Efficiency and productivity are increased with BioTek’s new EL406™ Microplate Washer Dispenser. This automation friendly, multifunctional instrument uniquely combines the industry standard ELx405™ Select CW Washer with a peristaltic reagent pumping system and two highly accurate syringe drive dispensers; all from the industry leader in microplate washing. The wash module incorporates BioTek’s patented Dual-Action™ manifold design for a variety of microplate formats along with optimized flow rates for cell-based applications. The EL406 also features BioTek’s built-in patent pending Ultrasonic Advantage™ for unattended wash manifold maintenance and up to four wash buffers for complex wash routines. The peristaltic pump utilizes a unique design to provide accurate and precise volumes ranging from 1 µL to 3 mL. Three different autoclavable cassettes (1 µL, 5 µL, and 10 µL) are each designed to deliver full incremental volumes for best performance. With two syringe drive dispensers, a total of three reagents can be dispensed without operator intervention. All functions are controlled by Liquid Handling Control™ PC software. Automate the entire process by adding a BioStack™ Microplate Stacker. Now you can simply press a button and walk away.

Features:
- Fast, full microplate washing
- Up to three reagent dispensers with choice of either peristaltic pump or syringe pump technologies for different assay requirements
- 96- and 384-well microplates
- Automates long and tedious assay liquid handling processes
- Smaller benchtop or robotic system footprint compared to separate washer and three dispensers
- BioStack compatible for automated processing of up to 50 standard height microplates
- Patented Dual-Action wash manifold
- Optimized washing for loosely adherent cell layers
- Built-in, patent pending Ultrasonic Advantage for unattended wash manifold maintenance
- Optional buffer switching of up to four buffers for complex wash routines
Optional Accessories:

- Dispense/Waste Systems – choice of 4L or 10L bottles, standard or high flow vacuum pumps, and 115V or 230V configurations
- Product Qualification Package
- BioStack Microplate Stacker

Notes: All models with buffer switching include Dispense System. Only Waste System and vacuum pump should be ordered separately. High flow vacuum pump recommended for 384-well washing with buffers not containing surfactant.

Specifications:

Washing

Manifold Type:
- 96-tube (96-/384-well washing)
- 192-tube (faster 384-well washing)

Washing Speed:
- (1 aspiration/dispense cycle) 13 seconds, 300 µL/well, 96 wells (96-tube manifold)
- 17 seconds, 100 µL/well, 384 wells (192-tube manifold)

Volume Range: 25 - 3000 µL/well

Fluid Delivery: Internal positive displacement pump

Dispense Accuracy ≤3% typical
Dispense Precision ≤3% CV
Residual Volume ≤2 µL/well

Dispensing – Peristaltic Pump

Dispensing Speed:
- 3 seconds, 10 µL/well, 96 wells
- 7 seconds, 5 µL/well, 384 wells

Volume Range: 1 – 3,000 µL/well

Fluid Delivery: Positive displacement peristaltic pump

Cassette Size

<table>
<thead>
<tr>
<th>Recommended Dispense Range</th>
<th>Dispense Accuracy</th>
<th>Dispense Precision</th>
<th>Dead Volume (30” tubing)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 µL</td>
<td>1 µL to 50 µL</td>
<td>±5% typical at 1 µL</td>
<td>≤5% CV typical at 1 µL</td>
</tr>
<tr>
<td>5 µL</td>
<td>5 µL to 2,500 µL</td>
<td>±2.5% typical at 5 µL</td>
<td>≤2.5% CV typical at 5 µL</td>
</tr>
<tr>
<td>10 µL</td>
<td>10 µL to 3,000 µL</td>
<td>±2.5% typical ≥10 µL</td>
<td>≤2.5% CV typical ≥10 µL</td>
</tr>
</tbody>
</table>

Dispensing – 2 Syringe Pumps

Dispensing Speed:
- 4 seconds, 10 µL/well, 96 wells
- 7 seconds, 5 µL/well, 384 wells

Volume Range: 5 – 3,000 µL

Fluid Delivery: Microprocessor-controlled syringe drive

Dead Volume: 12 mL

Dispense Accuracy
- ±1 µL typical at 5 µL
- ±1 µL typical at 20 µL
- ±1 % typical at 100 µL

Dispense Precision
- ≤10% CV typical at 5 µL
- ≤5% CV typical at 20 µL
- ≤2% CV typical at 100 µL

General

Microplate Types: 96- and 384-well
Standard height and low profile

Shaking: User-programmable timing and intensity

Dimensions:
- Length: 18” (46 cm)
- Width: 16.5” (42 cm)
- Height: 12.5” (31.8 cm)

Weight: 32 lbs (14.5 kg)

Power: Compatible with 100 to 240 V~ ± 10% at 50-60 Hz

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