

VIAFLO 96 | VIAFLO 384 Microplate Pipetting – Easy and Affordable

VIAFLO 96 | VIAFLO 384

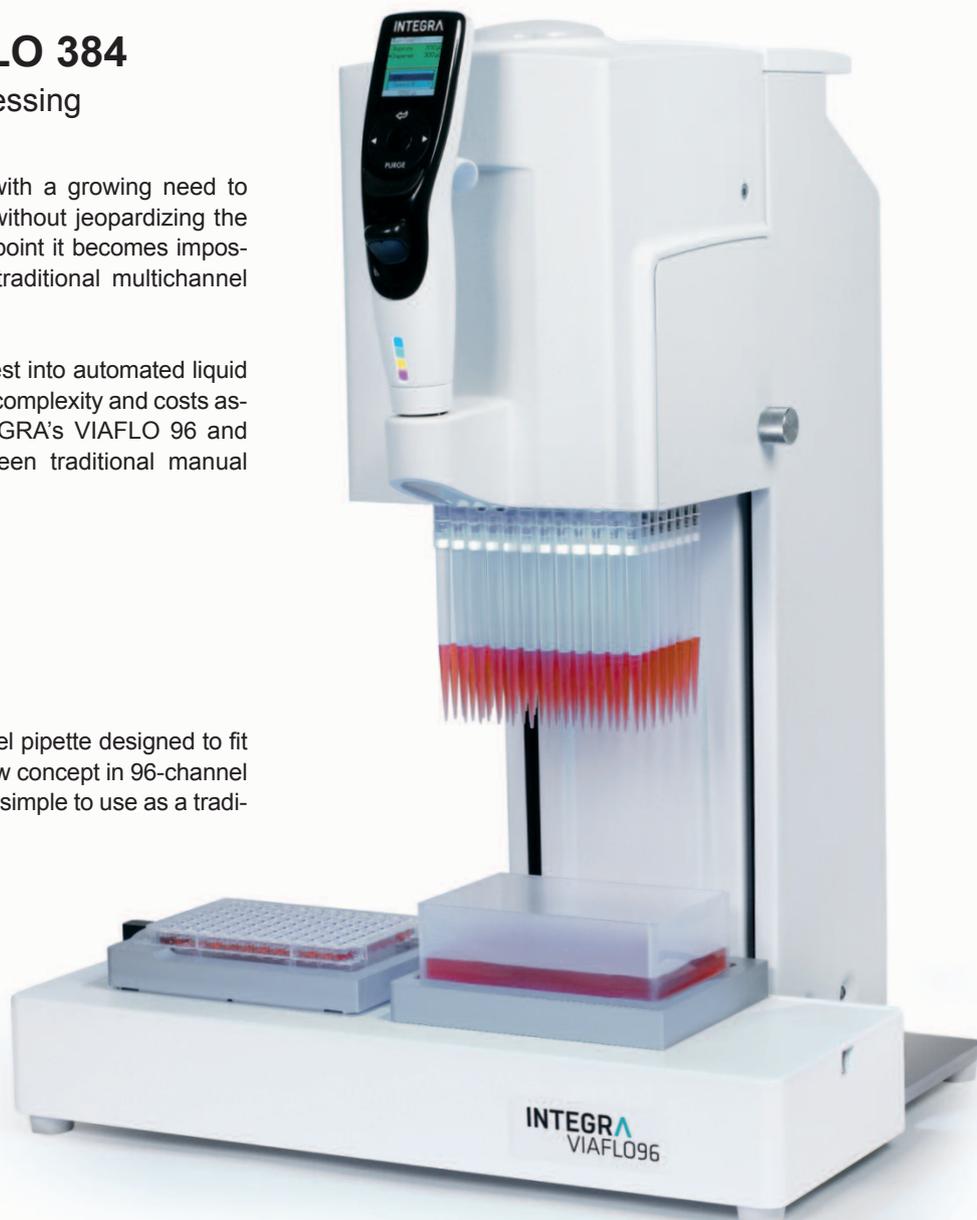
Handheld microplate processing

Life science labs are confronted with a growing need to process more samples in parallel without jeopardizing the quality of their results. At a certain point it becomes impossible to keep up the pace using traditional multichannel pipettes.

Yet, many users are hesitant to invest into automated liquid handling equipment because of the complexity and costs associated with such systems. INTEGRA's VIAFLO 96 and VIAFLO 384 close the gap between traditional manual pipettes and robotic systems.

VIAFLO 96

VIAFLO 96 is a handheld 96-channel pipette designed to fit on any lab bench. It introduces a new concept in 96-channel pipetting, which is affordable and as simple to use as a traditional handheld pipette.



VIAFLO 384

VIAFLO 384 is an enhanced version of the successful VIAFLO 96 pipette. It offers the same intuitive operation but allows working with both 96- and 384-channel heads. Loading 384 tips naturally requires higher loading forces. The necessary instrument adaptations could be made without increasing the footprint or altering the compact design.



