

L/S® VARIABLE-SPEED PRECISION MODULAR DRIVES

FEATURES/BENEFITS

- Flow rates: 0.06 to 3400 mL/min (0.001 to 54 GPH) with L/S tubing
- Cartridge flow rate: 0.0005 to 1700 mL/min per channel
- Modular format lets you separate drive and controller for convenient placement; a 1.8-m (6-ft) control cable is included. Extend that distance with optional 2.7-m (9-ft) extension cable
- Three-digit LED shows motor speed (rpm)—confirm speed setting at a glance
- PWM speed control for precise, efficient control; $\pm 0.25\%$ speed control accuracy
- Reversible motor—easily reverse direction of flow to purge or prime tubing
- Universal voltage, 90 to 260 VAC autoselect, 50/60 Hz
- Compatible with all L/S pump heads

DRIVE CONTROLS

- Protected power switch located on controller
- Lighted display indicates power is on
- LED indicator shows motor/pumping direction
- Simple programming and operation of the following via sealed membrane keypad:
 - Flow direction
 - Motor speed (rpm)
 - Control mode (remote/internal)
 - Start/stop



Modular drive 07557-60 shown with Easy-Load® II pump head 77200-62



Benchtop modular drive 07557-00

NEW

SETUP

1. Mount pump head(s) and load tubing.
2. Connect drive cable to controller.
3. Turn drive power on.
4. Select manual (internal) or remote (external) control.
5. Select motor direction.
6. Set drive speed (rpm) through keypad.
7. Press START key to begin pumping.

SPEED CONTROL/CIRCUITRY

- Regulate motor through keypad, 4 to 20 mA, or 0 to 10 V signal
- Soft start for starts without power surges
- Speed not affected by variations in power line voltage (VAC) or frequency (Hz)
- Line filters reduce outside interference
- Meets UL 61010-1, CAN/CSA C22.2, No. 61010-1; For CE mark: EN61010-1 (EU low voltage) and EN61326-1 (EU EMC).

REMOTE CONTROL

Benchtop Modular Drives

- Remote control via 9-pin (DB9) female connection on back of controller
- Speed control input: 4 to 20 mA, and 0 to 10 V
- START/STOP, CW/CCW via contact closure
- Handheld remote, cable, and foot switch options; order separately under "Accessories"

Modular Drive with Washdown, Wall-Mount Controller

- Remote control via 18-pin weather-resistant circular connection on bottom of controller
- Speed control input: 4 to 20 mA, and 0 to 10 V
- START/STOP, CW/CCW via contact closure
- Remote cable and foot switch options; order separately under "Accessories"

SELECTION CRITERIA

1. Motor rpm / flow rate.
2. Number of pump heads accepted.
3. Benchtop or washdown, wall-mount controller.

Order pump heads and tubing separately.

ISO 9001:2008
CERTIFIED SUPPLIER

CE

CE

07557-60
and -70

2 year
warranty

ORDERING INFORMATION

Catalog number	rpm	Power (50/60 Hz)
Benchtop precision modular drive		
HL-07557-00	6 to 600	90 to 260 VAC
HL-07557-10	1 to 100	
Precision modular drive with washdown controller		
HL-07557-60	6 to 600	90 to 260 VAC
HL-07557-70	1 to 100	

L/S PUMP TUBING FLOW RATE INFORMATION (mL/min)

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

Tubing cross section	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	L/S 35	L/S 36
Flow range @ 6 to 600 rpm	0.36 to 36	1.3 to 130	4.8 to 480	10 to 1000	17 to 1700	23 to 2300	10 to 1000 (11 to 1100)	17 to 1700 (18 to 1800)	23 to 2300 (26 to 2600)	29 to 2900 (34 to 3400)
Flow range @ 1 to 100 rpm	0.06 to 6	0.21 to 21	0.8 to 80	1.7 to 170	2.8 to 280	3.8 to 380	1.7 to 170 (1.8 to 180)	2.8 to 280 (3.0 to 300)	3.8 to 380 (4.3 to 430)	4.8 to 480 (5.8 to 580)

Note: Flow rates were determined using water at room temperature and with zero back pressure and zero suction lift. Higher flow rates in parentheses can be obtained only with High-Performance pump head.

