LIQUID HANDLING WINEX MAG 96 WINEX VAC 96 1 15 Dec 2011 06 443 18 1405 Touch Washer

The 405™ Touch Microplate Washer incorporates a high resolution touchscreen user interface for intuitive and flexible onboard instrument control of 96- and 384- well microplate washing. The 5.7″ graphical color display and onboard software guide users through protocol development, instrument maintenance and daily use at the touch of a finger. For those who prefer computer control or require 21 CFR Part 11 compliance, the 405 Touch can be controlled with optional Liquid Handling Control™ Software.

The 405 Touch is available in many configurations to suit a range of workflow requirements, including optimized cell washing, high strength biomagnetic separation, and fast, efficient vacuum filtration processes. The 405 Touch is Luminex® xMAP® approved. The available patented Verify™ Technology for clog detection and patented Ultrasonic Advantage™ automated manifold cleaning capability make this a truly self-maintaining system, increasing productivity and decreasing downtime for unplanned maintenance.

Patented Verify™ Technology:



Verify™ Technology detects clogs in the dispense and aspirate tubes prior to washing, thus preventing assay failure due to clogging.



Features:

- 96- and 384-well microplates
- Resistive touch screen display works with gloves
- Onboard computer with extensive, intuitive software
- Context-sensitive help, instructional videos and pre-defined sample programs for easy operation
- Automated internal 4-buffer switching option
- Quick change manifold design
- Gentle dispense for non-disruptive cell washing
- Patented Dual-Action™ manifold for overfill washing
- Available patented Verify Technology for clog detection
- Patented Ultrasonic Advantage automated manifold cleaning
- Pre-programmed maintenance routines ensure trouble-free operation
- BioStack™ Microplate Stacker for up to 50 plates
- BioSpa™ 8 Automated Incubator compatible for assay automation



Typical Applications:

- Cell-based assays
- ELISAs
- MSD assays
- HCS immune cytochemistry
- Calcium flux assays
- Magnetic and polystyrene bead processing (gene expression and cytokine assays)
- ELISPOT assays
- Filtration to waste processes

Configurations:

405 TS: For 96-well microplate washing
405 Select TS: For 96-/384-well microplate washing
405 HT TS: For 384-well microplate washing

A complete list of configurations is available on the 405 Touch product page on BioTek's website.

Optional Accessories:

- Dispense/Waste Systems choice of 4L or 10L bottles and standard, high flow or direct drain vacuum pumps
- Magnets choice of 96- or 384-well formats and flat or ring immobilization patterns
- Vacuum Filtration Module
- Product Qualification Package
- Liquid Handling Control™ PC Software
- BioStack™ Microplate Stacker
- BioSpa™ Automated Incubator



405TS interfaces with BioStack for automated multiple plate processing.



The 405™ Touch is Luminex® xMAP® approved.
Luminex® and xMAP® are registered trademarks of Luminex Corporation.
405 Touch patents include US 8,858,718, US 5,951,783, EP 1 637 887 B2 and EP 2 093 572 B1.



Specifications:

Note: Available features, options and associated performance specifications vary by 405 Touch configuration. Consult configuration comparison chart on www.biotek.com for details.

General

Soak time:

Microplate types: 96- and 384-well

Low profile and standard height

Solid and filter bottom

• Filter pore sizes 0.45 µm to 1.2 µm

Manifold types: 96-well washing: 96-tube (8x12) manifold

96-/384-well washing: Dual-Action™ 96-tube (8x12) 384-well washing: Dual-Action™ 192-tube (16x12)

Volume range: 25 – 3,000 μL/well

Buffer selection: Automated internal switching of up to 4 wash buffers Flow rates: 1 - 11, slow to fast, including low flow cell wash rates

Wash cycles: 1 - 250Dispense precision: $\leq 3\%$ CV

Residual volume: $\leq 2 \mu L/well$ (solid bottom plates)

Shaking: Programmable in min/sec, up to 60 minutes

Intensities – slow, medium, fast or variable Programmable in min/sec, up to 60 minutes

Wash speed: <u>96-well</u>:

• 3 cycles, 300 µL/well, 96-tube manifold, final

aspirate: ≤30 seconds

384-well:

• 3 cycles, 100 μ L/well, 96-tube manifold, final

aspirate: ≤80 seconds

 1 cycle, 400 µL/well, 384 wells, 192-tube manifold, final aspirate: ≤20 seconds

Fluid delivery: Internal positive displacement pump

User interface: High resolution touch screen with 5.7" color graphical

display

Magnet: High strength 96- and 384-well formats: flat and

ring-shaped

Flat magnets pull beads into band across flat-bottom wells,

pulls beads to bottom of round-bottom wells;

Ring magnets pull beads to a 4-zone ring at the well bottom

Onboard software: Pre-defined sample methods for many applications

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Complete custom protocol creation and edition

Protocols created onboard via download from LHCTM

or transferred on USB drive.

Pre-defined maintenance routines

Context-sensitive Help system and instructional videos

PC software: Liquid Handling ControlTM (LHC); optional Automation: BioStack and 3^{rd} party automation compatible

BioSpa™ 8 Automated Incubator compatible

Physical Characteristics

Dimensions: $17"D \times 14"W \times 10"H (43.2 \times 35.6 \times 25.4 \text{ cm})$ Weight: With internal buffer switching – 36 lbs (16.5 kg) Without internal buffer switching – 30 lbs (13.5 kg)

Power: 100 – 240 Volts AC. 50/60 Hz

Regulatory

CE and TUV marked, RoHS compliant. In Vitro Diagnostic use models are available.

Performance values represent the average observed factory test values. Specifications subject to change.