

PSD/6 Full-Height Syringe Pump Specification Sheet

A Compact, Full-Height Pump, for Precision Dispensing of Small to Large Volumes

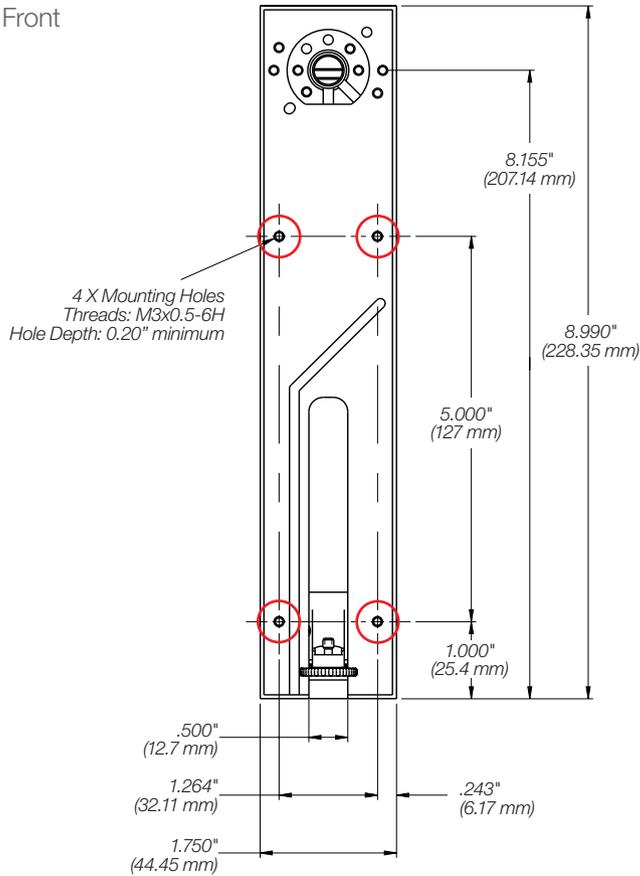
The PSD/6 is the newest full-height syringe pump to join the Hamilton Precision Syringe Drive (PSD) family. The PSD/6 can be fitted with a variety of valve and syringe combinations and performs all standard liquid handling functions, including dispensing, serial dispensing and diluting. These full-height pumps are easy to integrate, self-contained syringe drive modules. They can be used as single units or in a daisy chain of up to 16 pumps.

The PSD/6 is a reliable turnkey system to meet the requirements of the most demanding applications. Ensure that your development projects stay on time and on budget with proven technology that is engineered to exceed expectations.

