

MASTERFLEX[®]

I/P[®] SERIES DIGITAL DISPENSING MODULAR PUMP SYSTEMS

MODULAR SYSTEMS PROVIDE INSTALLATION FLEXIBILITY AND HIGH ACCURACY SYSTEM PERFORMANCE

Mid-flow range pump systems for high volume metering, pilot plant validation, or high-speed filling applications. Designed for biotech, pharmaceutical, water and wastewater, and other industrial process applications

- Repeatable and accurate flow control with digital display of pump speed in 1 RPM increments
- Easy-to-set-up and operate with simple keypad control and universal control symbols
- LED indicators confirm motor direction
- A choice of either wipe-down (IP33) or wash-down (IP66/NEMA 4X) ingress protection
- Control interfaces directly with plant PLC controls and allows remote control of flow, start/stop, remote/local condition, and flow direction control
- Robust, continuous-duty performance with a powerful 1/5 HP motor that allows operation with up to 2 pump heads



Wall-Mount Controller

Bench-Top Controller

DIGITAL DISPENSING PUMP SYSTEMS

- Wipe-down bench-top units (IP33 ingress protection rated) to control contamination
- Wall-mount units (IP66 / NEMA 4X ingress protection rated) for use in wet or corrosive areas
- Regulatory compliance to ETL, cETL, and CE
- Drive includes motor, controller, 6ft (1.8M control cable), 6 ft (1.8m) standard NEMA 3-prong cord set, quick-start guide and CD manual
- Complete pump systems include all of above in addition to a pump head
- Available accessories include remote control cable, foot switch, motor cable extensions and International power cord sets



Bench-Top Pump / Motor



Wall-Mount Pump / Motor

Flow Rates in mL/min (GPM)

RPM	Precision pump tubings			High-performance precision pump tubing		
	I/P 26	I/P 73	I/P 82	I/P 70	I/P 88	I/P 89
0.1 to 650	0.01 to 4000 (0.002 to 1.1)	1.3 to 8000 (0.0003 to 2.1)	2.1 to 13,000 (0.0006 to 3.5)	1.3 to 8000 (0.0003 to 2.1)	2.1 to 13,000 (0.0006 to 3.5)	3 to 19,000 (0.0008 to 5.0)

I/P Modular Digital Dispensing Pump Systems		
CATALOG NUMBER	Bench-top	Wall-mount
Pump System with Easy-Load® Pump	Contact Factory	MK-77714-11
Pump System with High-Performance Pump		MK-77714-12
PERFORMANCE		
Max number of pump heads	2	
Flow Capacity LPM (GPM)	0.04 to 19 (0.01 to 5.0)	0.01 to 19 (0.01 to 5.0)
RPM	0.1 to 650	
Reversible	Yes	
External Control - Input	4-20 mA; 0 – 10 V; Remote / Local; Dir (CW/CCW); Start/Stop	
External Control - Output	Scalable 0-20 mA; 4-20 mA; 0 – 10 V; 5 V tach output, motor running, Remote / Local Indication	
ELECTRICAL SPECIFICATIONS		
Voltage (AC) 60/50 (Hz)	Universal input 90 to 260 VAC 60/50 (Hz)	
Current	4.4A @115V; 2.2A@230V	
Motor Type	Brushless DC	
Motor Size	1/5 HP (150W)	
Speed Control Type	PWM (Pulse Width Modulated)	
Digital display	Seven-segment, 3-digit, Blue LED, 1RPM resolution	
Speed regulation (accuracy)	± 0.25%	
PHYSICAL SPECIFICATIONS		
Materials of construction	Aluminum, vinyl powder-coated aluminum, steel and ABS Plastic	Vinyl powder-coated aluminum and steel
IP rating	IP33	IP66 / NEMA 4X
Agency approvals	ETL, cETL, CE, ROHS	
Operating temperature	0 to 40°C (32 to 104°F)	
Storage Temperature	-25 to 65°C (-13 to 149°F)	
Noise Rating	< 70 dBA @ 1 meter	
Dimensions (L x W X H) Controller	10.2 x 11 x 4.7 (25.9 x 27.9 x 11.9)	
Dimensions (With Easy-Load pump) (L x W x H)	17.2 x 7 x 6.5 (43.7 x 17.8 x 11.4 cm)	10.5 x 11 x 6.5 (26.7 x 27.9 x 11.4 cm)
Dimensions (With High-Performance pump)	18.9 x 7 x 6.5 (48 x 17.8 x 11.4 cm)	15.6 x 7 x 6 (39.5 x 17.8 x 15.2 cm)
Weight (Drive Only)	21.1 lbs / (9.9 kg)	39.7 lbs / (18 kg)

Accessories for Digital Dispense Bench-Top Systems

MK-77301-82 Motor extension cable, 9 ft (2.7 m) for bench top modular drives; extend distance between motor and controller

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

MK-07523-92 Foot switch, male with 6-ft (1.8 m) cable

Accessories for Digital Dispense Wall-Mount Systems

MK-77301-82 Motor extension cable, 9 ft (2.7 m) for wash down modular drives; extend distance between motor and controller

MK-07575-80 Remote control cable assembly; 31-pin round water-tight connector and 7.9-m (25-ft) cable with stripped wire ends for remote control, wire to controller/PLC.

MK-07575-84 Washdown foot switch, 31-pin round with 6-ft (1.8 m) cable

For more information:

800-637-3739 or 847-381-7050

ColeParmer.com/fluidhandling

fluidhandling@coleparmer.com

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