Masterflex® L/S® Compact Pump with Miniflex™ Pump Head

# Making **Low-Flow Pumping** EASY

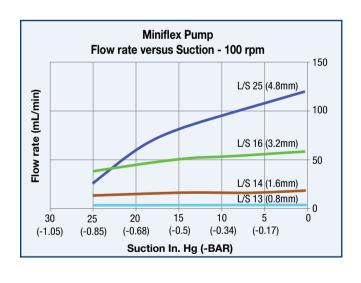


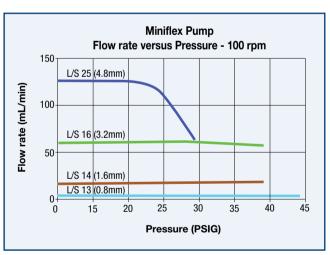
- No separate components—includes drive and pump head!
- Save costs and eliminate leakage with continuous tubing—available in several formulations
- No wasting time—load tubing in less than 15 seconds with automatic tubing retention
- No more maintenance—low-friction rollers and sealed ball bearings
- Improved repeatability and accuracy—low flow rates with 1.6 to 239 mL/min flow range
- Compact, stackable pump with single-turn speed control
- Choose single- or dual-channel models.





Masterflex.com





#### Flow rates

Model	Masterflex L/S Precision pump tubing						
Model	L/S 13	L/S 14	L/S 16	L/S 25 <sup>†</sup>			
77240-20	1.6 to 9.3 mL/min	6.6 to 36 mL/min	22 to 124 mL/min	42 to 239 mL/min			
77240-30	1.6 to 9.3 mL/min	6.6 to 36 mL/min	22 to 124 mL/min	_			

<sup>&</sup>lt;sup>†</sup>Recommended for use with silicone or C-Flex<sup>®</sup> formulations only.

L/S<sup>®</sup> Compact Pump with Miniflex<sup>™</sup> Pump Head

Number of channels		Speed control		IP rating	Dimensions	Power	(50/60 Hz)	Catalog number	
		(repeatability)			(L x W x H)	VAC	Amps	Catalog Humber	
1	1 35 to 200	25 to 200 LE9/	Vaa	IP22	85%" x 51/4" x 41/2"	90 to 260	0.5 at 115 VAC,	MK-77240-20	
2		±3%	±5% Yes		(22 x 13.3 x 11.4 cm)	90 10 200	0.3 at 230 VAC	MK-77240-30	

CERTIFIED SUPPLIER CUL)US (E



MASTERFLEX®



- Simple operation with single-turn speed control
- Flow rate from 0.42 to 2900 mL/min with L/S pump tubing—flow rate depends on drive rpm, pump head, and tubing size
- Separate power switch enables you to maintain speed setting when turning drive on/off; front-panel LED indicates power on
- Reversible motor lets you easily prime/purge tubing and pump in either direction
- Remote control of start/stop via DB9 connector on back of drive
- Drives accept nine different pump head types: Standard, Easy-Load®, Easy-Load II, Easy-Load 3, Multichannel, High-Performance, Cartridge, PTFE tubing, and PTFE diaphragm

#### **Applications**

- Heating/cooling liquid circulation
- Fluid metering and transfer
- Media dispensing and filling
- Drum and container sampling
- Low-pressure filtration
- Buffer circulation
- Pumping slurries and suspensions



MASTERFLE

Masterflex.com

Easy-Load II pump head



Drive 07555-00 shown with Easy-Load II pump head 77200-62

Easy-Load

pump head

Distributed by: Fiedler Scientific Instruments, s.r.o. info@lab-eu.com info@pristroje.cz

#### Complete Pump Systems

System	Flow range		What's included		Power	Catalog number
	16 to 480 mL/min	Easy-Load®	C-Flex® ULTRA L/S 16 tubing	Console drive 07555-00, 20 to 600 rpm	115 VAC, 50/60 Hz	MK-77910-60
	16 to 460 IIIL/IIIII	pump head 07514-10	06434-16, 3 m (10 ft)	Console drive 07555-05, 20 to 600 rpm	230 VAC, 50/60 Hz	MK-77910-65
0 0	EC to 1700 ml /min	Easy-Load	C-Flex ULTRA L/S 24 tubing	Console drive 07555-00, 20 to 600 rpm	115 VAC, 50/60 Hz	MK-77910-70
	56 to 1700 mL/min pump head 07514-12		06434-24, 3 m (10 ft)	Console drive 07555-05, 20 to 600 rpm	230 VAC, 50/60 Hz	MK-77910-75
	10 to 100 ml /min	Easy-Load II	C-Flex ULTRA L/S 16 tubing	Console drive 07555-00, 20 to 600 rpm	115 VAC, 50/60 Hz	MK-77910-40
	16 to 480 mL/min	pump head 77200-60	06434-16, 3 m (10 ft)	Console drive 07555-05, 20 to 600 rpm	230 VAC, 50/60 Hz	MK-77910-45
	56 to 1700 mL/min Easy-Load II pump head 77200-62		C-Flex ULTRA L/S 24 tubing	Console drive 07555-00, 20 to 600 rpm	115 VAC, 50/60 Hz	MK-77910-50
			06434-24, 3 m (10 ft)	Console drive 07555-05, 20 to 600 rpm	230 VAC, 50/60 Hz	MK-77910-55



L/S® Precision Modular Pump Systems

#### **APPLICATIONS**

- ▶ Sterile fluid transfer
- ▶ Carboy or small tank pumping
- ▶ Chemical recirculation
- Printing
- Laboratory research
- **▶** Filtration
- ▶ Polishing/lapping

#### BENEFITS

- Modular format lets you place drive and controller up to 1.8 meters (6 feet) apart
- ▶ Easy tubing changes
- ▶ Three-digit LED shows motor speed (rpm) for easy repeatability
- ▶ Reversible motor lets you purge tubing before or after pumping
- Optional remote control of speed, start/stop, and direction

#### **FEATURES**

- Controller and chemicalresistant drive connected by 1.8-m (6-ft) cable
- Soft-start, 1/10-hp continuous-duty drive
- ▶±0.25% speed control





