

C-Series Syringe Pumps with Multiport Valves



PRODUCT OVERVIEW

- > OEM liquid handling component, delivers fluids from microliters to milliliters with exceptional accuracy and precision
- > Utilizes industry standard communication protocols and mounting configurations
- > C24000MP is the preferred choice for low flow rate and low pulsation applications
- > Designed for continuous duty and reliable performance

FEATURES

- > Accommodates 6-way distribution valves
- > Accommodates valves with 3 or 4 ports in a variety of configurations
- > High Resolution modes available, up to 192,000 microsteps/full-stroke
- > Uses industry standard OEM or DT Cavo[®] protocol
- > Communication interfaces: RS232, RS485 or CAN
- > Address up to 15 pumps individually
- > Fast valve switch time: < 250 ms between neighboring ports
- > Long-life rotary shear valves (up to 24 times the life of competing valves)
- > Proprietary high-efficiency and maintenance-free stepper motor drive system (no belts to stretch or break)

BASE MODELS

- C3000MP
- C24000MP



(Shown with accessory Syringe)

CONFIGURED OPTIONS

Fluid Contact Syringe Material	Borosilicate Glass and UHMWPE or PTFE (seal) - Pressures to 80 PSI
Fluid Contact Valve Material	PCTFE (housing) and UHMWPE (plug) - Pressures to 100 PSI
Syringe Sizes	50 μ L, 100 μ L, 250 μ L, 500 μ L, 1 mL, 2.5 mL, 5 mL, 12.5 mL

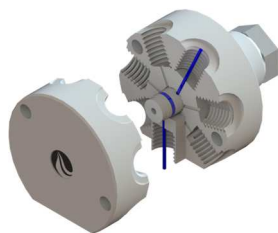
PRODUCT SPECIFICATIONS

	C3000MP Syringe Pump	C24000MP Syringe Pump
Stroke Speed	1.2 seconds to 100 minutes per stroke (800 minutes in microstep mode).	4.2 seconds to 800 minutes per stroke (3200 minutes in microstep mode).
Step Resolution	Standard mode 3,000 steps, Hi-Res mode 24,000 steps	Standard mode 24,000 steps, Hi-Res mode 192,000 steps
Drive Design	Direct drive stepper motor/leadscrew with 30 mm of travel. Manually moveable for "power off" syringe removal.	Direct drive stepper motor/leadscrew with 30 mm of travel.
Valve Options	6-way distribution valve PCTFE/UHMWPE	
Interface Type	RS232, RS485 or CAN	
Communication Rates	RS232/RS485 9600 or 38400 baud CAN - 100K, 125K, 250K, 500K, 1M bps	
Format (RS232/RS485)	Data Bits - 8, Parity - None, Stop Bit - 1 Half Duplex, Data Terminal and OEM protocols	
Operating Temperature and Humidity	15°C to 40°C (59°F to 104°F) and 20% to 95% RH at 40°C (104°F), non-condensing	
Non-Operating Temperature and Humidity	-20°C to 65°C (-4°F to 149°F) and 30% to 85% RH, non-condensing	
Media Temperature	15°C to 40°C (59°F to 104°F)	

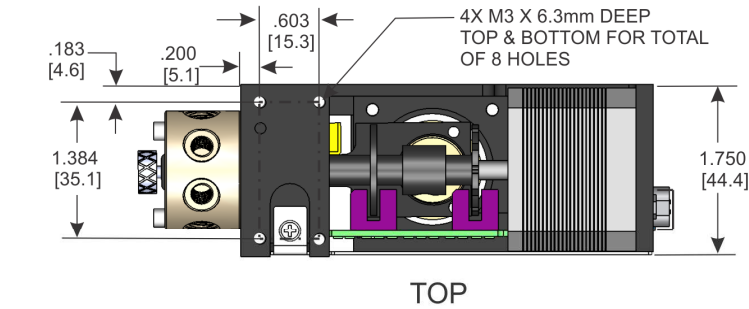
FUNCTIONAL PARAMETERS

Imprecision (full stroke) at 50 µL to 100 µL	< 0.1% CV
Imprecision (full stroke) at 250 µL to 12.5 mL	< 0.05% CV
Inaccuracy (full stroke)	< 1% syringe volume
Power Requirement	24 VDC ± 10%
Power Rating	≤ 1.5 Amp (peak)

