



Flow rates in mL/min (flow rates in parentheses can only be obtained with the High-Performance pump head—see page 1469)

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
	Standard [†] , Easy-Load, Easy-Load II, Easy-Load 3						Multichannel [‡] , Standard, Easy-Load II, Easy-Load 3, High-Performance			
	Cartridge, Multichannel			Cartridge			Easy-Load			
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 (0.57 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 183)	0.057 to 280 (0.057 to 300)	0.077 to 380 (0.086 to 433)	0.096 to 480 (0.113 to 566)

[†]The Standard pump head is not available for L/S® 25. [‡]Multichannel head is not available for L/S 36. Multichannel and Cartridge heads are available for microbore tubing.

Specifications & Ordering Information for all drives on these two pages



Catalog number	rpm	Speed control (resolution)	Pump heads accepted	Motor size	IP rating	Dimensions (L x W x H)	Power (50/60 Hz)		Price
							VAC	Amps	
S-07523-80	0.1 to 600	±0.1% (0.1 rpm at 600 rpm; 0.01 rpm at 100 rpm)	2	1/10 hp (75 W)	IP33	10" x 8.5" x 8.5" (25.4 cm x 21.6 cm x 21.6 cm)	90 to 260	2.2 at 115 VAC, 1.1 at 230 VAC	
S-07523-90	0.02 to 100		4						

Accessories for 07523-80 and -90 Brushless Digital Drives

S-07523-92 Footswitch, momentary start/stop; 6-ft (1.8-m) cable.....

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

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

S-07523-96 Handheld dispensing wand.....

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

Add these options

- L/S® Pump heads 1462–1478
- L/S® Pump tubing 1479–1485

Complete L/S® Variable-Speed Pump Systems

Complete Systems 1 and 2 include:

Pump Head	+	Tubing	+	Drive
1 L/S Easy-Load 3 pump head 77800-60 (pages 1464–1465)		Tygon LFL L/S 16 tubing 06429-16 10 ft (3 m) (pages 1480–1481)		Standard digital drive 07523-80 0.1 to 600 rpm (above)
2 L/S Easy-Load II pump head 77200-62 (pages 1466–1467)		Tygon LFL L/S 24 tubing 06429-24 10 ft (3 m) (pages 1482–1483)		Standard digital drive 07523-80 0.1 to 600 rpm (above)



Ordering Information—Complete Pump Systems 1 and 2

Key	Catalog number	Description	Power	Price
1	S-77921-60	L/S standard brushless digital pump with Easy-Load 3 pump head	90 to 260 VAC, 50/60 Hz	
2	S-77921-70	L/S standard brushless digital pump with Easy-Load II pump head	90 to 260 VAC, 50/60 Hz	

FREE Technical Applications Assistance

Our team of scientific experts is trained to answer your most challenging questions because they are experienced in a wide variety of backgrounds, including biology, chemistry, biochemical engineering, and physics.



Challenge: A pharmaceutical manufacturer needed to dispense volumes of 300 mL in 15 seconds or less repeating three times per minute; and 20 mL in 2 seconds or less repeating 20 times per minute. The desired accuracy target for both applications was ±1.5%. The efficiency of simultaneously pumping multiple channels was critical.

Our solution: The manufacturer now uses a Masterflex® L/S® digital drive with an L/S four-channel pump head 07536-04 (see pages 1470–1471). Size L/S 15 two-stop BioPharm Plus silicone tubing (96116-15) met the smaller flow requirement; while size L/S 35 two-stop BioPharm Plus silicone tubing (96116-35) met the larger flow requirement. BioPharm Plus silicone tubing is recommended for high-accuracy dispensing applications due to its exceptional flow stability over time. Careful calibration of the drive and the synchronous multichannel flow capability of the pump head enabled the manufacturer to meet the accuracy target.

