

Peristaltic Pump

- With stepper motor
- Forward/reverse rotation and speed control for accurate dosing
- Low operating noise, excellent for sensitive environments
- Customizable stainless-steel mounting with 2 rollers plus 2 training wheels
- Control by PLC and RS-485 Modbus
- Supports wide flow range: 10 ... 2050 mL/min
- 24VDC power supply



About

The P164 is a 24 VDC peristaltic pump that uses a stepper motor to provide precise, adjustable fluid-flow control. It supports PLC control and RS485 communication, allowing it to be integrated into automated equipment with real-time start, stop, and speed adjustment. Depending on the installed tube size, the specified flow range extends from 10 to 2,050 mL/min, and the pump can operate in both forward and reverse directions. Its low-noise, stable design, customizable mounting method, and operating temperature range of 32 ... 113°F (0 ... 45°C) make it well suited for compact industrial fluid-handling systems.

Applications

- ✓ Printing, Textile, and Dyeing Operations
- ✓ Chemical Processing and Fluid Handling
- ✓ Environmental Instruments
- ✓ Food & Beverage Production and Machines
- ✓ Industrial Automation
- ✓ Equipment Manufacturing
- ✓ And More

Build Your Part Number

Series P164

Example: P164BR2D3STA15
Series
P164
Flow Rate - select one

	mL/min	Required Tubing Size (See Page 5 for Details)
A	10 ... 850	25#
B	10 ... 1400	17#
C	10 ... 2050	18#

Roller Quantity – select one
R2 2 Primary rollers + 2 training wheels (standard)

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

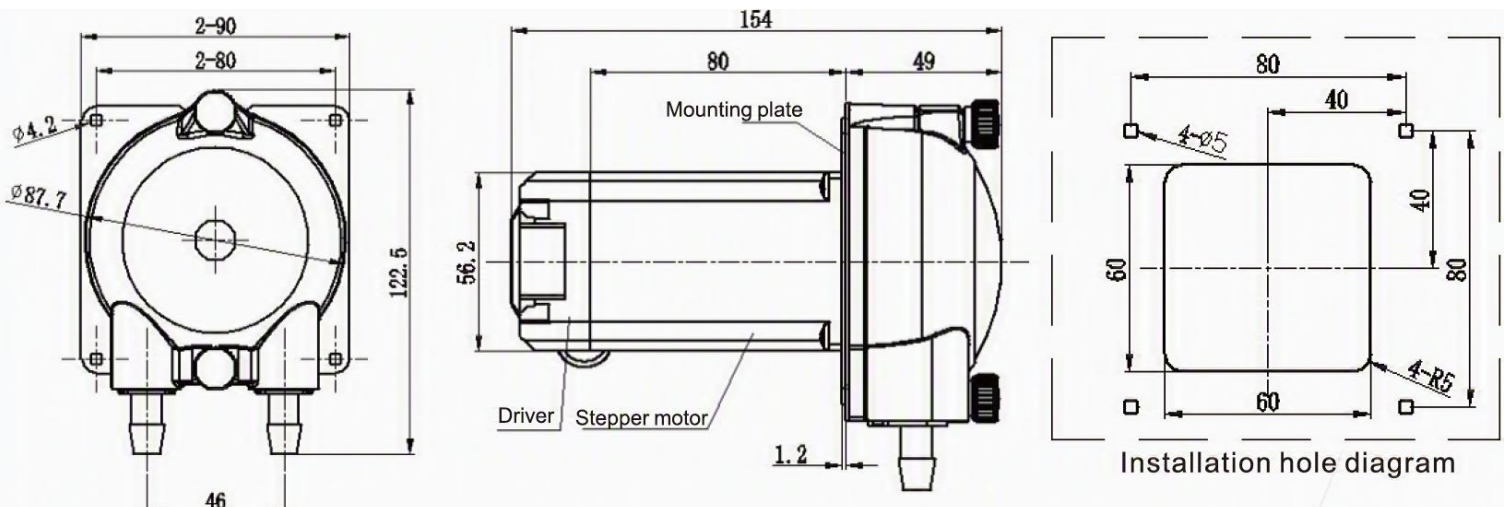
D1	Pulse (start & stop, forward & backward rotation, PWM pulse signal speed regulation; 0...500rpm, 24VDC, ≤15W)
D2	RS-485 Modbus (data control for start & stop, forward & negative rotation, speed regulation; 0...500rpm, 24VDC, ≤15W)
D3	Voltage (start & stop, forward & backward rotation, external voltage 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
TA	A60-F (NSF, Reach, RoHS, FDA) -60...+140°C; Can be sterilized by high temp & pressure
TV	Viton (FDA, Reach, RoHS) -30...+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


