

MASTERFLEX®

Reimagine
Fluid Handling
Operate, collaborate and
connect with ease



Masterflex® L/S®
MasterSense™ Drives

Reimagine an easier way to pump with the **MasterSense drive**. Intuitive programming and forward-looking features enable you to work smarter and pump easier than ever before. With the same great features as all Masterflex peristaltic pump drives including high precision, repeatable flow control, and reliable performance, you can have it all in one small footprint—even more bench space.

Intuitive touch-screen interface

Easy programming functionality

Innovative forward-looking features

Multiple connectivity options

Versatile system components





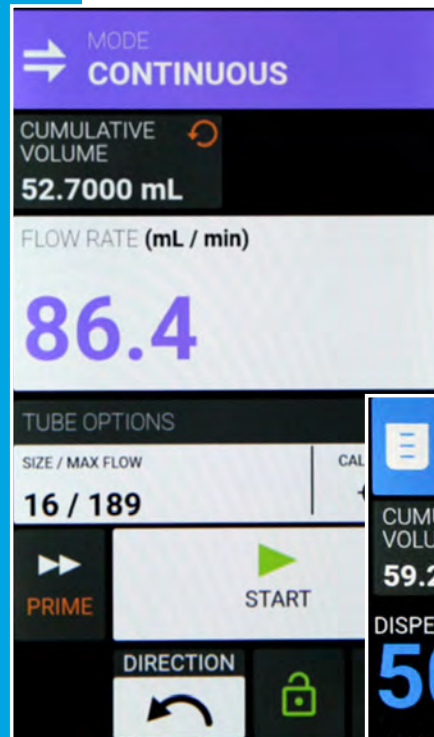
Intuitive Touch-Screen Interface

- **Quick and easy** to set up and program
- 127 mm capacitive TFT/RGB touch screen with a clear, wide viewing angle
- Adjust parameters with a simple touch—even with gloves on

Easy & Accurate

- 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 available in volume and time modes
- Antidrip and speed ramping available in volume mode—ensure accuracy and **minimise sample loss**

Continuous Run



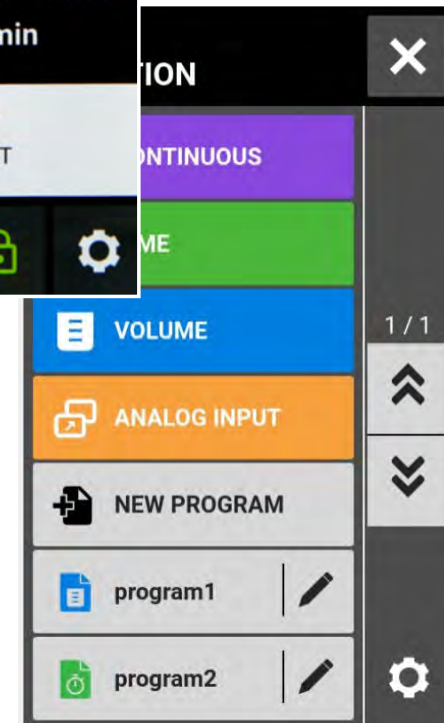
Time Dispense



Volume Dispense



Saved Programs



DEVICE INFORMATION ✓

MODEL
LS600 / Is-600
07526-16

MAC ADDRESS
04:91:62:F7:8C:88

IP ADDRESS
192.168.5.95

SW VERSION
v2.4.0-0-gddeef41

CB/MCB FW VERSION
1.01.000-3 / 235

INSTALL UPDATE

FACTORY RESET

Three-Tier Access

ACCESS LEVELS ✓

USER	👤
SUPER USER	👤
ADMIN	👤

Calibration

TUBE CALIBRATION ✕

CALIBRATION STRENGTH
BEST

EXPECTED CALIBRATION TIME
00:10

TUBE SIZE
16

CALIBRATION VOLUME
80mL

FLOW RATE
600RPM

DEFAULT CYCLE OPTIONS

CLEAR CALIBRATION

START



Innovative Features

- **Over-the-air firmware updates** – take full advantage of future enhancements. Rest assured you will always have the latest technology on your MasterSense drive.
- **Three-tier access to pump functionality** – protect your process by controlling who can operate the pump and at what level. Two-factor security – unique user name and password required for every member of the team.
- Know when you've hit your mark – graphical indicator lets you know when loaded tubing is **optimally calibrated**.

