

MASTERFLEX[®]

L/S[®] STANDARD DIGITAL PUMP SYSTEMS

IDEAL FOR CHEMICAL FEED AT WATER TREATMENT FACILITIES



Masterflex combines digital control with peristaltic pump technology to provide high-accuracy, maintenance and worry free performance to your chemical feed applications.

- Graphical display provides visual confirmation of pump operating parameters
- Brushless motor reduces downtime due to motor maintenance
- Easy-Load[®] II pump head allows convenient tube advancement for uninterrupted service
- High-Performance pump head option achieves high pressure operation to 100 psig

FEATURES AND BENEFITS

- Menu-driven LCD graphical interface provides easy system set-up
- Loaded with a broad range of remote control options—ideal for automated process applications
- The brushless motor driven by a PWM control is capable of a flow range turndown of 380,000:1
- Other control capabilities include programmable dispensing by volume, time, or copy modes with a programmable delay between cycles for convenient, automated dispensing
- Precise PWM speed control ($\pm 0.1\%$) maximizes accuracy and efficiency while the brushless motor gives you quiet, maintenance-free reliability
- Optimize system accuracy by calibrating the pump system in process. The calibration is stored in memory—one calibration value per tubing size
- Program the drive via the simple membrane keypad and multi-language display
- Reversible motor so you can purge tubing before or after pumping
- IP33 rated ABS housing for improved splash and dust resistance
- Programmable anti-drip improves accuracy of filling and dosing processes

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
	Easy-Load II						Easy-Load II and High-Performance			
0.1 to 600	0.021 to 130 <i>0.002 to 13.7</i>	0.021 to 130 <i>0.008 to 49.4</i>	0.08 to 480 <i>0.030 to 182.6</i>	0.17 to 1000 <i>0.065 to 380.4</i>	0.28 to 1700 <i>0.107 to 646.7</i>	0.38 to 2300 <i>0.145 to 875.0</i>	0.17 to 1000 (0.18 to 1100) <i>0.065 to 38</i> <i>(0.068 to 418)</i>	0.28 to 1700 (0.30 to 1800) <i>0.11 to 647</i> <i>(0.11 to 685)</i>	0.38 to 2300 (0.43 to 2600) <i>0.14 to 875</i> <i>(0.16 to 989)</i>	0.48 to 2900 (0.57 to 3400) <i>0.18 to 1103</i> <i>(0.22 to 1293)</i>
0.02 to 100	0.001 to 6 <i>0.000 to 2.3</i>	0.004 to 21 <i>0.002 to 8.0</i>	0.016 to 80 <i>0.006 to 30.4</i>	0.033 to 170 <i>0.013 to 64.7</i>	0.057 to 280 <i>0.022 to 106.5</i>	0.077 to 380 <i>0.029 to 114.1</i>	0.033 to 170 (0.36 to 180) <i>0.013 to 64</i> <i>(0.013 to 69)</i>	0.057 to 280 (0.057 to 300) <i>0.022 to 106</i> <i>(0.022 to 114)</i>	0.077 to 380 (0.077 to 430) <i>0.029 to 145</i> <i>(0.029 to 164)</i>	0.096 to 480 (0.096 to 580) <i>0.037 to 183</i> <i>(0.037 to 220)</i>

*Values in parentheses are with High-Performance pump heads. Values in italics are gallons per day

CATALOG NUMBER	MK-77712-51	MK-77712-52	MK-77712-53	MK-77712-47	MK-77712-48	MK-77712-49
Includes Pump Head	EASY-LOAD® II (thin wall)	EASY-LOAD® II (thick wall)	High-Performance (thick wall)	EASY-LOAD® II (thin wall)	EASY-LOAD® II (thick wall)	High-Performance (thick wall)
Max number of pump heads	2	2	1	4	4	1
PERFORMANCE						
Flow Capacity (ml/min)	0.36 to 2300	0.17 to 2950	0.18 to 3400	0.36 to 380	0.033 to 480	0.036 to 580
RPM	0.1 to 600			0.02 to 100		
Reversible	Yes					
External Control - Input	0 to 20 mA, 4 to 20mA, 0 to 10V; Scalable					
	START/STOP, DIR. (CW/CC), PRIME via contact closure					
	Remote / Local Enable Contact					
	Secondary Speed Control 0-20mA or 4-20mA					
External Control - Output	Auxiliary Contact (Limit Switch)					
Motor running logic	4 to 20 mA, or 0 to 10 V					
Tachometer output	Open Collector					
Power supply output	5V, TTL pulse					
	24 V, 150 mA					
ELECTRICAL SPECIFICATIONS						
Voltage (AC) 60/50 (Hz)	115/230 V AC (auto selected)					
Current	2.2A @ 115V; 1.1A @ 230V					
Motor Type	Brushless continuous duty, TENV, DC, permanent lubricated bearings					
Motor Size	1/10 HP (75W)					
Control Type	PWM (Pulse Width Modulated)					
Display (rpm)	4-line graphical LCD					
Speed regulation (accuracy)	±0.1%; ±0.1 rpm @ 600 rpm %; ±0.01 rpm @ 100 rpm					
PHYSICAL SPECIFICATIONS						
Materials of construction	ABS, Powder-coated aluminum					
IP rating	IP33					
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 Controller (L x W X H)	27.4 x 21.2 x 21.6 cm (10.8" x 8.3" x 8.5")					
Shipping Weight (Drive Only)	5.9 kg (13 lb)					

For more information:
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