350rpm
Dispensing volume calibration	Calibrate dispensing volume to improve accuracy
Online dispensing volume adjustment	The dispensing volume can be adjusted in mid-process according to actual demand
Copy number	1-60000, "0" means unlimited cycle
Start/stop control signal input	1 switch signal
No bottle signal input	4 switch signals corresponding to 4 channels
Power-off memory	Storing the running parameter automatically
Communication interface	RS485, support modbus protocol
Dimension (L×W×H)	640×265×130 (mm)
Power supply	AC 220V±10%/150W
Operating temperature	0 to 40°C
Relative humidity	＜80%
IP rating	IP31
Weight	11.5kg



Double groups (8 channels) of filling & dispensing system



Triple groups (12 channels) of filling & dispensing system



Four groups (16 channels) of filling & dispensing system

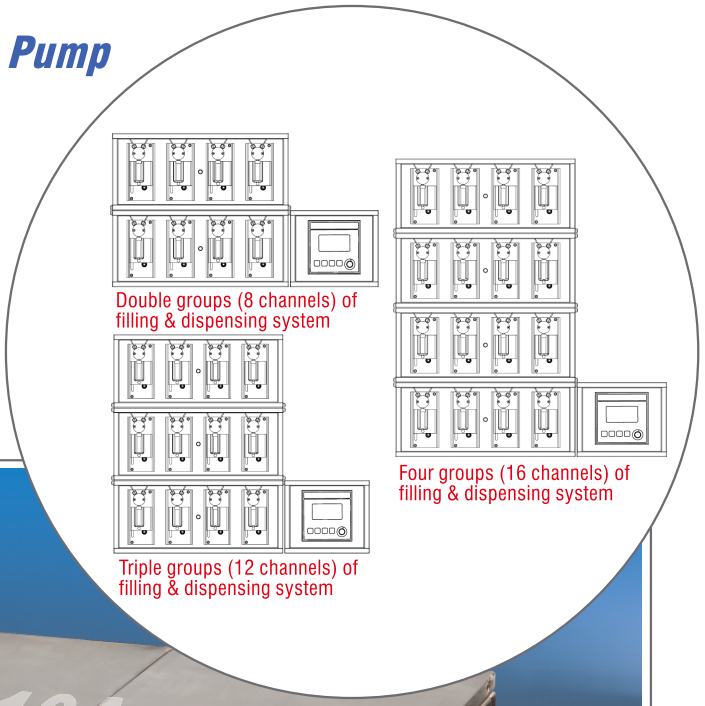
Model	Product Code	Pump Head (Housing Material)	Dispensing Volume (mL)	Tubing	Dispensing Time (s)	Accuracy	Dispensing ID (mm)	Productivity (pcs/min)
FB16-1-A	05.11.01A	DMD15-13-A (PESU) DMD15-13-C (PPS)	0.1-0.3	2×13#	0.5-0.7	±6μL	≤0.5	40-35
			0.3-0.6		0.7-1.1	±2%	≤0.5	35-28
			0.6-1.0		1.1-1.7	±1%	≤0.5	28-22
			1.0-2.0	2×14#	0.6-0.9	±2%	≤1.0	37-31
			2.0-4.0		0.9-1.6	±1%	≤1.0	31-23
			2.0-3.0	2×19#	0.7-0.9	±2%	≤1.5	35-31
			3.0-5.0		0.8-1.3	±1%	≤1.5	33-26
			4.0-6.0	2×16#	0.8-1.0	±2%	≤2.0	33-30
			6.0-10.0		1.0-1.6	±1%	≤2.0	30-23
			6.0-10.0	2×25#	0.6-0.8	±2%	≤3.0	37-33
			10.0-30.0		0.8-2.0	±1%	≤3.0	33-20

Dispensing & Filling System - Syringe Pump

HMD04-1

Mainly used in filling & dispensing machine. With high accuracy, suitable for small volume dispensing.

Each unit has four channels. With modular structure, one controller can control up to four units.



Accuracy	≤1% (dispensing volume is the 100% of syringe capacity)
Precision	Repeatability≤0.5% (dispensing volume is the 100% of syringe capacity) Repeatability≤2% (dispensing volume is more than 20% of syringe capacity)
Dispensing volume	100μL-5mL (dispensing volume is the 20%-100% of syringe capacity)
Speed	8.3μL/s to 2.5mL/s
Dispensing & filling time	Automatically calculate the time based on volume and speed
Pause time of dispensing	0 to 3600s
Copy number	1 to 30000, “0” means unlimited cycle
Calibration	Each channel dispensing volume is calibrated separately
Number of pretreatment, back flow, rinse	1 to 100
Syringe	500μL, 1mL, 2.5mL, 5mL, full stroke is 30mm
Wetted material	Borosilicate glass, PTFE, PCTFE
Max. pressure	0.68Mpa
Tubing fitting	1/4"-28 thread
Syringe fitting	1/4"-28 thread
Control mode	Control panel or external control
Dispensing start signal input	TTL signal, high level to trigger (all channels are controlled synchronously)
Rinse signal input	TTL signal, high level to trigger (all channels are controlled synchronously)
No bottle signal input	TTL signal, low level to trigger (each channel is controlled separately)
Dimensions (L×W×H)	600mm×256mm×170mm (Controller and drive unit)
Power supply	AC 90V-260V/60W
Operating temperature	15 to 40℃
Relative humidity	＜80%
IP rating	IP31, Stainless steel housing
Weight	10kg (Controller + one unit)

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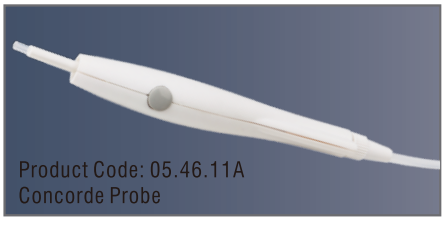
Diluter & Dispenser System

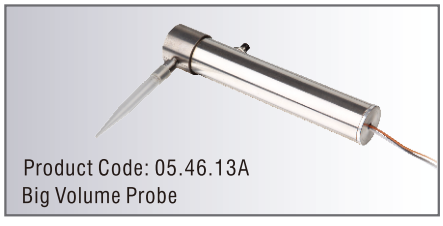
SMD01-1, SMD02-1

Major applications is for laboratories to replace traditional manual dilution and dispensing.
Dispensing modes: Aliquot, serial, simple, pipette, titrate dispensing mode.
Dilution modes: simple, Serial (Programmed), Serial (Tube to Tube), Multi-sample/reagent.
User-Define mode.

Accessories


Product Code: 05.46.11A
Concorde Probe

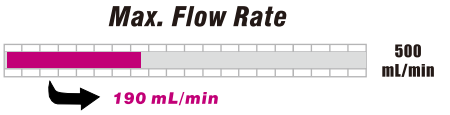
Product Code: 05.46.12A
Dual hand Probe


Product Code: 05.46.13A
Big Volume Probe

Specifications / Model	SMD01-1	SMD02-1	
		Dispensing	Diluting
Channel	1	2	1
Max. dilution proportion	1:50		1:25000
Accuracy	≤1% (Liquid volume≥30% of syringe capacity)		
Precision	Repeatability≤0.5% (Liquid volume≥30% of syringe pump)		
Liquid volume	1μL-25mL (2%-100% of syringe capacity)		
Liquid volume resolution	0.017% of syringe capacity		
Flow rate	2.5μL/min-1250mL/min		
Control mode	Computer control by software		
Syringe	50μL, 100μL, 250μL, 500μL, 1mL, 2.5mL, 5mL, 10mL, 25mL; full stroke is 60mm		
Probe type	Concorde probe or big volume probe	Dual hand probe or big volume probe	Concorde probe or big volume probe
Wetted material	Borosilicate glass, PTFE, PCTFE		
Tubing fitting	1/4"-28 thread		
Syringe fitting	1/4"-28 thread		
Communication interface	RS232 or Bluetooth		
Dimensions (L×W×H)	216×195×302 (mm)		
Power supply	AC 90V-260V/36W	AC 90V-260V/72W	
Operating temperature	15 to 40°C		
Relative humidity	＜80%		
Weight	3.5kg	5.5kg	

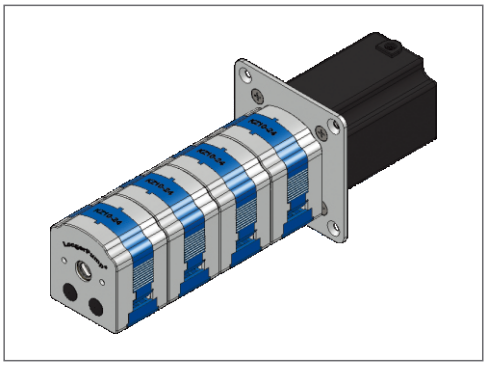
OEM Peristaltic Pump Head

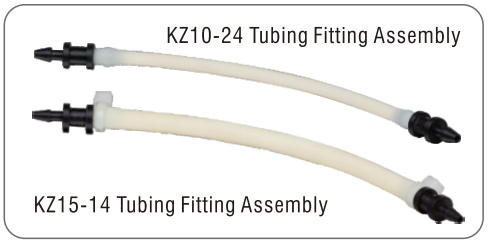
KZ10-24, KZ15-14



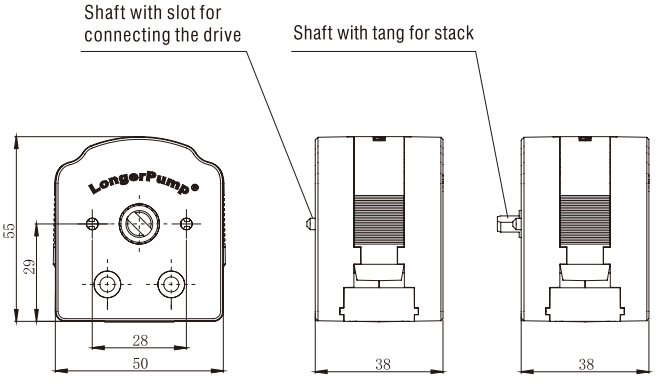
Compact structure, suitable for OEM peristaltic pump.

Two to four heads can be stacked for multi-channel applications.





Installation Drawing



KZ10-24 tubing clamper

KZ15-14 tubing clamper

Model	Shaft	Product Code	Channel Number	Roller Number	Roller Material	Housing Material	Speed (rpm)	Tubing	Max. Flow Rate (mL/min)	Weight (kg)
KZ10-24-A	Slot	05.01.27A	2	4	POM	POM	≤450	ID≤2.79(mm) Wall thickness 0.86(mm)	104	0.1
KZ10-24-B	Tang	05.01.27B								
KZ10-24-C	Slot	05.01.27C			PVDF	PVDF				
KZ10-24-D	Tang	05.01.27D								
KZ15-14-A	Slot	05.01.28A	1		POM	POM		13# 14# 19# 16#	190	
KZ15-14-B	Tang	05.01.28B								
KZ15-14-C	Slot	05.01.28C			PVDF	PVDF				
KZ15-14-D	Tang	05.01.28D								

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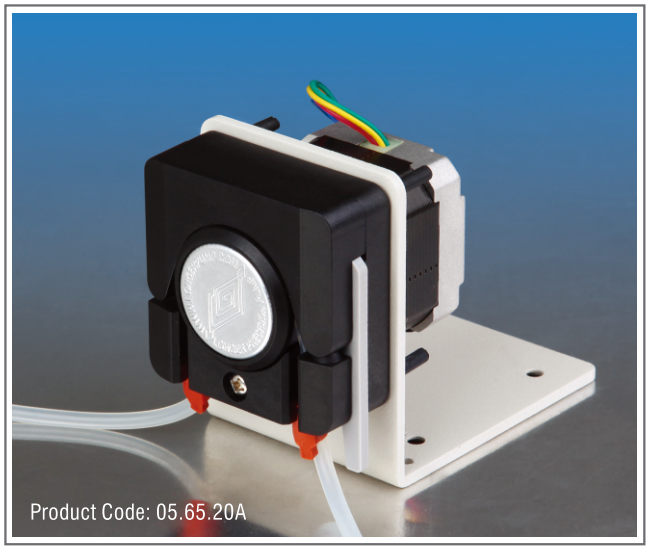
OEM Peristaltic Pump Without Drive

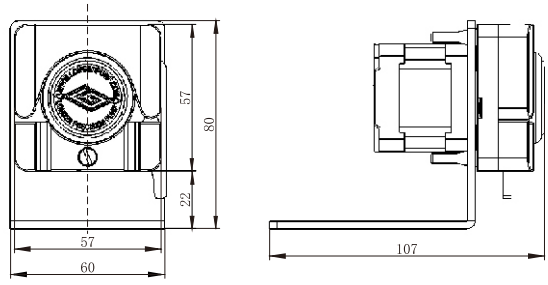
Max. Flow Rate

T-S109&WX10-14



Use WX10-14 pump head and step motor.
Ideal OEM peristaltic pump for equipment and instruments.
Soleplate installation is standard, panel installation is optional.

