

# CX-Series Syringe Pumps - 60 mm Stroke



## 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
- > CX6000 excels for large volumes/flows and the CX48000 is optimized for very low flow applications requiring minimal pulsation
- > Accommodates valves with up to 6 ports in a variety of configurations
- > Designed for continuous duty and reliable performance

## FEATURES

- > A seamless replacement for industry standard 60 mm stroke pumps using the Cavo® protocol
- > Communication interfaces: RS232, RS485 or CAN
- > High Resolution options available up to 384,000 steps/full-stroke
- > Proprietary high-efficiency and maintenance-free stepper motor drive system (no belts to stretch or break)
- > Long-life rotary shear valves (up to 24 times the life of competing polymer valves)
- > Fast valve switch time: < 250 ms between neighboring ports
- > Communicate with up to 16 pumps using a single serial or CAN communication bus

## BASE MODEL

- CX6000
- CX48000



(Shown with 120° 3-port PEEK Valve and accessory Syringe)

## CONFIGURED OPTIONS

Fluid Contact Syringe Material	Borosilicate Glass and UHMWPE or PTFE (seal) - Pressures to 80 PSI
Fluid Contact Valve Material	PCTFE or PEEK (housing) and PTFE or UHMWPE (plug) - Pressures to 100 PSI
Syringe Sizes	50 µL, 100 µL, 250 µL, 500 µL, 1 mL, 2.5 mL, 5 mL, 10 mL, 25 mL (PTFE only)

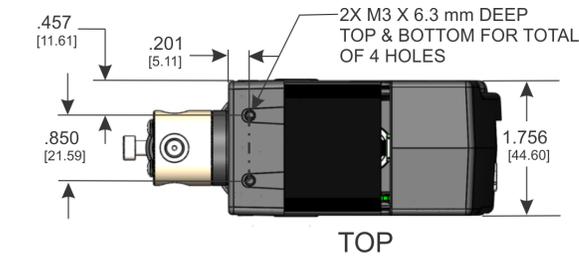
## PRODUCT SPECIFICATIONS

	CX6000 Syringe Pump	CX48000 Syringe Pump
Stroke Speed	1.2 seconds to 200 minutes per stroke (800 minutes in microstep mode).	4.2 seconds to 800 minutes per stroke (6,400 minutes in microstep mode).
Step Resolution	Standard mode 6,000 steps, Hi-Res mode 48,000 steps	Standard mode 48,000 steps, Hi-Res mode 384,000 steps
Drive Design	Direct drive stepper motor/leadscrew with 60 mm of travel.	Direct drive stepper motor/leadscrew with 60 mm of travel.
Valve Options	120° 3-port, 90° 4-port, T-valve, 90° 3 way Distribution, 6 way Distribution. Body materials PEEK or PCTFE, Rotary Plug PTFE or 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	10°C to 40°C (50°F to 104°F) and 20% to 80% RH at 40°C (104°F), non-condensing	
Non-Operating Temperature and Humidity	-25°C to 60°C (-13°F to 140°F) and 20% to 80% RH at 40°C (104°F), non-condensing	
Media Temperature	15°C to 40°C (59°F to 104°F)	

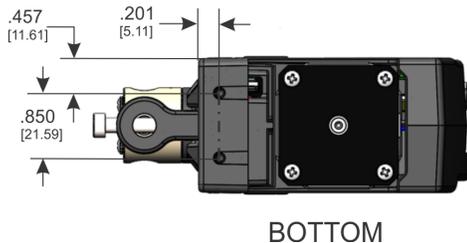
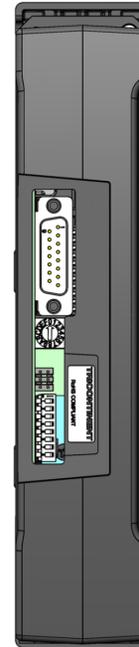
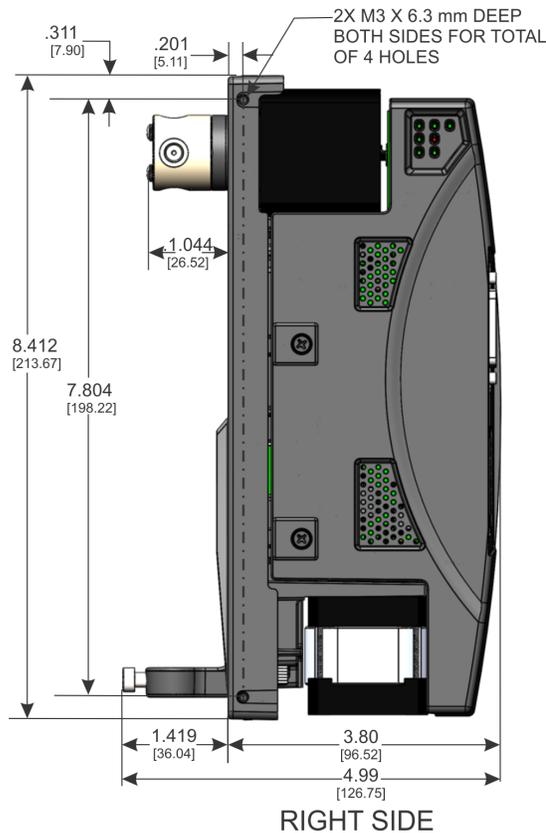
## FUNCTIONAL PARAMETERS

Imprecision (full stroke)	< 0.05% CV
Inaccuracy (full stroke)	< 0.50% syringe volume
Power Requirement	24 VDC ± 10%
Power Rating	≤ 1.5 Amp (peak)

## CX-SERIES PUMP 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)  
(Shown with 90° 4-port PEEK Valve)

PUMP AND VALVE SOLUTIONS FOR OEMS WORLDWIDE

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