

## L/S® MULTICHANNEL PUMP HEADS FOR MICROBORE PUMP TUBING

### FEATURES/BENEFITS

- ▶ Four- or eight-channel heads are stackable for up to 32 synchronous flow channels
- ▶ Deliver flow rates from 0.00005 to 200 mL/min per channel (flow rates depend on drive rpm and tubing size)
- ▶ Six rollers deliver low-pulsation flow
- ▶ Excellent between-channel accuracy
- ▶ Anodized aluminum and stainless steel construction for durability and reliable, continuous-duty operation up to 600 rpm
- ▶ Two-stop tubing sets are easy to load with no occlusion or retention adjustment—order tubing sets separately below
- ▶ Accept microbore two-stop tube sets from 0.19 to 2.79 mm ID for a wide flow range

**Note:** Multichannel pump heads require two-stop tube sets and cannot be loaded with continuous tubing.

### SELECTION CRITERIA

1. Flow rate and tubing size desired.
2. Number of channels needed.
3. Compatibility with drives.

Mounting hardware and hex key tool included. See specifications for more information.

**Order tubing and drives separately.**

### COMPATIBILITY WITH DRIVES

- ▶ Mount on all Masterflex L/S drives that accept two or more pump heads; 1/10 hp minimum

### PUMP HOUSING SPECIFICATIONS

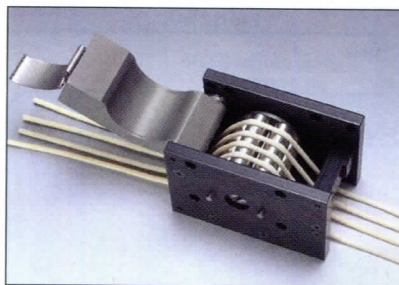
- ▶ Black anodized aluminum frame and gray, hardcoat anodized aluminum occlusion beds

### ROLLER/ROTOR SPECIFICATIONS

- ▶ Rollers, bearings, rotor plates, and rotor shaft are made of 303 stainless steel
- ▶ Good protection from corrosive liquids/vapors
- ▶ Humidity: 10 to 90% noncondensing
- ▶ Shielded stainless steel ball bearings
- ▶ Continuous duty up to 600 rpm



Multichannel pump head 07534-04 for microbore tubing



Six rollers deliver accurate, low-pulsation flow.



Stack heads for up to 32 channels.

### MULTICHANNEL CAPABILITIES

- ▶ Stack heads up to the limits detailed under "Specifications" on facing page
- ▶ Mounting hardware and hex key tool are included with each pump head; hardware set attaches head to drive and/or head to head

ISO 9001:2008  
CERTIFIED SUPPLIER

2 year  
warranty

### ORDERING INFORMATION

Catalog number	Number of channels
<b>Multichannel pump heads for microbore pump tubing 0.19 to 2.79 mm ID</b>	
HL-07534-04	4
HL-07534-08	8

### ACCESSORIES

HL-07534-01 Replacement mounting hardware set includes four mounting screws and hex key tool.

Order microbore extension tubing on pages 34 and 36.

## MICROBORE TWO-STOP PUMP TUBING SET FLOW RATES & ORDERING INFORMATION

Flow Rate Information (mL/min per channel using microbore two-stop tubing sets below)

Drive rpm	Microbore pump tubing					
	0.19 mm ID	0.25 mm ID	0.89 mm ID	1.42 mm ID	2.06 mm ID	2.79 mm ID
1 to 100	0.0026 to 0.26	0.0053 to 0.53	0.054 to 5.4	0.12 to 12	0.23 to 23	0.35 to 35
6 to 600	Not recommended†	Not recommended†	0.30 to 30	0.67 to 67	1.3 to 130	2.0 to 200

†Maximum recommended speed for these tubing sizes is 300 rpm.