Installation Drawing



Pump Specification

Speed	≤60rpm
Max. Flow Rate	24mL/min
Tubing	ID≤3.17mm, wall thickness 0.8mm-1.0mm
Dimension (L×W×H)	107×60×80 (mm)
Relative humidity	＜80%
Operating temperature	0 to 40℃

Motor Specifications

Step angle	1.8°
Phase	2
Phase voltage	9V
Phase current	0.6A
Resistance	15Ω±10%
Inductance	24mH±20%

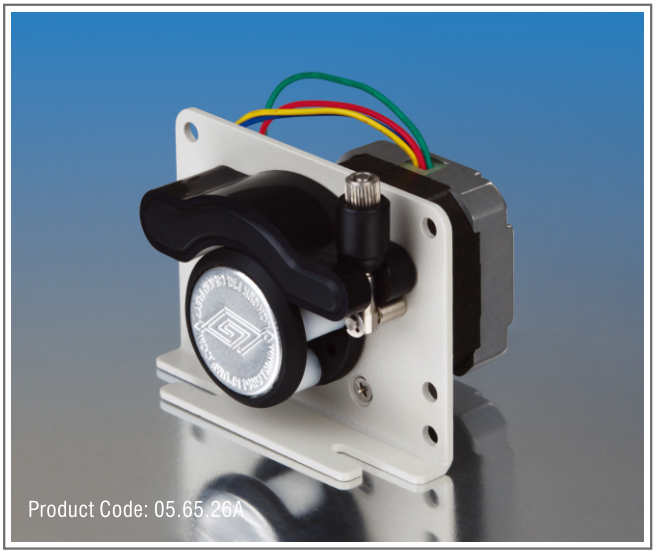
Motor Port

Line Color	Definition
Red	A
Green	$\overline{A}$
Yellow	B
Blue	$\overline{B}$

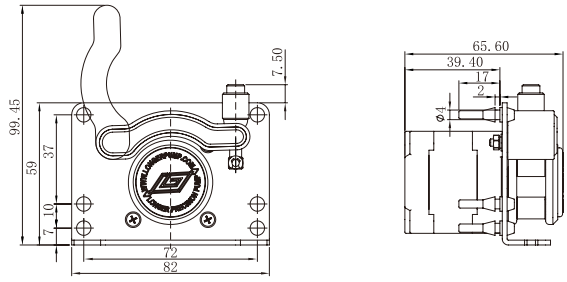
ODM Peristaltic Pump Without Drive

Max. Flow Rate

T-S113&JY10-14



Use JY10-14 pump head and step motor.
Ideal OEM peristaltic pump for equipment and instruments.
Panel installation is standard, Soleplate installation is optional.



Pump Specification

Speed	≤60rpm
Max. flow rate	24mL/min
Tubing	ID≤3.17mm Wall thickness 0.8-1.0(mm)
Dimension(L×W×H)	66×82×100(mm)
Relative humidity	＜80%
Operating temperature	0 to 40℃

Motor Specifications

Step angle	1.8°
Phase	2
Phase voltage	9V
Phase current	0.6A
Resistance	15Ω±10%
Inductance	24mH±20%

Motor Port

Line Color	Definition
Red	A
Green	$\overline{A}$
Yellow	B
Blue	$\overline{B}$

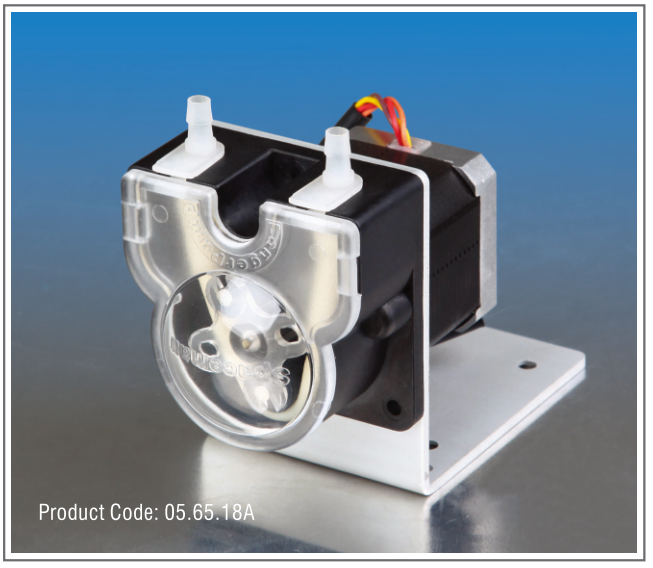
OEM Peristaltic Pump Without Drive

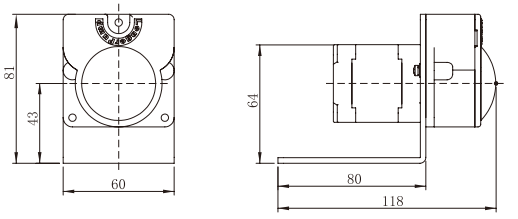
Max. Flow Rate

500 mL/min

170 mL/min

T-S107&JY15-12





Use JY15-12 pump head and step motor.
Ideal OEM peristaltic pump for equipment and instruments.
Soleplate installation is standard, panel installation is optional.

Pump Specification

Speed	≤100rpm
Dimension(L×W×H)	118×60×81(mm)
Relative humidity	<80%
Operating temperature	0 to 40℃

Tubing	Max. Flow Rate (mL/min)
25#	118mL/min
17#	170mL/min

Motor Specifications

Step angle	1.8°
Phase	2
Phase voltage	6.56V
Phase current	0.8A
Resistance	8.2Ω±10%
Inductance	13.8mH±20%

Motor Port

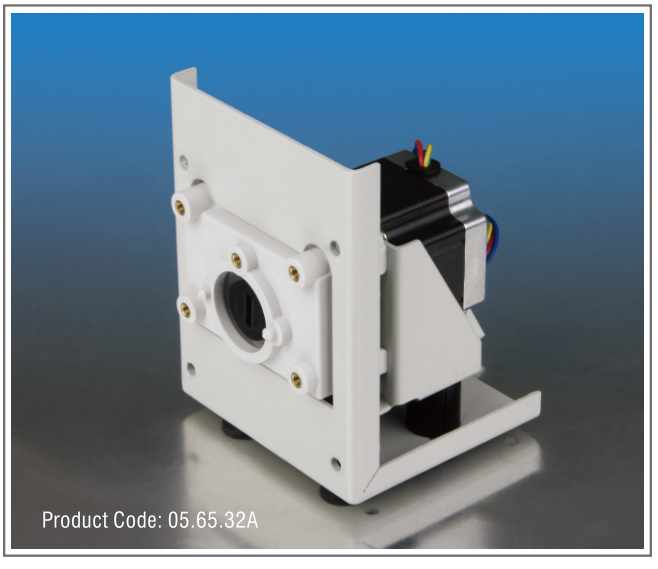
Line Color	Definition
Brown	A
Orange	$\overline{A}$
Red	B
Yellow	$\overline{B}$

T-S201 OEM Peristaltic Pump Without Drive

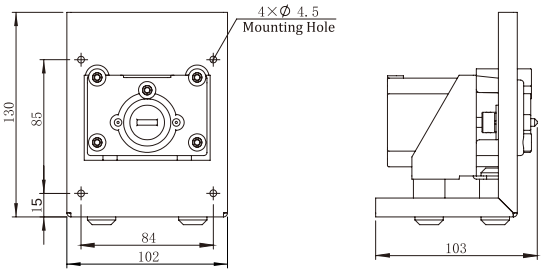
Max. Flow Rate

5000 mL/min

1140 mL/min



Use step motor. Standard pump head mounting bracket can be fitted with several different pump heads.
Ideal OEM peristaltic pump for equipment and instruments.
Soleplate or panel installation.



Pump Head	Tubing	Max. Flow Rate (mL/min)
YZ1515x, YZII15	13# 14# 19# 16# 25# 17# 18#	1140
YZ2515x, YZII25	15# 24#	840
DG-1(6), DG-2(6)	ID ≤3.17 (mm)	48 (Single Channel)
DG-1(10), DG-2(10)	Wall Thickness 0.8-1 (mm)	32 (Single Channel)
BZ15-13-A	14#	75
BZ15-13-B	16#	230
BZ15-13-C	25#	480
BZ15-13-D	17#	840
BZ25	24#	800
FG15-13-B	13# 14# 19# 16# 25# 17# 18#	1300
FG25-13-B	15# 24#	900
DMD15-13-B DMD15-13-D	2×13# 2×14# 2×19# 2×16# 2×25#	1050

Pump Specification

Speed with DG pump head	≤100rpm
Speed with other pump head	≤300rpm
Dimension (L×W×H)	103×102×130 (mm)
Relative Humidity	<80%
Operating Temperature	0 to 40℃

Motor Specifications

Step angle	1.8°
Phase	2
Phase voltage	2.1V
Phase current	1.5A
Resistance	1.4Ω±10%
Inductance	4.3mH±20%

Motor Port

Line Color	Definition
Red	A
Green	$\overline{A}$
Yellow	B
Blue	$\overline{B}$

OEM Peristaltic Pump Without Drive

Max. Flow Rate

T-S117

Step Motor.
Special pump head mounting bracket can be fitted with KZ15-14 or KZ10-24 pump head.
Ideal OEM peristaltic pump for equipments and instruments.
Panel installation as standard.
Soleplate installation is optional.

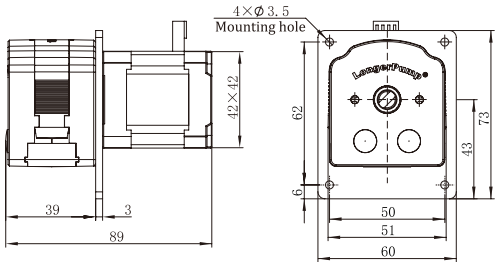
Motor Specifications

Step angle	1.8°
Phase	2
Phase voltage	5.8V
Phase current	0.8A
Resistance	7.2Ω ±10%
Inductance	13.8mH±20%

Motor Port

Line Color	Definition
Red	A
Green	$\overline{A}$
Yellow	B
Blue	$\overline{B}$

Installation Drawing



Pump Specification

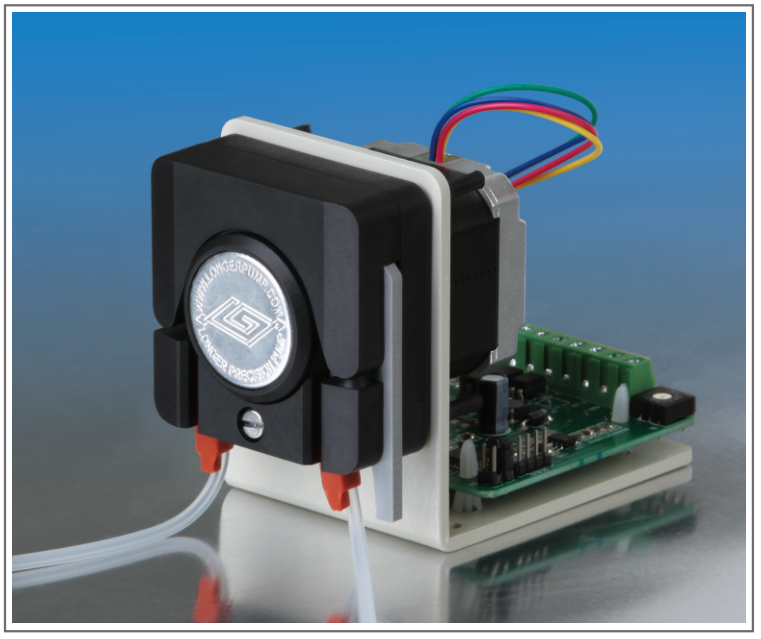
Speed	≤100rpm
Dimension(L×W×H)	89×60×73(mm)
Relative humidity	＜80%
Operating temperature	0 to 40℃

Model (Product Code)	Pump Head (Product Code)	Channel Number	Roller Number	Roller/Housing Material	Speed (rpm)	Tubing	Max. Flow Rate (mL/min)
T-S117 (05.65.29A)	KZ10-24-A (05.01.27A)	2	4	POM	≤100rpm	ID≤2.79mm Wall thickness 0.86mm	23
	KZ10-24-C (05.01.27C)			PVDF			
	KZ15-14-A (05.01.28A)	1		POM		13# 14# 19# 16#	42
	KZ15-14-C (05.01.28C)			PVDF			

OEM Variable Speed Peristaltic Pump

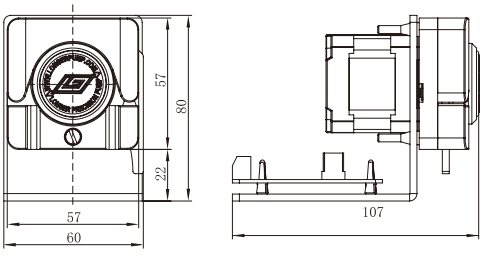
Max. Flow Rate

T60&WX10 Series



Use WX10-14 pump head, multi-control modes.
Ideal OEM peristaltic pump for equipment and instruments.
Soleplate installation is standard, panel installation is optional.

Installation Drawing



Pump Specification

Items	Specification
Speed	≤60rpm
Speed resolution	0.1rpm
Max. flow rate	24mL/min
Tubing	ID≤3.17mm wall thickness 0.8mm-1.0mm
*Direction control	Direction is controlled by external switch signal.CW when switch is open, CCW when switch is closed
*Start/stop control	Start/stop is controlled by external switch signal. Pump runs when switch is open, stops when switch is closed
*BCD dial switch speed control	The speed is divided into 15 grades. BCD position 1-F corresponding to 1, 3, 5, 8, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60 (rpm)
*External speed control (optional)	4-20mA corresponding to 0.1-60rpm; 0-5V corresponding to 0-60rpm; 0-10V corresponding to 0-60rpm; 0-10kHz corresponding to 0-60rpm
**Communication pump ID	Pump ID range is 1-30, 31 is broadcast address
**Bit rat	1200bps or 9600bps
Dimension (L×W×H)	107×60×80(mm)
Relative humidity	＜80%
Operating temperature	0 to 40°C
Power supply	DC11.4V-25.2V/10W

Note: Items with * are only available for products with dial switch and external speed control signal.
Items with ** are only available for product with RS485.