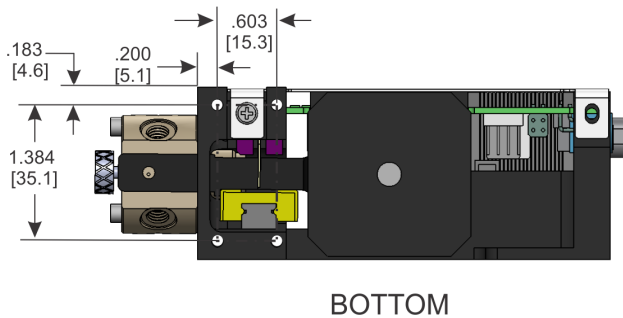
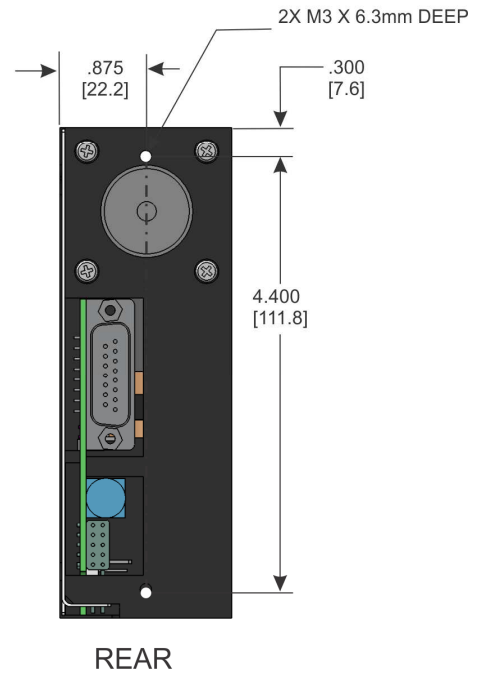
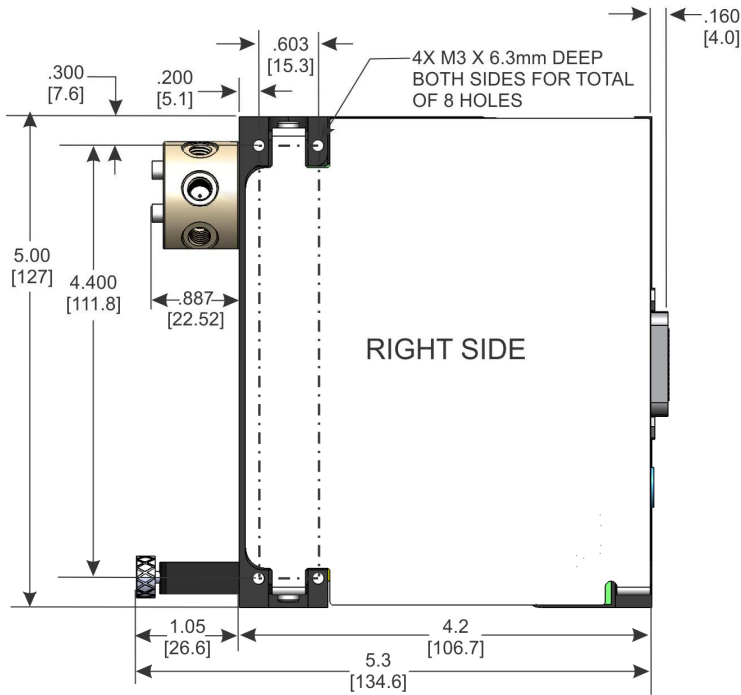
FLOW PATH FOR 6-WAY DISTRIBUTION VALVE



C-SERIES PUMP WITH MULTIPORT VALVE INTERFACE DETAILS



ALL MOUNTING HOLES ARE
M3 X 0.5 mm X 6.3 mm DEEP MIN.



ALL DIMENSIONS UNLESS
OTHERWISE SPECIFIED
.XXX±.008 [0.2 mm]
(MILLIMETERS SHOWN IN BRACKETS)

PUMP AND VALVE SOLUTIONS FOR OEMS WORLDWIDE

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