77913-60

#### SPECIFICATIONS & ORDERING INFORMATION

S 9001:2008 CERTIFIED SUPPLIER	c Us	€	<b>2</b>
-----------------------------------	------	---	----------

year

irranty

Catalog number	Flow range <sup>†</sup> (mL/min)	Pump head included	Tubing included	Tubing sizes accepted	Drive included	Drive speed range (rpm)	Drive IP rating	Power (50/60 Hz)		
Precision modul	Precision modular pumps with benchtop controller									
HL-77913-60	4.8 to 480	L/S Easy-Load® 3 77800-60	C-Flex® ULTRA L/S 16 06434-16; 3 m (10 ft)	L/S 13, L/S 14, L/S 16, L/S 25, L/S 17, L/S 18	07577-00	07577-00 6 to 600	IP33	90 to 130 VAC, 2.2 A;		
HL-77913-70	17 to 1700	L/S Easy-Load II 77200-62	C-Flex ULTRA L/S 24 06434-24; 3 m (10 ft)	L/S 15, L/S 24, L/S 35, L/S 36	07377-00		11 00	and 190 to 260 VAC, 1.1 A		
Precision modul	Precision modular pump with washdown wall-mount controller									
HL-77913-80	17 to 1700	L/S Easy-Load II 77200-62	C-Flex ULTRA L/S 24 06434-24; 3 m (10 ft)	L/S 15, L/S 24, L/S 35, L/S 36	07577-60	6 to 600	IP66	90 to 130 VAC, 2.2 A; and 190 to 260 VAC, 1.1 A		

<sup>†</sup>Flow range with included tubing; extend the flow range of these systems with additional sizes of tubing; order on pages 68–73.

#### Distributed by:

Fiedler Scientific Instruments, s.r.o. H. Malířové 1, 638 00 Brno, Czech Republic Telephone: (+420) 541 222 795

### MASTERFLEX®

### PUMP SYSTEMS



L/S® Precision Analog Console Pump Systems

#### **APPLICATIONS**

- General transfer and metering
- Circulating bath pump
- ▶ Remote-controlled metering pump
- Acid-base feed
- ▶ Low-pressure filtration
- ▶ Small tank transfer and filling

#### **B**ENEFITS

- ▶ Simple keypad controls offer operational ease
- Powerful and cost-effective pump for precision transfer and metering applications
- Control pump speed remotely with 4 to 20 mA or 0 to 10 V signal
- Three-digit LED shows motor speed (rpm) for repeatability and monitoring performance
- Reversible motor—prime/purge and easily reverse direction of flow

#### **F**EATURES

- ▶ PWM speed control for precision and efficiency; ±0.25% speed control accuracy
- ▶ Stackable ABS housing is IP33 rated for wipedown
- ▶ Universal voltage, 90 to 260 VAC autoselect, 50/60 Hz





77916-20









#### SPECIFICATIONS & ORDERING INFORMATION

Catalog number	Flow range <sup>†</sup> (mL/min)	Pump head included	Tubing included	Tubing sizes accepted	Drive included	Drive speed range (rpm)	Drive IP rating	Power (50/60 Hz)
<u>HL-77916-10</u>	4.8 to 480	L/S Easy-Load <sup>®</sup> 3 77800-60	C-Flex <sup>®</sup> ULTRA L/S 16 06434-16; 3 m (10-ft)	L/S 13, L/S 14, L/S 16, L/S 25, L/S 17, L/S 18	07528-10	C + 2 COO	IP33	90 to 130 VAC, 2.2 A;
HL-77916-20	17 to 1700	L/S Easy-Load II 77200-62	C-Flex ULTRA L/S 24 06434-24; 3 m (10-ft)	L/S 15, L/S 24, L/S 35, L/S 36	0/528-10	6 to 600	11733	and 190 to 260 VAC, 1.1 A

<sup>†</sup>Flow range with included tubing; extend the flow range of these systems with additional sizes of tubing; order on pages 68–73.

HL-77595-35 Foot switch, momentary start/stop; 1.8-m (6-ft) cable.

<u>HL-07595-45</u> **DB9 male connector,** use to create your own cable.

<u>HL-17050-01</u> **NIST-traceable calibration** for peristaltic pump drive.

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-07523-98 Tilt bail; use to securely elevate front of drive.

#### Distributed by:

Fiedler Scientific Instruments, s.r.o.

H. Malířové 1, 638 00 Brno, Czech Republic

Telephone: (+420) 541 222 795

### Masterflex® L/S® Digital Miniflex® Pump Systems



## programming and setup

- Flow range of 0.004 to 315 mL/min (depending on model and tubing size selected)

A small-footprint pump

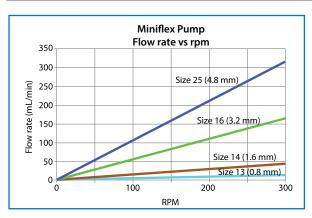
- Intuitive icon-driven menu allows quick

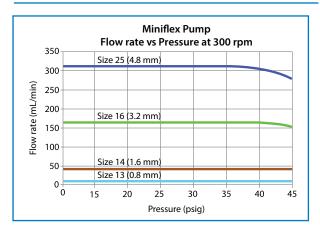
with big performance!

- Integrated "open-head" sensor halts operation when pump head is opened
- Use the copy dispense mode for filling and dispensing applications
- Tubing calibration function ensures accuracy
- Control speed, direction, and start/stop/prime remotely via 25-pin connector on back of drive
- Pump head accepts continuous lengths of tubing for clean flow paths with no connections or
- Tubing retention is automatic when pump head is closed—no need for manual adjustment tube loading is quick and easy
- Single-channel model delivers highest flow rate; dual-channel model delivers synchronous flow from two separate channels
- Stackable to save even more space on your benchtop

#### Flow Rates in mL/min

rnm	Precision pump tubing							
rpm	L/S 13	L/S 14	L/S 16	L/S 25				
Single-channel pump 07525-20								
0.1 to 300	0.004 to 12	0.014 to 42	0.05 to 162	0.11 to 315				
Dual-channel pump 07525-40								
0.1 to 300	0.004 to 12	0.014 to 42	0.05 to 162	_				







Open-head sensor stops the drive when pump head is open.



