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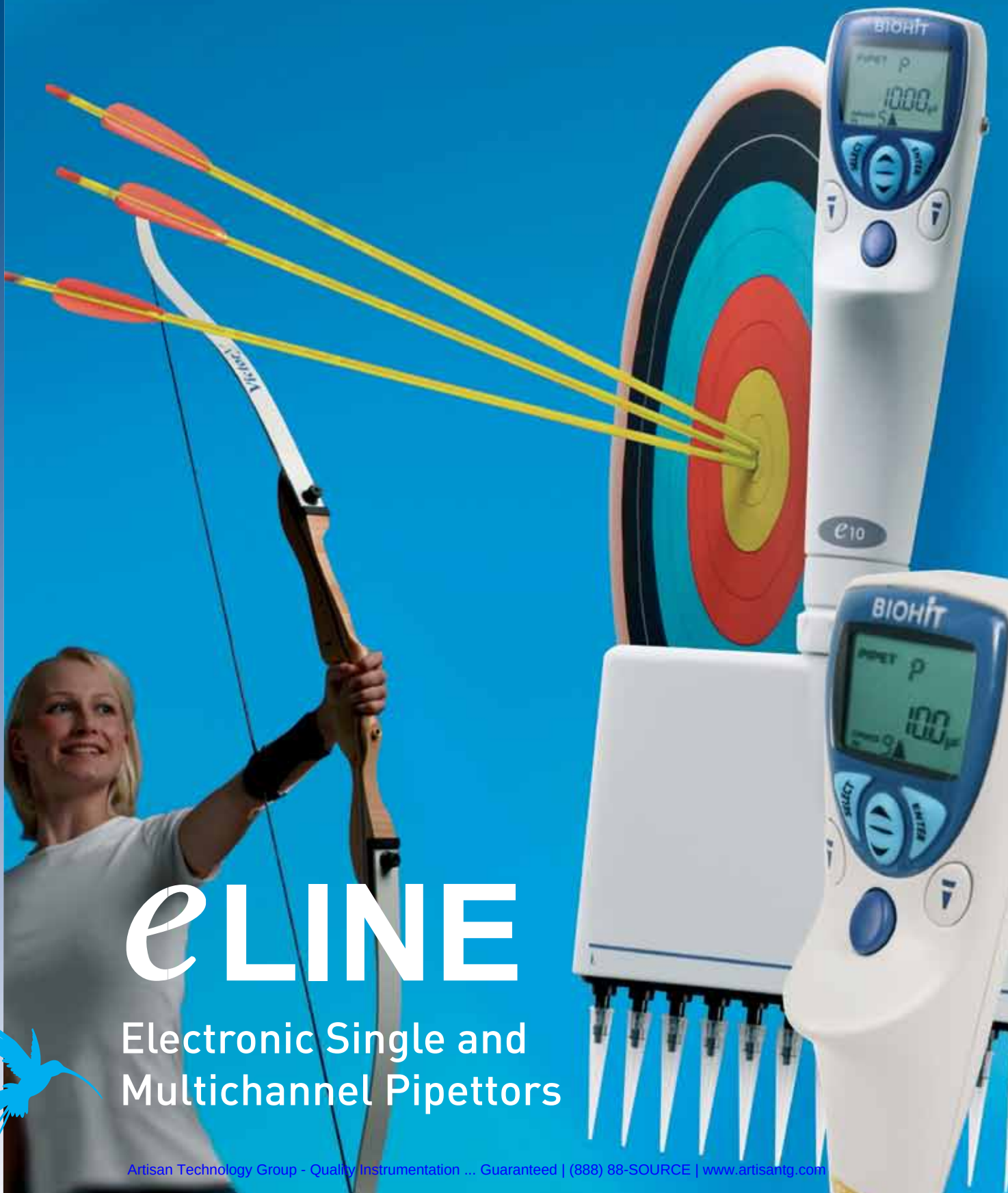
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Find the *Sartorius / Biohit eLine Lite* at our website: ***Click HERE***

BIOHIT

Innovating for Health

Unbeatable Accuracy Time after Time



eLINE

Electronic Single and Multichannel Pipettors

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BIOHIT
Innovating for Health

MOVING FROM MANUAL TO ELECTRONIC PIPETTING?

