

High-throughput liquid handling platform



General features:

- **No disposables, cutting operating costs**
- Designed to meet requirements of protein crystallography, high-throughput screening and genomics laboratories.
- Nine assay positions: 6 source or destination plate positions, 2 reagent positions, 1 wash station position
- Windows-based drag-and-drop software
- Closed-loop motion control on each axis: verification of task completion via encoders on each motor
- Integrated wash-system with computer controlled peristaltic pumps and wash reservoirs for the 96-syringe head as well as the nano dispenser
- User-friendly software enables real-time protocol validation
- Software has an integrated predefined plate library containing most commonly used microplates. New plates can be added easily to the software.

96-head Dispenser:

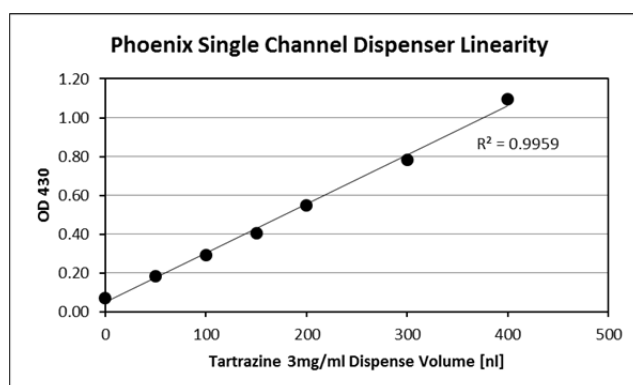
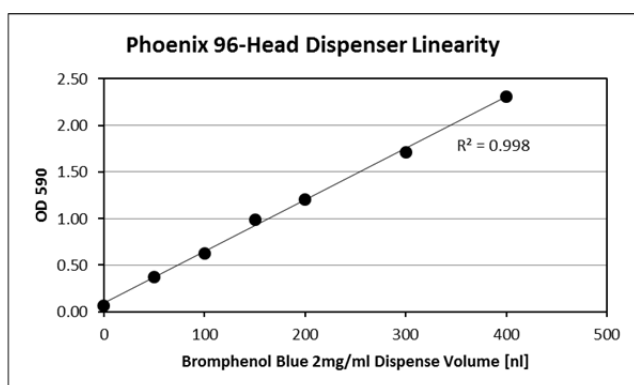
- 96- or 384-channel positive displacement syringe heads with flexible Nitinol-needles
- Head volumes of 100, 250, 500, 1000 μ l available
- Dispense head can be exchanged easily for servicing within minutes
- Dispense volumes down to 100 nl with a CV < 5 %

Single Channel Dispenser:

- Optional non-contact nano-dispenser drive: can accommodate 1-, 2-, 3-, or 4-channels to deliver volumes as low as 50 nl with a CV < 5 %
- For set-up of sitting drops, hanging drops and microbatch reactions
- < 50 sec. to dispense protein and screen to the small wells or hanging drop seals
- The speed of dispensing the screen and protein eliminates the problem of evaporation even when dispensing as little as 100 nl
- Gradient dispensing possible
- Nano dispenser can dispense viscous liquids up to 30 % glycol or 20 % PEG4000

Dispensing accuracy of Phoenix with 100 µl 96-head with flexible needles and single channel dispenser:

Dispense Volume nl	96 head dispenser (OD 590)	CV %	Nano dispenser (OD 430)	CV %
400	2.312	4.28	1.095	3.25
300	1.712	4.33	0.781	3.84
200	1.206	4.82	0.550	3.61
150	0.988	2.92	0.404	3.33
100	0.623	3.09	0.292	3.83
50	0.375	5.45	0.183	4.13
0 (background)	0.068	1.91	0.072	1.67



96-Head Dispenser



Single Channel Dispenser

Specifications:

- Dispense volumes: 96 Heads: 100 nl to 100 µl
Nano: 50 nl to 100 µl
- Size: Base (h x w x d): 73.6 cm x 63.5 cm x 68.6 cm / 64.4 kg
Wash (h x w x d): 33 cm x 17 cm x 36 cm / 2.5 kg
Nano (h x w x d): 24 cm x 15 cm x 41 cm / 8.4 kg
- Electrical: Base: 120/240 Vac, 3 A, 50/60 Hz
Wash: 120/240 Vac, 2 A, 50/60 Hz
Nano: 120/240 Vac, 1,5 A, 50/60 Hz

Phoenix with desktop computer → Cat. No. : 602-0001-10
or laptop → Cat. No. : 602-0001-11