Intuitive, icon-driven interface—copy dispense progress screen shown.



The L/S digital Miniflex pump system (above right) requires less than half the bench space when compared to the L/S standard digital drive (above left).

What's included: L/S Miniflex pump head and universal voltage (90 to 260 VAC) benchtop power supply with IEC320/CEE22 socket. Pump is shipped with cord/plug assembly specific to country of destination.







							CERTIFIED SUPPLIER C	CIPUS C C
Number of	Speed control		Reversible motor IP rating		Dimensions	Power (	Catalog	
channels	rpm	(repeatability)		IP rating	(L x W x H)	VAC	Amps	number
1	0.1 to 300	±0.1%	Yes	IP33	9.4" x 5.5" x 6.2"	90 to 260	0.34 at 115 VAC,	MK-07525-20
2	0.1 10 300	±0.170	100	IF 33	(23.9 x 14.0 x 15.7 cm)		0.2 at 230 VAC	MK-07525-40

Accessories

6-ft (1.8-m) cable

MK-07523-97 Handheld remote controller, DB25 male, route tubing through handle for dispensing applications; 6-ft (1.8-m) cable MK-07523-95 Cable assembly, DB25 male connector and 25-ft (7.9-m) cable with stripped wire ends MK-07523-92 Foot switch, momentary start/stop; DB25 male;

MK-77220-20 Replacement single-channel Miniflex pump head MK-77220-30 Replacement dual-channel Miniflex pump head MK-07525-90 Replacement power supply, 90 to 260 VAC MK-17050-01 NIST-traceable calibration with data for peristaltic pump drive

Distributed by:

Fiedler Scientific Instruments, s.r.o. H. Malířové 1, 638 00 Brno, Czech Republic Telephone: (+420) 541 222 795



### L/S® STANDARD DIGITAL PUMP SYSTEMS

#### APPLICATIONS

- Acid/base pH control
- Nutrient media dispensing
- ▶ Precision fragrance delivery
- Automated fermentation
- Surfactant delivery
- Accurate metering

#### BENEFITS

- Brushless, maintenance-free motor reduces operating costs
- ▶ Reversible pumping
- ▶ Graphical LCD shows flow rate, rpm, dispense volume, dispense time, copy number, cumulative volume
- ▶ Remote control: Start/stop foot switch (order below): 0-20 mA, 4-20 mA, or 0-10 VDC speed control; Start/stop/reverse/prime (with DB25 male connector)
- ▶ Programmable flow rate and dispense interval for automated dispensing
- ▶ Can be calibrated for greater accuracy

#### **F**EATURES

- <sup>1</sup>/<sub>10</sub>-hp, continuous-duty drive
- ▶ ±0.1% drive speed control with tach feedback
- ▶ Splash-resistant stackable housing
- Membrane keypad with lockout



77921-65











#### SPECIFICATIONS & ORDERING INFORMATION

Catalog number	Flow range <sup>†</sup> (mL/min)	Pump head included	Tubing included	Tubing sizes accepted	Drive included	Drive speed range (rpm)	Drive IP rating	Power (50/60 Hz)
HL-77921-65	0.08 to 480	L/S Easy-Load <sup>®</sup> 3 77800-60	C-Flex <sup>®</sup> ULTRA L/S 16 06434-16; 3 m (10 ft)	L/S 13, L/S 14, L/S 16, L/S 25, L/S 17, L/S 18	07522-20	0.1 to 600	IDaa	90 to 130 VAC, 2.2 A; and 190 to 260 VAC, 1.1 A
HL-77921-75	0.28 to 1700	L/S Easy-Load II 77200-62	C-Flex ULTRA L/S 24 06434-24; 3 m (10 ft)	L/S 15, L/S 24, L/S 35, L/S 36	07322-20	0.1 to 600	11733	

<sup>&</sup>lt;sup>†</sup>Flow range with included tubing; extend the flow range of these systems with additional sizes of tubing; order on pages 68–73.

HL-07523-92 Foot switch, momentary start/start, 1.8-m (6-ft) cable.

HL-07523-97 Dispensing handle for momentary start/stop.

HL-07523-95 Cable assembly, DB25 male connector and 25-ft (7.9-m) cable with stripped wire ends for remote control.

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

#### Distributed by:

Fiedler Scientific Instruments, s.r.o. H. Malířové 1, 638 00 Brno, Czech Republic

Telephone: (+420) 541 222 795

### Masterflex® L/S® MasterSense™

### Reimagine fluid handling operate, collaborate and connect with ease

- Intuitive touch-screen interface—quick and easy to program, even with gloves on
- Operational modes include continuous run, volume dispense, and time dispense
- Save and recall up to 50 commonly used protocols, each with a unique name
- Batch control and interval/off time in volume and time modes
- Antidrip and speed ramping available in volume mode—ensure accuracy and minimize sample loss
- Over-the-air firmware updates—allows you to take full advantage of future enhancements

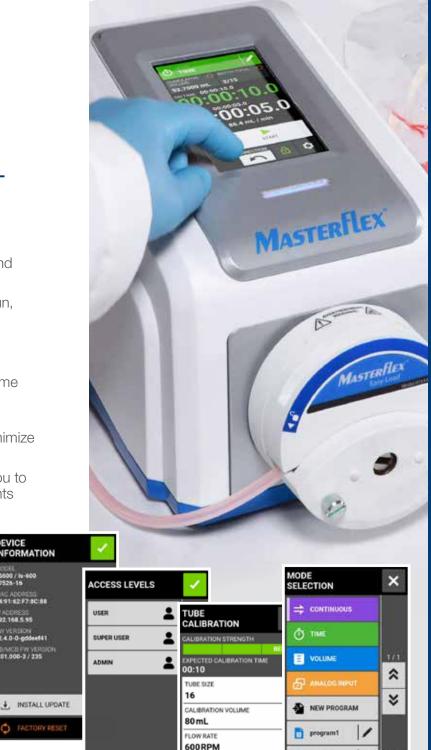
DEVICE INFORMATION

4-91-62-F7-8C-88

192 168 5 95

CD/MCB FW VERS 1.01.000-3 / 235

- Secure three-tier access to pump functionality
- Graphical indicator lets you know when loaded tubing is optimally calibrated
- Get your preferred way to work with multiple ways to operate the drive—via touch screen, analog remote, or choose a connectivity
- Choice of connectivity options— MasterflexLive®, EtherNet/IP™, or Profibus
- Versatile—compatible with all L/S pump head styles and pump tubing



