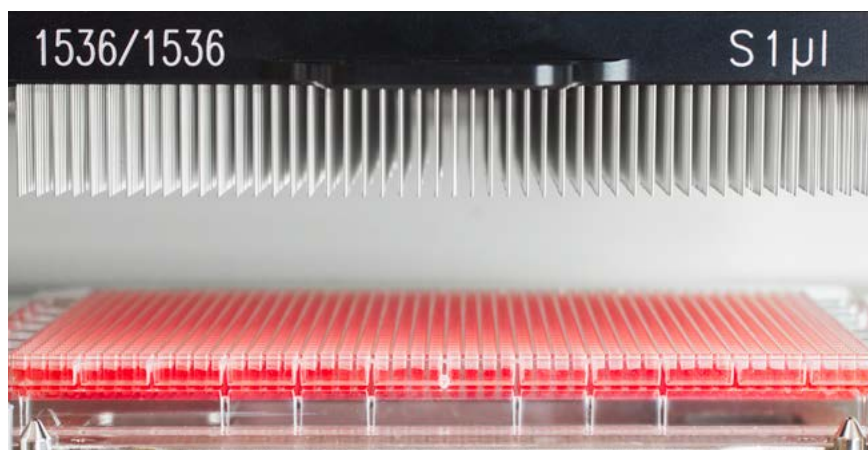


# The CyBio Well vario Pipetting Head 1536/8 $\mu$ l

The CyBio Well vario  
Pipetting Head 1536/8  $\mu$ l offers:

- Proven air displacement technology with 1536 parallel-acting pistons
- Different tip magazine types with 1536 tips made from glass, stainless steel or ceramic
- Uniform tip length
- Working volume from 0,1 up to 8  $\mu$ l
- Volume freely selectable in 0,01  $\mu$ l steps
- Full compatibility with all CyBio Well vario systems



**The CyBio Well vario Head 1536/8  $\mu$ l is the latest member of the CyBio Well vario pipetting head family.**

**This pipetting head uses the unique and well-proven CyBio tip sealing technology. The 1536 parallel moving pistons allow the simultaneous transfer and filling of a complete 1536 well microplate in one single step as well as high density touch-based spotting of small volumes in the submikroliter range.**

Based on a broad range of experience and long term partnerships with our customers, CyBio is a leading brand for high quality liquid handling technologies and lab automation solutions. In the pharmaceutical and life science industries, CyBio's products enjoy the highest reputation for precision, reliability and convenience.

Since 2009 CyBio's products extend the portfolio of the Analytik Jena AG. The Analytik Jena AG is a leading manufacturer of analytical and bioanalytical systems for wide range of industrial and scientific applications.

## Introduction

Why a 1536 Pipetting Head?

For nearly 20 years CyBio Well vario instruments with 384 piston systems have already proven to run 1536 well microplates in four steps as a matter of routine.

Based on this expertise, now we offer a powerful solution for simultaneous 1536 well applications. The CyBio Well vario 1536/8 µl Head serves the ongoing trend to lower assay volumes and high density plates, founded on the endeavour to reduce reagent and compound volumes and therefore reduce the cost per well.

Full compatibility with all CyBio Well vario platforms	
Technology	Air displacement
Usage	1536 parallel liquid transfer
Working volume	0.1 µl up to 8 µl per transfer
Volume resolution	0.01 µl steps
Tips	Fixed ceramic tips, stainless steel tips or parylene-coated glass tips
Specified precision*	1 – 5 µl CV ≤ 3 %; > 5 µl CV ≤ 2 %
Accessories	Spring loaded soft touch adapter with claws, Tip wash station 1536 with vacuum suction trough, PEEK reservoir 1536

Target volume	Ceramic tips (1 µl)	Stainless steel tips (1 µl)	Glass tips (8 µl)
1 µl	CV < 2 %	CV < 2 %	CV < 2 %
0.5 µl	CV < 3 %	CV < 4 %	CV < 4 %
0.25 µl	CV < 5 %	CV < 6 %	CV < 6 %

Typical experimental precision results (CV in %) for wet-to-wet transfers determined by absorbance measurement (\*for details see [www.iwa15.org](http://www.iwa15.org), Annex B7).

## Typical workflow

Typical workflows in 1536 well microplates with 384-channel heads involve sequential aspirating and pipetting (including washing steps) quadrant by quadrant. Those methods are cross-contamination free and accurate, but time consuming. The best way to increase the throughput is simultaneous pipetting of all 1536 wells in one single step using the CyBio Well vario Head 1536/8 µl.

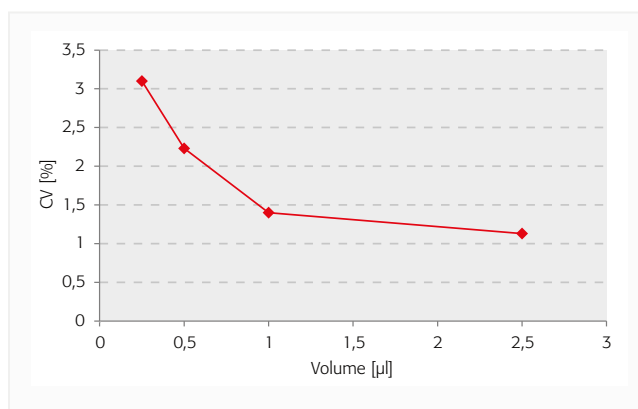
## Technology

The CyBio Well vario Head 1536/8 µl is using the known and well-proven tip sealing system with 1536 parallel moving air displacement pistons. The tip sealing end is pressed against a gasket and creates an airtight seal with the piston system positioned above the gasket. Tips are located in a metal tip tray to ensure uniform tip length for all 1536 tips.

## Performance

The graph shows typical experimental precision data using 1 µl ceramic tips and p-nitrophenol solved in 0.1 N NaOH as test solution. The test solution was aspirated with overstroke and the test volume was transferred in a prefilled 1536 well microplate. The residual liquid was dispensed back into the reservoir and finally the absorbance was measured at 405 nm\*.

For dry dispensing we recommend the use of a spring loaded soft- touch adapter. The liquid handling performance depends on the quality of the used labware and the properties of the transferred liquids.



## Headquarters

Analytik Jena AG  
Konrad-Zuse-Str. 1  
07745 Jena · Germany

Phone +49 3641 77 70  
Fax +49 3641 77 9279  
info@analytik-jena.com  
www.analytik-jena.com

Pictures: Analytik Jena AG  
Subjects to changes in design and scope of delivery as well as further technical development!