Connectivity Options

Elevate the way you work with:

- **Multiple ways to operate your drive**— via touch screen, analogue remote, or a choice of connectivity options. Our cloud-based MasterflexLive® technology is ideal for when you need to control or monitor your pump remotely. For digital protocols that suit your automation needs, we offer EtherNet/IP™ or Profibus capability.
- **Choice of connectivity options**— MasterflexLive®, EtherNet/IP™, or Profibus.
- **MasterflexLive®**— secure, cloud enabled platform for remote monitoring and control of critical processes; 24/7 access without the need for on-site personnel. Push notifications to alert you of changes in operating conditions and error messages. Upgrade to premium for access to operational data storage on our Microsoft Azure secured cloud platform; compliant with both EU Annex 11 and FDA 21 CFR Part 11.

MasterflexLive is proprietary technology—patent pending.





Powerful Performance

- Broad flow range, from 0.001 to 3400 mL/min, for use **on the process floor and in the lab**
- Internet connection via Wi-Fi or standard Ethernet (RJ45) jack on rear of drive
- **Open-head sensor** technology stops the drive motor when pump head is opened; connect to a remote leak detector to be alerted when there is a ruptured filter, blown gasket, or leaky tube connection
- Brushless, maintenance-free motor provides $\pm 0.1\%$ speed control accuracy with 6000:1 turndown ratio
- Bidirectional flow and self-priming capabilities allow for **smooth, seamless operation**

Versatility— A Pump Head for Every Application

Build the pump system for your
specific needs with ten available
styles of Masterflex® L/S pump heads
**All compatible with the
MasterSense™ drive**



Pump Head Selection

Puri-Flex™

- Heat sealable, weldable, and a great alternative to leading TPE's
- Longer pump life and lower spallation when compared to silicone or many other TPE tubings
- USP Class VI, FDA, 3A, REACH, RoHS, ADF

Platinum-Cured Silicone

- Low protein binding, fungus resistant, phthalate and latex-free
- Accommodates a wide temperature range
- USP Class V, EP, FDA, REACH, RoHS, ADF

Tygon® E-Food (B-44-4X)

- Smooth inner surface unaffected by commercial sanitisers
- Non-toxic; will not affect taste or odour
- FDA, EU Food, NSF, 3A, REACH, RoHS, ADF

Viton®

- Perfect for applications where FDA and chemical compatibility is needed
- Resistant to corrosive solvents and oils at elevated temperatures
- FDA, ADF

Masterflex size	Puri-Flex™ 7.6 m	Platinum-cured silicone 7.6 m	Tygon® E-Food (B-44-4X) 16.2 m	Viton® 7.6 m
	Item number	Item number	Item number	Item number
Precision pump tubing				
L/S 13	MK-96419-13	MK-96410-13	MK-06418-13	MK-96412-13
L/S 14	MK-96419-14	MK-96410-14	MK-06418-14	MK-96412-14
L/S 16	MK-96419-16	MK-96410-16	MK-06418-16	MK-96412-16
L/S 25	MK-96419-25	MK-96410-25	MK-06418-25	MK-96412-25
L/S 17	MK-96419-17	MK-96410-17	MK-06418-17	MK-96412-17
L/S 18	MK-96419-18	MK-96410-18	MK-06418-18	MK-96412-18
High-Performance Precision pump tubing				
L/S 15	MK-96419-15	MK-96410-15	MK-06418-15	MK-96412-15
L/S 24	MK-96419-24	MK-96410-24	MK-06418-24	MK-96412-24
L/S 35	MK-96419-35	MK-96410-35	MK-06418-35	MK-96412-35
L/S 36	MK-96419-36	MK-96410-36	MK-06418-36	MK-96412-36

Versatility — A Tubing for Every Application

Optimise your demanding peristaltic pump applications when you use Masterflex® pump tubing — specifically designed and manufactured for Masterflex® peristaltic pumps. Select Precision tubing or the thicker-walled High-Performance Precision tubing, which improves pressure generation, suction lift, ability to pump viscous fluids, and tubing life. See all 20+ tubing formulations at Masterflex.com/tubing.