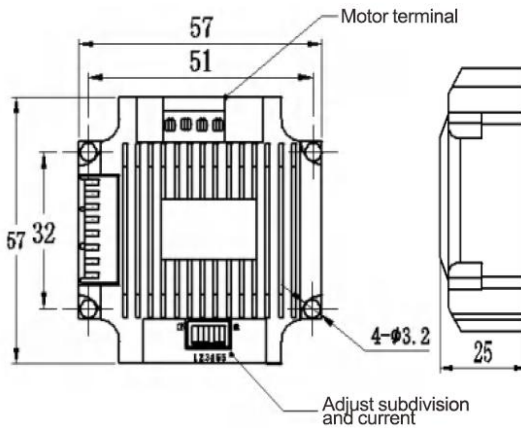
Note: (1) The above flow parameters are tested under the conditions of room temperature 23°C, standard atmospheric pressure, clean water, suction lift 0.2m, lift 0, and no pressure. For reference only. (2) Pump flow rate can be affected by viscosity, density, medium temperature, ambient temperature, 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

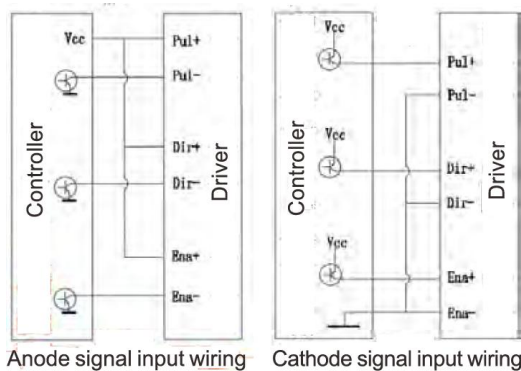
Technical Parameters

Electrical	Drive Mode	Stepper Motor
	Control Method	Drive Control (Option with Driver PLC control)
	Supply Voltage	24 VDC
	Power	≤24W
Environmental	Function	Precisely adjustable flow control
	Working Temperature	32°F ... 113°F (0°C ... 45°C)
	Working Relative Humidity	<85% RH
	Outlet Pressure	≤0.1 MPa
Materials	Installation Method	Stainless steel mounting plate (customizable)
	Tubing Materials	BPT Silicone A60-F Viton
Weight	1350g	

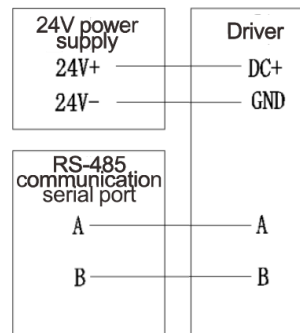
Wiring Schematic Diagrams for Driver



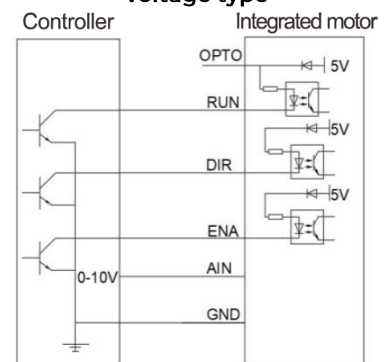
Wiring schematic diagram for pulse type



Wiring schematic diagram for RS-485 Modbus



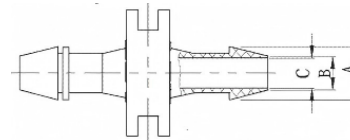
Wiring schematic diagram for voltage type



Connectors

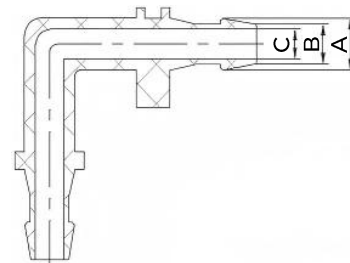
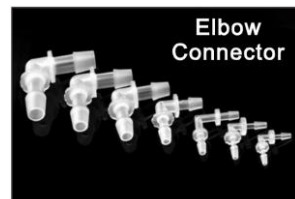
Straight Connector

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

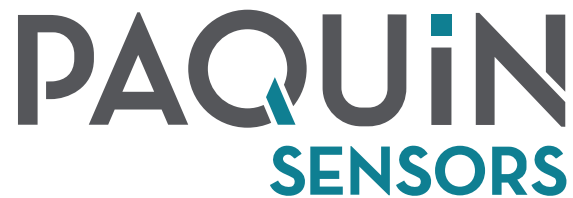
No	Product Name	Dimension A	Dimension B	Dimension C
1	18# Lateral Elbow Connector (Left)	9.8	7.4	6.9
2	18# Lateral Elbow Connector (Right)	9.8	7.4	6.9
3	3*5 Elbow Connector	4.2	3	2
4	4*6 Elbow Connector	5.7	4.2	3.5



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



Paquin Sensors' product portfolio is designed to provide options to fit the most diverse range of specifications.

We collaborate with our customers to match the best product technologies with your unique application requirements.

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