

L/S® EASY-LOAD® PUMP HEADS

FEATURES/BENEFITS

- ▶ Over-center cam design for fast tubing changes
- ▶ Deliver flow rates from 0.001 to 2300 mL/min
- ▶ Proprietary design and adjustable tubing retention feature
- ▶ Four-Roller for reduced pulsation and smoother flow
- ▶ Stainless steel (SS) rotor / roller for greater durability and chemical resistance.
- ▶ Accepts several tubing sizes
- ▶ Models 07514-30 and 07514-32 available with integrated open-head sensor – connects directly to sensor-equipped drives

SELECTION CRITERIA

1. Flow rate desired.
 2. Tubing size needed.
 3. Materials of construction (housing, rotor).
 4. Compatibility with drives.
- ▶ 38 cm (15") of silicone tubing and single-channel mounting hardware are supplied
See specifications for more information.

Order tubing and drives separately.

COMPATIBILITY WITH DRIVES

- ▶ Mount on all drives accepting Masterflex L/S pump heads

PUMP HOUSING SPECIFICATIONS

Polyarylamide (PARA)

- ▶ General-purpose applications
- ▶ chemical resistance

Applications

- Bioreactors
- Angioscopy
- Seed coating
- Ablation
- Vending machines
- Surgical irrigation
- Laser cooling
- Analyzers
- Liposuction
- Fermenters
- Endoscopy
- Ice cream flavoring



Pump head 07514-10 with polyarylamide(PARA) housing



Four rollers for reduced pulsation and smoother flow

ROLLER/ROTOR SPECIFICATIONS

300-Series Stainless Steel (SS)

- ▶ Corrosive fluids
- ▶ PTFE shielded ball-bearing (highest life expectancy)
- ▶ Continuous duty up to 600 rpm
- ▶ Precision and High-performance precision versions

ISO 9001:2008
CERTIFIED SUPPLIER

2 year
warranty

ATEX
Zone 2
07518-40, -42

ORDERING INFORMATION

Pump tubing size	Polyarylamide housing / SS rotor	
	Non Open-Head Sensor	Open-Head Sensor
For Precision tubing		
L/S 13	HL-07514-10	HL-07514-30
L/S 14		
L/S 16		
L/S 25		
L/S 17		
L/S 18		
For High-performance precision tubing		
L/S 15	HL-07514-12	HL-07514-32
L/S 24		

SS = stainless steel

L/S PUMP TUBING FLOW RATE INFORMATION

Order Masterflex L/S pump tubing separately on pages 68–73.

Tubing cross sections	L/S Precision pump tubing						L/S High-performance Precision pump tubing	
	L/S 13	L/S 14	L/S 16	L/S 25	L/S 17	L/S 18	L/S 15	L/S 24
Flow rate—mL/rev	0.06	0.21	0.8	1.92	2.8	3.8	1.7	2.8
mL/min @ 600 rpm	36	130	480	1150	1700	2300	1000	1700
Max pressure [†]	2.7 bar (40 psi)		2.4 bar (35 psi)		1.4 bar (20 psi)	1.0 bar (15 psi)	2.7 bar (40 psi)	
Max vacuum [†]	610 mm Hg (24" Hg)							
Suction lift	8.2 m H ₂ O (26.8 ft H ₂ O)							

[†]Actual performance varies depending upon tubing materials—see pages 20–24 and 172–192 for more information.



SPECIFICATIONS for L/S Easy-Load Pump Heads

Catalog number	EW-07514-10 EW-07514-12	EW-07514-30 EW-07514-32
Performance Specifications		
Flow capacity	0.001 to 2300 mL/min (0 to 36 GPH) [†]	
Max rpm	600	
Number of rollers	3	
Torque Specifications[‡] [a single pump head pumping water at 0 psi, 21°C (70°F)]		
Norprene®, Pharmed® BPT	Starting torque	8.6 kg-cm (120 oz-in)
	Running torque	1.5 kg-cm (21 oz-in)
Tygon®, Viton®	Starting torque	13.0 kg-cm (180 oz-in)
	Running torque	2.5 kg-cm (35 oz-in)
C-FLEX®, Silicone	Starting torque	5.0 kg-cm (70 oz-in)
	Running torque	1.0 kg-cm (14 oz-in)
Physical Specifications		
Housing material / Rotor material	Polyarylamide / Stainless steel	
Open-Head Sensor	No	Yes
Operating temperature	0 to 40°C (32 to 104°F)	
Shipping weight	0.9 kg (1.9 lb)	

[†]Depending on pump head selected.

[‡]Actual torque depends on tubing size and formulation. For complete torque data, please see pages 172–192.

MULTICHANNEL CAPABILITIES

- Mount up to four Easy-Load pump heads on a single drive depending on drive specifications.
- Order hardware based on number of pump heads to be mounted.



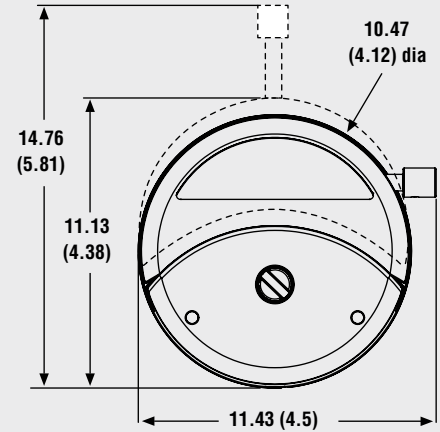
With single or multiple channels, you can change tubing in each channel without removing the Easy-Load pump head(s) from your drive.

MOUNTING HARDWARE

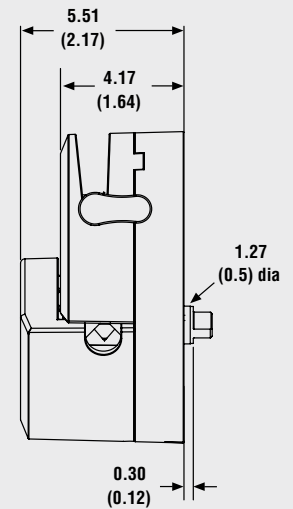
Heads to be mounted	Catalog number/set
	Stainless steel
One	HL-07013-04
Two	HL-07013-05
Three	HL-07013-08
Four	HL-07013-09



Mounting hardware
07014-04 (one) and 07014-05 (two channel)



Dimensional drawings, cm (in.)



NOTES

Use only Masterflex pump tubing with Masterflex pumps to ensure optimal performance. Use of other tubing may void applicable warranties.

HOW TO LOAD YOUR PUMP HEAD



1. Rotate lever to left to open head. Load tubing.



2. Close head. Adjust side tubing retainers to hold tubing.

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

ACCESSORIES 160–171

TECHNICAL DATA 172–206