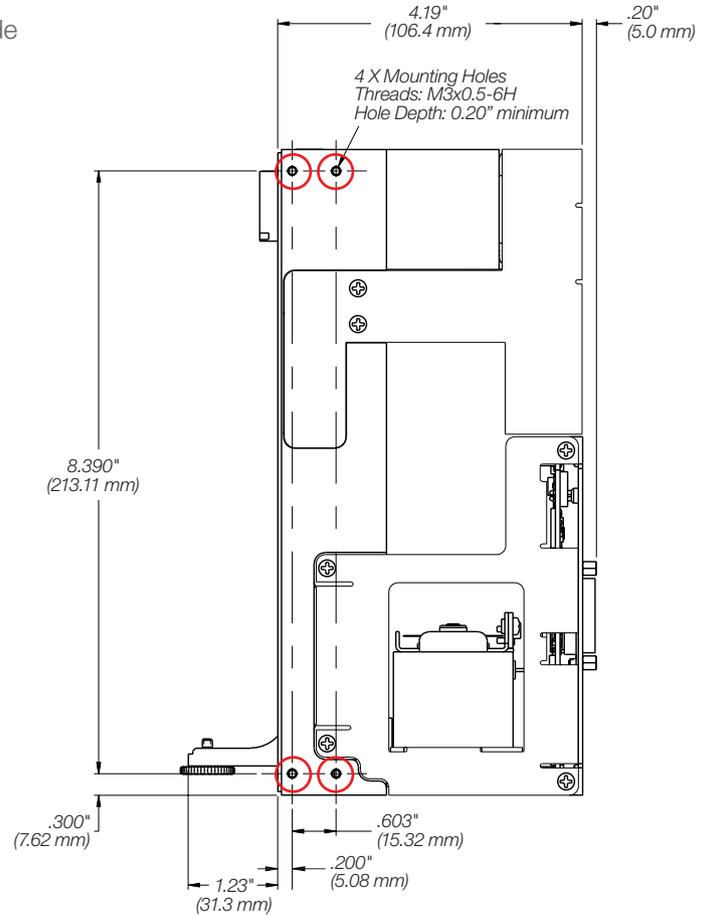


PSD/6 Product Drawings and Dimensions

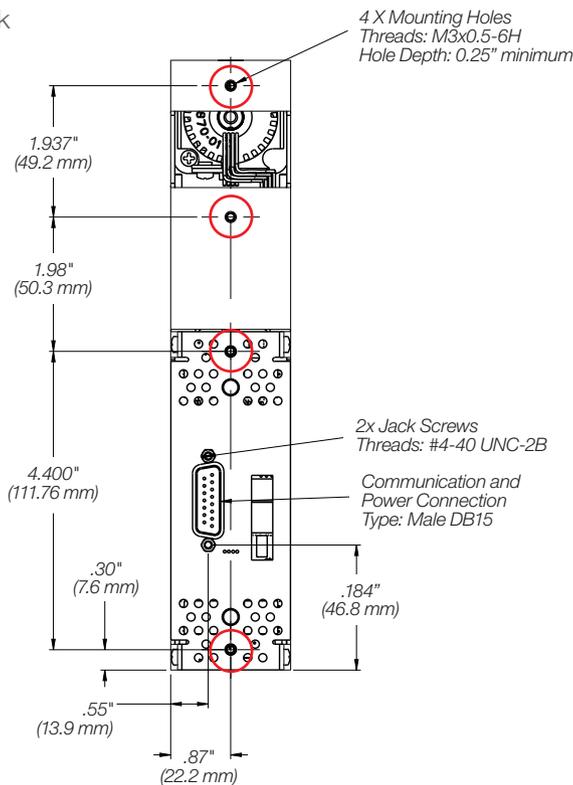
Front



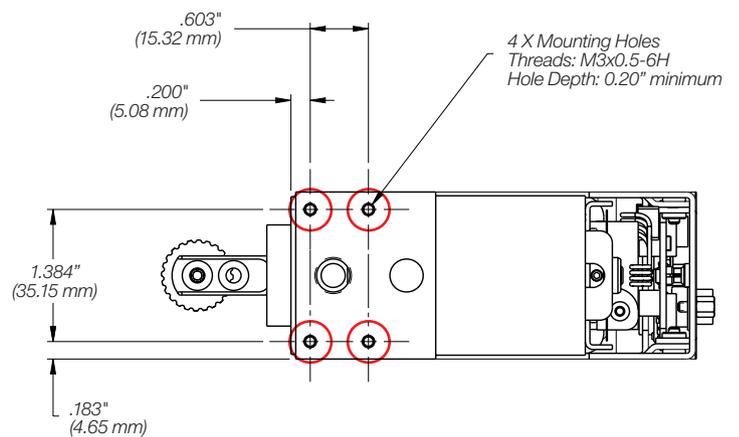
Side



Back



Bottom



PSD/6 Precision Syringe Pump

Syringes for PDS/6

Description	Part No.
PSD/6 Precision Syringes Pump	63133-01
PSD Starter Kit Containing Software CD, Demo Communication Cable, Serial-to-USB Adapter, and Power Supply	64316-04
Demo Communication Cable	57025-01
Power Supply	4833-01

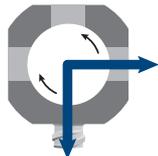


Volume	60 mm Long-Life Syringes Part No.	Standard PTFE Tip Syringes Part No.
25 µL	N/A	80222*
50 µL	8300-15*	80922*
100 µL	8300-20*	81022*
250 µL	8300-25*	81122*
500 µL	8300-30*	81222*
1 mL	8300-35	81320
2.5 mL	8300-40	81420
5 mL	8300-45**	81520**
10 mL	8300-50**	81620**
25 mL	N/A	82521***
50 mL	N/A	85021*** 85025***

*Standard TLL (PTFE Luer Lock) terminations with added stop.
 **Not compatible with 7992-01; 7993-01.
 ***Not compatible with 58889-01; 57252-01; 8778-01; 7992-01; 7993-01.