Masterflex.com

program2





DEFAULT CYCLE OPTIONS

CLEAR

#### **Complete Systems**

Flour rongs		W	hat's included	Item number
Flow range	Pump head	Tubing	Drive	item number
0.08 to 480	L/S Easy-Load pump head	Puri-Flex <sup>™</sup> pump tubing 96419-16,	L/S MasterSense drive 07526-10, 0.1 to 600 rpm, with EtherNet/IP and MasterflexLive	MK-77920-40
mL/min	07514-30 with open-head sensor	L/S 16, 10 ft (3 m)	L/S MasterSense drive 07526-12, 0.1 to 600 rpm, with Profibus and MasterflexLive	MK-77920-50
0.28 to 1700	L/S Easy-Load II pump head	Puri-Flex pump tubing 96419-24,	L/S MasterSense drive 07526-10, 0.1 to 600 rpm, with EtherNet/IP and MasterflexLive	MK-77920-42
mL/min	77200-32 with open-head sensor	L/S 24, 10 ft (3 m)	L/S MasterSense drive 07526-12, 0.1 to 600 rpm, with Profibus and MasterflexLive	MK-77920-52

Distributed by: Fiedler Scientific Instruments, s.r.o. info@lab-eu.com info@pristroje.cz



### L/S® FOUR-CHANNEL DIGITAL DISPENSING PUMP SYSTEM

#### **APPLICATIONS**

- ▶ Precision dispensing
- ▶ Synchronous multichannel filling
- ▶ Metering fluids into multiple containers or outlets
- ▶ Filtration

#### **B**ENEFITS

- Digital dispensing drive features maintenancefree brushless motor
- Program dispensing parameters—including volume, copy, time, and delay interval—for automated dispensing
- ▶ Four-channel, six-roller pump head offers low pulsation and synchronous flow between channels for high accuracy and consistent fills
- BioPharm Plus platinum silicone tubing delivers exceptional flow stability over time making it ideal for dispensing applications

#### **F**EATURES

- ► 1/10-hp continuous-duty brushless drive; tach feedback for ±0.1% speed control
- ▶ Remote control via DB25 female connector on drive
- ▶ Membrane keypad with lockout



#### Specifications & Ordering Information

Catalog number	Flow range <sup>†</sup> (mL/min)	Pump head included	Tubing included	Tubing sizes accepted	Drive included	Drive speed range (rpm)	Drive IP rating	Power (50/60 Hz)
HL-77921-85	0.047 to 280	L/S Four-channel 07535-04	BioPharm Plus silicone tube set, L/S 16 96116-16; pk of 8	L/S two-stop tube sets: L/S 13, 14, 16	07522-20	0.1 to 600	IP33	90 to 130 VAC, 2.2 A; 190 to 260 VAC, 1.1 A

†Flow range per channel with included tubing; extend the flow range of this system with additional sizes of tubing; order L/S two-stop tube sets on page 55.

HL-07523-92 Foot switch, momentary start/start, 1.8-m (6-ft) cable.

<u>HL-07523-94</u> **DB25 Connector.** Use to create your own cable.

<u>HL-07523-97</u> **Dispensing handle** for momentary start/stop.

#### Distributed by:

Fiedler Scientific Instruments, s.r.o. H. Malířové 1, 638 00 Brno, Czech Republic Telephone: (+420) 541 222 795

### MASTERLEX

### PUMP SYSTEMS



# DISCONTINUED - NEW MODELS AVAILABLE L/S COMPUTER-COMPATIBLE PUMP SYSTEMS

#### **APPLICATIONS**

- ▶ Programmable dispensing
- Automated process
- Dosing/metering additives
- Dispensing by weight/weight ratio
- ▶ Repetitive filling
- Media dispensing in cell culture and fermentation
- ▶ Gradient pump

#### BENEFITS

- ▶ Stand-alone digital dispenser or control through PC
- ▶ Graphical LCD shows flow rate, rpm, dispense volume, dispense time, copy number, and cumulative volume
- Programmable dispense interval for automated dispensing
- Dispense by volume or time
- Analog remote control of speed, start/stop. and direction
- Programmed calibration ensures accuracy
- ▶ Stackable, splash-resistant housing wipes down for easy cleaning

#### **FEATURES**

- ▶ 1/10-hp, continuous-duty brushless drive
- ▶ ±0.1% PWM speed control accuracy with tach output
- ▶ Remote control capability via DB25 connector on back of drive
- Membrane keypad with lockout



77924-60

#### SPECIFICATIONS & ORDERING INFORMATION

Catalog number	Flow range <sup>†</sup> (mL/min)	Pump head included	Tubing included	Tubing sizes accepted	Drive included	Drive speed range (rpm)	Drive IP rating	Power (50/60 Hz)
HL-77924-50	0.08 to 480	L/S Easy-Load® 3 77800-60	C-Flex® ULTRA L/S 16 06434-16; 3 m (10 ft)	L/S 13, L/S 14, L/S 16, L/S 25, L/S 17, L/S 18	07551-00	0.1 to 600	IDaa	90 to 130 VAC, 2.2 A;
HL-77924-60	0.28 to 1700	L/S Easy-Load II 77200-62	C-Flex ULTRA L/S 24 06434-24; 3 m (10 ft)	L/S 15, L/S 24, L/S 35, L/S 36	07331-00	0.1 to 600	IP33	and 190 to 260 VAC, 1.1 A

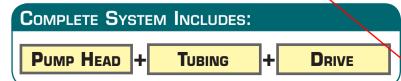
†Flow range with included tubing; extend the flow range of these systems with additional sizes of tubing; order on pages 68–73.

