

PSD/8 SYRINGE DRIVE MODULE



The PSD/8 (Precision Syringe Drive) module is an integrated and self contained fluid dispensing sub-system. Modules can operate as a single unit, or up to 16 units can be daisy chained together to operate in a complex fluid handling system. The PSD/8 can be fitted with a variety of valves and syringes to meet the requirements for most demanding applications. Superior precision and accuracy is assured through rigorous manufacturing controls and chassis design. Every module is performance tested and comes with a performance test report that is NIST traceable.

Using industry standard protocols, the module is controlled by either RS-232 or RS-485. Digital I/O is also available to meet a large range of system control configurations.

Specifications

Resolution	Selectable 3,000 Standard Resolution 24,000 High Resolution
Accuracy	+/- 1.0%
Precision	+ 0.05%
Speed (Full Stroke)	1.3 Seconds to 20 Minutes
Syringe Drive Mechanism	DC stepper motor, self lubricating and wear compensating lead nut/screw, 60 mm stroke length
Valve Drive	Direct Drive DC stepper motor with 15° resolution and optical encoder
Valve Drive Speed	250 ms per 120° rotation
Power Requirements	24 VDC +/- 10%
Power Rating	850 mA (peak)
Weight	5.4 lbs. (2.4 kg)
Dimensions	Height: 10.00" Width: 2.56" Depth: 4.51" (Add 0.25" for edge connector)
Storage Temperature	-29° to 65° C
Operating Range	Temperature: 15° to 40° C Humidity: 20% to 95% R.H. non-condensing
Communication	RS-232, RS-485, via ASCII commands 15 location method storage
Baud Rate	9600 or 38400 (RS-232, RS-485)



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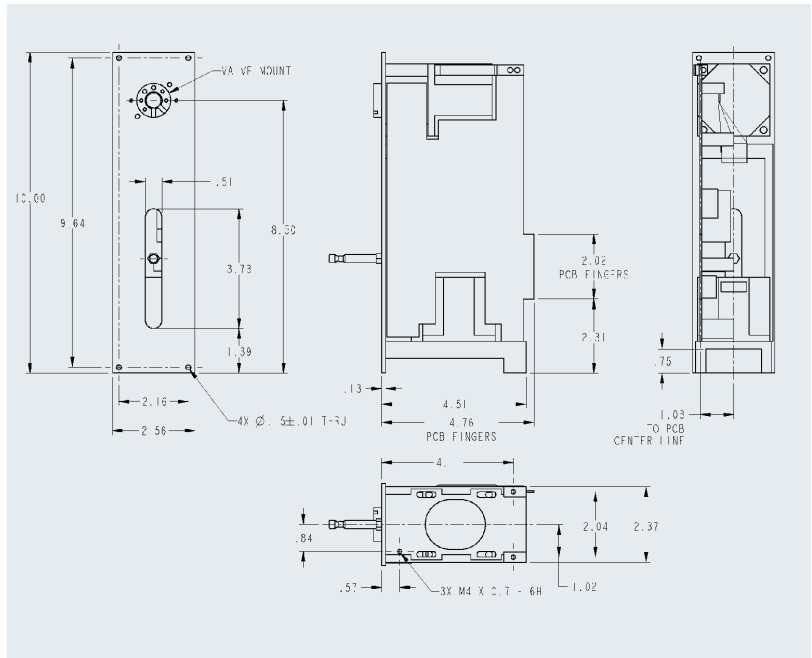
PSD/8 Part Numbers:

Description	Part Number
PSD/8 Syringe Pump, Short Drive Stem	9800-01
PSD/8 Syringe Pump, Extended Drive Stem	9800-02

Syringe Part Numbers for use with the PSD/8

Syringe Model	Volume	TLL with PTFE tips	TLL with UHMWPE tips
1705	50 µL	9880-15	9882-15
1710	100 µL	9880-20	9882-20
1725	250 µL	9880-25	9882-25
1750	500 µL	9880-30	9882-30
1001	1.0 mL	9880-35	9882-35
1002	2.5 mL	9880-40	9882-40
1005	5.0 mL	9880-45	9882-45
1010	10 mL	9880-50	9882-50
1025	25 mL	9880-55	N/A

N/A = Not Available



PSD/8 Syringe Compatibility

Syringe	Volume	HV	HVC, HVCXI (6)	HVXI (8)	HVCXI (4&8)
1705	50 µL	Y	Y	Y	Y
1710	100 µL	Y	Y	Y	Y
1725	250 µL	Y	Y	Y	Y
1750	500 µL	Y	Y	Y	Y
1001	1.0 mL	Y	Y	Y	Y
1002	2.5 mL	Y	Y	N	Y
1005	5.0 mL	Y	Y	N	N
1010	10 mL	Y	Y	N	N
1025	25 mL	Y	Y	N	N

Note: 1. Y = Yes, the syringe is compatible with the valve indicated.

2. N = No, the syringe is incompatible with the valve indicated.

PTFE Plug Valves

Valve Configuration	Part Numbers	Compatible with 9800-01 Short Stem	Compatible with 9800-02 Long Stem	Fluid Contact Materials
Three port Y-valve	7427-01	Yes	No	CTFE, PTFE
T-port	7990-01	Yes	No	CTFE, PTFE
Block	9537-01	Yes	No	CTFE

Ceramic Valves

Valve Configuration	Part Numbers	Compatible with 9800-01 Short Stem	Compatible with 9800-02 Long Stem	Fluid Contact Materials
Three port Y-valve	8778-01	Yes	No	ETFE, Ceramic
T-port	8068-01	Yes	No	ETFE, Ceramic
Three port wash	9234-01	Yes	No	ETFE, Ceramic

Ceramic Distribution Valves

Valve Configuration	Part Numbers	Compatible with 9800-01 Short Stem	Compatible with 9800-02 Long Stem	Fluid Contact Materials
Three port distribution	7991-01	Yes	No	ETFE, Ceramic
Four port distribution	7992-01	No	Yes	ETFE, Ceramic
Six port distribution	9998-01	No	Yes	ETFE, Ceramic
Eight port distribution	7993-01	No	Yes	ETFE, Ceramic



Hamilton Company
 4970 Energy Way
 Reno, Nevada 89520 USA
 Toll Free: 800 648-5950
 Telephone: +1-775-858-3000
 Fax: +1-775-856-7259
 e-mail: oem@hamiltoncompany.com

www.hamiltoncompany.com