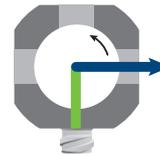
Fluid Logic: Y-Block
Valve Description:
 Static non-switching Y-block
PTFE/CTFE Valve Part No.:
 9537-01*



Fluid Logic: 3-2
Valve Description:
 90° Flow Path
 Two ports, plus syringe port
Ceramic Valve Part No.:
 8063-01



Fluid Logic: 3-3
Valve Description:
 "T" Flow Path
 Two ports, plus syringe port
PTFE/CTFE Valve Part No.:
 58889-01*



Fluid Logic: 3-5
Valve Description:
 Distribution Flow Path
 Three ports, plus syringe port
Ceramic Valve Part No.:
 7991-01



Fluid Logic: Y-Valve
Valve Description:
 "Y" Flow Path
 Two ports, plus syringe port
Ceramic Valve Part No.:
 8778-01
PTFE/CTFE Valve Part No.:
 57252-01



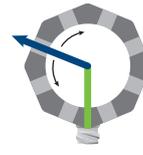
Fluid Logic: 4-2
Valve Description:
 90° Flow Path
 Three ports, plus syringe port
Ceramic Valve Part No.:
 9234-01



Fluid Logic: 4-5
Valve Description:
 Distribution Flow Path
 Four ports plus syringe port
Ceramic Valve Part No.:
 7992-01



Fluid Logic: 6-5
Valve Description:
 Distribution Flow Path
 Six ports plus syringe port
Ceramic Valve Part No.:
 9998-01



Fluid Logic: 8-5
Valve Description:
 Distribution Flow Path
 Eight ports plus syringe port
Ceramic Valve Part No.:
 7993-01, 59943-01

*Valves 9537-01 and 58889-01 have a 0.060" (1.524 mm) fluid path diameter.
 All tubing connections are compatible with 1/4" x 28 flanged or flangeless fittings.
 Select valves are available in 200 – 400 psi upon request.
 All valve housings are aluminum. Stainless steel housings are available as a custom option.

PSD/6 Specifications

General Specifications

Accuracy	±1% @ 100% stroke
Precision	≤ 0.05% @ 100 % stroke
Fluid Path	Borosilicate glass, PTFE, PFA, CTFE or ceramic
Weight	3.7 lbs. (1.67 kg.)
RoHS Compliant	Yes
Linear Force Capability	22 lbf. (9.98 kgf.)

Power Requirements

Supply Voltage	24 VDC
Current	1.5 amp maximum

Syringe and Syringe Drive

Syringe Volumes	25 µL to 50 mL
Syringe Materials	Glass Barrel, PTFE or PFA insert. Stainless steel or aluminum plunger with PTFE coating, PTFE or UHMW-PE plunger tip
Resolution	Selectable 6,000 steps (standard) / 48,000 steps (high)
Syringe Drive Mechanism	Stepper Motor driven lead screw and optical encoder
Stroke Length	60 mm
Syringe Speeds	2 second to 100 minute stroke

Valve and Valve Drive

Valve Drive Speed	250 ms per 120° rotation
Valve Drive Speed	Stepper motor with optical encoder feedback
Valve Fittings	¼" - 28
Valve Materials	CTFE, PTFE or ceramic
Nominal Fluid Path Diameter	Ceramic: 0.060" (1.524 mm), PTFE: 0.059" (1.498 mm) unless otherwise noted

Communication

Type	RS-232, RS-485 or CAN
Protocols	Terminal or standard
Baud Rate	9,600 or 38,400 (RS-232 or RS-485); 100,000 or 125,000 (CAN)
Data Bits	8
Parity	None
Stop Bit	1, Half Duplex
Daisy Chain Length	Up to 16 individual pumps
Programable Capabilities	Ramps, cutoff velocity, backlash compensation, syringe speeds, loops, on-the-fly speed changes, terminate moves and delays, error detection, valve rotation selection, enhanced "H" factor capabilities including valve rotation CW and CCW

Environmental Operating and Storage Range

Operating Temperature	60°F (15°C) to 104°F (40°C)
Operating Humidity	20% to 96% relative humidity, non-condensing
Storage Temperatures	-4°F (-20°C) to 150°F (65°C)
Storage Humidity	20% to 95% relative humidity, non-condensing

For more information or to place your order, call Hamilton at **1-800-648-5950** or visit www.hamiltoncompany.com.

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L60038 - 06/2014

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