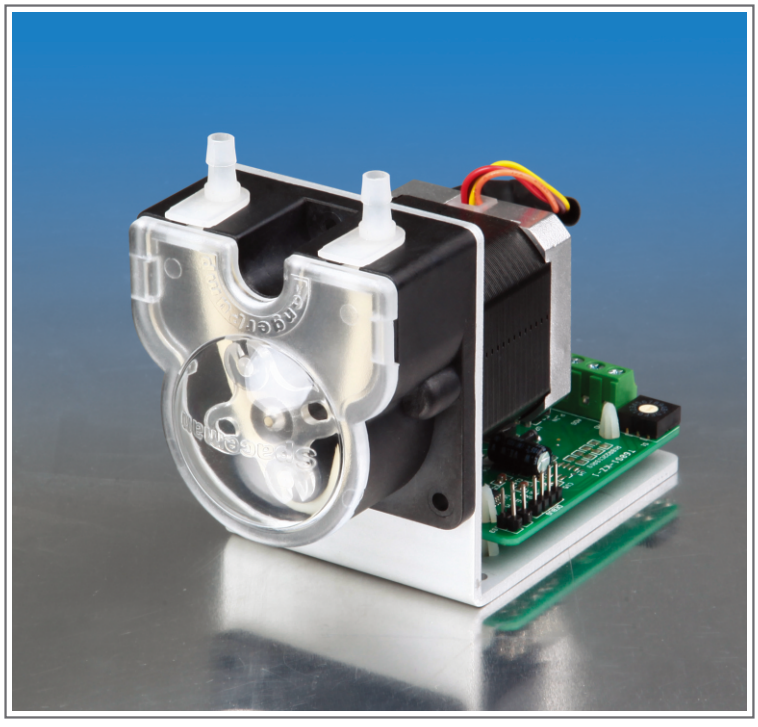
Pump Selection Table

Model	Product Code	Control Mode
T60-S1&WX10-14-A	05.57.01A	Dial switch and external signal (4-20mA)
T60-S2&WX10-14-A	05.57.11A	Dial switch and external signal (0-5V)
T60-S3&WX10-14-A	05.57.21A	Dial switch and external signal (0-10V)
T60-S4&WX10-14-A	05.57.31A	Dial switch and external signal (0-10kHz)
T60-S50&WX10-14-A	05.57.41A	RS485 communication

OEM Variable Speed Peristaltic Pump

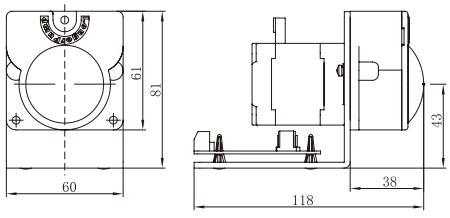
Max. Flow Rate

T100&JY15-12 Series



Use JY15-12 pump head, multi-control modes. Ideal OEM peristaltic pump for lots of instruments. Soleplate installation is standard, panel installation can be customized.

Installation Drawing



Tubing	Max. Flow Rate (mL/min)
25#	118mL/min
17#	170mL/min

Pump Specification

Items	Specification
Speed	≤100rpm
Speed resolution	0.1rpm
*Direction control	Direction is controlled by external switch signal.CW when switch is open, CCW when switch is closed
*Start/stop control	Start/stop is controlled by external switch signal. Pump runs when switch is open, stops when switch is closed
*BCD dial switch speed control	The speed is divided into 15 grades. BCD position 1-F corresponding to 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100 (rpm)
*External speed control (optional)	4-20mA corresponding to 0.1-100rpm; 0-5V corresponding to 0-100rpm; 0-10V corresponding to 0-100rpm; 0-10kHz corresponding to 0-100rpm
**Communication pump ID	Pump ID range is 1-30, 31 is broadcast address
**Bit rate	1200bps or 9600bps
Dimension (L×W×H)	118×60×81(mm)
Relative humidity	＜80%
Operating temperature	0 to 40℃
Power supply	DC11.4V-25.2V/12W

Note: Items with * are only available for products with dial switch and external speed control signal.
Items with ** are only available for product with RS485.

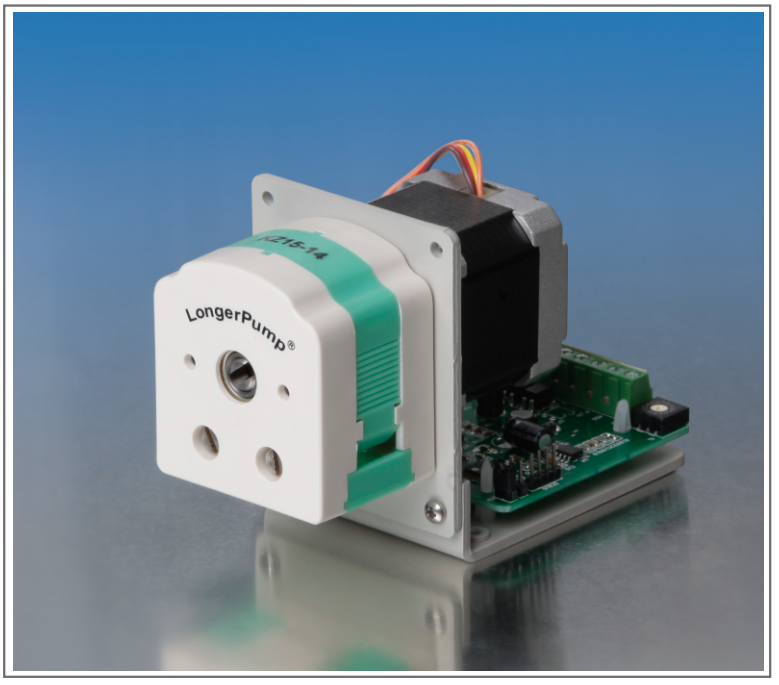
Pump Selection Table

Model	Product Code	Control Mode
T100-S9&JY15-12-A	05.59.33A	Dial switch and external signal (0-10kHz)
T100-S10&JY15-12-A	05.59.03A	Dial switch and external signal (4-20mA)
T100-S11&JY15-12-A	05.59.13A	Dial switch and external signal (0-5V)
T100-S12&JY15-12-A	05.59.23A	Dial switch and external signal (0-10V)
T100-S101&JY15-12-A	05.59.43A	RS485 communication

OEM Variable Speed Peristaltic Pump

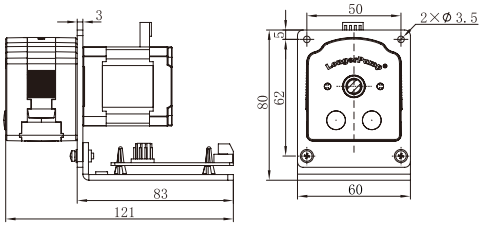
Max. Flow Rate

T100-S15/S25/S35/S45/S55



Multi-control Modes.
Special pump head mounting bracket can be fitted with KZ15-14 or KZ10-24 pump head.
Ideal OEM peristaltic pump for equipment and instruments.
Soleplate and panel can be seperated, and both soleplate installation and panel installation are available.

Installation Drawing



Pump Specification

Items	Specification
Speed	≤100rpm
Speed resolution	0.1rpm
*Direction control	Direction is controlled by external switch signal. CW when switch is open, CCW when switch is closed.
*Start/stop control	Start/stop is controlled by external switch signal. Pump runs when switch is open, stops when switch is closed.
*BCD dial switch speed control	The speed is divided into 15 grades. BCD position 1-F corresponding to 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100 (rpm).
*External speed control(optional)	4-20mA corresponding to 0.1-100rpm, 0-5V corresponding to 0-100rpm, 0-10V corresponding to 0-100rpm, 0-10kHz corresponding to 0-100rpm.
**Communication pump ID	Pump ID range is 1-30, 31 is broadcast address.
**Bit rate	1200bps or 9600 bps
Dimension(L×W×H)	121×60×80(mm)
Relative humidity	＜80%
Operating temperature	0 to 40℃
Power supply	DC11.4V-25.2V/12W

Note: Items with * are only available for products with dial switch and external speed control signal.
Items with ** are only available for product with RS485.

Pump Selection Table

Model	Product Code	Control Mode
T100-S15	05.59.06A	Dial switch and external signal (4-20mA)
T100-S25	05.59.16A	Dial switch and external signal (0-5V)
T100-S35	05.59.26A	Dial switch and external signal (0-10V)
T100-S45	05.59.36A	Dial switch and external signal (0-10kHz)
T100-S55	05.59.46A	RS485 communication

Model (Product Code)	Pump Head (Product Code)	Channel Number	Roller Number	Roller/Housing Material	Speed (rpm)	Tubing	Max. Flow Rate (mL/min)
KZ10-24-A	05.01.27A	2	4	POM	≤100rpm	ID≤2.79mm Wall thickness 0.86mm	23
KZ10-24-C	05.01.27C			PVDF			
KZ15-14-A	05.01.28A	1		POM		13# 14# 19# 16#	42
KZ15-14-C	05.01.28C			PVDF			

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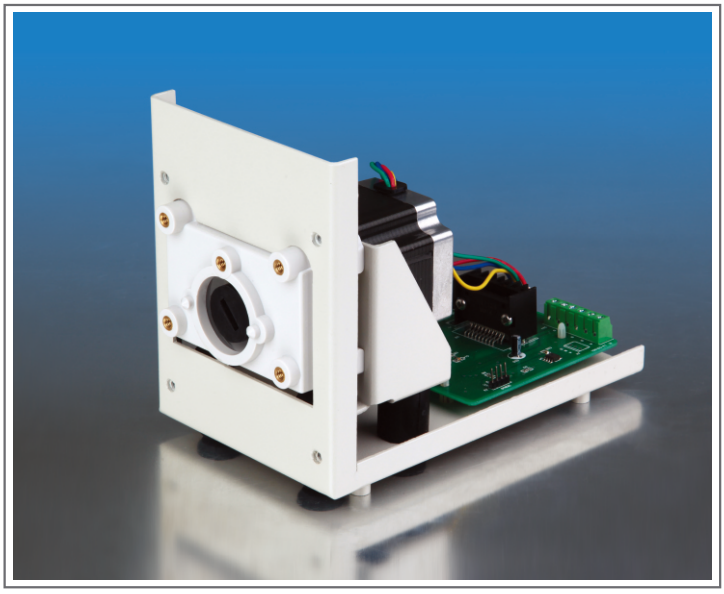
OEM Variable Speed Peristaltic Pump

Max. Flow Rate

500 mL/min

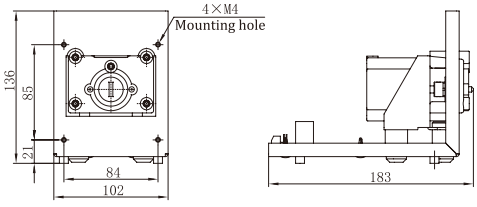
450 mL/min

T100 Series



Multi-control modes. Standard pump head mounting bracket can be fitted with several different pump heads. Ideal OEM peristaltic pump for lots of instruments. Soleplate or panel installation.

Installation Drawing



OEM PERISTALTIC PUMP

Pump Specification

Items	Specification
Speed	≤100rpm
Speed resolution	0.1rpm
*Direction control	Direction is controlled by external switch signal. CW when switch is open, CCW when switch is closed.
*Start/stop control	Start/stop is controlled by external switch signal. Pump runs when switch is open, stops when switch is closed.
*BCD dial switch speed control	The speed is divided into 15 grades. BCD position 1-F corresponding to 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 60, 70, 80, 90, 100 (rpm).
*External speed control (optional)	4-20mA corresponding to 0.1-100rpm; 0-5V corresponding to 0-100rpm; 0-10V corresponding to 0-100rpm; 0-10kHz corresponding to 0-100rpm.
**Communication pump ID	Pump ID range is 1-30, 31 is broadcast address.
**Bit rate	1200bps or 9600bps
Dimension (L×W×H)	183×102×136 (mm)
Relative humidity	<80%
Operating temperature	0 to 40°C
Power supply	DC11.4V-25.2V/20W

Note: Items with * are only available for products with dial switch and external speed control signal.
Items with ** are only available for product with RS485.

Pump Selection Table

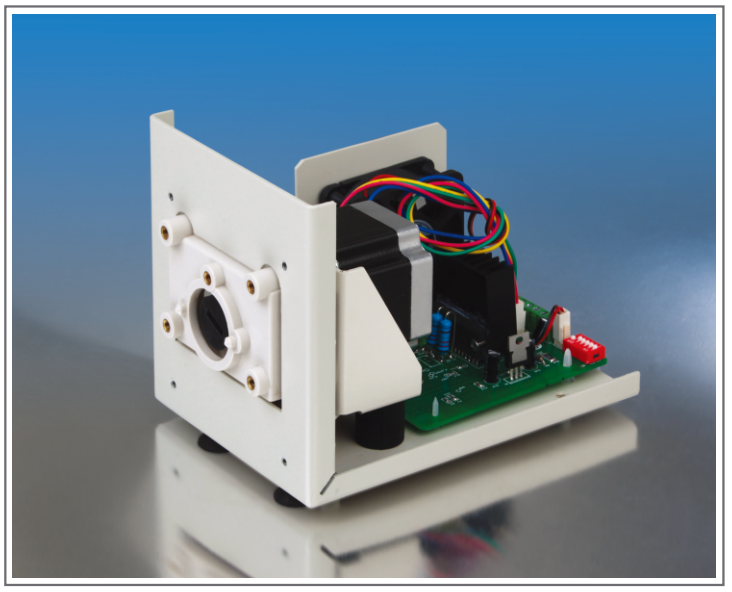
Model	Product Code	Control Mode
T100-S16	05.59.02A	Dial switch and external signal (4-20mA)
T100-S17	05.59.12A	Dial switch and external signal (0-5V)
T100-S18	05.59.22A	Dial switch and external signal (0-10V)
T100-S19	05.59.32A	Dial switch and external signal (0-10kHz)
T100-S102	05.59.42A	RS485 communication

Pump Head	Tubing	Max. Flow Rate(mL/min)
YZ1515x, YZII15	13# 14# 19# 16# 25# 17# 18#	380mL/min
YZ2515x, YZII25	15# 24#	270mL/min
DG-1(6), DG-2(6)	ID ≤3.17(mm) Wall Thickness 0.8-1(mm)	48mL/min(Single Channel)
DG-1(10), DG-2(10)		32mL/min(Single Channel)
FG15-13-B	13# 14# 19# 16# 25# 17# 18#	450mL/min
FG25-13-B	15# 24#	300mL/min
DMD15-13-B, DMD15-13-D	2×13# 4×13# 2×14# 2×19# (Silicone or PharMed) 2×16# 2×25#(silicone)	350mL/min
BZ15-13-A	14#	25mL/min
BZ15-13-B	16#	80mL/min
BZ15-13-C	25#	160mL/min
BZ15-13-D	17#	270mL/min
BZ25	24#(silicone)	270mL/min

OEM Variable Speed Peristaltic Pump

Max. Flow Rate

T300 Series

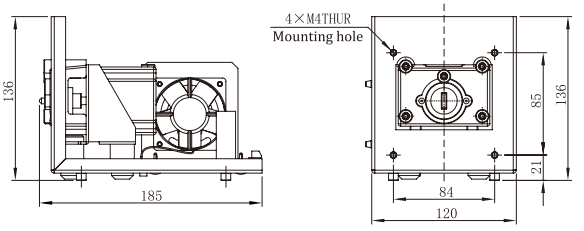


Multi-control modes.

