

Peristaltic Pump

- With stepper motor
- Forward/reverse rotation and speed control for accurate dosing
- Low operating noise, excellent for sensitive environments
- Customizable mounting and roller configurations (2, 3, or 6 rollers)
- Control by PLC and RS-485 Modbus
- Supports wide flow range: 1 ... 200 mL/min
- 24VDC power supply



About

The P161 is a 24 VDC stepper-motor peristaltic pump designed for precise, adjustable liquid-flow control. Depending on the selected tube size, the datasheet lists flow rates from 1 to 200 mL/min with BPT or silicone tubing. The pump supports driver control, optional PLC control, RS485 communication, real-time start and stop, adjustable speed, and forward or reverse rotation. Its low-noise design, customizable stainless-steel mounting plate, and operating range of 32–113°F (0–45°C) make it suitable for integration into a variety of equipment

Applications

- ✓ Pressure Washers
- ✓ Water Purifiers
- ✓ Aromatherapy Devices
- ✓ Pharmaceutical Production
- ✓ Food and Beverage Production
- ✓ And More

Build Your Part Number

Series P161

Example: P161DR6D2STS4

Series

P161

Flow Rate - select one

	mL/min	Required Tubing Size (See Page 5 for Details)
A	1 ... 16	1*3
B	1 ... 32	#14
C	1 ... 65	2*4
D	1 ... 120	3*5
E	1 ... 130	#16
F	1 ... 200	4*6

Roller Quantity – select one

R2	2 Primary rollers (standard)
R3	3 Primary Rollers
R6	6 Primary Rollers

Driver – select one, refer to page 3 for dimensions and wiring schematic

D1	Pulse (start & stop, forward & backward rotation, PWM pulse signal speed regulation; 0...500rpm, 24VDC, ≤15W)
D2	RS-485 Modbus (data control for start & stop, forward & negative rotation, speed regulation; 0...500rpm, 24VDC, ≤15W)
D3	Voltage (start & stop, forward & backward rotation, external voltage control; 0...500rpm, 24VDC, ≤15W)

