

MC6000 Multi-Channel Syringe Pump



PRODUCT OVERVIEW

- > Designed for multi-probe liquid handling applications
- > Utilizes rotary shear valves with inert flow paths and superior lifespan and reliability
- > Operate up to 8 independent flow paths as adjacent pairs

FEATURES

- > Rotary shear valves with 1/4 -28 female ports capability
- > Full quadrature encoder for absolute syringe positioning
- > Front panel LED flow and status indicators
- > Valve Drive <250 ms between neighboring ports
- > Address a maximum of 15 pumps individually

BASE MODEL

- MC6000-4
- MC6000-6
- MC6000-8



(Shown with 3-port valve and optional syringes)

CONFIGURED OPTIONS

- > Available in 4, 6 or 8 channel syringe configurations
- > Available with 3-way distribution valve or 3-port valve with integrated bypass capability
- > Available Syringe Sizes:
50 μ L, 100 μ L, 250 μ L, 500 μ L, 1 mL, 2.5 mL, 5 mL

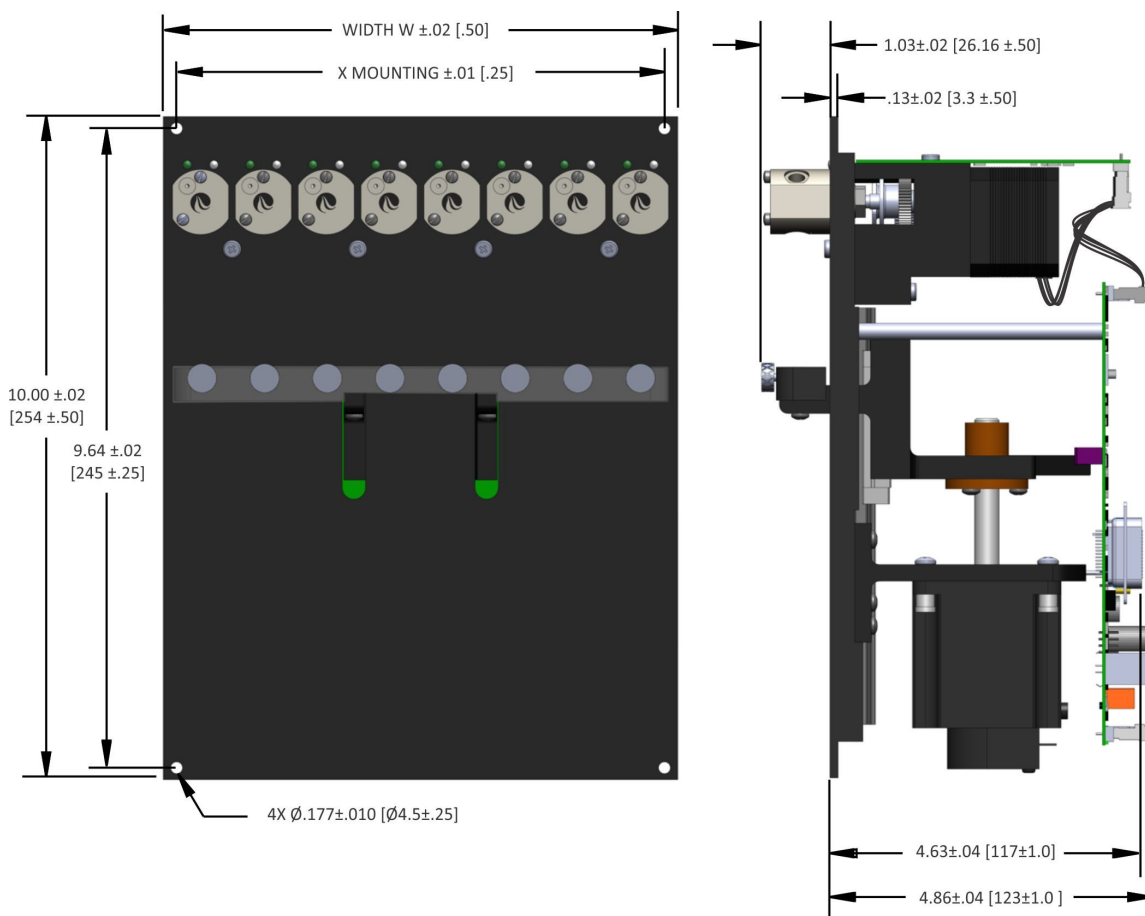
PRODUCT SPECIFICATIONS

Drive Design	Stepper motor/leadscrew with 30 mm of travel
Stroke Speed	1.2 seconds to 100 minutes per stroke (800 minutes in microstep mode)
Step Resolution	Standard mode 6,000 steps, Hi-Res mode 48,000 steps
Syringe Design	30 mm stroke glass syringe with ¼ - 28 fitting PTFE seals (long-life UHMWPE seals available upon request)
Fluid Contact Materials	Syringe - Borosilicate glass (seal) PTFE or UHMWPE 3-port valve - PEEK (body) and UHMWPE (rotary plug) 3-way distribution valve - PCTFE (body) and UHMWPE (rotary plug)
Interface Type *Requires separate power connection	USB*, RS232, RS485 or CAN (using industry specific communication protocols)
Communication Rates	RS232/RS485 9600 or 38400 baud CAN - 100K, 125K, 250K, 500K, 1M baud
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)

MC6000 INTERFACE DETAILS



No. of Channels	Width	X-Mounting
4	5.12 in. [130 mm]	4.74 in. [120.4 mm]
6	6.43 in. [163.3 mm]	6.03 in. [153.2 mm]
8	7.72 in. [196 mm]	7.32 in [186 mm]

Note: Dimensions in inches [mm] unless otherwise specified.

MULTI-CHANNEL SYRINGE PUMP SOLUTIONS

tricontinent.com



Americas
Tricontinent
Scientific, Inc.

12740 Earhart Ave
Auburn, CA 95602
USA
Tel: +1 800 937 4738 or +1 530 273 8888
liquidhandling.tcs@irco.com

Asia Pacific
Gardner Denver Thomas Pneumatic
Systems (Wuxi), Co., Ltd.
No. 1 New Dong An Road,
Shuofang Town
Wuxi, Xinwu District
Jiangsu 214142 China
Tel: +86 510 6878 2258
tricontinent.cn@irco.com

EMEA
(HEADQUARTERS)
Gardner Denver Thomas GmbH

Livry-Gargan-Str. 10
82256 Fürstenfeldbruck
Germany
Tel: +49 8141 2280 0
thomas.de@irco.com

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