Choose eLINE

eLINE®

2 YEARS WARRANTY

ERGONOMICALLY DESIGNED

121°C
Autoclavable lower parts

CE

IVD

Made in Finland



You save time and money

eLINE electronic pipettor is twice as fast as a mechanical pipettor.

You need only one pipettor instead of two

One Biohit eLINE electronic pipettor covers the volume ranges of two mechanical pipettors.

Less sick leaves

The electronic operation takes the effort out of pipetting and significantly reduces the risk of Repetitive Strain Injury (RSI).

You get better results

eLINE electronic pipettor guarantees more accurate and precise results with less effort.

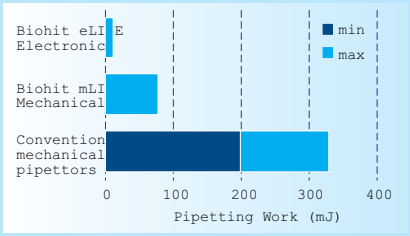
User independent accuracy

Less experienced users achieve the same precise results as more experienced users.

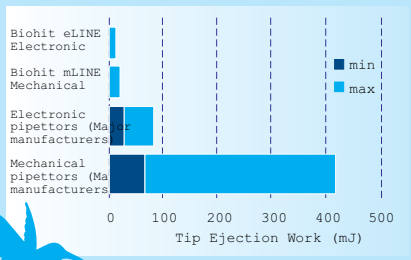
Multifunctional tool

eLINE offers a variety of features yet easy to use.

Do you still think that electronic pipetting is expensive? By moving to electronic pipetting you save significantly in the long run!



Comparison of pipetting work with electronic and mechanical pipettors



Both the tip ejection force and the distance thumb has to travel to eject the tips have been measured.



ENJOY YOUR WORK!

eLINE – the leader in performance & ergonomics

Biohit is the world leader in hand-held electronic pipettors with nearly 20 years of experience in pipettor technologies. Biohit's electronic pipettors have become the standard for electronic pipetting. We put particular emphasis on accuracy and precision, user-friendliness, ergonomics, and efficiency in pipetting.