Intuitive Use

VIAFLO 96 and VIAFLO 384 are used just like traditional handheld pipettes. They are controlled by hand-eye coordination, but the movements are supported by a servo assisted steering mechanism. This provides for an effortless workflow and enables precise targeting of the microplate wells. The unique concept was deliberately chosen so a user can intuitively operate the pipette without special training.



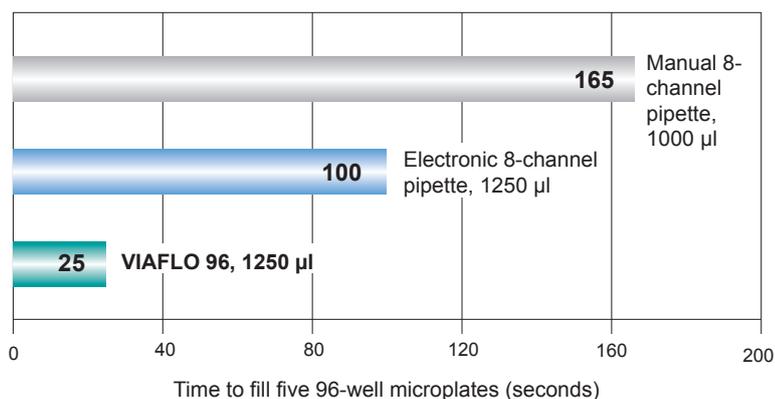
A choice of ten predefined pipetting modes provides users with convenient solutions for the most common liquid handling tasks. Standard pipetting routines, such as plate to plate transfers or multiple dispenses from a reservoir to a plate, can be executed without the need of any programming.

For more elaborate pipetting routines, up to 20 personalized custom programs can be set up and saved on the instrument. All settings of the pipette are easily modified over the touch wheel controlled graphical user interface.

Accelerate multiwell pipetting

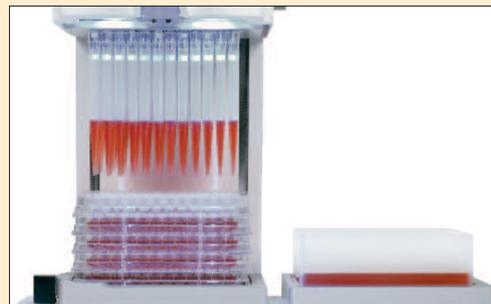
VIAFLO 96 and 384 offer unmatched speed when transferring 96 or 384 samples at once. It is ideal for fast and convenient sample transfers either from plate to plate, reservoir to plate or within plates.

Filling five 96-well plates is accomplished in only 25 seconds, as with an 8-channel manual pipette 165 seconds and with an electronic version 100 seconds are needed.



Reservoir to plate transfers

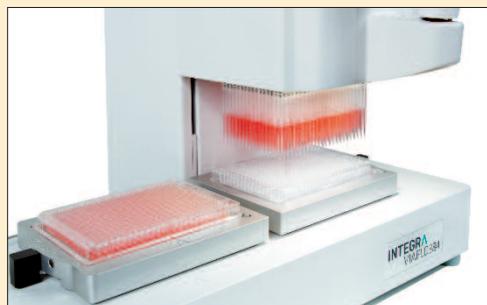
- Compound addition
- Medium exchange
- Cell seeding
- Addition of buffers and reagents



The “repeat dispense” mode allows for a very efficient filling of multiple microplates.

Plate to plate transfers

- Plate duplication
- Supernatant transfers/collections
- Plate reformatting 96 well ↔ 384 well



An exact aspiration height can be defined to precisely remove supernatant and ensures pipette tips do not impact the bottom of a plate.

Sample transfers within plates

- Serial Dilutions
- Mixing and resuspension



Entire plates can be effortlessly mixed and contents resuspended without repeatedly pressing a plunger, using automatic mixing routines.



Space saving footprint

With its compact design the unit requires little space on a lab bench and fits into most laminar flow hoods to allow work under sterile conditions. There are two plate holders on the instrument base to accept tip boxes, microplates or reagent reservoirs. Up to 8 microplates can be stacked during pipetting to make maximum use of the plate holders.



GripTips for reliable pipetting results

Reliable tip sealing and firm tip attachment to the pipette are essential for reproducible and error-free pipetting.

VIAFLO 96/384 features the advanced GripTip system. During loading the GripTip pipette tips are locked onto the tip fitting of the pipetting head, which guarantees that they will never accidentally fall off, even when performing a tip touch on the sidewall of a vessel. In addition, the system provides a perfect sealing of every tip attached, preventing uneven pipetting or sample spillage.

The GripTips are comfortably loaded and ejected without any physical effort due to a power assisted mechanism activated by a push button. The loading procedure also guarantees that GripTips are not touched by the user and remain sterile.



GripTips are offered in non-sterile, sterile and sterile filtered configurations to satisfy all application demands. Filtered GripTips reliably protect the pipetting head against contaminations caused by aerosols.

Depending on the tip size, GripTips are packaged in two different tip boxes. Larger volume GripTips (300 μ l, 1250 μ l) are delivered in boxes of 96 tips. The smaller volume GripTips (12.5 μ l, 125 μ l) are filled in a space-efficient 384-fold grid in XYZ boxes. These boxes house 4 times as many tips and feature the standard SBS-footprint.