Technical Specs & Ordering Information

System with Easy-Load II Pump Head



System with Easy-Load Pump Head

Flow rates in mL/min (flow rates in parentheses can be obtained only with the L/S High-Performance pump head)

rpm	Precision pump tubing						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
0.1 to 600	0.006 to 36	0.021 to 130	0.08 to 480	0.17 to 1000	0.28 to 1700	0.38 to 2300	0.17 to 1000 (0.18 to 1100)	0.28 to 1700 (0.30 to 1800)	0.38 to 2300 (0.43 to 2600)	0.48 to 2900 (0.58 to 3400)
0.02 to 100	0.001 to 6	0.004 to 21	0.016 to 80	0.033 to 170	0.057 to 280	0.077 to 380	0.033 to 170 (0.036 to 180)	0.057 to 280 (0.060 to 300)	0.077 to 380 (0.086 to 430)	0.096 to 480 (0.113 to 580)

Specifications

Speed control accuracy (resolution)	±0.1% (0.1 rpm at 600 rpm; 0.01 rpm at 100 rpm)
Display	127 mm capacitive TFT/RGB touch screen with in-plane switching (wide viewing angle); 800 x 480 pixels
External control - input	0 to 20 mA, 20 to 0 mA, 4 to 20 mA, 20 to 4 mA; 0 to 10 V, 10 to 0 V, 0 to 5 V, 5 to 0 V; Start/stop, Direction (CW/CCW), Prime via contact closure
External control - output	0 to 20 mA, 20 to 0 mA, 4 to 20 mA, 20 to 4 mA; 0 to 10 V, 10 to 0 V, 0 to 5 V, 5 to 0 V; Tach output (open collector), Motor running, Open head, Local/Remote, General alarm
Motor	BLDC with encoder; continuous duty; reversible; 1/10 hp (75 W)
Open-head sensor	Yes; extension cable included
Housing materials	ABS plastic housing, painted aluminum chassis, painted aluminum bezel
Enclosure rating	IP33
Agency approvals	UL, cUL, CE
Warranty	2 years
Dimensions (L x W x H)	26 x 19.4 x 21.6 cm
Shipping weight	5 kg
Power	90 to 260 VAC, 50/60 Hz

MasterSense Drive Ordering Information

rpm	Flow range	Pumps heads accepted	With EtherNet/IP & MasterflexLive	With Profibus & MasterflexLive
			Item number	Item number
0.1 to 600	0.006 to 3400 mL/min	2	MK-07526-10	MK-07526-12
0.02 to 100	0.001 to 580 mL/min	4	MK-07526-20	MK-07526-22

MK-07523-92 Foot switch, momentary start/stop; 1.8 m cable

MK-07523-94 DB25 male connector. Use to create your own cable

MK-07523-95 Cable assembly for remote control; DB25 male connector and 7.9 m cable with stripped wire ends

MK-07523-97 Handheld remote controller; route tubing through handle for dispensing into containers

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

Complete Systems

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

Masterflex® is a leading, global fluidics manufacturer of proprietary products—with certifications to help you stay compliant—for your complete fluidic path. Along with our wide range of products, from pumps and tubing to flow meters and single-use components, we are your consultant and partner to help you optimise your full fluidics workflow - from research to process. Additionally, when one of our standard offerings don't fit your application, we can help you succeed with custom-engineered OEM pump solutions that meet your exact needs and budget.

Masterflex® products are known for their accuracy, durability, and ease-of-use. They can be seen in facilities around the world - particularly in the pharmaceutical, biopharmaceutical, food & beverage, and chemicals industries. Masterflex® products can also be used in other industries, R&D to process, wherever fluid handling is required.

The logo for Masterflex, featuring the word "MASTERFLEX" in a bold, italicized, sans-serif font with a registered trademark symbol (®) to the upper right.

Contact Us

UK	T: +44 (0) 1480 272279 E: uk.sales@antylia.com W: coleparmer.co.uk
Germany	T: +49 (0) 9377 92030 E: de.sales@antylia.com W: coleparmer.de
France	T: +33 (0) 1486 37800 E: fr.sales@antylia.com W: coleparmer.fr
Italy	T: +39 (0) 1313 89513 E: it.sales@antylia.com W: coleparmer.it
USA	T: +1 847 549 7600 E: sales@coleparmer.com W: coleparmer.com