Standard pump head mounting bracket can be fitted with several different pump heads.

Soleplate or panel instanllation.

Installation Drawing



Pump Specification

Items	Specification
Speed	≤300rpm
Speed resolution	1rpm
*Direction control	Direction is controlled by external switch signal. CW when switch is open, CCW when switch is closed.
*Start/stop control	Start/stop is controlled by external switch signal. Pump runs when switch is open, stops when switch is closed.
*BCD dial switch speed control	The speed is divided into 15 grades. BCD position 1-F corresponding to 5, 10, 20, 40, 60, 80, 100, 125, 150, 175, 200, 225, 250, 275, 300 (rpm).
*External speed control(optional)	4-20mA corresponding to 1-300rpm, 0-5V corresponding to 0-300rpm、0-10V corresponding to 0-300rpm, 0-10kHz corresponding to 0-300rpm.
**Communication pump ID	Pump ID range is 1-30, 31 is broadcast address.
**Bit rate	1200bps or 9600bps
Dimension(L×W×H)	185×120×136 (mm)
Relative humidity	＜80%
Operating temperature	0 to 40°C
Power supply	DC24V/50W

Note: Items with * are only available for products with dial switch and external speed control signal.
Items with ** are only available for product with RS485.

Pump Selection Table

Model	Product Code	Control Mode
T300-S11	05.61.001	Dial switch and external signal (4-20mA)
T300-S21	05.61.011	Dial switch and external signal (0-5V)
T300-S31	05.61.021	Dial switch and external signal (0-10V)
T300-S41	05.61.031	Dial switch and external signal (0-10kHz)
T300-S51	05.61.041	RS485 communication

Pump Head	Tubing	Max. Flow Rate (mL/min)
YZ1515x, YZII15	13# 14# 19# 16# 25# 17# 18#	1140mL/min
YZ2515x, YZII25	15# 24#	840mL/min
DG15-24	16# 25# 17#	900mL/min
DMD15-13-B, DMD15-13-D	2×13# 4×13# 2×14#(Silicone or PharMed) 2×19# 2×16# 2×25#(silicone)	1040mL/min
FG15-13-B	13# 14# 19# 16# 25# 17# 18#	1300mL/min
FG25-13-B	15# 24#	900mL/min
BZ15-13-A	14#	80mL/min
BZ15-13-B	16#	240mL/min
BZ15-13-C	25#	470mL/min
BZ15-13-D	17#	840mL/min

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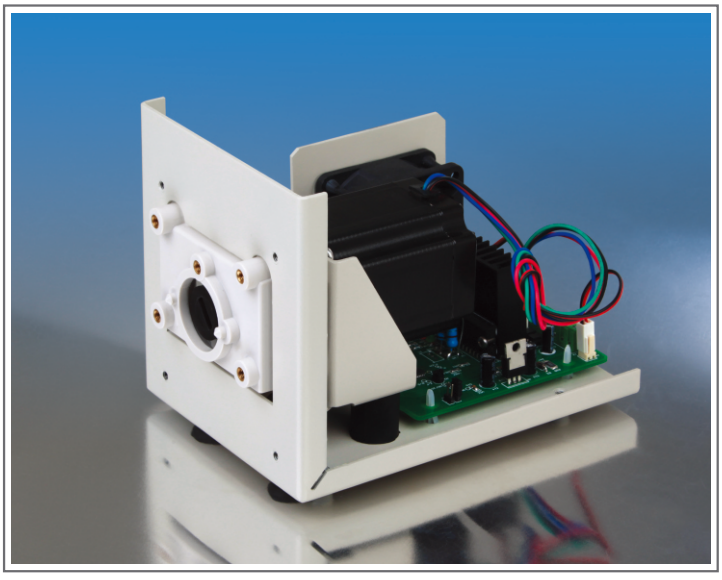
OEM Variable Speed Peristaltic Pump

Max. Flow Rate

5000 mL/min

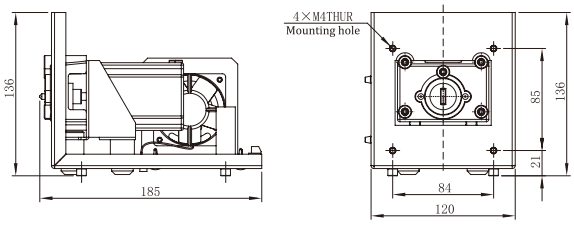
2200 mL/min

T600 Series



Multi-control modes.
Standard pump head mounting bracket can be fitted with several different pump heads.
Soleplate or panel installation.

Installation Drawing



Pump Specification

Items	Specification
Speed	≤600rpm
Speed resolution	1rpm
*Direction control	Direction is controlled by external switch signal. CW when switch is open, CCW when switch is closed.
*Start/stop control	Start/stop is controlled by external switch signal. Pump runs when switch is open, stops when switch is closed.
*BCD dial switch speed control	The speed is divided into 30 grades. In low speed grade, BCD position 1-F corresponding to 5, 10, 20, 40, 60, 80, 100, 125, 150, 175, 200, 225, 250, 275, 300 (rpm). In high speed grade, BCD position 1-F corresponding to 320, 340, 360, 380, 400, 420, 440, 460, 480, 500, 520, 540, 560, 580, 600 (rpm).
*External speed control (optional)	4-20mA corresponding to 1-600rpm, 0-5V corresponding to 0-600rpm、 0-10V corresponding to 0-600rpm, 0-10kHz corresponding to 0-600rpm.
**Communication Pump ID	Pump ID range is 1-30, 31 is broadcast address.
**Bit rate	1200bps or 9600bps
Dimension(L×W×H)	185×120×136 (mm)
Relative humidity	＜80%
Operating temperature	0 to 40°C
Power supply	DC24V/80W

Note: Items with * are only available for products with dial switch and external speed control signal.
Items with ** are only available for product with RS485.

Pump Selection Table

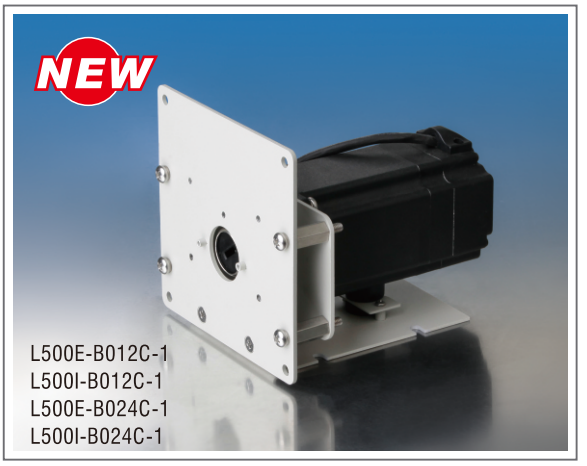
Model	Product Code	Control Mode
T600-S11	05.63.001	Dial switch and external signal (4-20mA)
T600-S21	05.63.011	Dial switch and external signal (0-5V)
T600-S31	05.63.021	Dial switch and external signal (0-10V)
T600-S41	05.63.031	Dial switch and external signal (0-10kHz)
T600-S51	05.63.041	RS485 communication

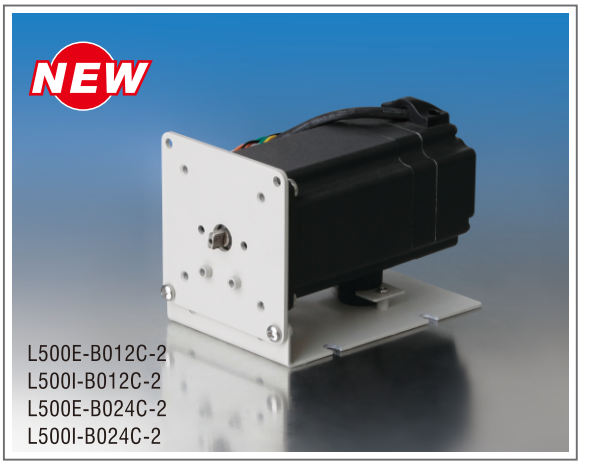
Pump Head	Tubing	Max. Flow Rate (mL/min)
YZ1515x, YZII15	13# 14# 19# 16# 25# 17# 18#	2200mL/min
YZ2515x, YZII25	15# 24#	1600mL/min
DG15-24	16# 25# 17#	1800mL/min
DMD15-13-B, DMD15-13-D	2×13# 4×13# 2×14#(Silicone or PharMed) 2×19# 2×16# 2×25#(silicone)	2070mL/min
FG15-13-B	13# 14# 19# 16# 25# 17# 18#	2150mL/min
FG25-13-B	15# 24#	1930mL/min
BZ15-13-A	14#	150mL/min
BZ15-13-B	16#	460mL/min
BZ15-13-C	25#	960mL/min
BZ15-13-D	17#	1600mL/min
BZ25-13-B	24#(silicone)	1600mL/min

OEM Variable Speed Peristaltic Pump

Max. Flow Rate

Brushless DC Motor Series



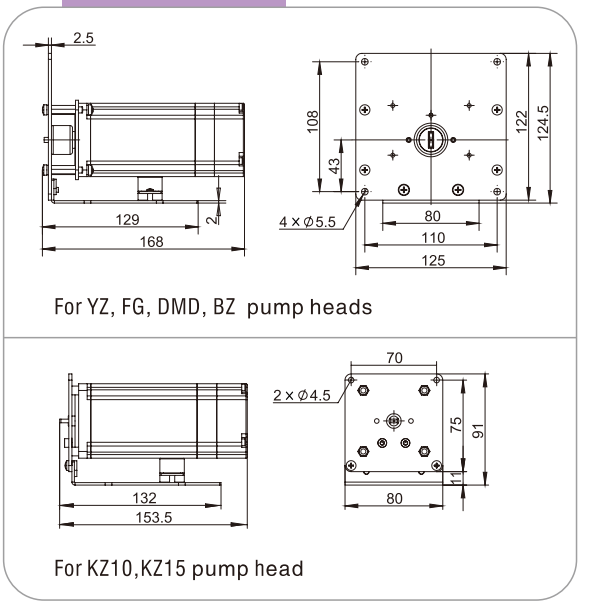


Brushless DC motor with built in controller has better reliability, longer life time and much lower noise.
Simple to control the speed by potentiometer or 0-4V analogue signal.
Fitted with different pump heads.
Soleplate or panel installation.

Pump Specification

Items	Specification
Speed	50rpm-500rpm, CW/CCW
Speed resolution	1rpm
Direction control	Direction is controlled by external switch signal. CW when switch is closed, CCW when switch is open.
Start/stop control	Start/stop is controlled by external switch signal. Pump runs when switch is closed, stops when switch is open.
Speed control	Built-in, Potentiometer control or 0-4V analogue signal control
Brake	The function of motor brake in second is controlled by external switch signal. Motor brakes when switch is closed.
Operating Tempature	0 to 40℃
Relative humidity	＜80%
Power supply	12VDC/80W or 24VDC/80W
Weight	Pump drive for YZ pump head: 2.33kg Pump drive for KZ10/KZ15 pump head: 2.03kg

Installation Drawing



Model (Product code, Speed control, Power supply)	Pump head	Tubing	Max. Flow Rate (mL/min)	Weight(kg)
L500E-B012C-1 (05.71.100, 0-4V, 12VDC) L500I-B012C-1 (05.71.101, [knob], 12VDC) L500E-B024C-1 (05.71.102, 0-4V, 24VDC) L500I-B024C-1 (05.71.103, [knob], 24VDC)	YZ1515x, YZII15	13# 14# 19# 16# 25# 17# 18#	1830	2.73
	YZ2515x	15# 24#	1330	
	YZII25	15# 24# 35# 36#(36#only can be used for the pump with 24VDC)	1830(pump with 12VDC) 2500(pump with 24VDC)	
	FG15-13	13# 14# 19# 16# 25# 17# 18#	1790	2.61
	FG25-13	15# 24#	1600	
	DMD15-13-B、DMD15-13-D	2×13# 2×14# 2×19# 2×16#	1720	2.76
	BZ15-13-A	14#	125	
	BZ15-13-B	16#	380	2.64
	BZ15-13-C	25#	800	
	BZ15-13-D	17#	1340	
	BZ25-13-B	24#	2340	
L500E-B012C-2(05.71.104, 0-4V, 12VDC) L500I-B012C-2(05.71.105, [knob], 12VDC) L500E-B024C-2(05.71.106, 0-4V, 24VDC) L500I-B024C-2(05.71.107, [knob], 24VDC)	(1、2、3、4) × KZ15-14 (Max.Speed: 450rpm)	13# 14# 19# 16#	190	2.13-2.43
	(1、2、3、4) × KZ10-24 (Max.Speed: 450rpm)	ID≤2.79mm Wall thickness 0.86mm	104	

Note: [knob]--Potentiometer with knob.

