

343

MASTERFLEX®

PRECISION VARIABLE-SPEED MODULAR DRIVES

PLACE MOTOR AND CONTROLLER IN
SEPARATE LOCATIONS—PERFECT FOR
ISOLATION CHAMBERS OR FUME HOODS



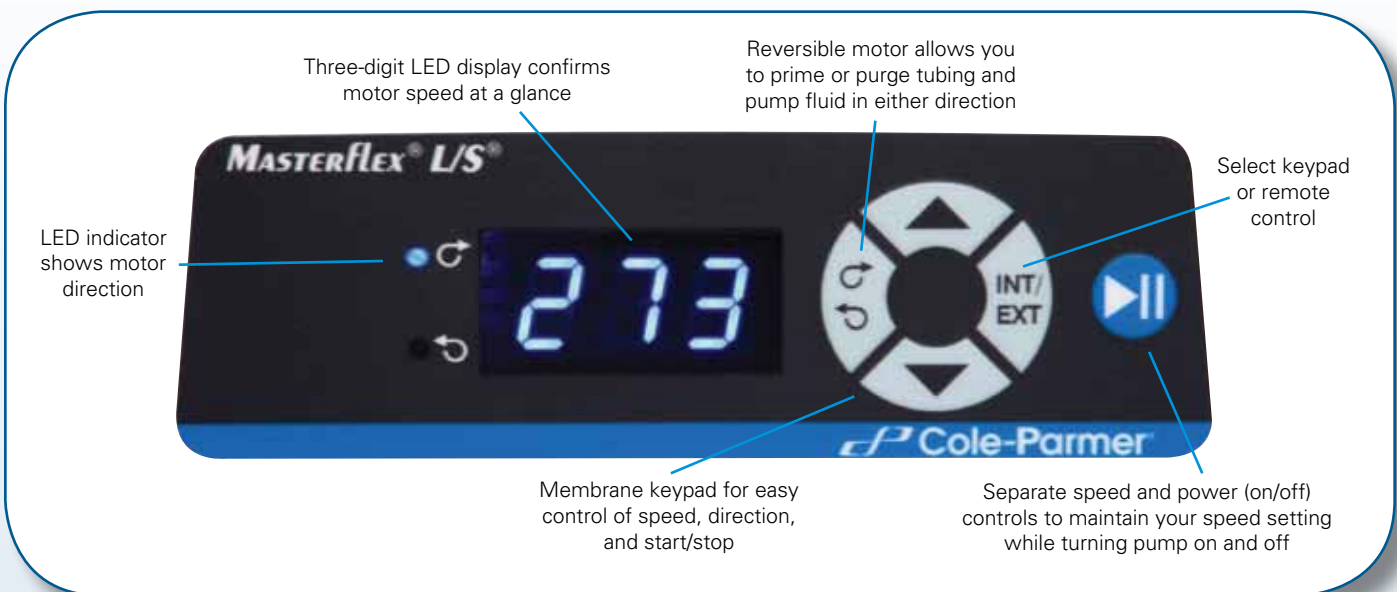
- Modular design allows you to separate motor and controller by up to 15 feet (4.5 meters)
- Easy-to-use controller with keypad and LED display
- Precise flow regulation
- Controllers are available in benchtop or washdown/wall-mount options
- L/S® or I/P® drives meet a wide range of flow rates

 **Cole-Parmer®**
Delivering Solutions You Trust

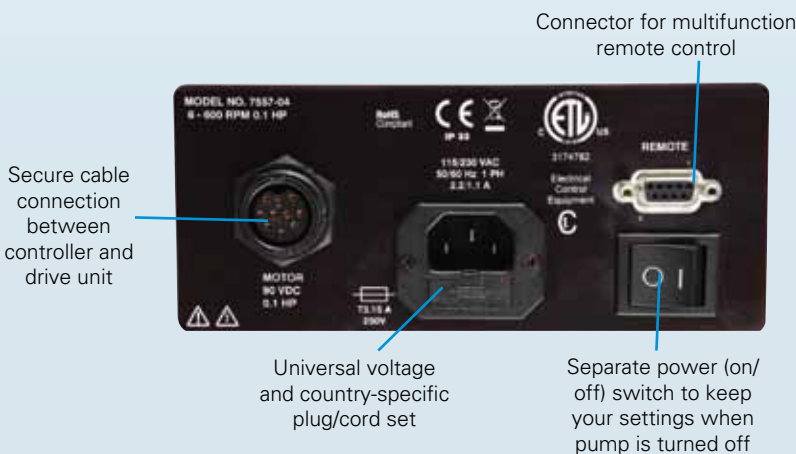
Masterflex® Precision Variable-Speed Modular Drives

These drives have powerful motors, rpm speed display, and $\pm 0.25\%$ speed control for precise flow regulation. Ideal for accurate and repeatable fluid transfer and metering applications. Benchtop and washdown/wall-mount models in a modular format let you separate motor and controller by up to 15 feet (4.5 meters) for placement in confined spaces, chambers, or hoods. Motors allow you to stack pump heads for increased flow rates and multichannel applications. The membrane keypad gives you easy up-front control of drive functions; LED indicators confirm motor direction. Drives also offer remote control of speed, direction, and start/stop.

