

Thermo Scientific Masterflex® I/P®

Digital Metering Systems



Metering system
960-2010 includes a High-
Performance pump head



Metering system
950-2010 includes an
Easy-Load® pump head

- Modular design lets you place system components where they are most convenient
- Deliver flow rates from 0.12 to 17 LPM (0.03 to 4.5 GPM)
- Digital readout displays exact flow rate, dispense volume, copy number, or drive rpm.
- Store one calibration value per tubing size
- Calibrate in system for accurate flow rate display
- Reversible motor allows pumping in either direction or purging when changing tubing
- Remote control capabilities via weather-resistant connection cable
- Keypad lockout feature prevents accidents or tampering
- Both wall-mount controller and separate motor are washdown rated—provides protection in harsh environments
- 7.6-m (25-ft) cable connects motor and controller



Motor rpm	Masterflex® I/P precision tubing sizes			I/P high-performance precision tubing sizes*		
	I/P 26	I/P 73	I/P 82	I/P 70	I/P 88	I/P 89
20 to 650	0.12 to 4 (0.03 to 1.0)	0.2 to 8 (0.05 to 2.1)	0.4 to 13 (0.01 to 3.5)	0.24 to 8 (0.07 to 2.1)	0.5 to 15 (0.11 to 3.4)	0.52 to 17 (0.14 to 4.5)

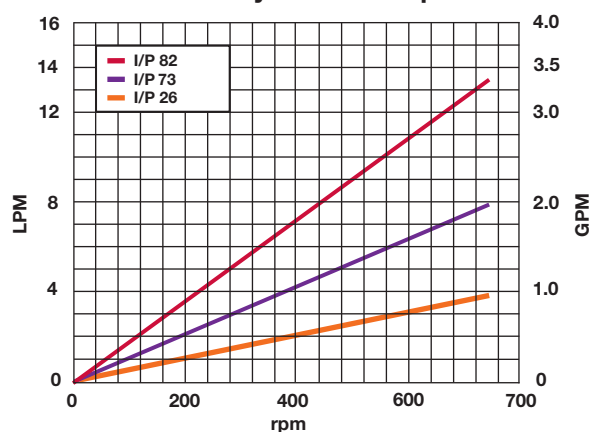
* Use High-performance precision tubing with High-Performance pump head only.



Catalog number	950-2010	950-2015	960-2010	960-2015
Included pump head	Easy-Load®		High-Performance	
Number of heads accepted	2		1	
rpm	20 to 650			
External control, input	0 to 20 mA, 4 to 20 mA, or 0 to 10 VDC/Contact closure: direction/start/stop			
External control, output	0 to 20 mA, 4 to 20 mA, or 0 to 10 VDC, or TTL pulse			
Voltage (50/60 Hz)	90 to 130 VAC	190 to 260 VAC	90 to 130 VAC	190 to 260 VAC
Motor type	Continuous duty, TENV [†] , permanent magnet DC			
Speed control type	Membrane keypad/microprocessor			
Speed regulation (repeatability)	±0.3% (±2 rpm)			
Digital display	4-digit, 7-segment LED display			
Operating temperature	0 to 40°C (32 to 104°F)			
Storage temperature	–45 to 65°C (–49 to 149°F)			
IP rating	IP56 controller, IP 34 motor			
Agency approvals	UL, cUL, CE			
Controller dimensions (L x W x H)	35.9 x 14.1 x 15.2 cm (14 ¹ / ₈ x 5 ⁹ / ₁₆ x 6")			
Motor footprint dimensions (L x W x H)	35.9 x 14.1 x 15.2 cm (14 ¹ / ₈ x 5 ⁹ / ₁₆ x 6")			
Shipping weight	12.8 kg (27 lb)		14.3 kg (32 lb)	

†Totally enclosed, non-ventilating.

Flow Curves
I/P Easy-Load® Pump



Flow Curves
I/P High-Performance Pump