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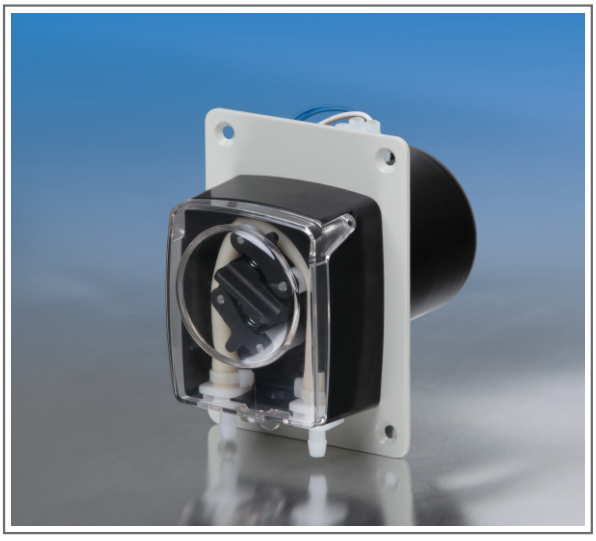
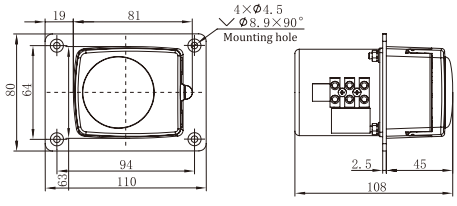
OEM Fixed Speed Peristaltic Pump

Max. Flow Rate

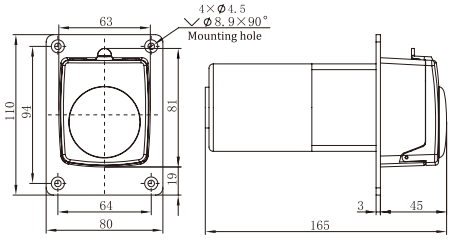
TH15 Series



AC Synchronous Motor Outline Drawing



DC/AC Motor Outline Drawing

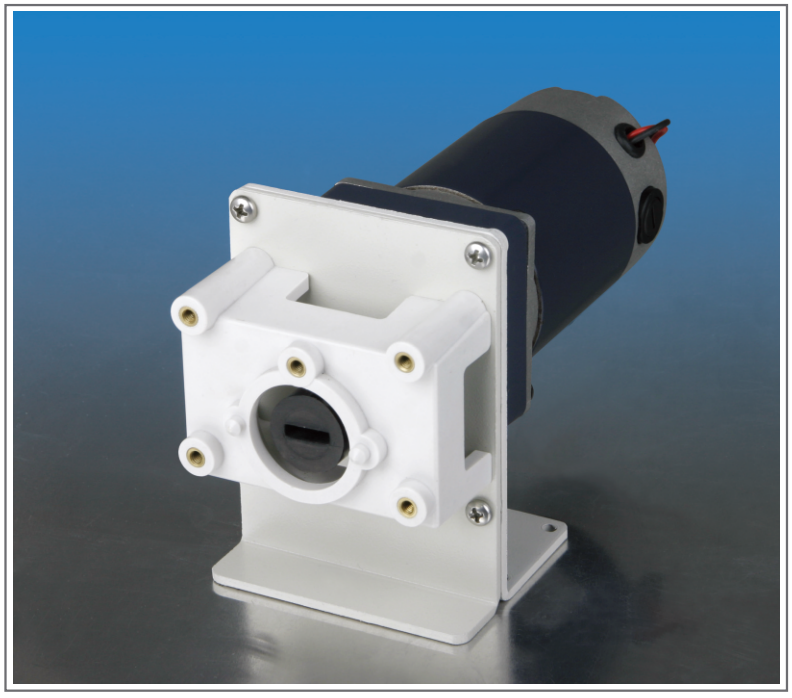


Model	Installation Mode	Product Code	Speed (rpm)	Motor	Power Supply	Speed Tolerance	Motor Life	Operating Temperature	Relative Humidity
G14-D2&TH15	Panel	05.52.01A	14	60 DC gear motor	DC 12V/15W	≤±10%	2000 hours	0 to 40°C	<80%
G28-D2&TH15		05.52.02A	28						
G56-D2&TH15		05.52.03A	56						
G93-D2&TH15		05.52.04A	93						
G15-D102&TH15		05.54.01A	15		DC 24V/15W				
G30-D102&TH15		05.54.02A	30						
G57-D102&TH15		05.54.03A	57						
G98-D102&TH15		05.54.04A	98						
G15-A2&TH15		05.56.21A	15	60 AC gear motor	AC 220V/10W		5000 hours		
G30-A2&TH15		05.56.22A	30						
G60-A2&TH15		05.56.23A	60						
G100-A2&TH15		05.56.24A	100						
G5-A102&TH15		05.56.01A	5	60 AC synchronous motor	AC 220V/14W		1500 hours		
G15-A102&TH15		05.56.02A	15						
G30-A102&TH15		05.56.03A	30						
G50-A102&TH15		05.56.04A	50						
G60-A102&TH15		05.56.05A	60						
G110-A102&TH15		05.56.11A	110						

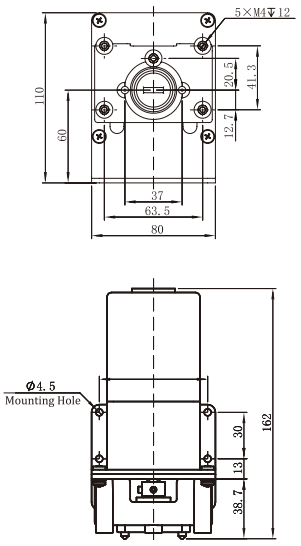
Motor	DC Gear Motor								AC Gear Motor				AC synchronous Gear Motor					
Power Supply	DC 12V				DC 24V				AC 220V									
Speed(rpm)	14	28	56	93	15	30	57	98	15	30	60	100	5	15	30	50	60	110
Tubing	Flow Rate (mL/min)																	
13#	1	2	4	7	1	2	4	7	1	2	4	7	0	1	2	4	4	8
14#	3	6	12	20	3	7	13	22	3	7	14	22	1	3	7	11	13	24
19#	7	14	28	47	8	15	30	49	8	15	31	50	3	8	15	25	30	55
16#	11	22	45	74	12	24	47	78	12	24	50	80	4	12	24	40	48	88
25#	23	47	94	155	25	50	99	164	25	50	104	167	8	25	50	84	100	184

OEM Fixed Speed Peristaltic Pump

60 Series



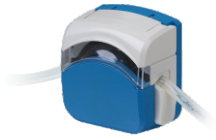
Installation Drawing



Pump Head Options

YZ1515x、YZ2515x

YZII15、YZII25



FG15-13、FG25-13

BZ25、BZ15

DG-1、DG-2
DG-4、DG-6

Model	Installation Mode	Product Code	Speed (rpm)	Motor	Power Supply	Speed Tolerance	Motor Life	Operating Temperature	Relative Humidity
G14-D1	Soleplate Panel	05.51.011	14	60 DC gear motor	DC 12V/24W	≤±10%	2000 hours	0 to 40°C	<80%
G14-D2	Panel	05.51.012	14						
G28-D1	Soleplate Panel	05.51.031	28						
G28-D2	Panel	05.51.032	28						
G56-D1	Soleplate Panel	05.51.041	56						
G56-D2	Panel	05.51.042	56						
G93-D1	Soleplate Panel	05.51.051	93						
G93-D2	Panel	05.51.052	93						
G186-D1	Soleplate Panel	05.51.311	186						
G186-D2	Panel	05.51.312	186						
G15-D101	Soleplate Panel	05.53.011	15		DC 24V/24W				
G15-D102	Panel	05.53.012	15						
G30-D101	Soleplate Panel	05.53.021	30						
G30-D102	Panel	05.53.022	30						
G59-D101	Soleplate Panel	05.53.031	59						
G59-D102	Panel	05.53.032	59						
G99-D101	Soleplate Panel	05.53.041	99						
G99-D102	Panel	05.53.042	99						
G196-D101	Soleplate Panel	05.53.311	196						
G196-D102	Panel	05.53.312	196						
G15-A1	Soleplate Panel	05.55.011	15	60 AC gear motor	AC 220V/33W		5000 hours		
G15-A2	Panel	05.55.012	15						
G30-A1	Soleplate Panel	05.55.021	30						
G30-A2	Panel	05.55.022	30						
G60-A1	Soleplate Panel	05.55.071	60						
G60-A2	Panel	05.55.072	60						
G88-A1	Soleplate Panel	05.55.041	88						
G88-A2	Panel	05.55.042	88						
G147-A1	Soleplate Panel	05.55.311	147						
G147-A2	Panel	05.55.312	147						

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Max. Flow Rate

Parameters Table

Pump Head		DG-(1, 2, 4, 6) 6 Rollers			DG-(1, 2, 4, 6) 10 Rollers				
Tubing		1×1	2×1	3×1	1×1	2×1	3×1		
Speed(rpm)	Power Supply	Flow Rate(mL/min)							
14	DC 12V	1	4	7	1	3	4		
28		2	8	13	2	6	9		
56		4	16	27	3	12	18		
93		7	26	45	6	20	30		
15	DC 24V	1	4	7	1	3	5		
30		2	8	14	2	7	10		
59		5	17	28	4	13	19		
99		8	28	48	6	22	32		
15	AC 220V	1	4	7	1	3	5		
30		2	8	14	2	7	10		
62		5	17	30	4	14	20		
88		7	25	42	5	19	28		

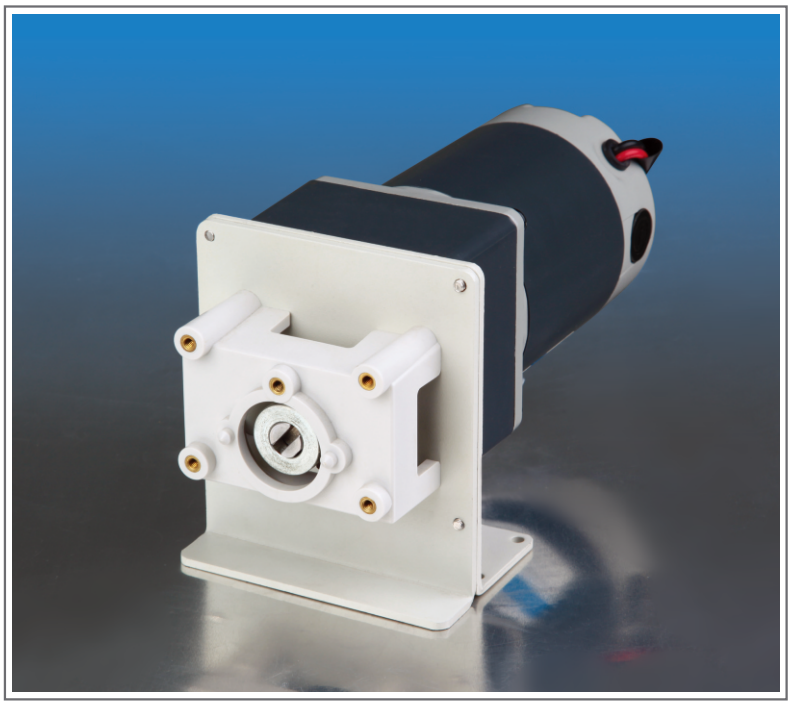
Pump Head		YZ1515x, YZII15							
Tubing		13#	14#	19#	16#	25#	17#	18#	
Speed(rpm)	Power Supply	Flow Rate(mL/min)							
14	DC 12V	1	4	6	11	22	37	51	
28		2	7	12	21	45	75	103	
56		4	14	23	43	90	149	205	
93		6	23	39	71	149	248	341	
186		12	47	78	143	298	—	—	
15	DC 24V	1	4	6	12	24	40	55	
30		2	8	13	23	48	80	110	
59		4	15	25	45	94	157	216	
99		6	25	41	76	158	264	363	
196		12	49	82	150	314	—	—	
15	AC 220V	1	4	6	12	24	40	55	
30		2	8	13	23	48	80	110	
62		4	16	26	48	99	165	227	
88		6	22	37	67	141	235	323	
147		9	37	61	113	235	—	—	

Pump Head		YZ2515x, YZII25		BZ25	BZ15-13-A	BZ15-13-B	BZ15-13-C	BZ15-13-D	
Tubing		15#	24#	24#	14#	16#	25#	17#	
Speed(rpm)	Power Supply	Flow Rate(mL/min)							
14	DC 12V	22	37	37	4	11	22	37	
28		45	75	75	7	21	45	75	
56		90	149	149	14	43	90	149	
93		149	248	248	23	71	149	248	
186		—	—	—	47	143	298	—	
15	DC 24V	24	40	40	4	12	24	40	
30		48	80	80	8	23	48	80	
59		94	157	157	15	45	94	157	
99		158	264	264	25	76	158	264	
196		—	—	—	49	150	314	—	
15	AC 220V	24	40	40	4	12	24	40	
30		48	80	80	8	23	48	80	
62		99	165	165	16	48	99	165	
88		141	235	235	22	67	141	235	
147		—	—	—	37	113	235	—	