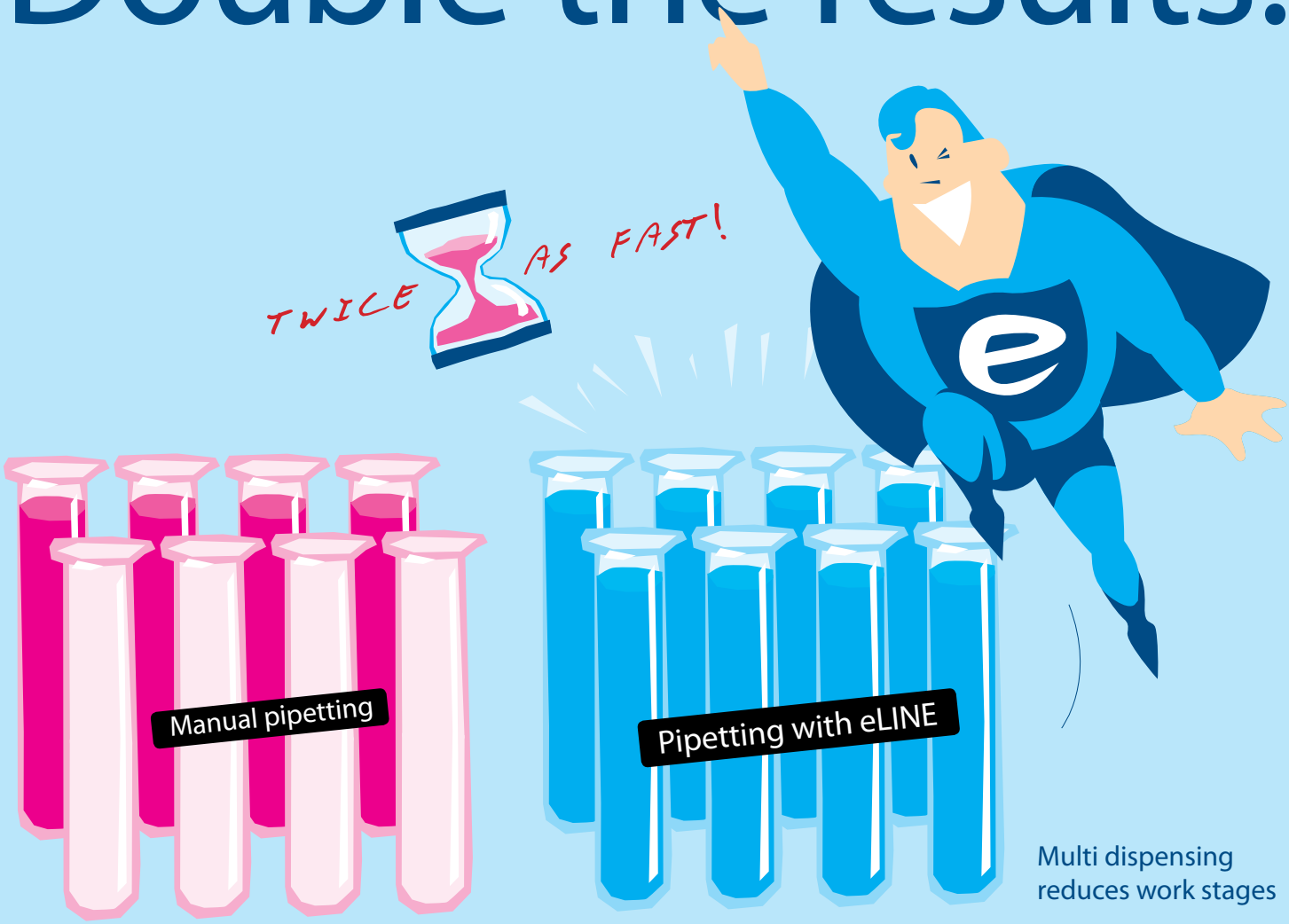
When you need to pipette and dispense liquids as comfortably as possible, your first choice is eLINE. This award winning pipettor enables you to focus on your work instead of worrying about Repetitive Strain Injury.

eLINE offers you

- Fully electronic operation modes and tip ejection
- Unbeatable accuracy and precision time after time
- A lot more pipetting modes than in a mechanical pipettor
- 30 times more lighter pipetting than with a mechanical pipettor – most ergonomic pipetting operations on the market
- Applications for example: PCR, ELISA, Volume measurement (manual pipetting mode)

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Double the results!



Multi dispensing reduces work stages

JUST ONE ELINE PIPETTOR BUT

A wide range of operation modes

The Biohit eLINE pipettors are available in single-channel models covering the volume range from 0.2 µl to 5000 µl and in 8- and 12-channel models from 0.2 µl to 1200 µl.

- ✗ Pipetting
- ✗ Reverse pipetting
- ✗ Super pipetting*
- ✗ Pipetting with mixing
- ✗ Pipetting with cycle counter
- ✗ Manual pipetting with cycle counter**
- ✗ Multiple dispensing
- ✗ Sequential dispensing***
- ✗ Automatic multiple dispensing
- ✗ Diluting
- ✗ Diluting with mixing
- ✗ Multi-aspirating
- ✗ 6 memory settings
- ✗ 9 speeds for aspirating and dispensing
- ✗ Single-point calibration

* Only in eLINE 0.1-5 µl

** Not available in eLINE multi-channel models

*** Not available in eLINE 0.1-5 µl

"eLINE is the perfect pipettor taking care of both the work and the person using it"

Lisbeth Lemmetti, Development Analyst, Biomedicine. Blood Centre at Sahlgrenska University Hospital, Sweden

