I/P DIGITAL CONSOLE PROCESS DRIVE

FEATURES/BENEFITS
- Flow rates: 0.01 to 19 LPM (0.002 to 5.0 GPM), or up to 26 LPM with two heads
- Digital process control technology
- Dispense by:
  - Volume: 0.01 to 999,999 liters per dispensing, in 1 liter or 1 ml increments
  - Copy: 1 to 999,999 dispensing copies (sample size: 0.1 to 999,999 liters or 1 ml)
  - SEC—time per dispensation: 1 to 999,999 sec
- Digital display of flow rate (liters or gallons), motor rpm, dispensing volume, or cumulative volume (liters or gallons)
- Washdown drive is IP68, NEMA 4X rated
- PWM control for quiet, precise operation
- 316 SS seamless housing for excellent chemical resistance; easy to clean
- Reversible motor—pump in either direction
- Compatible with all I/P pump heads; stack up to two Standard or Easy-Load® heads with any tubing formulation
- Antirecording dual voltage (115/230 VAC)
- Brushless motor provides quiet operation and reduces maintenance
- <0.25% speed control with tach feedback
- Stores one calibration value per tubing size even when drive is turned off
- Optional caster kit makes transport easy (order separately on page 137)

DRIVE CONTROLS
- Protected power switch on back of drive
- Lighted display indicates power is on
- Simple programming via sealed membrane keypad of the following parameters:
  - TUBING SELECT
  - FLOW rate
  - Motor Direction
  - TOTAL VOL
  - DISPENSE (vol/copy/sec)
- Note: Up/Down keys are used to change the display value of flow rate/calibration/BOPSE functions during setup or operation.

SETUP
1. Mount pump head and load tubing.
2. Turn pump on and select tubing size.
3. Select manual or remote mode.
4. Select motor Direction.
5. Prime and calibrate pump (if required).
7. Press Start key to begin pumping.

SPEED CONTROL/CIRCUITY
- Regulate motor rpm with Up/Down keys, 4 to 20 mA, or 0 to 10 V signal
- Soft-start for starts without power surges
- Speed not affected by variations in power line voltage (VAC) or frequency (Hz)
- Line filters reduce outside interference
- Meets UL, CSA, and CE requirements

CALIBRATION
1. Press CAL to activate calibration cycle.
2. Press START/STOP to use stored memory to dispense the specified calibration sample quantity, then stop automatically.
3. Use the Up/Down keys to correct the flashing display. Press the START/STOP key when finished to exit calibration.

NOTICE: Digital signal processor retains one calibration value for each tubing size, even when power is turned off.

ORDERING INFORMATION

<table>
<thead>
<tr>
<th>Catalog number</th>
<th>rpm</th>
<th>Power (50/60 Hz)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RX-77420-00</td>
<td>1 to 650</td>
<td>115 VAC/230 VAC</td>
</tr>
</tbody>
</table>

REMOTE CONTROL
- Speed control input: 0 to 20 mA, 4 to 20 mA, and 0 to 10 V
- START/STOP, DISPENSE/COPY, CW/CCW, PRIME via contact closure
- I/P output: 4 to 20 mA, 0 to 10 V
- ±0.5% linearity control
- ±0.50 V common mode range
- 18-pin circular waterproof connection
- Handheld remote and foot switch options (order separately on page 137)

I/P PUMP TUBING

FLOW RATE INFORMATION

Order Masterflex I/P pump tubing separately on pages 126-130.

