

LP440_{HTS}

HIGH THROUGHPUT WASHER
for
HIGH THROUGHPUT SYSTEMS

The Concept

- Same Wash efficiency of ADIL strip washers to High Throughput Systems.
- Compatibility with both 96- and 384-well formats.
- A reference for Good Laboratory Practices (GLP)
- Easy integration in automatic or robotic systems.
- Easy Maintenance

The Product

- Excellent Low Residual volumes, Overflow Aspiration Sequence enhancing volume equality in every well for both 96- and 384-well formats.
- No limitation of the Wash and Waste bottles. Minimum shutdown time.
- Self Calibration of the dispensed volume, liquid detection in the dispensing pump, liquid level and vacuum detection in primary Waste bottle
- AAD PC software application and RS232 port for
 - Easier protocol programming
 - Remote and fast software update.
 - Traceability of the events saved on PC.
 - Communication with robotic host system
- Plate Release in Out position for Robotic Grip



Plate Format	96-w ell	384-w ell	Comments
dispensing			
Final volume precision	C.V. ≤3% for 300 µl per well	C.V. ≤5% for 100 µl per well	with overflow aspiration sequence to enhance volume equality in the wells
aspiration			
Residual Volume	≤3µl	≤3µl	Crosswise Aspiration for flat-bottomed 96-well plates

LP440HTS Washer for 96- and 384-well plates

LP440HTS Washer



Hardware specifications

- 4 units of 2x12 channel manifold for 96-well plate
 - or
 - 4 units of 2x24 channel manifold for 384-well plate
- External vacuum power required
 - minimum: 55 Utr€/min.
- User interface
 - Flat keyboard with 5 dial/program keys
 - 2x20 characters LCD on backlit screen.
- Connection to PC
 - RS232
 - Memory
 - Flash
- (Complete software upgrade by download from the PC in less than 4 min)

Software specifications

- Kits
 - Up to 100 washing kits (Child) programmable in the EAST PROGRAM mode.
 - Up to 20 Parent kits programmable in the Advanced Programming Mode.
- Each kit is saved under its own name (up to 15 characters) and is a combination of methods repeated or not, with or without soaking times, in strip mode or in plate mode.

Methods

- 6 single-cycle washing methods : Wash, Aspiration, Dispensing, Bottom Washing, Bottom Aspiration, Agitation.
- 4 two-cycle washing methods :

Wash + Aspiration, Wash + Bottom Aspiration, Bottom Wash + Aspiration, Bottom Wash + Bottom Aspiration,

Soak time

- 0 to 59 min 59 sec.

Repetition

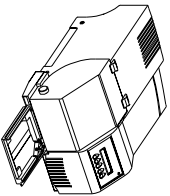
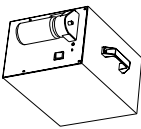
- Every method can be repeated from 1 up to 9 times

Plates

- Up to 10 Sets of plate parameters programmable.
- Accepts flat or curved bottom microplates.
- Vertical and horizontal speeds, vertical and horizontal positions of the aspirating needle in relation with the wells are programmable.

Other features

- Automatic rinsing : the washer's fluidic circuit is automatically rinsed with demineralised water after a programmed time following a wash sequence.
- Priming sequence of the hydraulic system at change of Wash solution.
- Disinfection program of the hydraulic circuit.
- Self Calibration Routine of the dispensed volume
- User programming can be inhibited.

LP440hts	External vacuum pump
	

Electrical data

Voltages	100 - 240 VAC, 50 / 60 Hz	115 or 230 VAC, Selectable by switch 50 / 60 Hz
Consumption	130 VA max	200 VA max
Fuses	2,5 AT (2 fuses, 5x20 mm)	11,5 VAC : 2,5AT 5x20 mm 230 VAC : 1,25AT 5x20 mm
Power Cord	on CEI socket	equipped with CEI male plug. Length : 2 m.
Control		low power cable, equipped with a 2,5mm male jack connectors : length : 2,5m Must be connected to the LP440 rear panel entry

Physical data

Dimensions	washer only (no bottle)	
Width	320 mm	214 mm
Length	577 mm. (plate carrier out)	471 mm
Height	216 mm	351 mm
Weight	13,0 Kg	14 Kg, approx.
Gross Weight	19,0 Kg	16 Kg, approx.
Operating conditions	1-5/30 °C/1-5/85% R.H.	1-5/30 °C/1-5/85% R.H.

can be changed at any time without notice

adil instruments

microplate washers

<http://www.adilinstruments.com>