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electronic pipettor



Clear LCD-display informs and instructs the user during pipetting

Soft-touch keypad, easy programming

Unique electronic one-touch tip ejection

Electronic start button for all pipetting operations

Volume range colour coding for easy pipettor and tip selection

Ergonomic design

Ejector collar, tip cone and piston can be unscrewed for easy cleaning, autoclaving and maintenance

Optiload tip loading mechanism

Replaceable Safe-Cone Filters help prevent contamination of the pipettor and samples

Both left- and right-handed operation



Rotating dispensing head

Individual piston/tip cone assemblies allow easy repair and maintenace

Autoclavable dispensing head (excl. 1200 µl 8/12 models)

121°C

Autoclavable lower parts







1. Easiest tip ejection ever!

- Unique electronic tip ejector function ejects one to 12 tips with the same feather light touch
- Up to 100 times lighter than with a mechanical pipettor
- Tip ejection operation button for both left- and right-handed users

2. Perfect tip sealing with Optiload

- Available in multichannel eLINE pipettors
- Allows tip loading with an equal constant force to every channel
- Tips are perfectly sealed to every individual tip cone

3. No interruptions because of charging!

- eLINE tells you when the battery is low and you need to recharge it
- You may continue pipetting while charging the battery with AC-adaptor
- When you are not working, keep your eLINE in the charging stand so that the pipettor is always ready to use!
- Charging options: 1-place charging stand, 4-place charging carousel, AC-adaptor

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Unique DC-motor concept for better results

The patented and unique Biohit concept includes the DC-motor, solenoid brake and error control.

Improved accuracy and precision

The solenoid brake of the eLINE enables over 10 times more precise positioning of the piston compared to a stepper motor driven system. This is a major advantage in multi-dispensing mode where liquid column has to be cut sharply to have even doses. This means superior accuracy and precision.

Built-in error control for more reliable results

Even the best pipettor may occasionally make errors. Important is to be able to notice them. Biohit electronic pipettors feature a built-in error control. The pipettor controls and monitors the piston movement in real time. If an error occurs while pipetting, the pipettor notifies the user, thus allowing for more reliable results.



4. Protect your pipettor and your sample

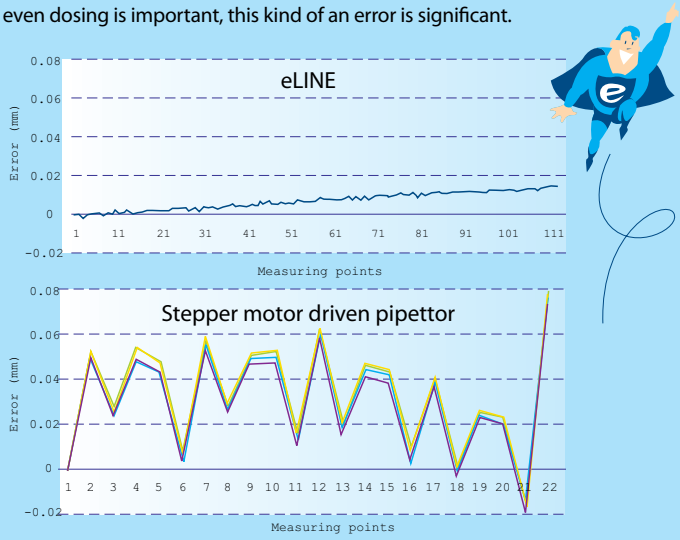
You can prevent contamination of your pipettor and sample by using replaceable Safe-Cone Filters. These unique filters

- Act as a final barrier to prevent fluids and liquid vapours from reaching the internal components of the pipettor
- Prolong service and lifetime of the pipettor
- Are available for all models > 10 µl
- Safe-Cone Filters must be changed regularly and always in case of over-aspiration

10 times more precise dispensing – unbeatable linearity

When comparing the stepper motor technology and the Biohit DC-motor technology for accuracy and precision, especially in the multidispensing mode (d) where even dosing is essential the Biohit DC motor is the best choice. There is no doubt about the superiority of the DC-motor concept.