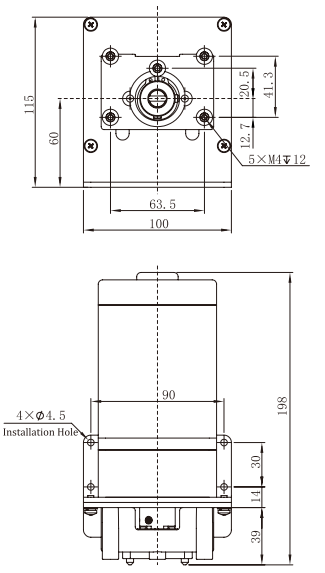
Pump Head		FG15-13-B							FG25-13-B	
Tubing		13#	14#	19#	16#	25#	17#	18#	15#	24#
Speed(rpm)	Power Supply	Flow Rate(mL/min)								
14	DC 12V	1	4	9	15	31	46	50	26	41
28		2	8	19	31	62	92	100	53	82
56		4	15	37	62	125	185	200	106	165
93		6	26	62	105	207	308	333	176	275
186		12	51	124	210	415	616	666	364	574
15	DC 24V	1	4	10	17	33	49	53	28	44
30		2	8	20	34	67	99	107	57	88
59		4	16	39	66	131	195	211	112	174
99		6	27	66	112	221	328	354	188	293
196		12	54	130	222	437	650	702	384	605
15	AC 220V	1	4	10	17	33	49	53	28	44
30		2	8	20	34	67	99	107	57	88
62		4	17	41	70	138	205	222	117	183
88		6	24	59	99	196	291	315	167	260
147		9	54	98	166	328	487	—	—	—

OEM Fixed Speed Peristaltic Pump

80 Series



Installation Drawing



Pump Head Options

YZ1515x, YZ2515x

YZII15, YZII25

FG15-13
FG25-13

BZ25, BZ15

DG15-24

Model	Installation Mode	Product Code	Speed (rpm)	Motor	Power Supply	Speed Tolerance	Motor Life	Operating Temperature	Relative Humidity
G186-D3	Soleplate Panel	05.51.313	186	80 DC gear motor	DC 12V/40W	≤±10%	2000 hours	0 to 40°C	<80%
G186-D4	Panel	05.51.314	186						
G311-D3	Soleplate Panel	05.51.511	311						
G311-D4	Panel	05.51.512	311						
G560-D3	Soleplate Panel	05.51.721	560						
G560-D4	Panel	05.51.722	560						
G196-D103	Soleplate Panel	05.53.313	196		DC 24V/40W				
G196-D104	Panel	05.53.314	196						
G327-D103	Soleplate Panel	05.53.511	327						
G327-D104	Panel	05.53.512	327						
G590-D103	Soleplate Panel	05.53.711	590						
G590-D104	Panel	05.53.712	590						
G147-A3	Soleplate Panel	05.55.313	147	80 AC gear motor	AC 220V/40W		5000 hours		
G147-A4	Panel	05.55.314	147						
G220-A3	Soleplate Panel	05.55.411	220						
G220-A4	Panel	05.55.412	220						
G366-A3	Soleplate Panel	05.55.511	366						
G366-A4	Panel	05.55.512	366						

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Max. Flow Rate

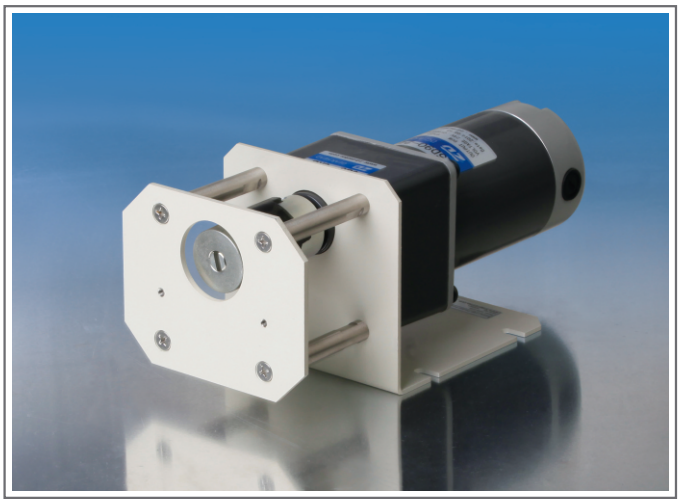
Parameters Table

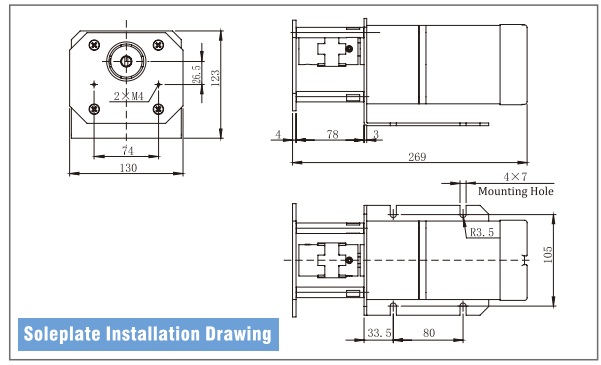
Pump Head		DG15-24							
Tubing		16#	25#	17#					
Speed(rpm)	Power Supply	Flow Rate(mL/min)							
186	DC 12V	152	357	558					
311		254	596	933					
560		457	1073	1680					
196	DC 24V	160	376	588					
327		267	627	981					
590		482	1131	1770					
147	AC 220V	120	282	441					
220		180	422	660					
366		299	702	1098					
Pump Head		YZ1515x, YZII15							
Tubing		13#	14#	19#	16#	25#	17#	18#	
Speed(rpm)	Power Supply	Flow Rate(mL/min)							
186	DC 12V	12	47	78	143	298	496	682	
311		20	78	130	238	498	829	1140	
560		35	140	233	429	896	1493	2053	
196	DC 24V	12	49	82	150	314	523	719	
327		21	82	136	251	523	872	1199	
590		37	148	246	452	944	1573	2163	
147	AC 220V	9	37	61	113	235	392	539	
220		14	55	92	169	352	587	807	
366		23	92	153	281	586	976	1342	
Pump Head		YZ2515x, YZII25		BZ25	BZ15-13-A	BZ15-13-B	BZ15-13-C	BZ15-13-D	
Tubing		15#	24#	24#	14#	16#	25#	17#	
Speed(rpm)	Power Supply	Flow Rate(mL/min)							
186	DC 12V	298	496	496	47	143	298	496	
311		498	829	829	78	238	498	829	
560		896	1493	1493	140	429	896	1493	
196	DC 24V	314	523	523	49	150	314	523	
327		523	872	872	82	251	523	872	
590		944	1573	1573	148	452	944	1573	
147	AC 220V	235	392	392	37	113	235	392	
220		352	587	587	55	169	352	587	
366		586	976	976	92	281	586	976	
Pump Head		FG15-13-B							FG25-13-B	
Tubing		13#	14#	19#	16#	25#	17#	18#	15#	24#
Speed(rpm)	Power Supply	Flow Rate(mL/min)								
186	DC 12V	12	51	9	210	415	616	666	364	574
311		20	86	207	352	694	1031	1114	663	1074
560		35	154	373	634	1250	1857	2006	1251	1820
196	DC 24V	12	54	130	222	437	650	702	384	605
327		21	90	218	370	730	1084	1171	697	1130
590		37	162	393	668	1317	1956	2114	1340	1907
147	AC 220V	9	40	98	166	328	487	526	288	454
220		14	61	146	249	491	729	788	458	688
366		23	101	244	414	817	1213	1311	781	1265

OEM Fixed Speed Peristaltic Pump

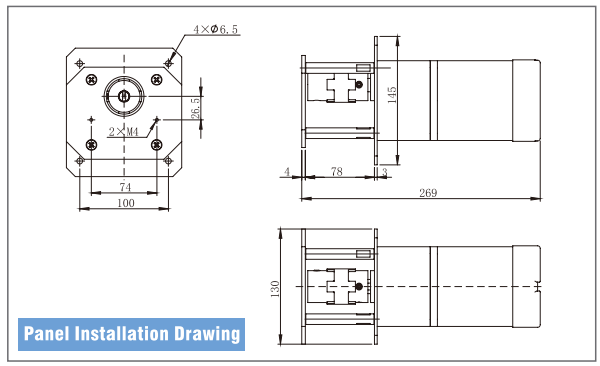
Max. Flow Rate

90-1 Series





Soleplate Installation Drawing



Panel Installation Drawing

Pump Head KZ25

Model	Installation Mode	Product Code	Speed (rpm)	Motor	Power Supply	Speed Tolerance	Motor Life	Operating Temperature	Relative Humidity
G200-D5	Soleplate Panel	05.51.411	200	90 DC gear motor	DC 12V/90W	≤±10%	2000 hours	0 to 40°C	<80%
G200-D6	Panel	05.51.412	200						
G240-D5	Soleplate Panel	05.51.421	240						
G240-D6	Panel	05.51.422	240						
G333-D5	Soleplate Panel	05.51.521	333						
G333-D6	Panel	05.51.522	333						
G500-D5	Soleplate Panel	05.51.711	500						
G500-D6	Panel	05.51.712	500						
G200-D105	Soleplate Panel	05.53.411	200		DC 24V/90W				
G200-D106	Panel	05.53.412	200						
G240-D105	Soleplate Panel	05.53.421	240						
G240-D106	Panel	05.53.422	240						
G333-D105	Soleplate Panel	05.53.521	333						
G333-D106	Panel	05.53.522	333						
G500-D105	Soleplate Panel	05.53.721	500						
G500-D106	Panel	05.53.722	500						
G208-A5	Soleplate Panel	05.55.421	208	90 AC gear motor	AC 220V/90W		5000 hours		
G208-A6	Panel	05.55.422	208						
G250-A5	Soleplate Panel	05.55.431	250						
G250-A6	Panel	05.55.432	250						
G347-A5	Soleplate Panel	05.55.521	347						
G347-A6	Panel	05.55.522	347						
G417-A5	Soleplate Panel	05.55.611	417						
G417-A6	Panel	05.55.612	417						

Power Supply	DC 12V, DC 24V				AC 220V			
Speed(rpm)	200	240	333	500	208	208	347	417
Tubing	Flow Rate (mL/min)							
15#	600	720	999	1500	624	750	1041	1251
24#	1167	1400	1943	2917	1213	1458	2024	2433
35#	1667	2000	2775	4167	1733	2083	2892	3475
36#	2000	2400	3330	5000	2080	2500	3470	4170

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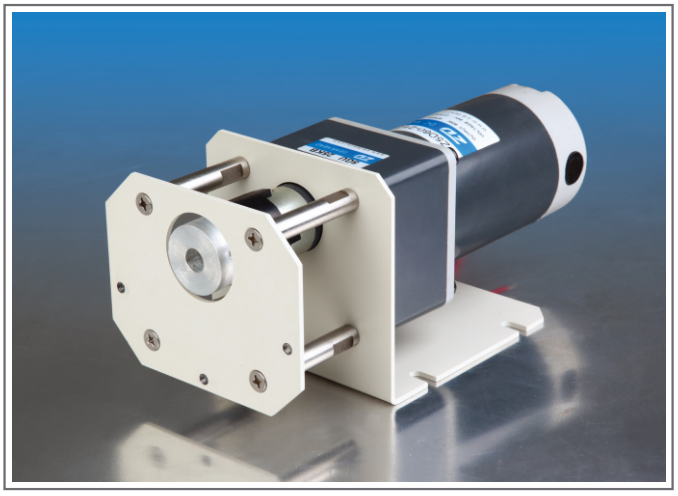
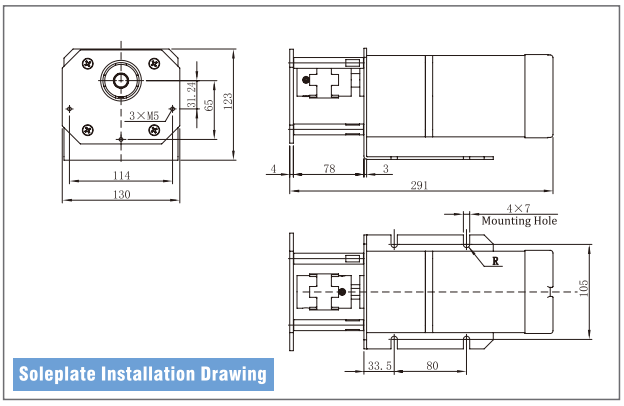
OEM Fixed Speed Peristaltic Pump

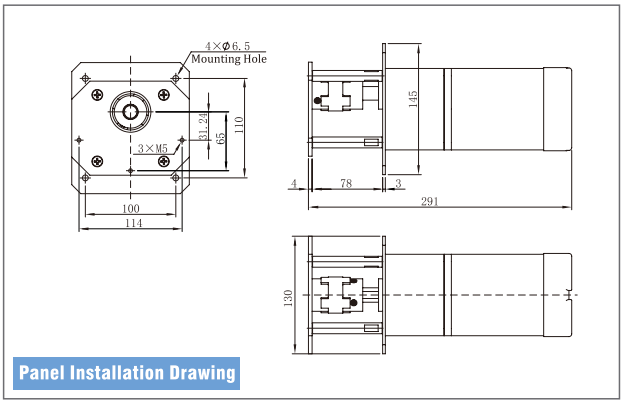
Max. Flow Rate

90-2 Series





Soleplate Installation Drawing



Panel Installation Drawing

Pump Head Options

Model	Installation Mode	Product Code	Speed (rpm)	Motor	Power Supply	Speed Tolerance	Motor Life	Operating Temperature	Relative Humidity
G240-D7	Soleplate Panel	05.51.423	240	90 DC gear motor	DC 12V/90W	≤±10%	2000 hours	0 to 40°C	<80%
G240-D8	Panel	05.51.424	240						
G333-D7	Soleplate Panel	05.51.523	333						
G333-D8	Panel	05.51.524	333						
G440-D7	Soleplate Panel	05.51.611	440						
G440-D8	Panel	05.51.612	440						
G500-D7	Soleplate Panel	05.51.713	500						
G500-D8	Panel	05.51.714	500						
G208-D107	Soleplate Panel	05.53.431	208		DC 24V/90W				
G208-D108	Panel	05.53.432	208						
G288-D107	Soleplate Panel	05.53.441	288						
G288-D108	Panel	05.53.442	288						
G346-D107	Soleplate Panel	05.53.531	346						
G346-D108	Panel	05.53.532	346						
G466-D107	Soleplate Panel	05.53.611	466						
G466-D108	Panel	05.53.612	466						
G166-A7	Soleplate Panel	05.55.321	166	90 AC gear motor	AC 220V/90W		5000 hours		
G166-A8	Panel	05.55.322	166						
G250-A7	Soleplate Panel	05.55.433	250						
G250-A8	Panel	05.55.434	250						
G347-A7	Soleplate Panel	05.55.523	347						
G347-A8	Panel	05.55.524	347						
G417-A7	Soleplate Panel	05.55.613	417						
G417-A8	Panel	05.55.614	417						

Power Supply	DC 12V				DC 24V				AC 220V			
Speed(rpm)	240	333	440	500	208	208	346	466	166	250	347	417
Tubing	Flow Rate (mL/min)											
73#	2400	3330	4400	5000	2080	2080	3460	4660	1660	2500	3470	4170
82#	4400	6105	8067	9167	3813	3813	6343	8543	3043	4583	6362	7645

Peristaltic Pump Tubing

Features of peristaltic pump tubing

- Good flexibility. Spring back after pressed radially
- Good wear abrasion resistance
- A certain extent pressure bearing capabilities
- Lower gas permeability
- Low absorption, good temperature resistance, not easy to aging, not swelling, anti-corrosion, fewer extractable.