Tubing Connectors – select one

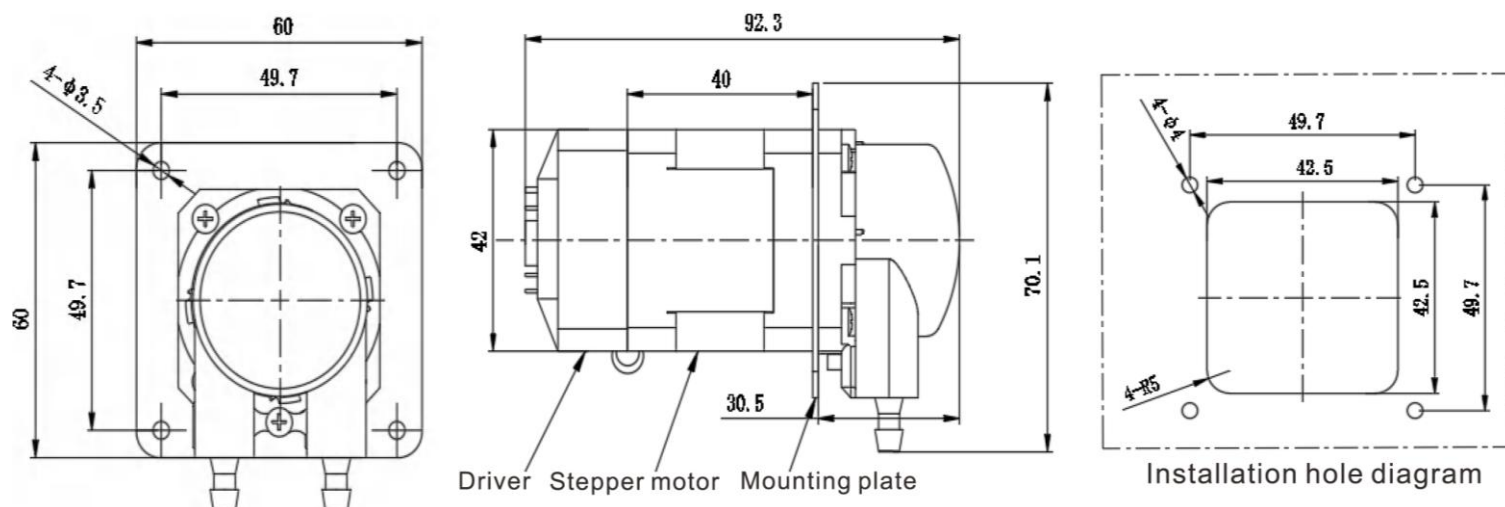
S	Straight
E	Elbow

Tubing Material – select one (leave blank if tubing is not desired)

TB	BPT (FDA, Reach, NSF, RoHS, USP Class VI); -50...+135°C; Can be sterilized by ethylene oxide, high-temp & pressure, or gamma ray
TS	Silicone (FDA, Reach, NSF, RoHS, USP Class VI, Food-Grade SGS, Medical-Grade FDA) -60...+200°C; Can be sterilized by high temp & pressure

Tubing Length – please inform in meters, in steps of 1 (leave blank if tubing is not desired)

XX	Examples: 1 = 1 meter, 3 = 3 meters, 25 = 25 meters
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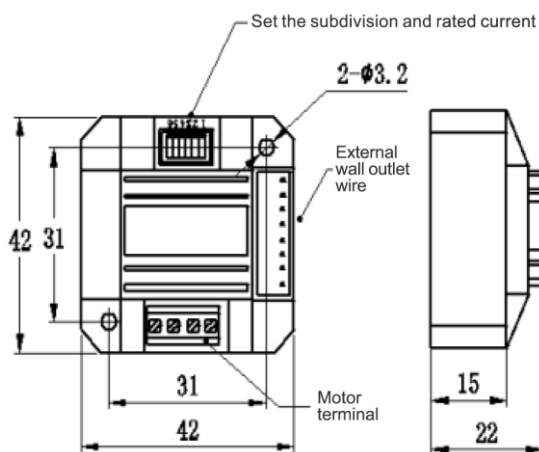
Note: (1) The above flow parameters are tested under the conditions of room temperature 23°C, standard atmospheric pressure, clean water, suction lift 0.2m, lift 0, and no pressure. For reference only. (2) Pump flow rate can be affected by viscosity, density, medium temperature, ambient temperature, inlet and outlet pressure, suction lift and lift of pump. To ensure the accuracy of the pump, it is necessary to keep the above factors without significant changes.

Technical Parameters

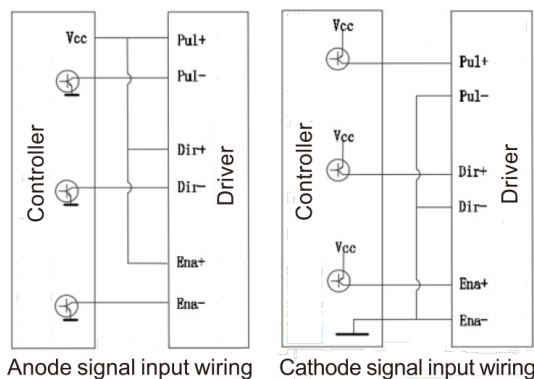
Technical Parameters

Electrical	Drive Mode	Stepper Motor
	Control Method	Drive Control (Option with Driver PLC control)
	Supply Voltage	24 VDC
	Power	≤12W
Environmental	Function	Precisely adjustable flow control
	Working Temperature	32°F ... 113°F (0°C ... 45°C)
	Working Relative Humidity	<85% RH
Materials	Installation Method	Stainless steel mounting plate (customizable)
	Tubing Materials	BPT Silicone
Weight	375g	