The DC-motor driven Biohit eLINE and a stepper motor driven pipettor were tested for linearity in the d-mode. The measurement was done 5 times. The DC-motor driven Biohit eLINE allows linear movement, i.e. precise dispensing. The tested stepper motor pipettor generated a linear movement error, which was equal to over ± 1.5 µl. This is very alarming as it exceeds the minimum adjustable increment of the pipettor. In the d-mode, where even dosing is important, this kind of an error is significant.

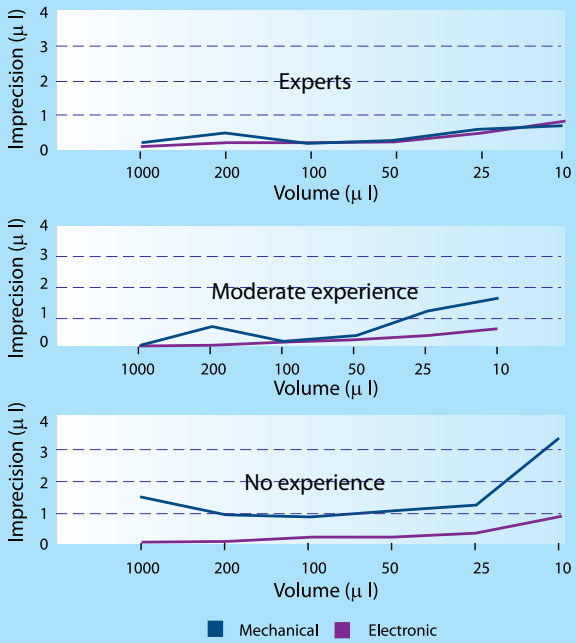


20 x 50 µl linearity measurement in d-mode.

User-independent accuracy with Biohit eLINE pipettors

Whilst experience and good pipetting practice are essential for reproducible results with mechanical pipettors, the eLINE pipettors produce precise results independent of user experience.

The effect of user experience on pipetting precision



Nine persons were divided into three groups according to their experience in pipetting. Each person pipetted distilled water with the same Biohit mechanical and eLINE pipettors (using P-mode). The imprecision of ten subsequent results of volumes 10, 25, 50, 100, 200 and 1000 µl was recorded and the results are detailed in pictures above.

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eLINE Single and Multichannel Performance specifications and ordering details



Cat. No.	Channels	Volume Range (µl)	Increment (µl)	Test Volume (µl)	Inacc. (%)	Impr. (%)	Safe-Cone Filters Standard	Plus	Tip
73001X	1	0.1-5µl	0.05	0.5 2.5 5.0	9.50 % 1.70 % 1.20 %	8.00 1.20 0.70	-	-	10
73002X	1	0.2-10 µl	0.05	10 5 1 0.2	0.90 % 1.00 % 2.50 % 12.00 %	0.40 % 0.70 % 1.50 % 10.00 %	-	-	10
73004X	1	5-120 µl	0.50	120 60 12 5	0.40 % 0.60 % 2.00 % 3.50 %	0.15 % 0.20 % 1.00 % 1.50 %	721008	721018	300, 350
73006X	1	10-300 µl	1.00	300 150 30 10	0.40 % 0.60 % 1.50 % 3.50 %	0.15 % 0.20 % 0.80 % 2.00 %	721007	721017	350
73008X	1	50-1000 µl *	5.00	1000 500 100 50	0.40 % 0.60 % 1.50 % 2.00 %	0.15 % 0.20 % 0.50 % 1.00 %	721006	721016	1000
73010X	1	100-5000 µl	10.0	5000 2500 500	0.50 % 0.80 % 1.00 %	0.15 % 0.20 % 0.40 %	721006	721016	5000
73032X	8	0.2-10 µl	0.05	10 5 1	0.90 % 1.50 % 4.00 %	0.50 % 0.80 % 3.00 %	-	-	10
73034X	8	5-120 µl	0.50	120 60 12	0.50 % 0.70 % 2.00 %	0.20 % 0.30 % 1.50 %	721008	721018	300, 350
73036X	8	10-300 µl	1.00	300 150 30	0.50 % 0.70 % 2.00 %	0.20 % 0.30 % 1.00 %	721007	721017	350
73039X	8	50-1200 µl	5.00	1200 600 120	0.50 % 1.00 % 2.50 %	0.20 % 0.30 % 1.00 %	721006	721016	1200
73042X	12	0.2-10 µl	0.05	10 5 1	0.90 % 1.50 % 4.00 %	0.50 % 0.80 % 3.00 %	-	-	10
73044X	12	5-120 µl	0.50	120 60 12	0.50 % 0.70 % 2.00 %	0.20 % 0.30 % 1.50 %	721008	721018	300, 350
73046X	12	10-300 µl	1.00	300 150 30	0.50 % 0.70 % 2.00 %	0.20 % 0.30 % 1.00 %	721007	721017	350
73049X	12	50-1200 µl	5.00	1200 600 120	0.50 % 1.00 % 2.50 %	0.20 % 0.30 % 1.00 %	721006	721016	1200