Tubing parameters

Inner diameter and wall thickness are the main parameters of the tubing. Different manufacturers have different notations. Such as: specification codes or inner diameter × wall thickness.

Tubing materials

Silicon rubber, rubber, plastic, synthetic material, etc. Different materials have different characteristics and different applications.

Tubing selection factors

- Chemical Compatibility

When transferring different fluids, the tubing should have good chemical characteristics. Such as: low absorption, good temperature resistance, good aging characteristics, low swelling, anti-corrosion, fewer extractable.
Chemical resistance decreases as temperature increases. Chemicals that have no effect on the tubing at room temperature could attack the tubing at elevated temperatures.

Chemical compatibility test method:

When the chemical compatibility of the tubing is uncertain, an immersion test is needed. In an immersion test, a small piece of tubing is weighed, and its diameter and length are measured. The tubing then is immersed in a closed vessel with the chemical in question for a minimum of 48 hours. Afterward, the test piece of tubing is rinsed, dried, weighed and measured, and any changes are recorded. The tubing also should be examined for signs of softening or embrittlements, which indicate the chemical has attacked the tubing.
If the tubing survives the test without discoloration, swelling, cracking, loss of flow or other signs of deterioration, then it is compatible with the fluid.

- Pressure

Peristaltic pump applications typically have been limited by the pressure capabilities of the tubing.
If the pressure is too high, the tubing could swell, resulting in an improper fit through the pump head, which causes excessive wear and tubing failure.
The factors which affect the pressure are material, the proportion of diameter and wall thickness, etc.

- Temperature

The working temperature range of a tubing material is another important consideration. Different materials have different temperature range.

- Dimension

The size of the tubing has a direct effect on the amount of fluid delivered. Well-designed pumps are engineered to work with an optimum tubing size or range of tubing sizes, taking into account the tubing's inner diameter and wall thickness. The inner diameter determines the amount of fluid delivered with each turn of the rotor. The wall thickness affects the tubing's ability to spring back to its original shape after each compression, which has a great influence on the overall life of the tubing.

- Regulatory Approval

Many tubing materials are designed to meet these various regulatory approvals, including those issued by the United statuss Pharmacopoeia（USP）, European Pharmacopoeia（EP）, U.S. Food and Drug Administration（FDA）, U.S. Department of Agriculture（USDA）and National Sanitation Foundation（NSF）.

- Tubing Flex Life

Different tubing materials have differing abilities to withstand the repeated squeezing action of the rollers. In general, each tubing size, tubing material, pump head style, and operating speed in combination has its own life characteristics. Service life, or flex life in the pump, is the primary concern in a new applications. Pump performance is very consistent in a specific applications. Maximize the life of a pump system by selecting a tubing material that offers long flex life, using thicker wall tubing, and/or by operating a larger pump at slower speed.

Peristaltic Pump Tubing

Common Tubing Material

Silicone tubing: Ultra-smooth inner liner with extremely low leachables, low protein absorption, good flexibility and wide temperature range -51 to 238°C.
Various materials tubings are available.

Tubing Specifications:

Micro & small flow tubing

Tubing Sizes		0.13×0.86	0.5×0.86	0.86×0.86	1.52×0.86	2.06×0.86	2.4×0.86	2.79×0.86	3.17×0.86	1×1	2×1	3×1
Tubing cross sections (1:1)												
Wall thickness (mm)		0.86								1.0		
Inner diameter (mm)		0.13	0.5	0.86	1.52	2.06	2.4	2.79	3.17	1.0	2.0	3.0
Maximum pressure (Mpa)	Continuous	0.1										
	Intermittent	0.1										

Medium flow tubing

Tubing Sizes		13#	14#	19#	16#	25#	17#	18#	15#	24#	35#	36#
Tubing cross sections (1:1)												
Wall thickness of domestic tubing (mm)		1.6							2.4			
Wall thickness of imported tubing (inch)		1/16"							3/32"			
Inner diameter of domestic tubing (mm)		0.8	1.6	2.4	3.1	4.8	6.4	7.9	4.8	6.4	7.9	9.6
Inner diameter of imported tubing (inch)		1/32"	1/16"	3/32"	1/8"	3/16"	1/4"	5/16"	3/16"	1/4"	5/16"	3/8"
Maximum pressure (Mpa)	Continuous	0.17				0.14	0.10	0.07	0.17		0.14	
	Intermittent	0.27				0.24	0.14	0.10	0.27		0.24	

Industrial tubing

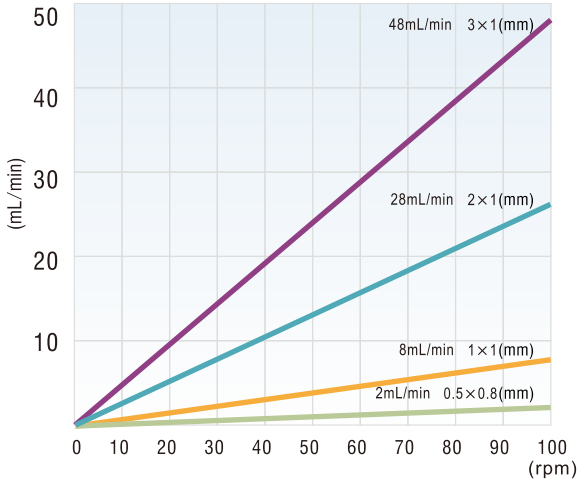
Tubing Sizes		73#	82#	88#	92#
Tubing cross sections (1:1)					
Wall thickness of domestic tubing (mm)		3.3		4.8	
Wall thickness of imported tubing (inch)		1/8"		3/16"	
Inner diameter of domestic tubing (mm)		9.6	12.7	12.7	25.4
Inner diameter of imported tubing (inch)		3/8"	1/2"	1/2"	1"
Maximum pressure (Mpa)	Continuous	0.17	0.07	0.14	
	Intermittent	0.27	0.14	0.14	

TUBING

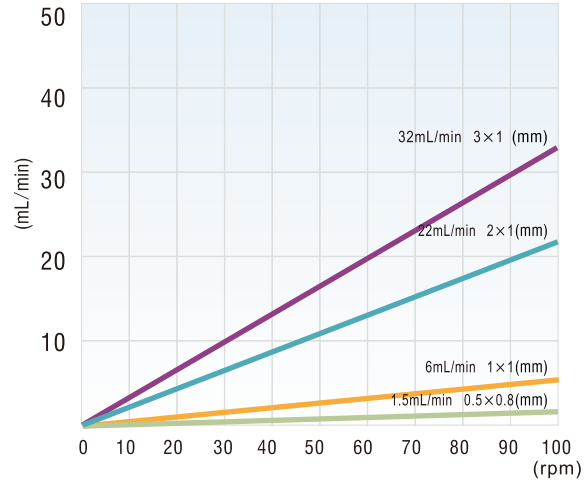
Tubing Ref.Flow Rates Curve

TUBING

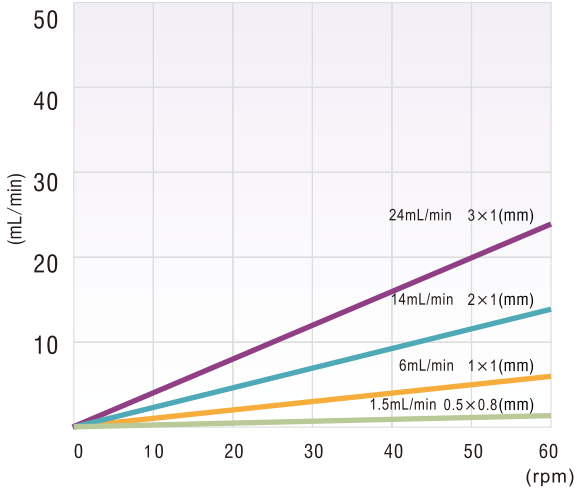
DG Series (6Rollers)



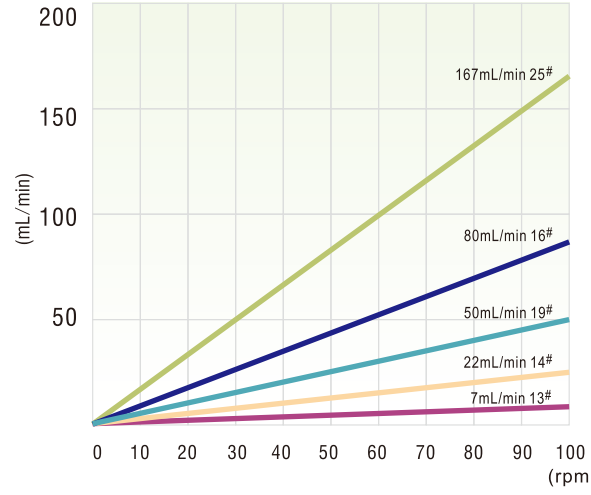
DG Series (10Rollers)



