

NEW

I/P® digital console drive 77420-10 shown with
I/P Easy-Load pump head 77601-10

Maintenance-Free, Easy to Clean!



I/P® digital console drive 77420-20 shown with
I/P Easy-Load pump head 77601-10

The Masterflex® I/P® digital console process drive accepts a single I/P High-Performance pump head or up to two I/P Standard pump heads (below, left) or two I/P Easy-Load® pump heads (below, right) with any I/P tubing formulation.



I/P® Digital Brushless Process Drives

Precision digital drives offer three dispensing modes and precision low-maintenance motors—available with either a 316 stainless steel or a powder-coated steel housing

- Minimum flow rate is 0.0006 LPM (0.0002 GPM); maximum flow rate is 19 LPM (5.0 GPM) with the I/P High-Performance pump head or 26 LPM (6.9 GPM) with two stacked I/P Easy-Load® or Standard pump heads
- Graphical LCD shows four operating modes continuous run, timed dispense, copy dispense, volume dispense. View pump performance continually
- Menu-driven interface lets you select one of seven languages for programming and operation
- 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)
- Anti-drip function ensures dispense accuracy
- Reversible motor—purge tubing before or after pumping; pump fluid in either direction
- Brushless, maintenance-free motor offers $\pm 0.1\%$ speed control accuracy with a 6000 to 1 turndown ratio
- Powerful motors let you stack two pump heads with any tubing formulation for increased flow rates and for multichannel applications
- Remote control capabilities via watertight connection
 - Speed control input scalable 0 to 20 mA, 4 to 20 mA, or 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, open collector

These full-featured drives give you rugged performance and precise digital control. Ideal for fluid transfer, dispensing, and metering applications in laboratory, process, and industrial environments including pharmaceutical, food & beverage, dairy, chemical, manufacturing, and water treatment.

Precision drives feature a programmable dispense interval that lets you set the delay between dispense cycles for convenient, automated dispensing by time or by volume. To increase dispense accuracy and prevent dripping, programmable anti-drip function briefly reverses motor at end of dispense cycle. Precise PWM speed control ($\pm 0.1\%$) maximizes accuracy and efficiency while the brushless motor gives you quiet, maintenance-free reliability. Programmed calibration ensures dispense and display accuracy—drive stores one calibration value per tubing size. Program the drive via the simple membrane keypad; keypad lock/unlock feature protects settings.

The IP66, NEMA 4X rated housings are completely sealed, easy-to-clean, and resistant to commonly used cleaning and sanitizing solutions. The reversible, maintenance-free brushless motor offers a full complement of remote control capabilities allowing easy integration into your automated processes. Drives feature a membrane keypad for easy programming. Select tubing size and enter desired flow rate—drive locks in required rpm.

Model 77420-10 features a 316 stainless steel housing with an anodized aluminum base. Ideal for pharmaceutical, dairy, biotech, and food and beverage applications. **Model 77420-20** features a powder-coated steel housing with anodized aluminum base. Use this drive in process, manufacturing, and water-treatment applications where stainless steel is not a critical requirement.

What's included: 6-ft (1.8-m) line cord with IEC 320/CEE22 socket. These models are shipped with country-specific plug/cord set; please specify ultimate destination when ordering

Flow rates in LPM (GPM) per channel

Speed (rpm)	Precision pump tubing			High-performance precision pump tubing		
	I/P® 26	I/P 73	I/P 82	I/P 70	I/P 88	I/P 89
0.1 to 650	0.0006 to 4.0 (0.0002 to 1.0)	0.001 to 8.0 (0.0003 to 2.1)	0.002 to 13.0 (0.0005 to 3.5)	0.001 to 8.0 (0.0003 to 2.1)	0.002 to 17.0 (0.0005 to 4.5)	0.0025 to 19.0 (0.0007 to 5.0)

Specifications & Ordering Information for Digital Process Drive



Catalog number	rpm	Speed control (resolution)	Pump heads accepted	Motor size	IP rating	Dimensions (L x W x H)	Power (50/60 Hz)		Price
							VAC	Amps	
A Digital process drive with stainless steel housing									
TW-77420-10	0.1 to 650	±0.1%	2	¾ hp (280 W)	IP66	16 ¹ / ₁₆ " x 11 ¹ / ₈ " x 12 ¹ / ₈ " (42.4 x 28.2 x 32.8 cm)	90 to 260	4.5 at 115 VAC, 2.5 at 230 VAC	\$5680.00
B Digital process drive with powder-coat steel housing									
TW-77420-20	0.1 to 650	±0.1%	2	¾ hp (280 W)	IP66	16 ¹ / ₁₆ " x 11 ¹ / ₈ " x 12 ¹ / ₈ " (42.4 x 28.2 x 32.8 cm)	90 to 260	4.5 at 115 VAC, 2.5 at 230 VAC	\$2200.00

Accessories

- TW-07575-82 Handheld remote controller; momentary start/stop, prime, dispense start; 6-ft (1.8-m) cable **\$282.00**
- TW-07575-84 Washdown foot switch, momentary start/stop; 6-ft (1.8-m) cable **\$435.00**
- TW-07575-80 Cable assembly, 31-pin round connector and 25-ft (7.9-m) cable with stripped wire ends for remote control **\$153.00**
- TW-17050-01 NIST-traceable calibration for peristaltic pump drive. **\$144.00**

Find MORE!

Don't forget to order pump heads and tubing. Go to **pages 1288-1291** for pump heads and **1292-1296** for tubing.

Complete I/P® Digital Console Process Pump Systems

Complete System 1 includes:

Pump Head	+	Tubing	+	Drive
I/P® Easy-Load® pump head 77601-10 (page 1290)		C-Flex® ULTRA I/P 73 tubing 06434-73 10 ft (3 m) (pages 1292-1293)		I/P Digital process drive 77420-10 0.1 to 650 rpm (above)

Catalog number	Description	Power (VAC, Hz)	Price
TW-77964-20	I/P Stainless steel digital process pump with Easy-Load® pump head	90 to 260, 50/60	\$6570.00

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Flow Range:
0.001 to 8.0 LPM



77964-20

Complete System 2 includes:

Pump Head	+	Tubing	+	Drive
I/P® Easy-Load® pump head 77601-10 (page 1290)		C-Flex® ULTRA I/P 73 tubing 06434-73 10 ft (3 m) (pages 1292-1293)		I/P Digital process drive 77420-20 0.1 to 650 rpm (above)

Catalog number	Description	Power (VAC, Hz)	Price
TW-77964-30	I/P Digital process pump with Easy-Load® pump head	90 to 260, 50/60	\$6100.00

NEW

Flow Range:
0.001 to 8.0 LPM



77964-30