



Analysis instrument accessories
Ecological closed loop service provider



V 1.0

RZ1030B Peristaltic Pump Manual

南京润泽流体控制设备有限公司
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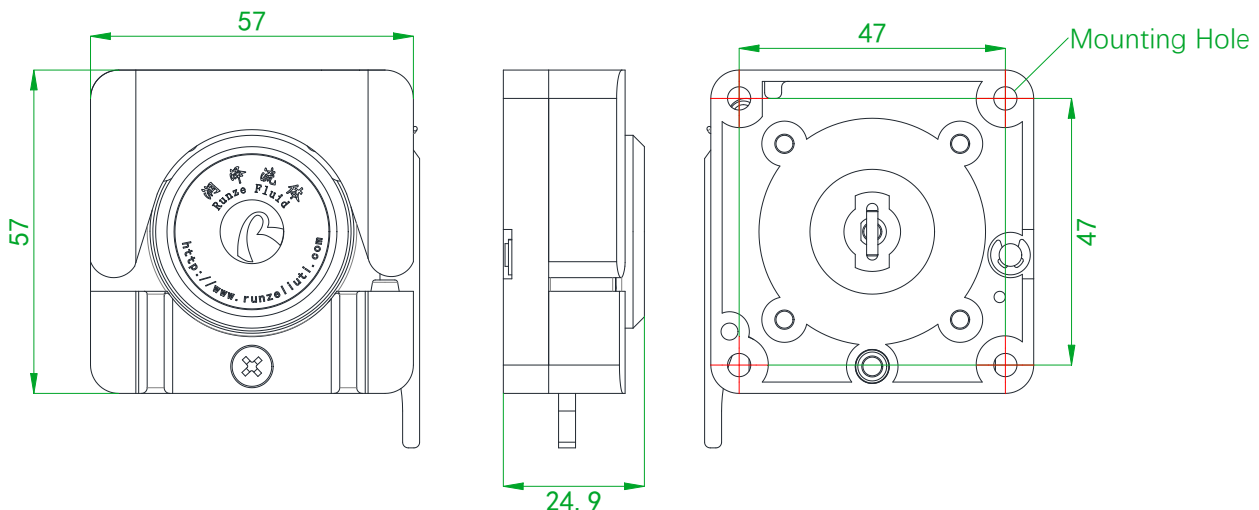
Chapter 1 Product Introduction

1.1 Product Characteristics

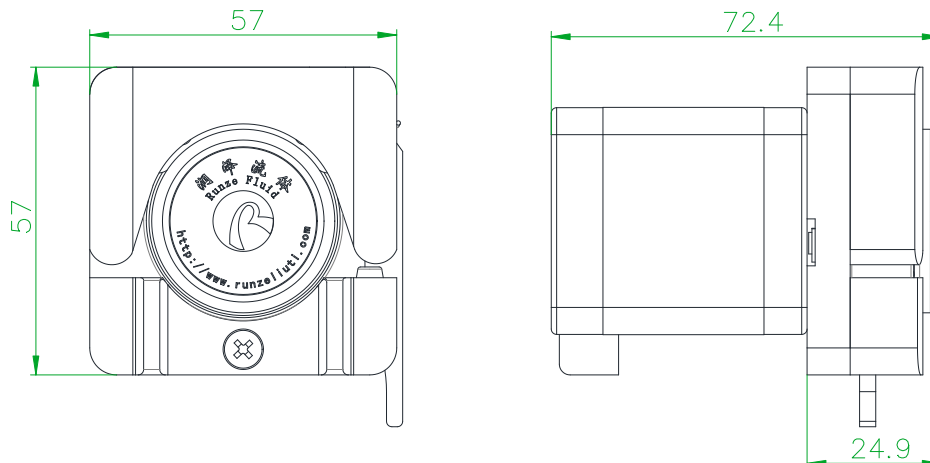
- PPS Housing, excellent structural performance, moderate 4 rotor pulse
- With flexible upper pressure block, self-adapting to different hoses, easy to change the tube
- Mainly used for medical devices and various small flow liquid transfer analysis instruments
- OEM support
- Outlet pressure at 0.2-0.3 MPa, Hydraulic head (pressured water approx. 20m)
- Suction range = atmospheric pressure (standard 10.33m) - cavitation margin of the pump - inlet tube loss - safety margin (0.5) - cavitation pressure of the medium