HL-07523-92 Foot switch, momentary start/stop: 1.8-m (6-ft) cable.

HL-07523-95 Cable assembly, DB25 male connector and 25-ft (7.9-m) cable with stripped wire ends for remote control.

HL-07523-97 Dispensing handle for momentary start/stop.

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



S09001:2008



### L/S® MULTICHANNEL PUMP SYSTEMS

#### **APPLICATIONS**

- ▶ Precision dispensing into multiple containers
- ▶ Transfer or meter fluids through multiple lines
- ▶ Rapid automated filling

#### BENEFITS

- ▶ Control of multiple channels with a single drive reduces operating cost per channel
- Powerful metering and transfer pump with accurate speed control
- Synchronous flow from all four channels ensures accuracy when dispensing into multiple containers
- Reversible motor for purge before/after pumping; pump in either direction
- Simple keypad controls; bright, three-digit display of rpm for repeatability
- ▶ Remote control of speed and start/stop
- ▶ Accepts L/S two-stop tube sets for optimal tension with no adjustment
- Stackable ABS plastic housing wipes down for easy cleaning

#### **F**EATURES

- ▶ Four-channel pump head
- ▶ 1/10-hp, continuous-duty drive with remote capability
- ▶ ±0.25% speed control accuracy





#### Specifications & Ordering Information

SPECIFICATIONS & ORDERING INFORMATION								
Catalog number	Flow range <sup>†</sup> (mL/min)	Pump head included	Tubing included	Tubing sizes accepted	Drive included	Drive speed range (rpm)	Drive IP rating	Power (50/60 Hz)
HL-77926-10	0.47 to 47	L/S four channel 07535-04	Tygon® E-LFL tube set, L/S 16 06447-16; pk of 8	L/S two-stop tube sets: L/S 13, L/S 14, L/S 16	07528-30	1 to 100	IP33	90 to 260 VAC
HL-77927-10	2.8 to 280	L/S four channel 07536-04	Tygon E-LFL tube set, L/S 24 06447-24; pk of 4	L/S two-stop tube sets: L/S 15, L/S 24, L/S 35	07528-30	1 to 100	IP33	90 to 260 VAC

Flow range with included tubing; extend the flow range of these systems with additional sizes of tubing; order two-stop tube sets below and L/S extension tubing on pages 68–73.

HL-77595-35 Foot switch, DB9 male. Use for start/stop operation.

HL-07595-45 Connector, DB9 male. Use for 4-20 mA remote control.

<u>HL-17050-01</u> NIST-traceable calibration for peristaltic pump drive.

COMPLETE SYSTEM INCLUDES:								
PUMP HEAD +	TUBING +	DRIVE						

(f) ( **Z**year

#### ADDITIONAL L/S TWO-STOP PRECISION PUMP TUBE SETS

Dumm turking		L	/S Precision pump tubin	g	L/S High-performance precision pump tubing			
Pump tubing		L/S 13 L/S 14 L/S 16		L/S 15	L/S 24	L/S 35		
Flow rate per channel	@ 1 to 100 rpm	0.045 to 4.5	0.16 to 16	0.47 to 47	1.6 to 160	2.8 to 280	3.8 to 380	
(mL/min)	@ 6 to 600 rpm	0.27 to 27	0.96 to 96	2.8 to 280	10 to 1000	17 to 1700	23 to 2300	
Tygon® E-LFL	Masterttex	HL-06447-13	HL-06447-14	HL-06447-16	<u>HL-06447-15</u>	HL-06447-24	HL-06447-35	
Silicone (platinum-cured)	MASTERFLEX	HL-06421-13	HL-06421-14	HL-06421-16	<u>HL-06421-15</u>	HL-06421-24	HL-06421-35	
	MASTERFLEX	HL-96116-13	HL-96116-14	HL-96116-16	HL-96116-15	HL-96116-24	HL-96116-35	
PharMed® BPT	Masmaller	HL-96114-13	HL-96114-14	HL-96114-16	<u>HL-96114-15</u>	HL-96114-24	HL-96114-35	
Chem-Durance® Bio	Marrafler	HL-96117-13	HL-96117-14	HL-96117-16	HL-96117-15	HL-96117-24	HL-96117-35	
Viton®	Mastraflex	HL-96428-13	HL-96428-14	HL-96428-16	HL-96428-15	HL-96428-24	HL-96428-35	
Qty/pk		8	8	8	4	4	4	

#### Distributed by:

Fiedler Scientific Instruments, s.r.o. H. Malířové 1, 638 00 Brno, Czech Republic Telephone: (+420) 541 222 795

MASTERFLEX

### PUMP SYSTEMS



### L/S® CARTRIDGE PUMP SYSTEMS

#### **APPLICATIONS**

- ▶ Multiple-channel low-flow transfer and perfusion
- ▶ Synchronous multichannel dispensing
- ▶ Low-pressure chromatography
- ▶ Feeding automated dispensers

#### **B**ENEFITS

- ▶ Cartridges accept multiple tubing sizes for wide flow range
- Cartridges snap in and out for tubing changes; change tubing in one channel without disturbing
- ▶ Finely adjust occlusion to increase accuracy
- ▶ Use only one cartridge, or load to capacity
- Digital dispensing drive features maintenancefree brushless motor
- ▶ Program dispensing parameters, including delay interval, for automated dispensing
- ▶ Four-channel, eight-roller pump offers lowest pulsation for better accuracy

#### **F**EATURES

- ▶ 1/10-hp continuous-duty brushless drive
- ▶ Tach feedback for ±0.1% drive speed control
- Remote control via DB25 female connector
- IP33 rated, stackable ABS housing
- ▶ Membrane keypad with lockout











