## Thermo Scientific Masterflex

P/S Digital Networking Pump Systems



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

- 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 out put contact.
- Menu driven interface—select

one of seven languages for programming and operation

Remote control capabilities
via fluid-resistant input/out put 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.

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**P/S 7** 

Flow rates in mL/min for P/S Digital Console Process Drive												
	Precision pump tubing							High-performance precision pump tubing*				
RPM	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	0.022 to 130	0.08 to 480	0.17 to 1000	0.28 to 1700	0.38 to 2300	0.17 to 1000 (0.18 to 1100	0.28 to 1700 (0.30 to 1800)	0.38 to 2300 (0.43 to 2600)	0.48 to 2900 (0.57 to 3400)		
0.02 to 100	0.001 to 6	0.004 to 21	0.016 to 80	0.033 to 170	0.057 to 280	0.077 to 380	0.033 to 170 (0.033 to 180)	0.057 to 280 (0.057 to 300)	0.077 to 380 (0.077 to 430)	0.096 to 480 (0.096 to 580)		
* Values in parentheres are with high parformance num hands - thultichannel hand is not available for D/C 26 Multichannel and Castridge hands are available for microhare tubing												

\* Values in parentheses are with high-performance pump heads 1 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				
Included pump head	Easy-Load II	Easy-Load II	High-Performance	Easy-Load II	Easy-Load II	High-Performance				
	(thin wall)	(thick wall)	(thick wall)	(thin wall)	(thick wall)	(thick wall)				
Number of heads accepted	2	2	1	4	4	1				
RPM	0.1 to 600 0.02 to 100									
External control – input	4 to 20 mA, 0 to 10V;									
	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 @ 24V)									
Tachometer output	5V, TTL pulse									
Power supply output	24V, 100 mA									
Voltage (50/60 Hz)	115/230 VAC (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 to40°C (32 to 104°F)									
Storage temperature	-25 to 65°C (-13 to 149°F)									
Housing materials	ABS, Powder-coated aluminum									
Operating temperature	0 to 40°C (32 to 104°F)									
Storage temperature	-45 to 65°C (-13 to 149°F)									
IP rating	IP 31									
Agency approvals	ETL, CETL, CE									
Controller dimensions (L x W x H)	13.0 x 8 x 8									
Shipping weight			22	lbs.						

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