

## Liquid handling pumps, M series

CE

The Cheminert® M Series liquid handling pump is a syringe-free pump capable of delivering a bidirectional flow over six orders of magnitude.

The M Series is a positive displacement pump, which means that it is self-priming and tolerant of any gas which may find its way into the fluid lines. There is no separate fill cycle, and the capacity is unlimited.

RS-232 and RS-485 communication protocols are incorporated into the microprocessor-driven controller. (USB interface requires an adapter.) The included software package controls flow rates, flow direction, and metered volumes.

### Operating principle

At the core of the pump is a polymeric rotor housing four 1/8" diameter pistons in sapphire cylinders. As the microstepper motor turns the rotor, the pistons float on a stationary cam; at any given moment, one piston is filling, one is dispensing, and the other two are in transit between the fill and dispense positions.



### SPECS

	M6	M50
Continuous minimum dispense	100 nl	50 $\mu$ l
Continuous maximum dispense	5 ml/min	25 ml/min
Maximum back pressure	100 psi	100 psi
Gravimetric precision		
for 125 $\mu$ l	0.5%	0.8%
for 1.25 ml	0.05%	0.1%
Pump internal volume ( $\mu$ l)	100 $\pm$ 2 $\mu$ l	625 $\pm$ 10 $\mu$ l

### Applications

- Flow cytometry, cell and drug perfusion
- HTS and robotic systems
- Infusion and micro-dialysis
- Micro diluters/dispensers for nl to ml range applications
- Micro liquid transfers (nl) for micro arrays
- Microtiter plate dispensing using multiposition valves

#### TECH TIP

Use a standoff assembly if the motor must be separated from the pump head. Standoffs are available in lengths of 2", 3", 4", and 6".

### M6 pumps

10 nl - 10 ml

	Prod No
M6 pump with:	
Controller and stepper motor	CP2-4841-100M1
Stepper motor (no controller)	CP2-4841-100SM
M6 pump only	CP2-4841-100D

### M50 pumps

50  $\mu$ l - 50 ml

	Prod No
M50 pump with:	
Controller and stepper motor	CP3-8182-625M2
Stepper motor (no controller)	CP3-8182-625SM2
M50 pump only	CP3-8182-625D

### Accessories and replacement parts

	Prod No
Pump motor	
M6	CP-DSM
M50	CP-DSM2
Controller, MicroLynx-4	CP-CM1-P
Standoff assembly *	
2"	2SOAMP
3"	3SOAMP
4"	4SOAMP
6"	6SOAMP

\* Note: Adding a standoff will change the backlash. Consult factory for further information.