SPECIFICATIONS	&	ORDERING	INFORMATION

OF LUIT 10/	AIIONO C	ORDENINO INI ORIVIATI			-		warranty		
Catalog number	Flow range <sup>†</sup> (mL/min)	Pump head included	Tubing included	Tubing sizes accepted	Drive included	Drive speed range (rpm)	Drive IP rating	Power (50/60 Hz)	
L/S eight-char	L/S eight-channel four-roller cartridge pump system								
HL-77919-20	0.0034 to 18	L/S Cartridge head 07519-06 with eight small cartridges 07519-80	Tygon® E-LFL microbore tube set, 1.42-mm ID 06447-34; pk of 12	Microbore tube sets; L/S 13, L/S 14	07523-90	0.02 to 100	IP33	90 to 130 VAC, 2.2 A; 190 to 260 VAC, 1.1 A	
L/S reduced-p	ulsation four-cl	nannel eight-roller cartridge pump sy:	stem						
HL-77919-30	0.0024 to 12	L/S Cartridge head 07519-20 with four small cartridges 07519-85	Tygon E-LFL microbore tube set, 1.42-mm ID 06447-34; pk of 12	Microbore tube sets; L/S 13, L/S 14	07523-90	0.02 to 100	IP33	90 to 130 VAC, 2.2 A; 190 to 260 VAC, 1.1 A	
†Flow range wi	th included tub	ing: extend the flow range of these sy	stems with additional sizes of tubin	g: order microbore two	etan tuha ea	te halow and I	/S tubing o	n nages 68_73	

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

#### ADDITIONAL MICROBORE TWO-STOP PUMP TUBE SETS

Pump tubing		0.89 mm ID	1.42 mm ID	2.06 mm ID	2.79 mm ID
Flow rate per	Cartridge head 07519-06	0.0015 to 7.4	0.0034 to 18	0.0074 to 37	0.0126 to 63
channel (mL/min)	Cartridge head 07519-20	0.0010 to 5.2	0.0024 to 12	0.0044 to 22	0.0068 to 34
Platinum-cured		HL-06421-26	HL-06421-34	HL-06421-42	HL-06421-48
silicone		pk of 6	pk of 6	pk of 6	pk of 6
C4		HL-06431-26	HL-06431-34	HL-06431-42	HL-06431-48
Santoprene®		pk of 12	pk of 12	pk of 12	pk of 12
T F   F		HL-06447-26	HL-06447-34	HL-06447-42	HL-06447-48
Tygon® E-LFL		pk of 12	pk of 12	pk of 12	pk of 12
Viton®		HL-96428-26	HL-96428-34	HL-96428-42	HL-96428-48
VILUII-		pk of 12	pk of 12	pk of 12	pk of 12

#### ADDITIONAL CARTRIDGES

HL-07519-80 Additional small cartridge for pump system 77919-20.

<u>HL-07519-85</u> Additional small cartridge for pump system 77919-30.



Distributed by:

Fiedler Scientific Instruments, s.r.o. H. Malířové 1, 638 00 Brno, Czech Republic Telephone: (+420) 541 222 795

info@lab-eu.com info@pristroje.cz Email:



### L/S® DIGITAL MODULAR PUMP SYSTEM

#### **APPLICATIONS**

- ▶ Epoxy resin delivery
- ▶ Culture media dispensing
- **▶** Coffee-additive dispensing
- ▶ FDA tablet coating

#### BENEFITS

- ▶ Separate drive/controller for placement flexibility
- Brushless motor for continuous-duty maintenance-free operation
- ▶ Remote I/O for control flexibility; tach output lets you monitor pump operation
- ▶ Easy tubing changes saves operator time
- ▶ Reverse pumping to prime or purge tubing
- Programmable time delay interval for repetitive filling

#### **FEATURES**

- ▶ 1/10-hp, continuous-duty drive
- ▶ ±0.1% drive speed accuracy
- Controller/drive connected by a 1.8-m (6-ft) cable



#### SPECIFICATIONS & ORDERING INFORMATION

	9001:2008 ERTIFIED SUPPLIER	. <b>(1)</b> us	Œ	2year warranty
re speed ge (rpm)	Drive IP rating		Power	
		00 +- 1	100 1/40	224

Catalog	Flow range <sup>†</sup>	Pump head	Tubing	Tubing sizes	Drive	Drive speed	Drive IP	Power
number	(mL/min)	included	included	accepted	included	range (rpm)	rating	
HL-77923-80	0.28 to 1700	L/S Easy-Load® II 77200-62	C-Flex <sup>®</sup> ULTRA L/S 24 06434-24; 3 m (10 ft)	L/S 15, L/S 24, L/S 35, L/S 36	77301-40	0.1 to 600	IP33	90 to 130 VAC, 2.2 A; and 190 to 260 VAC, 1.1 A

<sup>†</sup>Flow range with included tubing; extend the flow range of these systems with additional sizes of tubing; order on pages 68–73.

<u>HL-07523-97</u> Handheld remote controller; control start/stop, direction, and prime; route tubing through handle for dispensing and filling applications; 1.8-m (6-ft ) cable.

<u>HL-07523-95</u> Cable assembly, DB25 male connector and 7.9-m (25-ft) cable with stripped wire ends for remote control.

<u>HL-77301-82</u> Extension cable, 2.7 m (9 ft) for benchtop modular drive 77301-40; extend distance between motor and controller.

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

# L/S® DIGITAL MODULAR PUMP SYSTEM WITH WALL-MOUNT CONTROLLER

#### **APPLICATIONS**

- Adhesive resin delivery
- ▶ Salad dressing dispensing
- ▶ Food-additive dispensing
- ▶ Packaging process pump

#### **B**ENEFITS

- Washdown IP66 (NEMA 4X)-rated components for easy cleanup in process applications
- ▶ Remote I/O for control flexibility; tach output lets you monitor pump operation
- Brushless motor for continuous-duty maintenance-free operation
- **▶** Easy tubing changes
- ▶ Repetitive dispensing with programmable delay for efficient repeat filling operations

#### **F**EATURES

- ▶ 1/10-hp, continuous-duty drive
- ▶ ±0.1% drive speed accuracy
- ▶ IP66-rated controller/drive connected by a 1.8-m (6-ft) water-tight cable



Warranty

#### Specifications & Ordering Information

<b>O</b> PECIFICA	SPECIFICATIONS & ORDERING INFORMATION									
Catalog number	Flow range <sup>†</sup> (mL/min)	Pump head included	Tubing included	Tubing sizes accepted	Drive included	Drive speed range (rpm)	Drive IP rating	Power		
HL-77923-90	0.28 to 1700	L/S Easy-Load <sup>®</sup> II 77200-62	C-Flex <sup>®</sup> ULTRA L/S 24 06434-24; 3 m (10 ft)	L/S 15, L/S 24, L/S 35, L/S 36	77301-50	0.1 to 600	IP66	90 to 130 VAC, 2.2 A; and 190 to 260 VAC, 1.1 A		

<sup>†</sup>Flow range with included tubing, extend the flow range of these systems with additional sizes of tubing; order on pages 68–73.