SPECIFICATIONS for L/S Variable-Speed Precision Modular Drives

Catalog number		HL-07557-00	HL-07557-10	HL-07557-60	HL-07557-70
Performance Specifications					
Flow capacity		0.36 to 3400 mL/min	0.06 to 580 mL/min	0.36 to 3400 mL/min	0.06 to 580 mL/min
rpm		6 to 600	1 to 100	6 to 600	1 to 100
Number of heads accepted		2	4	2	4
Maximum torque	Starting	381 N-cm (540 oz-in)	763 N-cm (1080 oz-in)	381 N-cm (540 oz-in)	763 N-cm (1080 oz-in)
	Running	127 N-cm (180 oz-in)	254 N-cm (360 oz-in)	127 N-cm (180 oz-in)	254 N-cm (360 oz-in)
Reversible		Yes			
External control – Input		4 to 20 mA, 0 to 10 V; START/STOP, CW/CCW via contact closure			
External control – Output		Not applicable			
Electrical Specifications					
Voltage/Frequency VAC (Hz)		90 to 260 (50/60)			
Current		2.2 A at 115 V; 1.1 A at 230 V			
Fuse rating		3.15 A / 250 V			
Motor type		Continuous duty, TENV, permanent magnet DC			
Motor size		75 W (1/4 hp)			
Display		Three-digit LED			
Motor/speed control type		PWM			
Speed regulation		±0.25%			
Soft start/Electronic brake		Yes/No			
Physical Specifications					
Housing materials	Drive	Painted steel and aluminum		Painted steel and aluminum	
	Controller	ABS plastic housing, coated aluminum chassis		Painted aluminum	
IP rating [†]		IP33		IP66 (NEMA 4X)	
Agency listings		ETL, cETL, 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)	Drive	27.7 x 9.7 x 11.7 cm (10 ⁷ / ₈ " x 3 ³ / ₄ " x 4 ⁵ / ₈ ")		36.2 x 17.8 x 16.5 cm (14 ¹ / ₄ " x 7" x 6 ¹ / ₂ ")	
	Controller	26.3 x 21.1 x 14.0 cm (10 ³ / ₈ " x 8 ³ / ₈ " x 5 ¹ / ₂ ")		28.5 x 27.9 x 11.9 cm (10 ³ / ₈ " x 11" x 4 ³ / ₄ ")	
Shipping weight		7.1 kg (15.6 lb)		14.1 kg (31.1 lb)	

†See page 194 for an explanation of IP ratings.

ACCESSORIES

For Benchtop Models 07557-00, -10

HL-07557-51 Extension cable, 2.7 m (9 ft), to extend distance between motor and controller.

HL-07528-80 Handheld remote controller; control start/stop and direction; route tubing through handle for dispensing and filling applications; 1.8-m (6-ft) cable.

HL-07595-47 Cable assembly, DB9 male connector and 7.9-m (25-ft) cable with stripped wire terminal ends. Use for remote control.

HL-77595-35 Foot switch, DB9 male, with 1.8-m (6-ft) cable.

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

For Washdown Models 07557-60, -70

HL-07557-51 Extension cable, 2.7 m (9 ft), to extend distance between motor and controller.

HL-77300-32 Cable assembly, 18-pin round connector and 7.9-m (25-ft) cable with stripped wire terminal ends. Use for remote control.

HL-07595-43 Washdown foot switch, 18-pin round with 1.8-m (6-ft) cable.

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

STANDARD
0.06 to 2900 mL/min
pages 40–41



HIGH-PERFORMANCE
0.9 to 3400 mL/min
pages 48–49



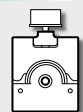
MULTICHANNEL CARTRIDGE
3- or 4-roller;
up to 8 channels
0.047 to 1700 mL/min
pages 56–57



EASY-LOAD® 3
0.06 to 2900 mL/min
pages 42–43



PTFE-TUBING
0.06 to 65 mL/min
pages 50–51

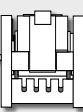


6- or 8-roller;
up to 12 channels
0.0005 to 350 mL/min
pages 58–59

EASY-LOAD® II
0.06 to 2900 mL/min
pages 44–45



MULTICHANNEL
4- or 8-channel
for microbore tubing
0.0026 to 200 mL/min
pages 52–53



PTFE-DIAPHRAGM
10 to 800 mL/min
pages 60–61



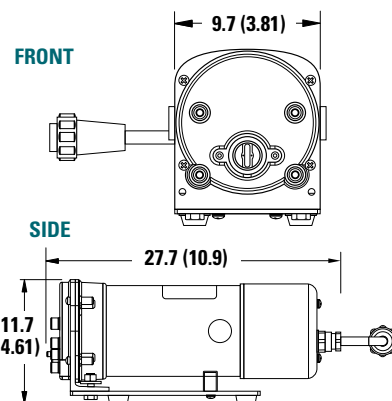
EASY-LOAD®
0.06 to 2300 mL/min
pages 46–47



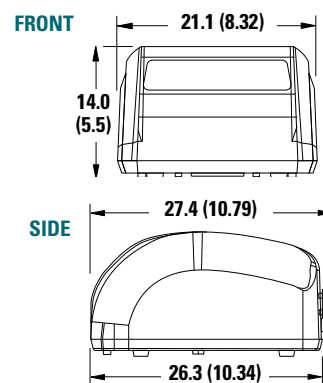
2-, 4-, or 8-channel
for L/S® Precision
tubing
0.045 to 2300 mL/min
pages 54–55

Dimensional Drawings cm (in.)

Drive 07557-00, -10



Controller 07557-00, -10



Drive 07557-60, -70

