

CL® VARIABLE-SPEED SINGLE-CHANNEL TUBING PUMPS

FEATURES/BENEFITS

- ▶ Deliver flow rates from 0.002 to 43.0 mL/min
- ▶ Ideal for chromatography, spectroscopy, analyzer, and dispensing applications
- ▶ Compact ¼-DIN housing
- ▶ Mount on equipment rack or place on lab bench
- ▶ Reversible motor for pumping fluid in either direction
- ▶ Remote control capabilities
- ▶ Change tubing quickly by releasing built-in retainers
- ▶ Use all sizes of microbore tubing
- ▶ Average fixed occlusion eliminates adjustment after tubing change
- ▶ Suitable for OEM applications

DRIVE CONTROLS

- ▶ All manual controls on front panel
- ▶ Separate 1-turn speed control and CW/OFF/CCW switch with green LED power indicator
- ▶ Maintain speed setting when pump is turned on/off or reversed
- ▶ "Max" button runs pump at 100% of max rpm to prime or rapidly flush tubing



C/L variable-speed single-channel pump 77122-24

NEW



ISO9001:2008
CERTIFIED SUPPLIER



1 year
warranty

Power supplies are:



SETUP

1. Open cover to lower occlusion bed.
2. Wrap tubing around rollers.
3. Secure tubing in retainers.
4. Snap occlusion bed shut and close cover.
 - ◆ Pump head has average fixed occlusion, so there's no need for adjustment
 - ◆ 1.5 m (5 ft) of 0.89-mm ID Tygon® E-LFL tubing supplied

See specifications on next page for more information.

SPEED CONTROL/CIRCUITRY

- ▶ CW/OFF/CCW switch and 1-turn potentiometer
- ▶ Speed control: ±5%
- ▶ Current limited: 1.0 A DC max
- ▶ Voltage: 100 to 240 VAC (50/60 Hz) or 12 VDC
- ▶ Humidity: 10 to 90%

REMOTE CONTROL

- ▶ Remote control connections on back of dual-channel and single-channel pumps
- ▶ Start/stop pump with contact closure

ORDERING INFORMATION

Catalog number	rpm	Power (50/60 Hz)
HL-77122-04	1.7 to 10	90 to 260 VAC
HL-77122-06		12 VDC†
HL-77122-14	13 to 80	90 to 260 VAC
HL-77122-16		12 VDC†
HL-77122-24	50 to 300	90 to 260 VAC
HL-77122-26		12 VDC†

†Power supply not included with 12 VDC models.

MICROBORE PUMP TUBING FLOW RATE INFORMATION (mL/MIN)

rpm	Microbore pump tubing size (ID)							
	0.19 mm	0.25 mm	0.51 mm	0.89 mm	1.14 mm	1.42 mm	2.06 mm	2.79 mm
1.7 to 10	0.002 to 0.013	0.004 to 0.022	0.015 to 0.087	0.041 to 0.25	0.064 to 0.39	0.09 to 0.57	0.18 to 1.05	0.28 to 1.65
13 to 80	0.017 to 0.10	0.03 to 0.18	0.12 to 0.70	0.33 to 2.0	0.52 to 3.1	0.75 to 4.5	1.4 to 8.5	1.8 to 11.0
50 to 300	0.06 to 0.38	0.11 to 0.67	0.43 to 2.6	1.2 to 7.4	1.9 to 11.5	2.8 to 17.0	5.3 to 32	7.2 to 43

MICROBORE PUMP TUBING ORDERING INFORMATION

Tube ID (mm)	Tygon® E-Lab	Silicone, platinum-cured	Silicone, peroxide-cured	PharMed® BPT	Tygon E-LFL (long flex life)	Viton®	Puri-Flex™	C-FLEX®	Solvent/hydrocarbon
0.19	HL-06460-10	—	—	—	—	—	HL-96418-10	HL-95718-10	HL-95712-10
0.25	HL-06460-12	—	—	HL-95809-12	—	—	HL-96418-12	HL-95718-12	HL-95712-12
0.51	HL-06460-18	HL-95590-18	—	HL-95809-18	HL-06449-18	—	HL-96418-18	HL-95718-18	HL-95712-18
0.89	HL-06460-26	HL-95590-26	HL-07625-26	HL-95809-26	HL-06449-26	HL-97632-26	HL-96418-26	HL-95718-26	HL-95712-26
1.14	HL-06460-30	HL-95590-30	HL-07625-30	HL-95809-30	HL-06449-30	HL-97632-30	HL-96418-30	HL-95718-30	HL-95712-30
1.42	HL-06460-34	HL-95590-34	HL-07625-34	HL-95809-34	HL-06449-34	HL-97632-34	HL-96418-34	HL-95718-34	HL-95712-34
2.06	HL-06460-42	HL-95590-42	HL-07625-42	HL-95809-42	HL-06449-42	HL-97632-42	HL-96418-42	HL-95718-42	HL-95712-42
2.79	HL-06460-48	HL-95590-48	HL-07625-48	HL-95809-48	HL-06449-48	HL-97632-48	HL-96418-48	HL-95718-48	HL-95712-48
Quantity/pack	30.4 m (100 ft)	15.2 m (50 ft)	15.2 m (50 ft)	30.4 m (100 ft)	30.4 m (100 ft)	15.2 m (50 ft)	15.2 m (50 ft)	15.2 m (50 ft)	15.2 m (50 ft)