HL-07575-84 Washdown foot switch, momentary start/stop; 1.8-m (6-ft ) cable. HL-07575-80 Remote control cable; wire to controller/PLC; 8.3-m (25-ft) length. <u>HL-77301-82</u> Extension cable, 2.7 m (9 ft) for washdown modular drive 77301-50; extend distance between motor and controller.

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

#### Distributed by:

Fiedler Scientific Instruments, s.r.o. H. Malířové 1, 638 00 Brno, Czech Republic Telephone: (+420) 541 222 795



### L/S® DIGITAL PROCESS PUMP SYSTEMS

#### **APPLICATIONS**

- Pharma, food, and dairy processing
- ▶ Metering flavorings and colorants
- ▶ Pumping buffer solutions
- ▶ Filling/emptying media bags
- ▶ Sterile filtration; sterile fluid transfer
- Spray coating
- ▶ Pumping slurries and purees

#### BENEFITS

- Digital dispenser is ideal for filling applications requiring varying flow rates and volumes
- ▶ Sealed, 316 stainless steel housing is NEMA 4X and IP66 rated for easy washdown in sanitary process environments; use model 77975-40 with powder-coat steel housing in applications where stainless steel is not a requirement
- Graphical LCD shows flow rate, rpm, dispense volume, dispense time, and copy number
- ▶ Cumulative volume function totalizes volume pumped or transferred over time
- ▶ Select to display metric or English units
- ▶ Programmable dispense interval for automated
- Analog remote control of speed, start/stop, and direction; tach output for monitoring pump
- ▶ Programmed calibration ensures accuracy
- ▶ Keypad lockout feature prevents inadvertent changes to programmed settings

#### **F**EATURES

- ▶ 1/10-hp, continuous-duty brushless drive
- ▶ ±0.1% PWM speed control accuracy with tach output
- ▶ Remote control capability via fluid-resistant I/O connector on back of drive







77975-20

10000











#### SPECIFICATIONS & ORDERING INFORMATION

Flow range <sup>†</sup> (mL/min)	Pump head included	Tubing included	Tubing sizes accepted	Drive included	Drive speed range (rpm)	Drive IP rating	Power	
Digital process pumps with 316 stainless steel housing								
0.28 to 1700	L/S Easy-Load® II 77200-62	C-Flex® ULTRA L/S 24 06434-24; 3 m (10 ft)	L/S 15, L/S 24, L/S 35, L/S 36	07575-10	0.1 to 600	IP66	90 to 130 VAC, 2.2 A; and 190 to 260 VAC, 1.1 A	
0.28 to 1800	L/S High-Performance 77250-62	C-Flex ULTRA L/S 24 06434-24; 3 m (10 ft)	L/S 15, L/S 24, L/S 35, L/S 36	07575-10	0.1 to 600	IP66	90 to 130 VAC, 2.2 A; and 190 to 260 VAC, 1.1 A	
Digital process pump with powder-coat steel housing								
0.28 to 1700	L/S Easy-Load II 77200-62	C-Flex ULTRA L/S 24 06434-24; 3 m (10 ft)	L/S 15, L/S 24, L/S 35, L/S 36	07575-20	0.1 to 600	IP66	90 to 130 VAC, 2.2 A; and 190 to 260 VAC, 1.1 A	
	(mL/min) s pumps with 31 0.28 to 1700 0.28 to 1800 s pump with por	(mL/min)         included           s pumps with 316 stainless steel housing           0.28 to 1700         L/S Easy-Load® II 77200-62           0.28 to 1800         L/S High-Performance 77250-62           s pump with powder-coat steel housing           0.28 to 1700         L/S Easy-Load II	(mL/min)         included         included           s pumps with 316 stainless steel housing           0.28 to 1700         L/S Easy-Load® II 77200-62         C-Flex® ULTRA L/S 24 06434-24; 3 m (10 ft)           0.28 to 1800         L/S High-Performance 77250-62         C-Flex ULTRA L/S 24 06434-24; 3 m (10 ft)           s pump with powder-coat steel housing         L/S Easy-Load II         C-Flex ULTRA L/S 24	(mL/min)         included         included         accepted           s pumps with 316 stainless steel housing         U/S Easy-Load® II 77200-62         C-Flex® ULTRA L/S 24 06434-24; 3 m (10 ft)         L/S 15, L/S 24, L/S 35, L/S 36           0.28 to 1800         L/S High-Performance 77250-62         C-Flex ULTRA L/S 24 06434-24; 3 m (10 ft)         L/S 15, L/S 24, L/S 35, L/S 36           s pump with powder-coat steel housing         L/S Easy-Load II         C-Flex ULTRA L/S 24         L/S 15, L/S 24, L/S 35, L/S 36	(mL/min)         included         included         accepted         included           s pumps with 316 stainless steel housing         0.28 to 1700         L/S Easy-Load® II 77200-62         C-Flex® ULTRA L/S 24 06434-24; 3 m (10 ft)         L/S 15, L/S 24, L/S 35, L/S 36         07575-10           0.28 to 1800         L/S High-Performance 77250-62         C-Flex ULTRA L/S 24 06434-24; 3 m (10 ft)         L/S 15, L/S 24, L/S 35, L/S 36         07575-10           s pump with powder-coat steel housing         L/S Easy-Load II         C-Flex ULTRA L/S 24         L/S 15, L/S 24, 07575-20         07575-20	(mL/min)         included         included         accepted         included         range (rpm)           s pumps with 316 stainless steel housing           0.28 to 1700         L/S Easy-Load® II 77200-62         C-Flex® ULTRA L/S 24 06434-24; 3 m (10 ft)         L/S 15, L/S 24, L/S 35, L/S 36         07575-10         0.1 to 600           0.28 to 1800         L/S High-Performance 77250-62         C-Flex ULTRA L/S 24 06434-24; 3 m (10 ft)         L/S 15, L/S 24, L/S 35, L/S 36         07575-10         0.1 to 600           s pump with powder-coat steel housing         L/S Easy-Load II         C-Flex ULTRA L/S 24         L/S 15, L/S 24, L/S 15, L/	(mL/min)         included         included         accepted         included         range (rpm)         rating           s pumps with 316 stainless steel housing         U/S Easy-Load® II 77200-62         C-Flex® ULTRA L/S 24 06434-24; 3 m (10 ft)         L/S 15, L/S 24, L/S 35, L/S 36         07575-10         0.1 to 600         IP66           0.28 to 1800         L/S High-Performance 77250-62         C-Flex ULTRA L/S 24 06434-24; 3 m (10 ft)         L/S 15, L/S 24, L/S 35, L/S 36         07575-10         0.1 to 600         IP66           s pump with powder-coat steel housing         L/S Easy-Load II         C-Flex ULTRA L/S 24         L/S 15, L/S 24, L/S 15, L/S 24, L/S 15, L/S 24, L/S 15, L/S 24         07575-20         0.1 to 600         IP66	

