

Cole-Parmer Servodyne Electronic Mixers

Modular design gives full mixing versatility

- Monitor and control speed, torque, and batch time through a computer interface
- Permanent-magnet DC motor with permanently lubricated ball-bearing construction for maintenance-free operation

Controller

Provide precise control of mixing speed within $\pm 0.2\%$ despite changes in viscosity, temperature, or line voltage. Monitor torque, set torque limits, or measure and control differential torque with mixer head in use and sets the appropriate rpm and torque limits for that motor. Controller measures 6½"W x 3½"H x 7¾" D. Operates on 115 VAC, 50/60 Hz. Controller includes a 6-ft modular line cord with IEC320/CEE22 connector; specify country of final destination to receive correct line cord.

Mixer Heads

Optical shaft encoder relays the exact motor rotation speed data to the electronic mixer controller. Adjustable-tilt mounting assembly permits rotation of mixer head from 0° to 30° for proper positioning of shaft and propeller. Mixer heads include a chuck/collet (depending on the model), 5-ft L x ½"-dia mounting rod, and 6-ft multiconductor cable to connect to the controller. The high-torque, low-speed models have a Jacobs®-type precision chuck that accepts mixing shafts up to ⅜" in diameter. The high-speed, low-torque models have an adjustable, through-shaft precision hand-tightened collet that accepts ⅜"-dia mixing shafts. Through-shaft design allows positioning the mixing propeller at any depth without moving the mixer head—minimizes shaft "wobble" that occurs at higher speeds or with longer shafts.

Complete Systems

These convenient, ready-made systems come complete with controller, mixer head, shaft, propeller, clamp, and stand.

Optional Computer Software and Cables

Controller allows mixer system to be monitored and controlled via computer interface. Software program lets you control up to 16 Servodyne mixers and Masterflex® computer-compatible pump drives (see pages 1264–1290 for compatible pump drives).

Required System Components

- 1 Mixer controller
- 2 Mixer head
- 3-4 Shaft & Propeller (see page 977)
- 5 Clamps & stand (see page 977)

Add these options

- 6 Software/cables



Servodyne low-speed, high-torque mixer system 50003-22

Specifications & Ordering Information

ISO9001:2000
SUPPLIER CERTIFIED 2 year warranty

Controller		Mixer heads						Complete systems		
Catalog number	Price	Catalog number	Description	Speed range (rpm)	Max torque (in-oz)		hp	Price	Catalog number	Price
					Continuous	Intermittent				
KH-50003-00		KH-50003-10	High torque,	3 to 180	340	510	1/15		—	—
		KH-50003-20	low speed	20 to 900	70	105	1/15			
		KH-50003-30	High speed,	60 to 2300	45	65	1/10			
		KH-50003-40	low torque	150 to 6000	17	25	1/10			

Computer Software and Cable. Monitor and control your Servodyne mixer system from an IBM® or compatible computer via computer interface. Software program lets you control up to 16 Servodyne mixers and Masterflex® computer-compatible pump drives. Various application programs let you dedicate your automated setup for mixing and diluting, sequence control, flow proportioning, reversible batch dispensing, delivering single and multiple slope gradients, or customizing procedures for specialized applications.

KH-07550-74 Software for Windows® v3.1 or later, CD-ROM format. Requires RS-232 cable 07550-64 below

KH-07550-64 RS-232 interface cable, 8-ft long. Connects Servodyne mixer system to a PC. RJ11 to DB25 connection; includes DB25/DB9 adapter



Electronic Mixer Controller Features

- A. Display:** shows selected mixing time, mixing time remaining, rpm, and torque values.
- B. Time:** Starts counting down when the START key is pressed.
- C. Rpm:** Displays the last adjusted mixer shaft speed.
- D. Torque:** Displays current torque value (oz-in for 115 VAC model, kg-cm for 230 VAC model) and high and low torque limits.
- E. Torque zero:** Lets you zero the torque when propeller is running in free air or in a reference fluid.
- F. Start:** Operates the mixer shaft. Stops when countdown reaches zero.
- G. Stop:** Press at any time to stop rotation of the mixer shaft.
- H. Up/down arrow keys:** Adjust TIME, RPM, and TORQUE parameters.
- I. LEDs** indicate the function being displayed.