### Microbore Two-Stop Tubing Set Ordering Information

Tubing ID (mm)	Platinum-cured silicone	Santoprene®	Tygon® E-LFL <span style="color:red">NEW</span>	Viton®
0.19	—	—	HL-06447-10	—
0.25	—	HL-06431-12	HL-06447-12	—
0.89	HL-06421-26	HL-06431-26	HL-06447-26	HL-96428-26
1.42	HL-06421-34	HL-06431-34	HL-06447-34	HL-96428-34
2.06	HL-06421-42	HL-06431-42	HL-06447-42	HL-96428-42
2.79	HL-06421-48	HL-06431-48	HL-06447-48	HL-96428-48
Qty/pk	6	12	12	12

## SPECIFICATIONS for L/S Multichannel Pump Heads

Catalog number	HL-07534-04	HL-07534-08
----------------	-------------	-------------

### Performance Specifications

Flow capacity per channel	0.00005 to 200 mL/min (0 to 3.2 GPH)	
Number of channels	4	8
Max number of channels with stacked heads†	100-rpm drive	32
	600-rpm drive	28
Max rpm	600	
Number of rollers	6	

### Torque Specifications [a single pump head pumping water at 0 psi, 21°C (70°F)‡

Santoprene®	Starting torque	7.2 kg-cm (100 oz-in)	9.0 kg-cm (125 oz-in)
	Running torque	2.2 kg-cm (30 oz-in)	2.9 kg-cm (40 oz-in)
PVC	Starting torque	10.8 kg-cm (150 oz-in)	13.7 kg-cm (190 oz-in)
	Running torque	6.1 kg-cm (85 oz-in)	7.9 kg-cm (110 oz-in)
Silicone	Starting torque	4.3 kg-cm (60 oz-in)	5.0 kg-cm (70 oz-in)
	Running torque	1.8 kg-cm (25 oz-in)	2.2 kg-cm (30 oz-in)

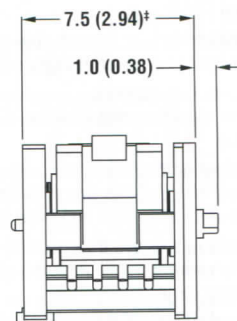
### Physical Specifications

Housing material	Anodized aluminum	
Rotor material	Stainless steel	
Operating temperature	0 to 40°C (32 to 104°F)	
Shipping weight	1.8 kg (4 lb)	2.3 kg (5 lb)

†With softer formulations such as silicone; max number of channels will be less with firmer tubing.  
‡All channels loaded with specified tubing formulations.

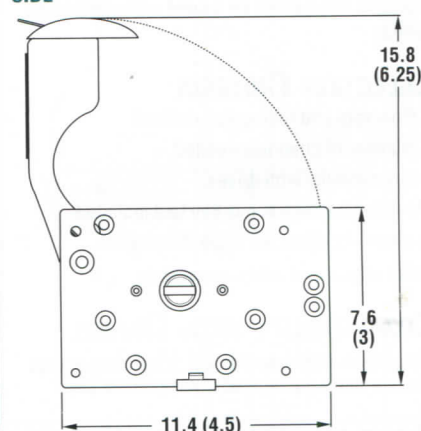
## Dimensional Drawings cm (in.) 07534-series

### FRONT



‡7.5 [2.94] for single-bed pump heads;  
12.2 [4.8] for dual-bed pump heads.

### SIDE



## COMPLETE L/S MULTICHANNEL PUMP SYSTEM

### Applications

- ▶ Multichannel, low-volume dispensing
- ▶ Meter fluids through multiple lines

### Benefits

- ▶ Flow rate: 0.35 to 35 mL/min per channel
- ▶ Synchronous flow from four separate channels
- ▶ Low-pulsation, six-roller pump head
- ▶ Continuous-duty drive displays speed (rpm) and direction

**Complete system includes:** L/S multichannel pump head 07534-04, 2.79 mm ID PVC tube set 06416-48, L/S 100-rpm variable-speed console drive 07528-30.



Drive is



See pages 110 and 112 for more complete L/S Multichannel Pump Systems

Catalog number	Power
HL-77925-10	90 to 260 VAC, 50/60 Hz

## FOR THE LATEST...

Masterflex technical resources, see

- ColeParmer.com
- Masterflex.com

## HOW TO LOAD YOUR PUMP HEAD



1. Release latch and open occlusion bed; place tubing over rollers and thread ends through retainer slots.

2. Hook left side tubing stop underneath retainer slot.

3. Stretch tubing and hook right side stop underneath retainer slot. Close and latch occlusion bed.

L/S® TUBING ..... 68-73  
L/S® DRIVES ..... 74-107  
L/S® PUMP SYSTEMS..... 108-117

ACCESSORIES ..... 160-171

TECHNICAL DATA ..... 172-206