P-4101P

Peristaltic Pump System

Installation and Operating Manual

INTRODUCTION

The P-4101P series of pump units employs a constant speed (8 oz/min) peristaltic pump. The amount of chemical pumped is controlled by setting the run time. The pump is activated by either trigger signal or prime switch. Both 115 VAC and 230 VAC units are available; see the MODEL INFORMATION section for ordering information.

PREFACE

This manual describes how to use the P-4101P Product.

Material in this manual is subject to change without notice. Manual revisions will be made on an as needed basis. Special circumstances involving important design, operation or application information will be released via Technical Service Bulletins.

SPECIFICATIONS

Size

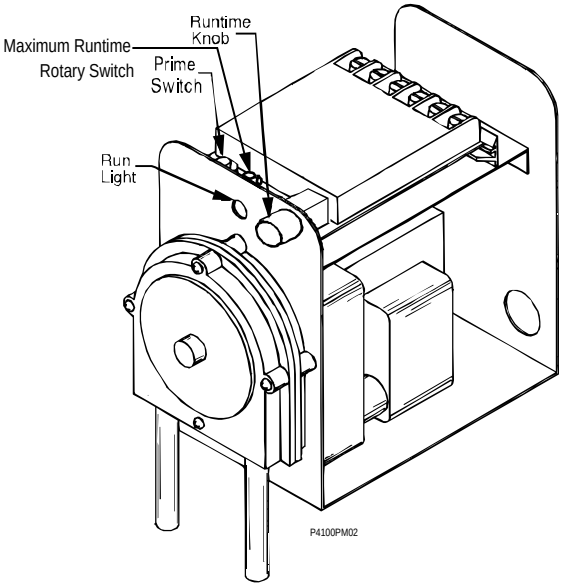
Height	Width	Depth
5.0	3.5	4.125 inches
12.7	9.0	10.5 cm

Weight

5 lb. (2.3 kg)

Enclosure

Type 304 Brushed Stainless Steel



Electric Power Requirements

115 VAC, 60 Hz, 1.1 A
230 VAC, 60 Hz, 0.6 A

Control Signal

24 - 230 VAC or 24 - 120 VDC

Operating Temperature

+36 - 120 °F
(+2 - 49 °C)

Pump

Displacement	106 rpm
8.5 oz/min (250 ml/min)	
Pressure (Delivery)	20 psi
Vacuum (Pick up)	20 inches of mercury (Hg)

INSTALLATION

Remove the outer cover of the P-4101P by loosening the 2 screws at the lower edge of each side.

PHYSICAL INSTALLATION

Mount the P-4101P on a horizontal or vertical surface using 3 #10 screws. Keep the pump away from very hot or wet areas and in easy view of the operator.

Plumbing the Equipment

Pump to Inlet Lines

Cut a length of $^1/_4$ inch (6 mm) polyflow tubing to reach between the pump and the chemical. Push the tubing about 1 inch (25 mm) up inside the inlet side (left) of the pump squeeze tubing. Seal with a tie wrap. Make sure the connection is airtight. Run the tubing to the chemical drum. Secure the end of the tubing into the drum, using a drum standpipe if available.

Pump to Washer

Cut a length of $^1/_4$ inch polyflow tubing to reach between the pump and the washing machine. Use as short a length of tubing as possible. Avoid uphill runs. Keep the tubing away from steam pipes, open flues or any place where they may be accidentally damaged by the machine operators. Push the tubing about 1 inch (25 mm) up inside the outlet side (right) of the pump squeeze tubing. Seal with a tie wrap.

Electrical Installation

All wiring should be inserted through either of the $^1/_2$ inch electrical knock out plugs on the back or bottom surface.

1. Check for the proper line voltage on the identification label. (See the MODEL INFORMATION section)
2. The unit requires 2 sets of electrical inputs.
   a) 2 wires to supply the proper line voltage should be attached to terminals #3 and #4, (LINE) on the black module on top of the pump.
   b) A set of "control" or "trigger" wires should be attached to terminals #1 and #2.
3. No transformers are required on the "trigger" input. The control module is designed to accept any voltage in the range of 24 - 240 VAC or 24 - 130 VDC. If DC is used, observe polarity and connect "+" to Pin 1, and connect "-" to Pin 2.

SETUP PROCEDURES

To set the maximum runtime of the P4101, rotate the switch to the required setting as shown in Table 1.

Setting	Maximum Runtime (minutes)
0	1:00
1	2:00
2	2:30
3	3:00
4	4:00
5	5:00
6	6:00
7	7:00
8	8:00
9	10:00

Table 1. Maximum Runtime Settings

To set the amount of chemical that will be pumped when the unit is activated turn the run-time adjust knob on the face of the unit. Turning the knob clockwise will increase the run-time. The unit will run for the selected time when the prime button is pressed or when a trigger signal is received. The light on the face of the unit indicates when power is being supplied to the pump.

MAINTENANCE/TROUBLESHOOTING

1. Pump rollers turn but no chemical is flowing
   a) Check chemical supply
   b) Check for a break in the tubing flowing between the chemical and the pump. Check the pump squeeze tubing. If the pump squeeze tubing is leaking, remove 4 pump cover screws and replace tubing.
2. Pump does not turn
   a) Check line voltage input.
   b) Check trigger voltage, if O.K. then:
      1) Push prime button. If pump operates with this button, problem is likely to be in the module. Remove wires and replace.
      2) If pump does <u>not</u> operate with prime button, remove motor wires and connect them directly to the proper supply voltage. If pump works replace module. If <u>not</u> replace motor.
      3) If the motor overheats because it has been run too long, it will stop. Cool the motor and it will restart.

MODEL INFORMATION

Item #	Description
1200298	P4101P,115V,60HZ,VITON (Replaces 093855)
1200299	P4101P,115V,60HZ,SILICONE (Replaces 040370 and 040371)
1200300	P4101P,115V,60HZ,MOLDED NORDEL
1200301	P4101P,115V,60HZ,BETA TUBE
1200302	P4101P,115V,60HZ,NORDEL
1200303	P4101P,115V,60HZ,CFLEX
1200305	P4111P,230V,60HZ,VITON (Replaces 098330)
1200313	P4101P,115V,60HZ,SILICONE, with remote trigger (Replaces 099472)
1200314	P4101P,115V,60HZ,VITON, with remote trigger (Replaces 099535)

SPARE PARTS

Item#	Description
069970	Control Module
018051	Motor Gearbox 115 VAC
018053	Motor Gearbox 230 VAC
059969	Pump Housing Front
091083	Pump Housing Rear
051189	Roller Assembly (except Viton)
035939	Roller Assembly Viton
026913	Silicon Tube
022028	Beta Tube
041849	Nordel (molded)
035929	C-Flex
035919	Nordel (straight)

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