

ReaXus[®] 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.

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Applications include precise chemical metering, dispensing, and specific HPLC separations. Standard fluid path materials are Stainless Steel and PEEK. With 10 mL/min, 40 mL/min, and 100 mL/min versions, reaching pressures up to 2,500 psi, these pumps capture the majority of typical laboratory fluid transfer applications.



Features include interactive keypad control, 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.



REAXUS[®]

Flow Rate

10 mL/min
40 mL/min
100 mL/min

Pressure

Up To 2,500 psi (10 mL/min)

Fluid Path

Stainless Steel or Peek

Control

Rs-232, Micro USB, Run/Stop

M1 Class Specifications

	10 mL/min	40 mL/min	100 mL/min
Flow Rate Range	0.01 – 10.000 mL/min	0.1 – 40.0 mL/min	0.1 – 100.0 mL/min
Flow Rate Increment	0.01 mL/min	0.1 mL/min	0.1 mL/min
Flow Rate Accuracy*	±5% (0.5 – 10.0 mL/min; 80:20 Water/IPA; 1,000 psi)	±5% (1.0 – 36.0 mL/min; 80:20 Water/IPA; 250 psi)	±5% (10.0 – 100.0 mL/min; 80:20 Water/IPA; 100 psi)
Flow Reproducibility	1.5% RSD (0.3 – 10.0 mL/min; 80:20 Water/IPA; 1,000 psi)	1% RSD (1.0 – 36.0 mL/min; 80:20 Water/IPA; 250 psi)	1% RSD (2.0 – 100.0 mL/min; 80:20 Water/IPA; 100 psi)
Maximum Delivery Pressure	2,500 psi	500 psi	250 psi
Pressure Accuracy	N/A		
Piston Displacement	25.1 µL	100 µL	226 µL
Piston Wash	Self-flushing pump heads – continuous wash without auxiliary pump		N/A
Wetted Materials	PEEK pumps may include: PEEK, Synthetic Ruby, Sapphire, UHMWPE, FFKM Stainless Steel pumps may include: 316 Stainless Steel, PEEK, Synthetic Ruby, Sapphire, Alumina, UHMWPE, PTFE, ETFE		
Dimensions (H x W x D)	5.6" x 3.0" x 10.6" (14.2 x 7.6 x 26.9 cm)		
Weight	6 lbs (2.7 kg)		
Power	100 – 240 Vac (±10%), 50 – 60 Hz, 40 W		
Front Panel	4-digit LED to monitor flow rate and indicate alarms. Run/Stop and menu keys, two status indicators, Increase/Decrease displayed parameters.		
Communication	RS-232, micro-USB, Run/Stop TTL		
Viscosity**	0.5 – 7.0 cP	0.5 – 5.2 cP	0.5 – 6.0 cP
Liquid Temperature	0 – 82 °C		
Environment	Indoor use only (Pollution degree 2)		
Altitude	Up to 2000 m (6500 ft)		
Ambient Temperature	10 – 30 °C		
Humidity	20 – 90% relative humidity		

*Flow Rate is dependent on solvent selection and operating pressure

**Range of fluid viscosities where published flow accuracy is maintained

M1 Class—Order Numbers

CONSTANT FLOW

STAINLESS STEEL

Stainless Steel Fluid Path; with Pulse Dampener; Standard Seal (Stainless Steel Energizer); Constant-Flow Control Mode

0.01–10.00 mL/min; 2,000 psi # M1010SFP1XFTL

0.01–40.0 mL/min; 500 psi # M1040SFP1XFTL

0.01–100.0 mL/min; 100 psi # M1100SNN1XFTL



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Teledyne LABS is continually improving its products and reserves the right to change product specifications, replacement parts, schematics, and instructions without notice.

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