

L/S® COMPACT VARIABLE-SPEED PUMPS

FEATURES/BENEFITS

- ▶ Flow rates: 1.8 to 220 mL/min depending on drive model and tubing size
- ▶ Single- or dual-channel models; dual-channel model delivers synchronous flow from two separate channels
- ▶ Integral pump head accepts L/S Precision tubing
- ▶ Tubing sets are easy to load with no occlusion or retention adjustment
- ▶ Separate single-turn speed control and CW/OFF/CCW switch—maintain speed setting when turning pump on/off
- ▶ Potentiometer is indexed for repeatability
- ▶ Remote start/stop via contact closure on back of pump
- ▶ Self-lubricating, thermoplastic polyester (Ertalyte® TX) rollers are low friction for smooth operation and long life
- ▶ Durable, anodized aluminum occlusion bed swings open for loading; locks securely shut during operation
- ▶ Three rollers and wide occlusion angle prevent fluid backflow up to rated pressure of tubing
- ▶ Painted-steel housing is stackable—ideal for crowded benchtops
- ▶ Powered by remote, dual-voltage (115/230 VAC) power supply

DRIVE CONTROLS

- ▶ All manual controls are on the front panel of pump
- ▶ Separate CW/OFF/CCW with green LED power indicator
- ▶ Single-turn potentiometer speed control
- ▶ MAX button runs pump at full speed to prime or flush tubing

SETUP

1. Select and load tubing.
2. Select motor direction (CW/CCW).
3. Turn pump on.
4. Adjust flow rate and speed with indexed, single-turn potentiometer.



L/S single-channel compact pump 77240-20



L/S dual-channel compact pump 77240-30

SPEED CONTROL/CIRCUITRY

- ▶ Single-turn potentiometer
- ▶ Speed control (repeatability): ±5%
- ▶ Meets UL 508C, CSA C22.2, No. 14, EN61010-1 and EN61326-1 (for CE mark)

REMOTE CONTROL

- ▶ Remote start/stop via contact closure

PUMP HEADS ACCEPTED

- ▶ These compact pumps include an integral single- or dual-channel Miniflex pump head

ISO9001:2008
CERTIFIED SUPPLIER

UL US

CE 2 year warranty

ORDERING INFORMATION

Catalog number	No. of channels	rpm	Power (50/60 Hz)
HL-77240-20	1	35 to 200	115/230 VAC, dual voltage
HL-77240-30	2		

ACCESSORIES

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

L/S TWO-STOP PUMP TUBING SET FLOW RATE INFORMATION (mL/MIN)

Order Masterflex L/S two-stop tubing sets separately on page 79; order L/S extension tubing on pages 68–73.

Pump model	Motor rpm range	L/S Precision pump tubing			
		L/S 13	L/S 14	L/S 16	L/S 25†
HL-77240-20	35 to 200	1.8 to 10	6.3 to 36	21 to 118	40 to 220
HL-77240-30		1.8 to 10	6.3 to 36	21 to 118	Not recommended

Note: All flow rates are approximate—calculated under the following conditions: 0 bar (0 psig) at inlet, 0.03 bar (0.5 psig) at outlet; water temperature at 22°C (72°F).

† Recommended for use with silicone or C-Flex® formulations only.

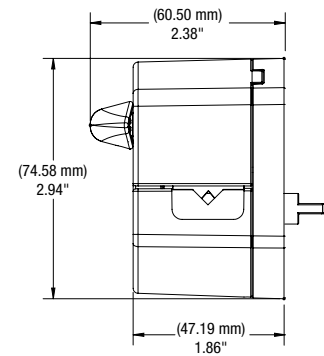


SPECIFICATIONS for L/S Compact Variable-Speed Pumps

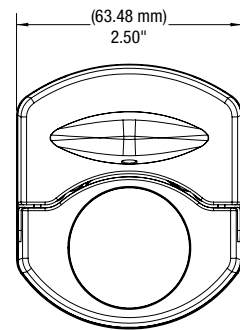
Catalog number		HL-77240-20	HL-77240-30
Performance Specifications			
Flow capacity (per channel)		1.8 to 220 mL/min	1.8 to 118 mL/min
Number of channels		1	2
rpm		35 to 200	
Number of heads accepted		single-channel head	dual-channel head
Maximum torque	Starting	113 N-cm (160 oz-in)	
	Running	35 N-cm (50 oz-in)	
Reversible		Yes (three-position switch for CW/OFF/CCW)	
External control – Input		Start/stop via contact closure	
External control – Output		Not applicable	
Electrical Specifications			
Voltage/Frequency VAC (50/60 Hz)		90 to 130 and 190 to 260 dual-voltage	
Current		Permanent-magnet brushed DC	
Motor type		6 W	
Motor size		Single-turn potentiometer	
Motor/speed control type		±5%	
Speed regulation (repeatability)		Yes/No	
Soft start/Electronic brake			
Physical Specifications			
Housing materials		Painted steel	
IP rating†		IP22	
Agency listings		UL, cUL, CE	
Operating temperature		0 to 40°C (32 to 104°F)	
Storage temperature		-25 to 65°C (-13 to 149°F)	
Dimensions (L x W x H)		22.0 x 13.3 x 11.4 cm (8 5/8" x 5 1/4" x 4 1/2")	
Shipping weight		2.7 kg (6 lb)	

†See page 194 for an explanation of IP ratings.

**Side View
(single channel)**



**Front View
(pump head closed)**



MiniFlex PUMP HEAD



L/S Single-Channel Miniflex pump head & Dual-Channel Miniflex pump head

L/S® TUBING	68-73
L/S® PUMP SYSTEMS	108-117
ACCESSORIES	160-171
TECHNICAL DATA.....	172-206

L/S TWO-STOP PRECISION PUMP TUBING SETS ORDERING INFORMATION

Tubing size	Tygon® E-LFL	Platinum-cured silicone	BioPharm Plus Silicone (platinum-cured)	PharMed® BPT	Viton®	Chem-Durance® Bio
	NEW	MASTERFLEX	MASTERFLEX	MASTERFLEX	MASTERFLEX	MASTERFLEX
L/S 13	HL-06447-13	HL-06421-13	HL-96116-13	HL-96114-13	HL-96428-13	HL-96117-13
L/S 14	HL-06447-14	HL-06421-14	HL-96116-14	HL-96114-14	HL-96428-14	HL-96117-14
L/S 16	HL-06447-16	HL-06421-16	HL-96116-16	HL-96114-16	HL-96428-16	HL-96117-16
L/S 25	HL-06447-25	HL-06421-25	HL-96116-25	HL-96114-25	HL-96428-25	HL-96117-25
Qty/pk	8	8	8	8	8	8