GripTips for use with VIAFLO 96/384 undergo a strict quality control to assure perfectly straight pipette tips, enabling accurate dispenses into 96- and 384-well plates.

Technical Data	VIAFLO 96	VIAFLO 384
Channels	96	96, 384
Pipetting technology	air displacement	
Compatible plate formats	96- and 384-well microplates, shallow and deep well	
Dimensions (W x D x H)	42 cm x 30 cm x 54 cm (17" x 12" x 21")	
Weight	25.7 kg (56.7 lbs)	27.7 kg (61.1 lbs)
Operating conditions	Temperature: 5°C - 40°C, Humidity: < 85% non-condensing	
Power requirements	100 - 240 VAC, 50/ 60 Hz	

Flexible volume range

Users can simply change the pipetting head of their VIAFLO 96/384 to guarantee optimal matching of the available volume range to the application performed. Changing a pipetting head of VIAFLO 96/384 is easy and takes less than a minute.

Each channel of a pipetting head is independent, having its own precise piston and sealing to exclude any cross-channel influences for error-free pipetting.



Pipetting Head Overview

Part number	6101	6131	6102	6132	6103	6104
Volume range [µl]	0.5 - 12.5	0.5 - 12.5	5 - 125	5 - 125	10 - 300	50 - 1250
Channels	96	384	96	384	96	96
VIAFLO 96	✓	-	✓	-	✓	✓
VIAFLO 384	✓	✓	✓	✓	✓	✓

Specifications

Test volume (µl)	1.25	6.25	12.5	1.25	6.25	12.5	12.5	62.5	125	12.5	62.5	125	30	150	300	125	625	1250
Accuracy (%)	16.0	3.5	2.0	16.0	3.5	2.0	4.0	2.0	2.0	4.0	2.0	2.0	3.5	2.0	2.0	4.0	2.0	2.0
Precision (%)	9.6	2.0	1.5	9.6	2.0	1.5	2.0	1.5	1.5	2.0	1.5	1.5	2.5	1.5	1.5	2.0	1.5	1.5

Ordering information

Instrument		Part No.
VIAFLO 96 96-channel handheld pipette	Base unit including 1 Standard Plate Holder 1 Plate Holder with Slide Function	6000

VIAFLO 384 96- and 384-channel handheld pipette	Base unit including 1 Spring Loaded Plate Holder A with Slide Function 1 Spring Loaded Plate Holder B with Slide Function	6030
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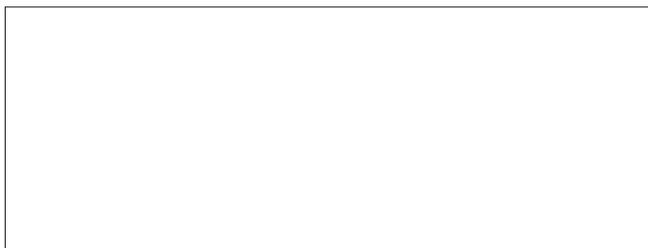
Pipetting Heads		Part No.
96-channel Pipetting Heads	0.5 - 12.5 µl	6101
	5 - 125 µl	6102
	10 - 300 µl	6103
	50 - 1250 µl	6104
384-channel Pipetting Heads	0.5 - 12.5 µl	6131
	5 - 125 µl	6132

GripTips for use with 96- and 384-channel Heads

Tip size	Description	Sterile Filter	Sterile	Non-Sterile	GREEN CHOICE
		Part No.	Part No.	Part No.	Part No.
12.5 µl	5 XYZ boxes of 384 tips	6455	6454	6453	-
12.5 µl LONG	5 XYZ boxes of 384 tips	6405	6404	6403	-
125 µl	5 XYZ boxes of 384 tips	6465	6464	6463	-
300 µl	5 boxes of 96 tips	6435	6434	6433	6432
1250 µl	5 boxes of 96 tips	6445	6444	6443	6442

VIAFLO 96/384 Reservoirs		Part No.
Reservoir Base	SBS Standard Footprint (10 bases per case)	6300
Disposable Reagent Reservoirs (including 2 Reservoir Bases)	100 ml, 30 reservoirs per case, individually sealed, sterile, 96 wells	6311
	100 ml, 200 reservoirs per case, bulk pack, sterile, 96 wells	6312
	100 ml, 30 reservoirs per case, individually sealed, sterile, 384 wells	6331
	100 ml, 200 reservoirs per case, bulk pack, sterile, 384 wells	6332
	300 ml, 30 reservoirs per case, individually sealed, sterile, 96 wells	6321
	300 ml, 200 reservoirs per case, bulk pack, sterile, 96 wells	6322

Accessories		Part No.
Standard Plate Holder		6205
Plate Holder with Slide Function		6210
Spring Loaded Plate Holder A with Slide Function		6215
Spring Loaded Plate Holder B with Slide Function		6220
Row Dilution Plate Holder		6221
PCR 96-well Cooling Plate		6250
PCR 384-well Cooling Plate		6255



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