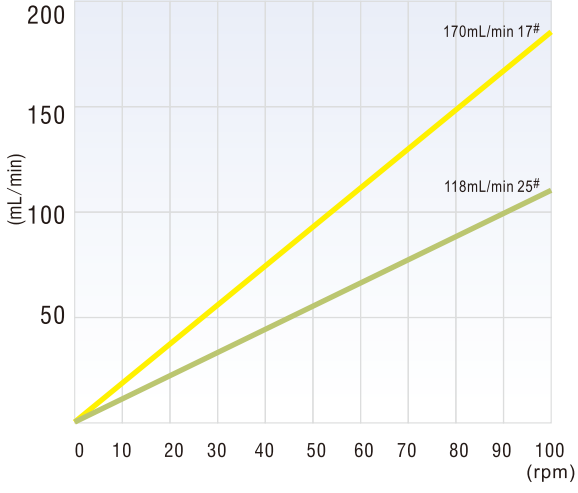
WX10-14, JY10-14



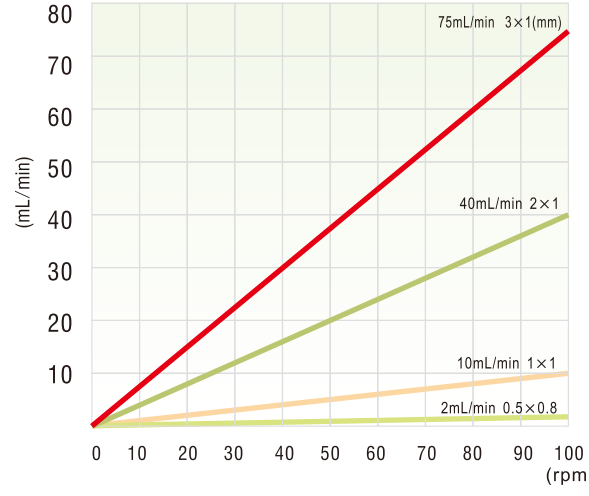
TH15



JY15-12



DG15-28, DG15-48



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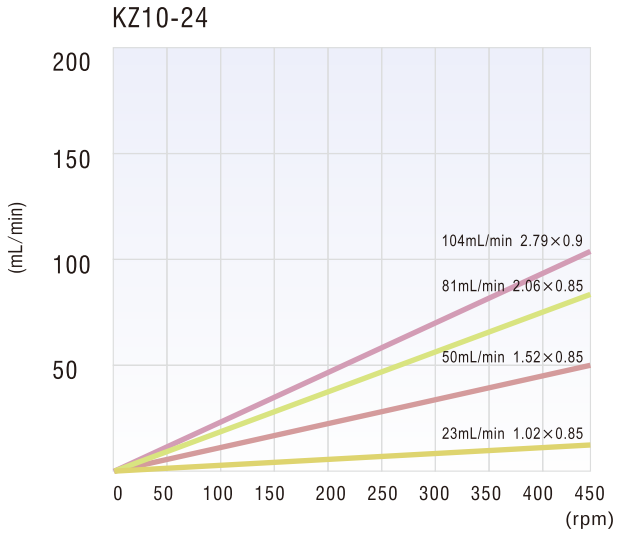
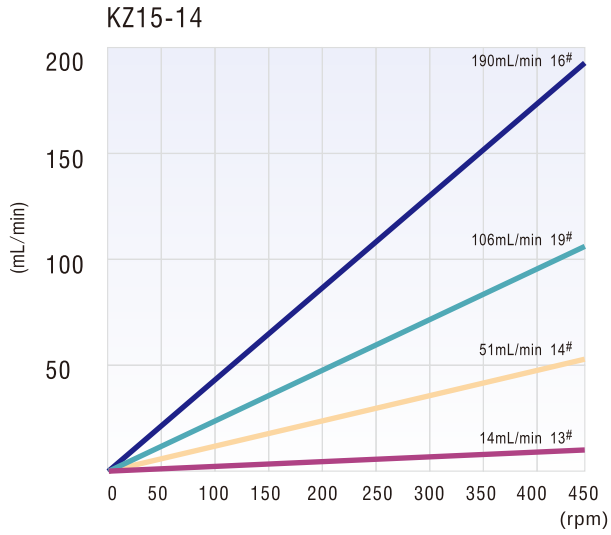
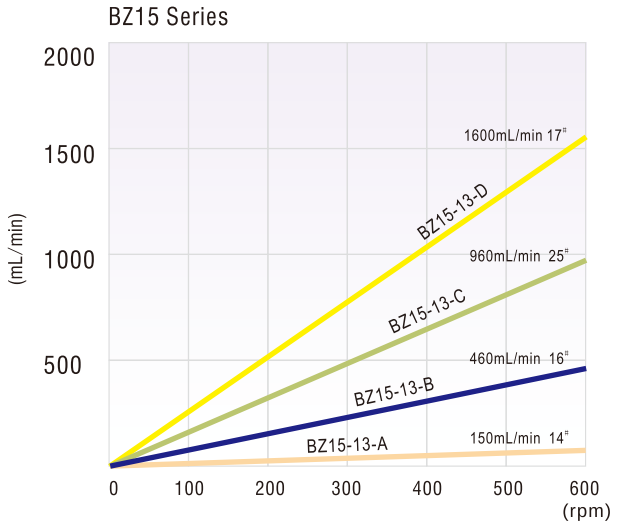
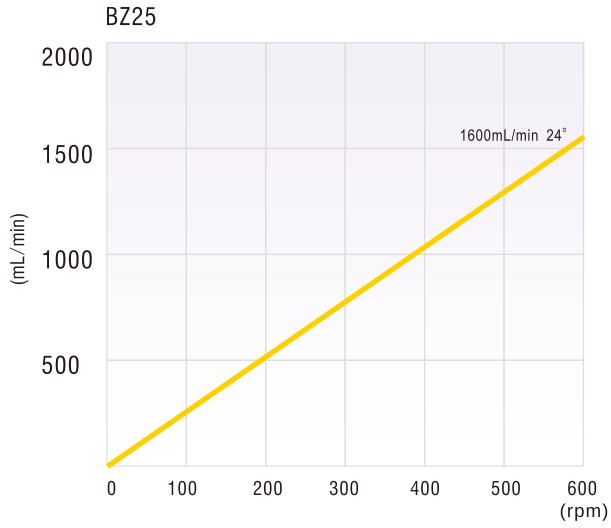
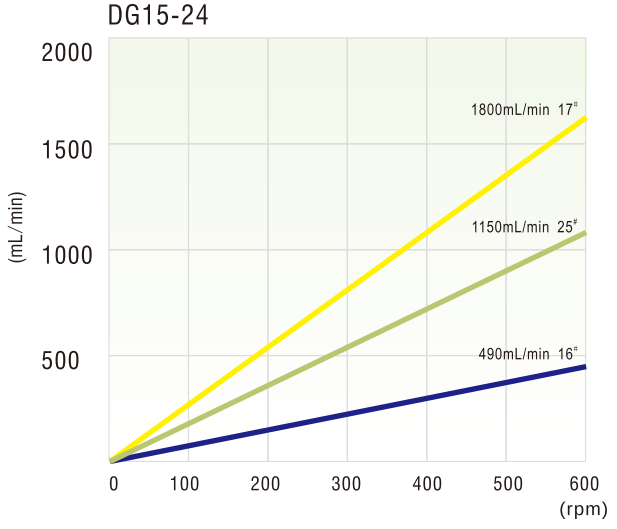
Tubing Ref.Flow Rates Curve

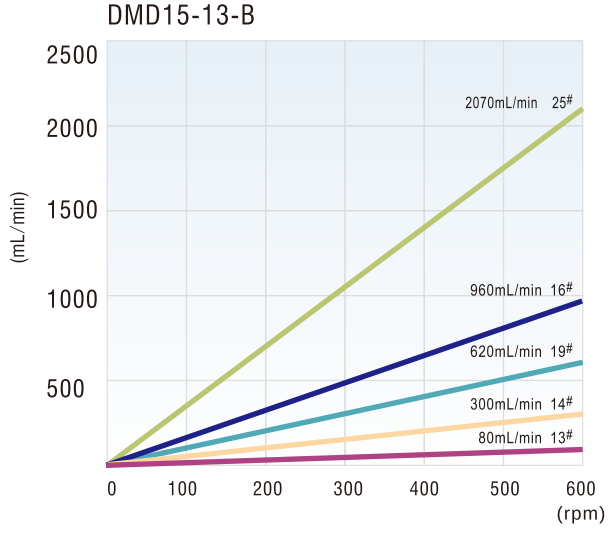










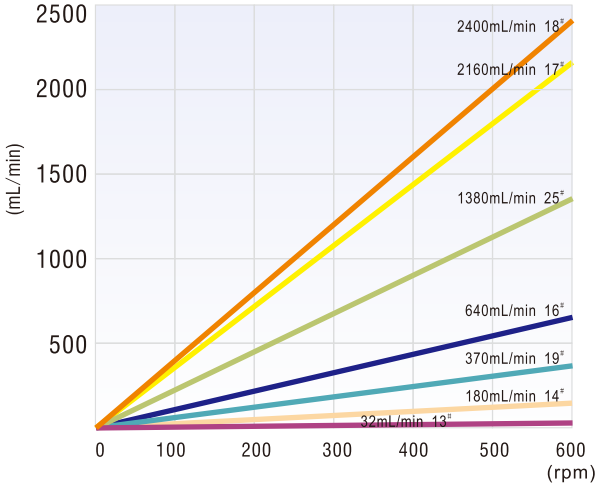


TUBING

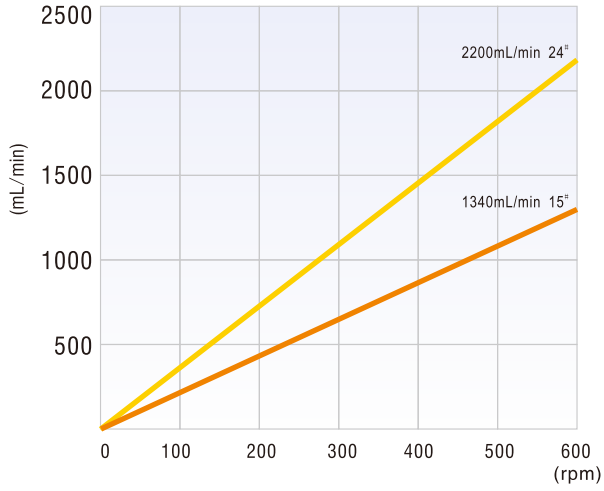
Tubing Ref.Flow Rates Curve

TUBING

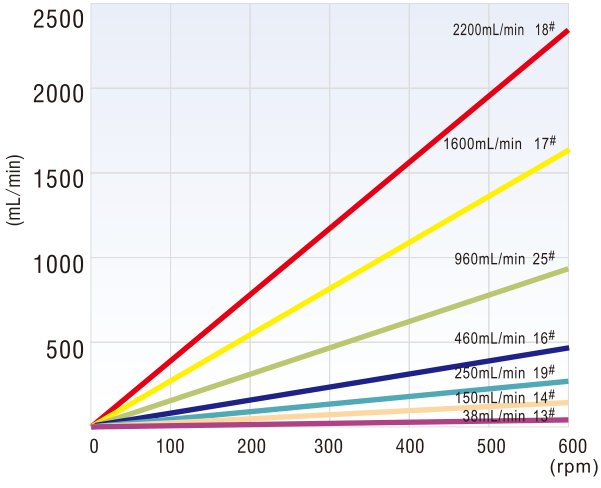
FG15-13



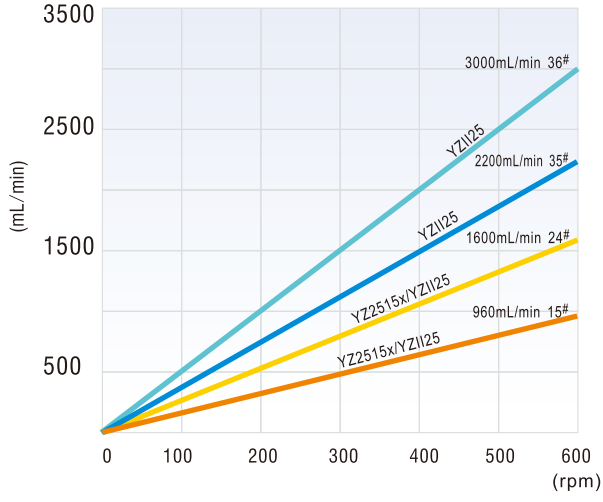
FG25-13



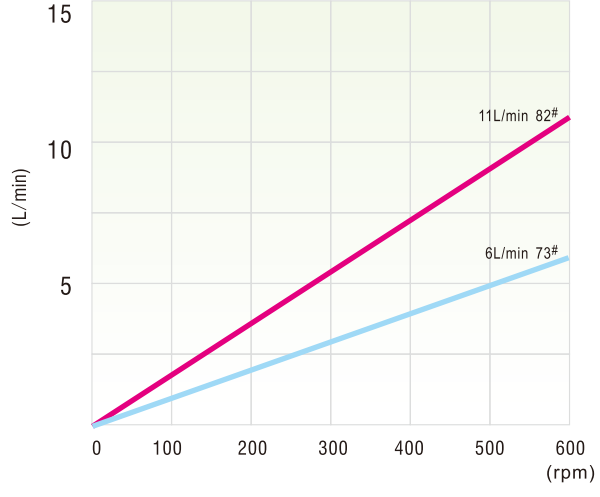
YZ1515x, YZ Ⅱ 15



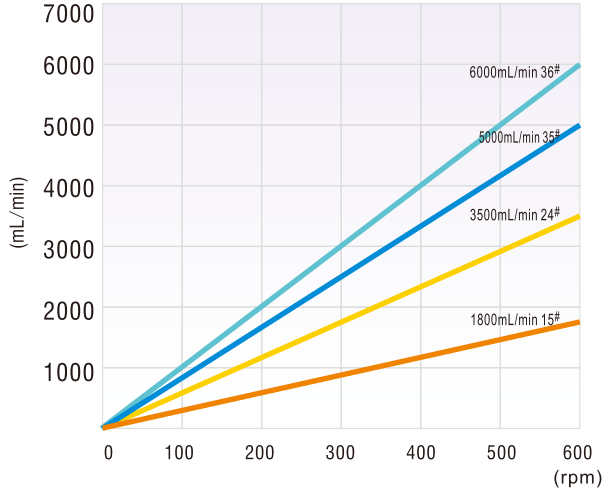
YZ2515x, YZ Ⅱ 25



YZ35-13, KZ35



KZ25



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Peristaltic Pump Accessories

Standard External Control Module

Dispensing Controller

Product Code: 05.49.25A

Peristaltic pump equipped with dispensing controller has dispensing function.

Dispensing time	0-99.99S
Pause time	0-99.99S
Time resolution	0.01S
Work mode	Single or multiple
Internal count range	0-999, count up or count down
External count range	0-999999, "0" means unlimited cycle
External Start/Stop signal input	Open switch signal
Power-off memory	Return to previous status when powered on
Power supply	AC 220V/5W

Footswitch - JK Series

Multi-work modes and interfaces are available.

Tubing Fitting

Common tubing fitting material:

Natural Polypropylene (Natural PP):
Very good chemical resistance. Temperature range: -17 to 135℃.
Sterilized by ethylene oxide or autoclave.
Multi-material for tubing fitting are available.

Common tubing fitting type:

Straight, "Y" type, reducing connectors.
There are lots of other tubing fitting type available.

	ID (inch)	ID (mm)	Tubing
Straight Connector	1/16"	1.6	13# 14#
	1/8"	3.2	16#
	3/16"	4.8	15# 25#
	1/4"	6.4	17# 24#
	3/8"	9.6	18# 35# 36# 73# 86#
	1/2"	12.7	82# 88#
	3/4"	19	90#
	1"	25.4	92#
"Y" Type Connector	1/16"	1.6	13# 14#
	1/8"	3.2	16#
	3/16"	4.8	15# 25#
	1/4"	6.4	17# 24#
	3/8"	9.6	18# 35# 36# 73# 86#
	1/2"	12.7	82# 88#

	ID1 (inch)	ID1 (mm)	ID2 (inch)	ID2 (mm)	Tubing1	Tubing2
Reducing Connector	1/16"	1.6	1/8"	3.2	13# 14#	16#
	1/8"	3.2	3/16"	4.8	16#	15# 25#
	1/8"	3.2	1/4"	6.4	16#	17# 24#
	1/4"	6.4	3/8"	9.6	17# 24#	18# 35# 36# 73# 86#
	3/8"	9.6	1/2"	12.7	18# 35# 36# 73# 86#	82# 88#
	1/2"	12.7	3/4"	19	82# 88#	90#
	1/2"	12.7	1"	25.4	82# 88#	92#

ACCESSORY

LONGER
PRECISION FLUID TRANSFER

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* Please determine the product material according to fluid media and environment.