



# M1 CLASS

**Single Piston Pumps with Excellent Capability at a Low Cost**

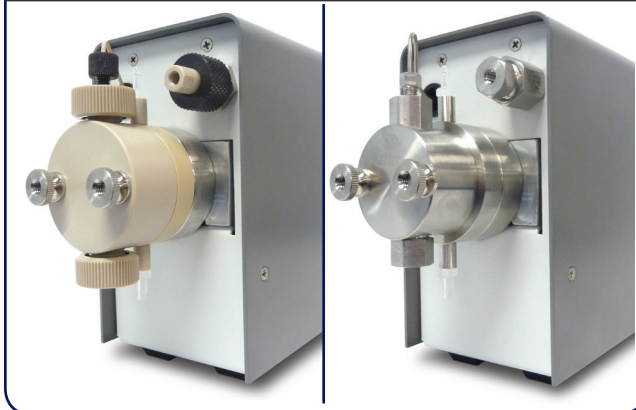
The compact **M1 Class** consists of single-headed, positive displacement piston pumps that deliver high-performance and precision at an affordable price. Superior to Gear, Diaphragm, and Peristaltic pumps, the **M1 Class** provides greater performance at an equivalent cost to lesser-functioning products.

Applications include precise chemical metering, dispensing and specific HPLC separations. Standard fluid path materials are Stainless Steel and PEEK. With 5 mL/min, 10 mL/min, 40 mL/min, and 100 mL/min versions, reaching pressures up to 2,000 psi, these pumps capture the majority of typical laboratory fluid transfer applications.

Features include interactive keypad control, Pulse Dampener and Outlet Filter, RS-232 Serial and Micro USB 2.0 ports for complete PC control and status, as well as hardware for laboratory stand mounting. Having the smallest possible footprint for a high pressure pump, the **M1 Class** will easily integrate into any laboratory or industrial environment.

**Components are also available in Kit Form for OEM Applications.**

## Several Fluid Path Materials Available



### Flow Rate

5 mL/MIN  
10 mL/MIN  
40 mL/MIN  
100 mL/MIN

### Pressure

Up To  
2,000 PSI  
(10 mL/MIN)

### Fluid Path

STAINLESS STEEL,  
PEEK OR  
TITANIUM

### Control

RS-232, MICRO USB,  
RUN/STOP

# M1 CLASS - MODEL SELECTION MATRIX

Single Piston Pumps with a Very Small Footprint, Designed for Dosing and Metering Applications

USE THE FOLLOWING LISTS OF OPTIONS AND OPTION CODES TO CONSTRUCT YOUR PUMP MODEL NUMBER.

<b>M1</b>	<b>FLOW RATE</b>	<b>MATERIAL</b>	<b>SELF-FLUSH</b>	<b>PULSE DAMPENER</b>	<b>PISTON SEAL</b>	<b>INLET/OUTLET TUBING</b>	<b>SPECIAL OPTIONS</b>
<b>M1</b> = M1 Class	<b>0.05</b> = 5 mL/min (2,000 psi max.) <b>0.10</b> = 10 mL/min (2,000 psi max.) <b>0.40</b> = 40 mL/min (500 psi max.) <b>1.00</b> = 100 mL/min (250 psi max.)	<b>S</b> = Stainless Steel Fluid Path <b>P</b> = PEEK Fluid Path <b>T</b> = Titanium Fluid Path	<b>F</b> = w/ Self-Flush Piston Wash <b>N</b> = No Self-Flush	<b>P</b> = Pulse Dampener Only No Pressure or Leak Sensors <b>N</b> = No Pulse Dampener No Pressure or Leak Sensors	<b>1</b> = Standard Seal (SS Energizer) <b>2</b> = Organic Seal (SS Energizer) <b>3</b> = Standard Seal (FP Energizer) <b>4</b> = Organic Seal (FP Energizer) (SS : Stainless Steel) (FP : Fluoropolymer)	<b>Inlet</b> <b>A</b> = 1/8" OD (flexible) <b>B</b> = 1/8" OD (rigid) <b>C</b> = 1/8" OD (rigid) <b>D</b> = 1/8" OD (flexible) <b>E</b> = 3/16" OD (flexible) <b>G</b> = 1/8" OD (flexible) <b>Outlet</b> <b>1/16"</b> OD <b>1/16"</b> OD <b>1/8"</b> OD (rigid) <b>1/8"</b> OD (flexible) <b>1/8"</b> OD (rigid)	-- = Standard Product (leave blank for standard options & cabinet) <b>XX</b> = Customer Special (Consult Factory)

Note: Inlet and Outlet Fittings are included with the pump for the specified tubing. For options A and D, the inlet tubing and filter are included.

EXAMPLE MODEL NUMBER: **M1010SFN1A**

Please Note: Some features and options are not available with certain configurations. Please refer to the Part Number Configurator (Excel) to verify model number before ordering. Download at: [www.ssihplc.com/configurator/](http://www.ssihplc.com/configurator/)

## M1 CLASS - SPECIFICATIONS

<b>Flow Rate Range and Max. Pressure Ratings*</b>	.....0.00 - 5.00 mL/min (2,000 psi) 0.00 - 10.00 mL/min (2,000 psi) 0.0 - 40.0 mL/min (500 psi) 0.0 - 100.0 mL/min (250 psi)	<b>Wetted Materials</b> .....	(See Above Options), Synthetic Ruby, Sapphire, UHMWPE, PTFE
<b>Flow Accuracy</b> .....	Within 2% of set flow rate, 0.20 mL/min and above; 80:20 Water/IPA @ 1,000 psi (5 mL and 10 mL) Within 5% of set flow rate, 0.8 mL/min and above; 80:20 Water/IPA @100 psi (40 mL) Within 5% of set flow rate, 2 mL/min and above; 80:20 Water/IPA @100 psi (100 mL)	<b>Dimensions</b> .....	5.5" H x 3" W x 10.5" D (14 x 7.6 x 26.7 cm)
<b>Flow Precision</b> .....	1.0% RSD	<b>Weight</b> .....	3.5 lbs. (1.6 kg)
		<b>Power</b> .....	External Power Supply; To Supply: 100-240 Vac, 50-60 Hz, 1A; Supply to Pump: 24VDC, center positive, 2.1 mm post, 1.7 AMP
		<b>Control</b> .....	RS-232, Micro USB, Run/Stop

\* Flow Rate is dependent on solvent selection and operating pressure.