1.2 External and Mounting Dimensions (Unit: mm)

1.2.1 Pump Head External and Mounting Dimension



1.2.2 Pump External and Mounting Dimension



Chapter 2 Technical Parameters of Peristaltic Pump

2.1 Flow Curve Chart

Model	RZ1030B													
WT (mm)	0.8													
ID (mm)	0.64	0.76	0.89	1.02	1.14	1.30	1.42	1.52	1.65	1.85	2.06	2.29	2.54	2.79
Max Flow Rate (ml/min)	12	15	18	25	32	38	47	50	56	70	87	94	113	128
WT (mm)	1.0													
ID (mm)	1.0				2.0				3.0					
Max Flow Rate (ml/min)	24				74				183					

2.1.1 RZ1030B Maximum Reference Flow Curve for 0.8mm WT Pump Tube

Flow Model RPM	Pharmed BPT-0279-008
1rpm	1 ml/min
50rpm	18 ml/min
100rpm	33 ml/min
150rpm	46 ml/min
200rpm	63 ml/min
250rpm	79 ml/min
300rpm	93 ml/min
350rpm	109 ml/min
400rpm	128 ml/min

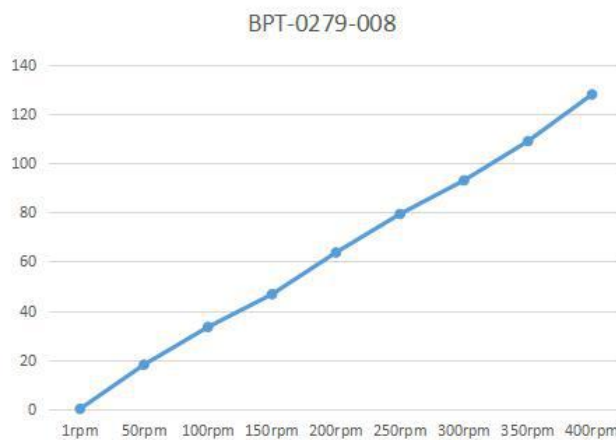


Figure 2-1-1 RZ1030B Flow-Speed Curve

2.1.2 RZ1030B Maximum Reference Flow Curve for 1.0 mm WT Pump Tube

Flow RPM	Model Pharmed BPT0279-008
1rpm	1 ml/min
50rpm	23 ml/min
100rpm	46 ml/min
150rpm	70 ml/min
200rpm	94 ml/min
250rpm	119 ml/min
300rpm	141 ml/min
350rpm	165 ml/min
400rpm	183 ml/min

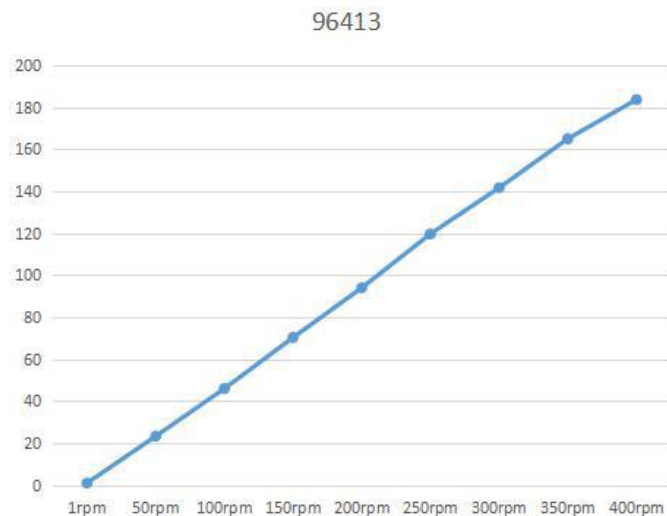


Figure 2-1-2 RZ1030B Flow-Speed Curve

2.2 Motor Parameters

2.2.1 Motor Features

Description	Parameters
Rated Voltage	24V
Rated Current	1.1A
Maximum Output Power	10.1W
Motor Step Angle°	1.8°
Angle Error	1.8°±0.09°
Input Impedance	4.2Ω±0.42Ω
Operating Temperature	-10C°~+50C°
Motor Weight	350g