<table>
<thead>
<tr>
<th>Tubing cross sections</th>
<th>I/P Precision pump tubing</th>
<th>I/P High-performance Precision pump tubing</th>
</tr>
</thead>
<tbody>
<tr>
<td>I/P 25</td>
<td>0.01 to 4.0 LPM (0.002 to 1.0 GPM)</td>
<td>0.01 to 8.0 LPM (0.002 to 2.1 GPM)</td>
</tr>
<tr>
<td>I/P 73</td>
<td>0.01 to 8.0 LPM (0.002 to 2.1 GPM)</td>
<td>0.02 to 13 LPM (0.005 to 3.5 GPM)</td>
</tr>
<tr>
<td>I/P 82</td>
<td>0.02 to 13 LPM (0.005 to 3.5 GPM)</td>
<td>0.01 to 8.0 LPM (0.002 to 2.1 GPM)</td>
</tr>
<tr>
<td>I/P 70</td>
<td>0.02 to 17 LPM (0.005 to 4.5 GPM)</td>
<td>0.02 to 17 LPM (0.005 to 4.5 GPM)</td>
</tr>
<tr>
<td>I/P 88</td>
<td>0.02 to 19 LPM (0.005 to 5.0 GPM)</td>
<td>0.02 to 19 LPM (0.005 to 5.0 GPM)</td>
</tr>
</tbody>
</table>

1. Use High-performance Precision tubing with High-Performance pump head. Flow rates were determined using water at room temperature and with zero back pressure and zero suction lift.
### Specifications for I/P Digital Console Drive

<table>
<thead>
<tr>
<th>Specification</th>
<th>RX-77420-00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Catalog number</td>
<td>RX-77420-00</td>
</tr>
<tr>
<td><strong>Performance Specifications</strong></td>
<td></td>
</tr>
<tr>
<td>Flow capacity (per channel) [LPM (0.002 to 5.0 GPM)]</td>
<td></td>
</tr>
<tr>
<td>rpm</td>
<td>0.01 to 19 LPM (0.002 to 5.0 GPM)</td>
</tr>
<tr>
<td>Number of heads accepted</td>
<td>1 to 50</td>
</tr>
<tr>
<td>Maximum torque</td>
<td></td>
</tr>
<tr>
<td>Starting</td>
<td>126 kg-cm (1750 oz-in)</td>
</tr>
<tr>
<td>Running</td>
<td>42 kg-cm (580 oz-in)</td>
</tr>
<tr>
<td>Reversable</td>
<td></td>
</tr>
<tr>
<td>External control – Input</td>
<td>0 to 20 mA, 4 to 20 mA, 0 to 10 V, START/STOP, CW/CDW, PRIME, PURGE</td>
</tr>
<tr>
<td>External control – Output</td>
<td>4 to 20 mA, 0 to 10 V, Form C, “drive running” contact</td>
</tr>
<tr>
<td><strong>Electrical Specifications</strong></td>
<td></td>
</tr>
<tr>
<td>Voltage/Frequency [VAC (50/60 Hz)]</td>
<td></td>
</tr>
<tr>
<td>Current</td>
<td>0.0 to 130 mVAC, 230 to 260 mVAC, dual voltage autoensuring</td>
</tr>
</tbody>
</table>
| Motor type                                             | Continuous-duty brushless direct-drive TENV
| Motor size                                             | 290 W (1/4 hp) |
| Display                                               | 6 digit LED, accumulator to 999,999 liters or gallons |
| Speed regulation (repeatibility)                      | +0.2% (<1 rpm) |
| Soft-start/Electronic brake                            | Yes/Yes     |

### Physical Specifications

- Housing materials: 316 stainless steel, electropolished
- IP rating: IP66, NEMA 4X
- UL, cUL listed
- Dimensions (L x W x H): 44.9 x 27.3 x 42.7 cm (17 13/16" x 11" x 16 13/16")
- Operating temperature: 0 to 40°C (32 to 104°F)
- Storage temperature: -25 to 65°C (-13 to 149°F)
- Shipping weight: 32 kg (70 lb)

**Accessories**

- RX-77420-01 Caster kit for easy movement of the drive
- RX-07595-83 Handheld remote
- RX-07596-60 Dispensing handle
- RX-77300-32 Remote cable kit
- RX-07595-43 Washdown foot switch, momentary start/stop, 1.3-m (4-ft) cable

The 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.

### More Info

Our FREE Tubing Test Kit is a simple way to test your chemicals against different tubing formulations. Kit contains samples of 17 different pump tubing formulations, formulation descriptions, a selection guide, instructions on how to test your tubing, and complete ordering information. Call today! Request item RX-50101-10.