

Thermo Scientific Masterflex® P/S Digital Networking Pump Systems

Interface these brushless digital drives to a computer for automated lab and process applications.



Digital Networking Pump
1300-3640-955

Product Benefits

- Flow rate: 0.001 to 3400 mL/min with L/S tubing. Flow rate depends on drive rpm and tubing size.
- Graphical LCD shows four operating modes: continuous run, time dispense, copy dispense, and volume dispense. View pump performance continually.
- Dispense by: mL—volume in mL of each dispense, 0.001 to 9999 mL; Copy—1 to 9,999 dispense cycles; or SEC—time interval between each dispense cycle: 1 to 9,999 secs.
- Interface drive to your PC via DB9 serial or USB connector; valve control via auxiliary output contact.
- Menu driven interface—select one of seven languages for programming and operation.
- Remote control capabilities via fluid-resistant input/output connector on back of drive:
 - Speed control input: scalable 0 to 20 mA, 4 to 20 mA, 0 to 10 V
 - Pumping direction: requires open collector or contact closure;
 - Start/stop/purge: requires open collector or contact closure;
 - Tachometer output: scalable 0 to 20 mA, 4 to 20 mA, 0 to 10 V, or open collector.



Flow rates in mL/min for P/S Digital Console Process Drive

RPM	Precision Pump Tubing						High-Performance Precision Pump Tubing*			
	P/S 13	P/S 14	P/S 16	P/S 25	P/S 17	P/S 18	P/S 15	P/S 24	P/S 35	P/S 36
	Standard*, EASY-LOAD, EASY-LOAD II, EASY-LOAD 3						Multichannel† Standard*, EASY-LOAD, EASY-LOAD II, EASY-LOAD 3			
	Cartridge, Multichannel			Cartridge			EASY-LOAD			
0.1 to 600	0.006 to 36 <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 416)</i>	0.28 to 1700 (0.30 to 1800) <i>0.11 to 647</i> <i>(0.11 to 685)</i>	.38 to 2300 (0.43 to 2600) <i>0.14 to 875</i> <i>(0.16 to 965)</i>	0.48 to 2900 (0.57 to 3400) <i>0.18 to 1103</i> <i>(0.22 to 1255)</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 (0.033 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 225)</i>

* Values in parentheses are with high-performance pump heads
 Values in italics are gallons per day.

†Multichannel head is not available for P/S 36. Multichannel and Cartridge heads are available for microbore tubing.

Specifications & Ordering Information

Catalog Number	1300-3640-955	1300-3640-956	1300-3640-965	1300-3140-955	1300-3140-956	1300-3140-965
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)
Number of heads accepted	2	2	1	4	4	1
RPM	0.1 to 600			0.02 to 100		
External control – input	0 to 20 mA, 0 to 10 V; Scalable START/STOP, DIR. (CW/CC), PRIME via contact closure Remote / Local Enable Contact Secondary Speed Control 0-20mA or 4-20mA Auxiliary Contact (Limit Switch)					
External control – output	4 to 20 mA, or 0 to 10 V					
Motor running logic	N.O. or N.C. (1A @ 24 V)					
Tachometer output	5 V, TTL pulse					
Power supply output	24 V, 150 mA					
Voltage (50/60 Hz)	115/230 V AC (auto selected)					
Motor type	Brushless continuous duty, TENV*, DC, permanent lubricated bearings					
Control type	PWM (Pulse Width Modulated)					
Speed regulation (repeatability)	±0.1%; ±0.1 rpm @ 600 rpm; %; ±0.21 rpm @ 100 rpm					
Operating temperature	0 to 40°C (32 to 104°F)					
Storage temperature	–25 to 65°C (–13 to 149°F)					
Housing materials	ABS, Powder-coated aluminum					
IP rating	IP33					
Agency approvals	ETL, cETL, CE, ROHS					
Controller dimensions (L x W x H)	13.0 x 8 x 8					
Shipping weight	20 lbs.					

*Totally enclosed, non-ventilating

