

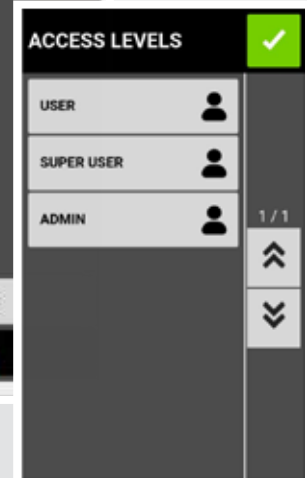
MASTERFLEX®

B/T®

Masterflex® B/T® MasterSense™ BioPharma Pump

Achieve high flow rates,
up to 42 LPM, in your
biopharma process

- 316 stainless steel housing is IP66 rated for use in washdown environments
- Intuitive touch-screen interface—quick and easy to program, even with gloves on
- Options for connectivity and control include MasterflexLive®, EtherNet/IP™, Profibus, and analog signal—**one pump has it all!**
- Ideal for high-volume filling, transfer, and dispensing
- Operational modes include continuous run, volume dispense, and time dispense
- Save and recall up to 50 commonly used protocols, each with a unique name
- Over-the-air firmware updates let you take full advantage of future improvements in pump features and functionality
- Three-level user access gives you the option of controlling who can operate the pump and at what level
- Rapid-Load® pump head occlusion mechanism slides occlusion bed out of the way for easy tube loading and improved tubing life



1-800-637-3739

Masterflex.com

Specifications

Display	5" capacitive TFT/RGB touch screen with in-plane switching (wide viewing angle); 800 x 480 pixels
External control - input	0 to 20 mA, 20 to 0 mA, 4 to 20 mA, 20 to 4 mA; 0 to 10 V, 10 to 0 V, 0 to 5 V, 5 to 0 V; Start/stop, Direction (CW/CCW), Prime via contact closure
External control - output	0 to 20 mA, 20 to 0 mA, 4 to 20 mA, 20 to 4 mA; 0 to 10 V, 10 to 0 V, 0 to 5 V, 5 to 0 V; Tach output (open collector), Motor running, Open head, Local/remote, General alarm
Motor	Continuous duty, TENV, BLDC; microprocessor-based PWM; reversible; 370 W (0.5 hp)
Maximum torque	1130 N-cm (1600 oz-in) starting; 1017 N-cm (1440 oz-in) running
Housing materials	316 stainless steel housing, stainless steel chassis, stainless steel bezel
Pump head materials	Powder-coat carbon steel and cast aluminum, stainless steel, polycarbonate, Nylatron® rollers
Enclosure rating	IP66
Agency listings	UL, cUL, CE, DLS
Dimensions (L x W x H)	62.2 x 40.1 x 47.8 cm (24½" x 15⅜" x 18⅜")
Shipping weight	54.5 kg (120 lb)
Power	90 to 260 VAC, 50/60 Hz

Ordering Information

Flow range, LPM (GPM)		Drive rpm	Speed control (resolution)	Open-head sensor	Pump head	Connectivity	Item number
B/T 87	B/T 91						
0.65 to 18.9 (0.17 to 5)	1.3 to 42 (0.3 to 11.1)	11 to 321	±0.1%	Yes	B/T Rapid-Load® (integrated)	EtherNet/IP, Profibus, and MasterflexLive	MK-77112-10

MK-07575-80 Cable assembly for remote control; 7.6 m (25 ft) cable with stripped wire ends

Masterflex PerfectPosition® Pump Tubing

Pump tubing formulations		PerfectPosition pump tubing size	
		B/T 87	B/T 91
Puri-Flex®	3.0 m (10 ft) per pack	MK-96419-87	MK-96419-91
Silicone (platinum-cured)	3.0 m (10 ft) per pack	MK-96410-87	MK-96410-91
BioPharma Plus silicone (platinum-cured)	3.0 m (10 ft) per pack	MK-96445-87	MK-96445-91
C-Flex®	3.0 m (10 ft) per pack	MK-06424-87	MK-06424-91
PharMed® BPT	3.0 m (10 ft) per pack	MK-06507-87	MK-06507-91
PharmaPure®	3.0 m (10 ft) per pack	MK-06437-87	MK-06437-91
Chem-Durance® Bio	3.0 m (10 ft) per pack	MK-06443-87	MK-06443-91
Tygon® E-LFL	3.0 m (10 ft) per pack	MK-06440-87	MK-06440-91

PerfectPosition® tubing feature retention marks to indicate the best placement of the tubing within the pump head.

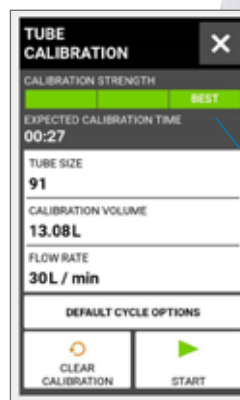


PerfectPosition® Pump Tubing Specifications

Tubing cross sections	B/T PerfectPosition pump tubing	
	B/T 87	B/T 91
	B/T 87	B/T 91

Pump tubing size	B/T 87	B/T 91
Inside diameter (nominal)	12.7 mm (0.5")	19.0 mm (0.75")
Hose barb size	12.7 mm (½")	19.0 mm (¾")
Flow range (approximate) [†] with 11 to 321 rpm drive	0.65 to 18.9 LPM (0.17 to 5.0 GPM)	1.3 to 42 LPM (0.3 to 11.1 GPM)
Maximum pressure [‡]	2.4 bar (35 psi)	2.06 bar (30 psi)
Maximum vacuum [‡]	660 mm Hg (26" Hg)	
Suction lift [‡]	8.8 m H ₂ O (29 ft H ₂ O)	

[†]Determined under the following conditions: 0 bar (0 psi) at inlet, 0.03 bar (0.5 psi) at outlet; water temperature at 22°C (72°F). [‡]Actual performance varies depending on tubing formulation—values shown are for firm tubing.



Easily know when the loaded tubing is optimally calibrated.

1-800-637-3739 | 1-847-381-7050

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