EASY-TO-USE CONTROLLER INTERFACE



CONVENIENT CONTROLLER INPUT/OUTPUT



REMOTE CONTROL CAPABILITIES

- Speed control input
- Pump direction (CW/CCW) via open collector or contact closure
- Start/stop via open collector or contact closure

MODULAR DRIVES WITH BENCHTOP CONTROLLER

- Splash-resistant ABS plastic controller housing is IP33 rated; drive housing is epoxy-finished steel, IP33 rated
- Include a 6-ft (1.8-m) cable to connect drive and controller; optional 9-ft (2.7-m) extension cable is available (see "Accessories" on back page)
- Remote control capabilities via DB9 female connector on back of controller



C I/P® Modular drive 07591-20



WASHDOWN MODULAR DRIVES WITH WALL-MOUNT CONTROLLER

- Wall-mount controller housing is powder-coated aluminum, IP66 / NEMA 4X rated for washdown; powder-coated steel drive housing is IP66 / NEMA 4X rated for washdown
- Include a 6-ft (1.8-m) cable to connect drive and controller; optional 9-ft (2.7-m) extension cable is available (see "Accessories" on back page)
- Remote control capabilities via weather-resistant connection on controller



B L/S® Modular drive 07557-60 shown with Easy-Load® II pump head 77200-62



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International customers

Call 847-549-7600 to reach our International Sales Department or contact your local dealer.



FREE TECHNICAL APPLICATIONS ASSISTANCE!

L/S® PRECISION VARIABLE-SPEED MODULAR DRIVES

- Flow range of 0.06 to 3400 mL/min (depends on drive rpm and tubing size)
- Ideal for laboratory or research applications
- Accept all nine styles of L/S pump heads

Flow Rates in mL/min (flow rates in parentheses can only be obtained with the 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
	Standard†, Easy-Load, Easy-Load II, Easy-Load 3						Multichannel†, Standard†, Easy-Load II, Easy-Load 3, High-Performance			
	Cartridge, Multichannel			Cartridge			Easy-Load			
6 to 600	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)
1 to 100	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)

†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.

Catalog number	rpm	Speed control (resolution)	Pump heads accepted	Motor size	IP rating	Dimensions (L x W x H)	Power (50/60 Hz)	
							VAC	Amps
A Precision modular drives with bench top controller								
MK-07557-00	6 to 600	±0.25% (1 rpm at 600 rpm);	2	1/10 hp (75 W)	IP33	Controller: 10½" x 8¼" x 5" (26.7 x 21 x 12.7 cm) Drive: 10¼" x 4¾" x 4½" (27.3 x 11.1 x 11.4 cm)	90 to 260	2.2 at 115 VAC, 1.1 at 230 VAC
MK-07557-10	1 to 100	0.1 rpm at 100 rpm)	4					
B Precision washdown modular drives with wall-mount controller								
MK-07557-60	6 to 600	±0.25% (1 rpm at 600 rpm);	2	1/10 hp (75 W)	IP66	Controller: 9" x 11¾" x 4½" (23 x 30 x 11.4 cm) Drive: 15¼" x 7" x 6" (39.5 x 17.8 x 15.2 cm)	90 to 260	2.2 at 115 VAC, 1.1 at 230 VAC
MK-07557-70	1 to 100	0.1 rpm at 100 rpm)	4					

I/P® PRECISION VARIABLE-SPEED MODULAR DRIVES

- Flow range of 0.036 to 19 LPM (0.01 to 5.0 GPM) with I/P High-Performance pump head or 26 LPM (6.9 GPM) with two stacked I/P Easy-Load or Standard pump heads
- Ideal for higher flow rate applications such as manufacturing, industrial, or large-volume transfers

Flow rates in LPM (GPM) per channel



Speed (rpm)	Precision pump tubing			High-performance precision pump tubing		
	I/P 26	I/P 73	I/P 82	I/P 70	I/P 88	I/P 89
6 to 650	0.036 to 4.0 (0.009 to 1.0)	0.06 to 8.0 (0.018 to 2.1)	0.12 to 13.0 (0.03 to 3.5)	0.06 to 8.0 (0.018 to 2.1)	0.12 to 17.0 (0.03 to 4.5)	0.15 to 19.0 (0.042 to 5.0)

Catalog number	rpm	Speed control (resolution)	Pump heads accepted	Motor size	IP rating	Dimensions (L x W x H)	Power (50/60 Hz)	
							VAC	Amps
C Precision modular drive with benchtop controller								
MK-07591-20	6 to 650	±0.25% (1 rpm at 650 rpm)	2†	1/8 hp (149 W)	IP33	Controller: 10½" x 8¼" x 5" (26.7 x 21 x 12.7 cm) Drive: 14½" x 5½" x 6" (35.9 x 14.1 x 15.2 cm)	90 to 260	4.4 at 115 VAC, 2.2 at 230 VAC
D Precision washdown modular drive with wall-mount controller								
MK-07591-30	6 to 650	±0.25% (1 rpm at 650 rpm)	2†	1/8 hp (149 W)	IP66	Controller: 9" x 11¾" x 4½" (23 x 30 x 11.4 cm) Drive: 15¼" x 7" x 6" (39.5 x 17.8 x 15.2 cm)	90 to 260	4.4 at 115 VAC, 2.2 at 230 VAC

†Drive accepts two pump heads when loaded with silicone or C-FLEX® tubing.

Accessories for benchtop models

MK-07557-51 Extension cable, 9 ft (2.7 m); extends distance between motor and controller

MK-07528-80 Handheld remote controller; control start/stop and direction; route tubing through handle for dispensing and filling applications; 6-ft (1.8-m) cable (for 07557-00, -10 only)

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

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

Accessories for washdown models

MK-07557-51 Extension cable, 9 ft (2.7 m); extends distance between motor and controller

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

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