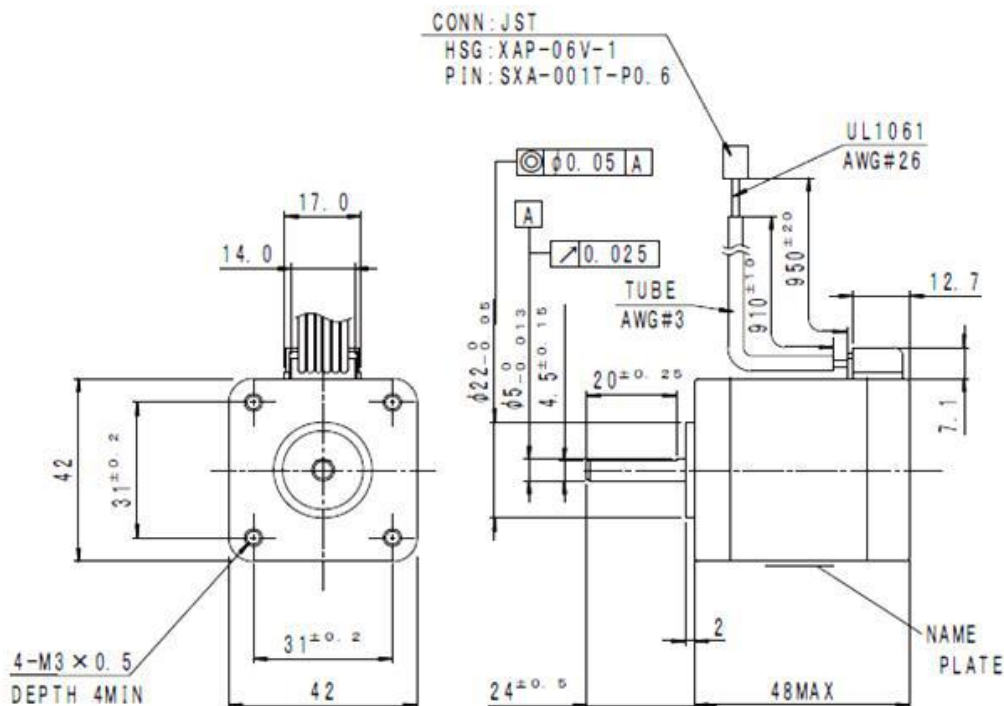
2.2.2 Motor Wiring

Properties	Wiring color
A+	RED
A-	YELLOW
B+	BLUE
B-	ORGANGE

2.2.3 Motor Reliability

No.	Test Project	Test Conditions	Reference Specification
1	Low temperature setting (cold resistance)	Temperature: $-40^{\circ}\text{C}\pm 3^{\circ}\text{C}$ Test time: 96h	JIS C 60068-2-1
2	High temperature setting (heat resistance)	Temperature: $85^{\circ}\text{C}\pm 2^{\circ}\text{C}$ Test time: 96h	JIS C 60068-2-2
3	High temperature and high humidity setting (humidity resistance)	Temperature: $60^{\circ}\text{C}\pm 2^{\circ}\text{C}$ ($40^{\circ}\text{C}\pm 2^{\circ}\text{C}$) Humidity: $93\%\pm 2\% - 3\%$ Test time: 96h	JIS C 60068-2-3
4	Hot and cold operation (temperature change)	Temperature: low temperature test $-40^{\circ}\text{C}\pm 3^{\circ}\text{C}$ 1h (Temperature change time: within 5min) High temperature test: $85^{\circ}\text{C}\pm 2^{\circ}\text{C}$ 1h Cycle index: 25 times	JIS C 60068-2-14
5	Vibration	Range of vibration number: 10Hz~55Hz~10Hz Amplitude: 1.5mm] Vibrating direction: X.Y.Z Time: 2h in each direction	JIS C 60068-2-6
6	Dropping	981 acceleration m/s^2 sine half wave Action time: 6ms Falling direction: $\pm X, \pm Y, \pm Z$ Number of falling rounds: 3 rounds each	JIS C 60068-2-27

2.2.4 Motor Dimension



Chapter 3 Hose Assembly

Tip: Hose can be greased with certain amount of grease to prolong its service life



Step 1
Open the spring lock



Step 2
Open the upper pressure block



Step 3
Install the pump hose, and
keep fittings on the two ends
of the hose stuck to the pump
head



Step 4
Close upper pressure block



Step 5
Installation complete

Chapter 4 Technical Service



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