X: 0 = Without AC-adaptor 1 = With Universal AC-adaptor (includes Euro, U.S./Jpn, U.K. and China plugs)

*Note: Minimum volume in P-mode is 500 µl. The 100 µl is possible in d-mode. The specifications are type test specifications achieved under strictly controlled conditions (ISO 8655). Due to Biohit's continuous R&D, specifications may change without prior notice.

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Biohit Tips

Volume Range (µl)	Packaging	Qty/Unit	Cat. No.
0.1-10 µl	Single Tray	10 x 96 Tips	790010
	Refill Tower	10 x 96 Tips	790012
0.5-300 µl	Single Tray	10 x 96 Tips	790300
	Refill Tower	10 x 96 Tips	790302
5-350 µl	Single Tray	10 x 96 Tips	790350
	Refill Tower	10 x 96 Tips	790352
10-1000 µl	Single Tray	10 x 96 Tips	791000
	Refill Pack	10 x 96 Tips	791002
50-1200 µl	Single Tray	10 x 96 Tips	791200
	Refill Pack	10 x 96 Tips	791202
100-5000 µl	Single Tray	50 Tips	780304

All Biohit Single Tray Tips are certified for CE/IVD and RNase, DNase and endotoxin free. More information about tips at **www.biohit.com**.

Stands & Accessories

Cat. No.	Item
730981	eLINE Charging Stand for one pipettor, with Universal AC-adaptor (includes Euro, U.S./Jpn, U.K. and China plugs)
730991	eLINE Charging Carousel for 4 pipettors, with Universal AC-adaptor (includes Euro, U.S./Jpn, U.K. and China plugs)
725620	Linear Stand
731001	eLINE Replacement Battery



Distributed by:

HEADQUARTERS
Biohit Oyj
Laippatie 1
00880 Helsinki • Finland
Tel. +358-9-773 861
Fax: +358-9-773 86 200
info@biohit.com
www.biohit.com

CHINA
Biohit Biotech (Suzhou) Co., Ltd.
Tel: +86-21-6248 5589
Fax: +86-21-6248 7786
info.china@biohit.com

FRANCE
Biohit SAS
Tel: +33-1-7062 5000
Fax: +33-1-6459 7639
commercial.france@biohit.com

GERMANY
Biohit Deutschland GmbH
Tel: +49-6003-82 820
Fax: +49-6003-828 222
info@biohit.de

INDIA
Biohit Biotech Systems
Tel: +91-9323-804 379
info.india@biohit.com

JAPAN
Biohit Japan Co., Ltd.
Tel: +81-3-5822 0021
Fax: +81-3-5822 0022
sales@biohit.co.jp

RUSSIA
Biohit OOO
Tel: +7-812-327 5327
Fax: +7-812-327 5323
main@biohit.ru

UK
Biohit Ltd.
Tel: +44-1803-315 900
Fax: +44-1803-315 530
sales@biohit.co.uk

USA
Biohit Inc.
Tel: +1-732-922 4900
Fax: +1-732-922 0557
pipet@biohit.com

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