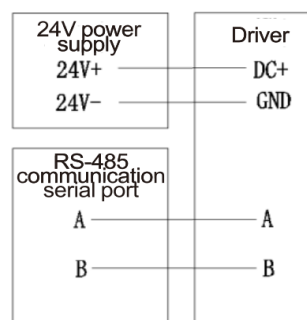
Wiring Schematic Diagrams for Driver



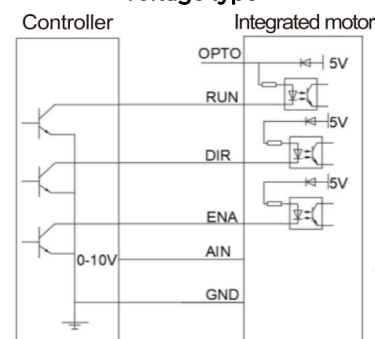
Wiring schematic diagram for pulse type



Wiring schematic diagram for RS-485 Modbus



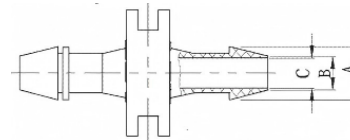
Wiring schematic diagram for voltage type



Connectors

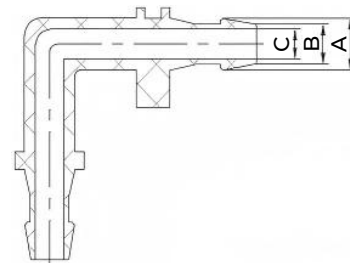
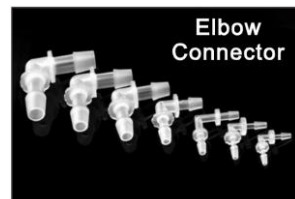
Straight Connector

No	Product Name	Dimension A	Dimension B	Dimension C
1	1*3 Straight Connector	2.9	1.7	0.9
2	2*4 Straight Connector	3.2	2.4	1.6
3	3*5 Straight Connector	4.2	3	2
4	4*6 Straight Connector	5.7	4.2	3.5
5	16# Straight Connector	5	3.7	3
6	25# Straight Connector	6.7	5.3	4.3
7	16# Straight Connector (with O ring)	5.2	3.4	3
8	25# Straight Connector (with O ring)	6.5	5.5	4.5
9	17# Straight Connector	8.4	7.1	5.4
10	18# Straight Connector	9.9	8.6	6.9
11	25# Straight Connector (401)	7.5	5.2	4.5
12	17# Straight Connector (401)	8.4	6.1	5.4
13	35# Straight Connector	9.8	6.5	4.6
14	36# Straight Connector	11.2	8.4	6.9



Elbow Connector

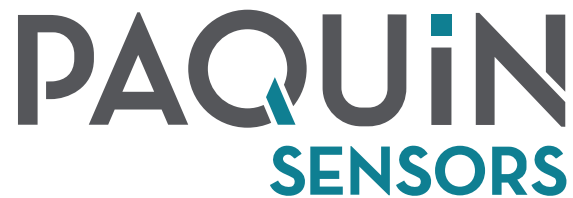
No	Product Name	Dimension A	Dimension B	Dimension C
1	18# Lateral Elbow Connector (Left)	9.8	7.4	6.9
2	18# Lateral Elbow Connector (Right)	9.8	7.4	6.9
3	3*5 Elbow Connector	4.2	3	2
4	4*6 Elbow Connector	5.7	4.2	3.5



Tube Size Table

Tube Sizes				
Image	Tube Number	Inner Diameter (mm)	Outer Diameter (mm)	Wall Thickness (mm)
	0.5*1.5	0.5	1.5	0.5
	1*2	1	2	
	1.5*2.5	1.5	2.5	
	1*3	1	3	1
	2*4	2	4	
	3*5	3	5	
	4*6	4	6	
	14#	1.6	4.8	1.6
	19#	2.4	5.6	
	16#	3.2	6.4	
	25#	4.8	8	
	17#	6.4	9.6	
	18#	7.9	11.1	2.4
	24#	6.4	11.2	
	35#	7.9	12.7	
	36#	9.6	14.4	

Additional Information



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