SPECIFICATIONS for C/L Variable-Speed Single-Channel Tubing Pumps

Catalog number	HL-77122-04	HL-77122-06	HL-77122-14	HL-77122-16	HL-77122-24	HL-77122-26
Performance specifications						
Flow capacity	0.002 to 1.65 mL/min		0.017 to 11.0 mL/min		0.06 to 43 mL/min	
rpm	1.7 to 10		13 to 80		50 to 300	
Number of channels	1					
Max torque	3.6 kg-cm (50 oz-in)					
Reversible	Yes					
External control - input	Start/stop with contact closure					
Electrical specifications						
Voltage VAC (50/60 Hz)	90 to 260 VAC	12 VDC	90 to 260 VAC	12 VDC	90 to 260 VAC	12 VDC
Current (mA)	110 at 115 V	—	175 at 115 V	—	400 at 115 V	—
Fuse rating	Not applicable					
Motor type	Permanent-magnet DC					
Motor size	0.24 W (<1/25 hp subtract)	2.0 W (<1/25 hp subtract)		7.3 W (<1/25 hp subtract)		
Display	LED power indicator light					
Motor/speed control type	1-turn potentiometer					
Speed regulation (repeatability)	±5% (±5%)					
Soft start/electronic brake	Yes / No					
Physical specifications						
Housing materials	¼ DIN ABS plastic					
Pump head materials	Polyphenylene sulfide (PPS), acetal, and copolyester with stainless steel rollers					
IP rating†	IP22					
Agency listings	CE; power supplies: CSA, UL, GS					
Operating temperature	0 to 40°C (32 to 104°F)					
Storage temperature	-45 to 65°C (-49 to 149°F)					
Noise level	<70 dBA @ 1 m (39")					
Dimensions (L x W x H)	17.8 x 8.9 x 8.9 (7.0 x 3.5 x 3.5)					
Shipping weight	1.4 kg (3.0 lb)					

†See page 194 for an explanation of IP ratings.

ACCESSORIES

HL-77120-03 Brackets for panel mounting. Set of 2.

HL-77120-11 Replacement power supply for 77122-04, -14, -24

HL-17050-01 NIST-traceable calibration for peristaltic pump drive



Brackets 77120-03

HOW TO LOAD YOUR PUMP HEAD



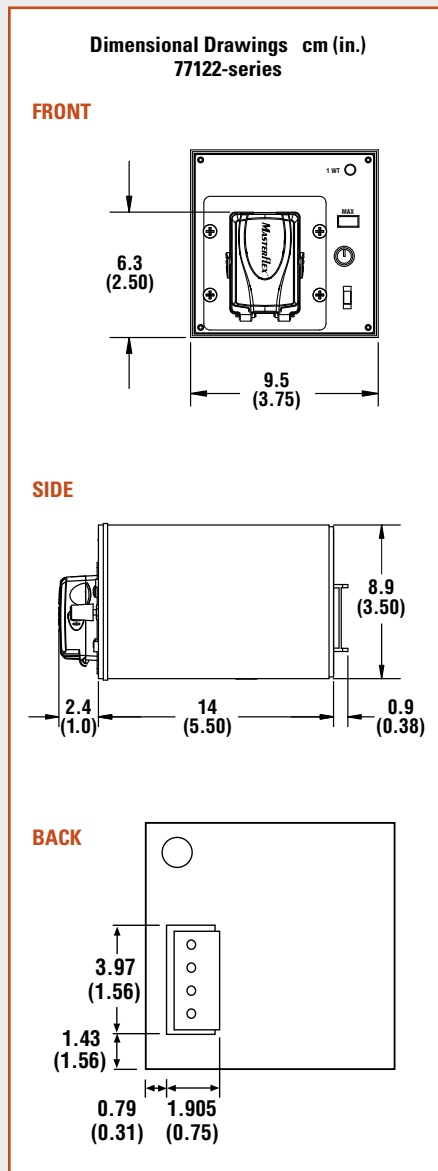
1. Open the cover and release the occlusion bed.



2. Insert tubing in right or left retainer and wrap tubing around the rollers. Secure tubing in opposite retainer.



3. Close cover.



FOR THE LATEST...

Masterflex technical resources, see

- ColeParmer.com
- Masterflex.com

ACCESSORIES 160-171

TECHNICAL DATA..... 172-206