<sup>†</sup>Flow range with included tubing; extend the flow range of these systems with additional sizes of tubing; order on pages 68–73.

HL-07575-84 Washdown foot switch, momentary start/stop; 1.8-m (6-ft) cable

HL-07575-80 Remote cable, 8.3 m (25 ft) for remote capabilities.

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



#### FILLER / DISPENSING NOZZLES

- Maximize the speed, precision, and accuracy of dispensing and filling applications
- Minimize splashing and dripping when dispensing into narrow- or wide-mouth containers

These nozzles combine the ease of plastic components with the accuracy and reliability of stainless steel tubes. Tight dimensional tolerances help to ensure precision in your dispensing applications. Nozzles feature a 316L stainless steel tube and a polycarbonate base with hose barb adapter. Materials comply with FDA, USDA and USP Class VI requirements. All filler nozzles are sterilizable by ethylene oxide, autoclaving, or gamma irradiation.

Catalog number	Tubing ID
HL-30619-06	1/32"
HL-30619-01	1/16"
HL-30619-07	1/8"
HL-30619-02	3/16"
HL-30619-08	1/4"
HL-30619-03	5/16"
HL-30619-09	3/8"
HL-30619-04	1/2"
HL-30619-10	5/8"
HL-30619-05	3/4"



#### Distributed by:

Fiedler Scientific Instruments, s.r.o. H. Malířové 1, 638 00 Brno, Czech Republic Telephone: (+420) 541 222 795



### L/S® PTFE-Tubing Pump System

#### **APPLICATIONS**

- ▶ Transfer of aggressive chemicals
- ▶ Filtration
- ▶ High-purity pumping
- ▶ Chemical injection

#### BENEFITS

- ▶ Excellent chemical compatibility for metering aggressive chemicals
- ▶ Higher pressures up to 6.9 bar (100 psi), low pulsation
- Inert PTFE tubing maintains fluid purity
- ▶ Adjustable occlusion
- ▶ Low maintenance

#### **FEATURES**

▶ 1/10-hp, 3 to 300 rpm continuous-duty drive





#### ADDITIONAL TUBING

HL-77390-60 PTFE tubing set, 6-mm OD, 4-mm ID. Set of two 38-cm (15") lengths

HL-06605-54 PTFE extension tubing, 6-mm OD. One 7.6-m (25-ft) length

HL-31321-64 Straight connector; 6 mm, 9.2 bar (135 psi) max

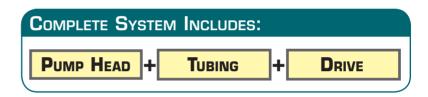
77912-10

#### SPECIFICATIONS & ORDERING INFORMATION

SPECIFICAT	IONS & O	RDERING INFO	RMATION			CEF	9001:2008	€ <b>2</b> war	year rranty
Catalog number	Flow range (mL/min)	Pump head included	Tubing included <sup>†</sup>	Tubing sizes accepted	Drive included	Drive speed range (rpm)	Drive IP rating	Power (50/60 Hz)	
HL-77912-10	0.75 to 65	L/S PTFE-tubing 77390-00	6-mm OD PTFE tubing set 77390-60	_	07528-20	3 to 300‡	IP33	90 to 260 VAC	

<sup>&</sup>lt;sup>†</sup>Also includes two <sup>1</sup>/<sub>4</sub>" pipe adapters. <sup>‡</sup>Recommended drive speed operating range for included pump head.

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



### L/S® PTFE-DIAPHRAGM PUMP SYSTEM

#### **APPLICATIONS**

- ▶ Chemical feed and metering
- ▶ Chemical injection
- ▶ High-purity fluid transfer
- Pumping aggressive chemicals
- ▶ High-pressure pumping

#### BENEFITS

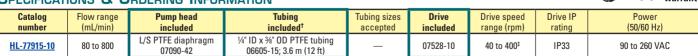
- Continuous pressure up to 3.4 bar (50 psi); 5.2 bar (75 psi) intermittent
- ▶ Excellent chemical compatibility
- ▶ High metering accuracy
- Self-priming
- ▶ PTFE fluid path maintains fluid purity

#### **FEATURES**

- ▶ 1/10-hp, 6 to 600 rpm continuous-duty drive
- ▶ ±0.25% speed control accuracy
- ▶ ABS plastic housing
- ▶ DB9 female connection on back for remote control



#### Specifications & Ordering Information



<sup>&</sup>lt;sup>†</sup>Also includes pipe adapters and check valve. ‡Recommended drive speed operating range for included pump head.

HL-07090-43 Service kit includes diaphragm, check valves, installation tool and instructions.

HL-07090-45 Check valve

#### Distributed by:

Fiedler Scientific Instruments, s.r.o. H. Malířové 1, 638 00 Brno, Czech Republic Telephone: (+420) 541 222 795