

# Your Personal Pipetting Assistant

## CyBio SELMA

Lab Automation



**analytikjena**  
An Endress+Hauser Company

# CyBio SELMA - Your Personal Pipetting Assistant

Inspiring Technology Making Pipetting so Much Easier

The CyBio SELMA is a semi-automatic pipettor for fast and precise processing of 96 and 384 well microplates without the need for complicated programming. In only one step an easy and reproducible transfer of 96 or 384 samples is done within seconds. Additionally, 8 and 16 channel tools for column wise pipetting are available.

The CyBio SELMA family comprises six devices. The four different 96 channel head types cover a volume range from 0.5  $\mu\text{L}$  up to 1000  $\mu\text{L}$ . The two 384 channel head types cover a volume range between 0.5  $\mu\text{L}$  and 60  $\mu\text{L}$ .

All heads are equipped with the proven Tip Sealing Technology guaranteeing excellent performance and consistent results every time. The extremely compact design allows you to place the device on every lab bench.



## Comfort and precision

With the CyBio SELMA you experience simple, accurate and relaxed pipetting.

## Simplify pipetting tasks

Operate the CyBio SELMA intuitively via touch screen. Comfortably select your pipetting parameters (e.g. pipetting height and speed) and save your established methods without complicated programming.

## Save valuable lab space

The CyBio SELMA has a very compact design and fits on any lab bench as well as into most laminar flow hoods.

## Redefine workplace convenience

The CyBio SELMA is equipped with an automatic tip tightening function and preloaded CyBio TipTrays enable immediate use. Within seconds, the tips are changed and the CyBio SELMA is ready for the next application.

## CyBio SELMA

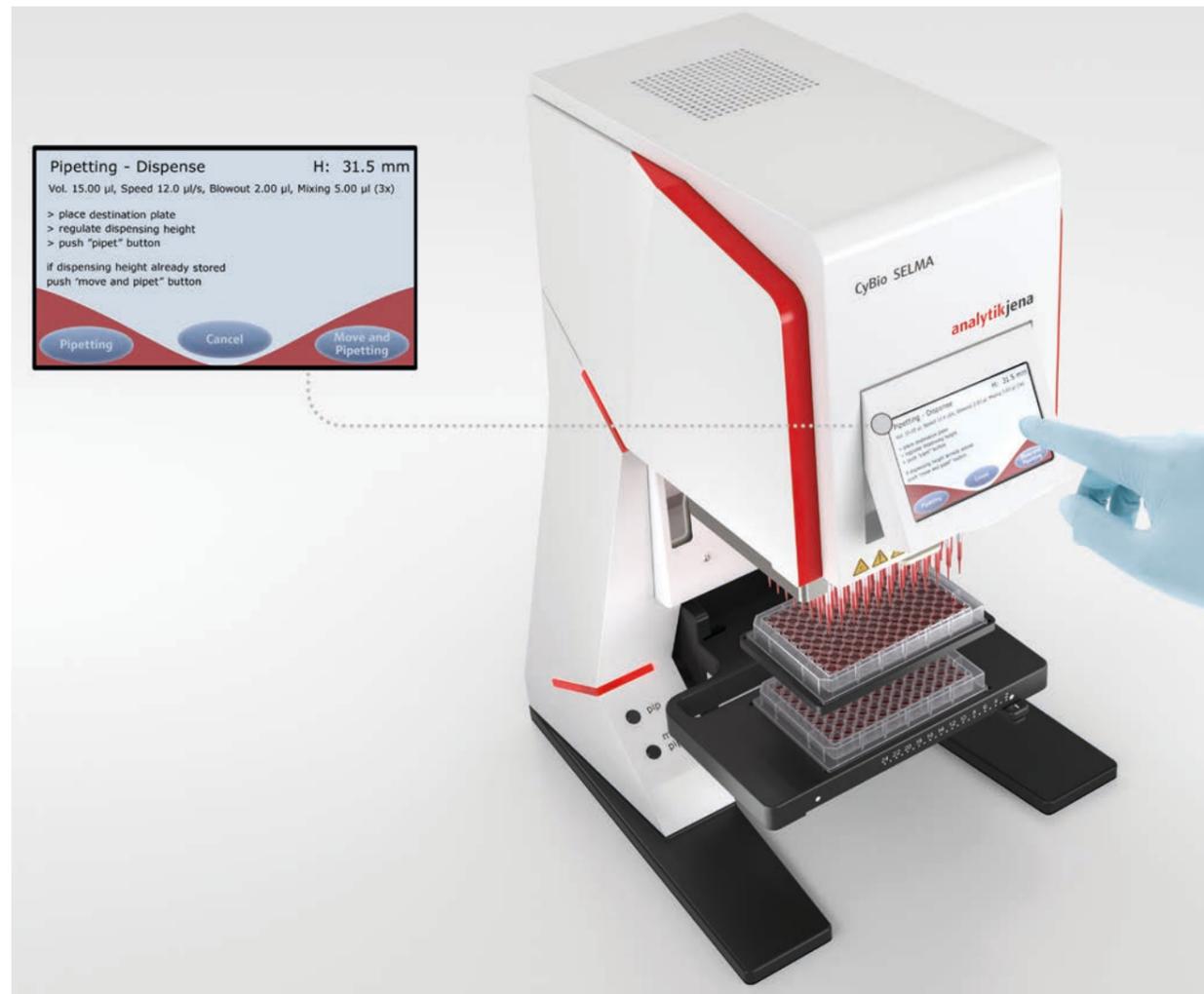
Your Personal Pipetting Assistant

## More Comfort, Higher Performance and More Flexibility

Operation of the CyBio SELMA is extremely easy, without the need for a separate computer or complicated programming. Via touch screen you can easily choose the best fitting pipetting mode for your application:

- Priming
- Pipetting
- Reverse pipetting
- Repeat dispensing
- Dilution
- Serial dilution

Also, the required pipetting parameters (e.g. volume or pipetting speed) and other settings like the preferred language are easily selectable. Subsequently, you will be guided smoothly step by step through the workflow on the screen. Thus, fast and precise execution of your application is guaranteed.



## Precision with Sophisticated Technology

### Consumables for highly precise results

The unique CyBio Tip Sealing Technology for CyBio multichannel heads – sealing each tip via an elastomer mat – is the basis for the high precision and reliability of the devices. This Tip Sealing Technology plays a major role when using CyBio TipTrays in the CyBio SELMA.

CyBio TipTrays are available for 96 and 384 well formats, different volume ranges and in different tip qualities. For column-wise pipetting with dedicated tools for

CyBio SELMA 96 and 384, bulk tips in standard quality and different volume ranges are available.

The specified precision CV values for the corresponding head types of the CyBio SELMA are performed with the respective standard CyBio TipTray and are listed in the technical data (see page 9).

## More Speed, More Efficiency and More Competitiveness

### Stay flexible - Accessories for CyBio SELMA

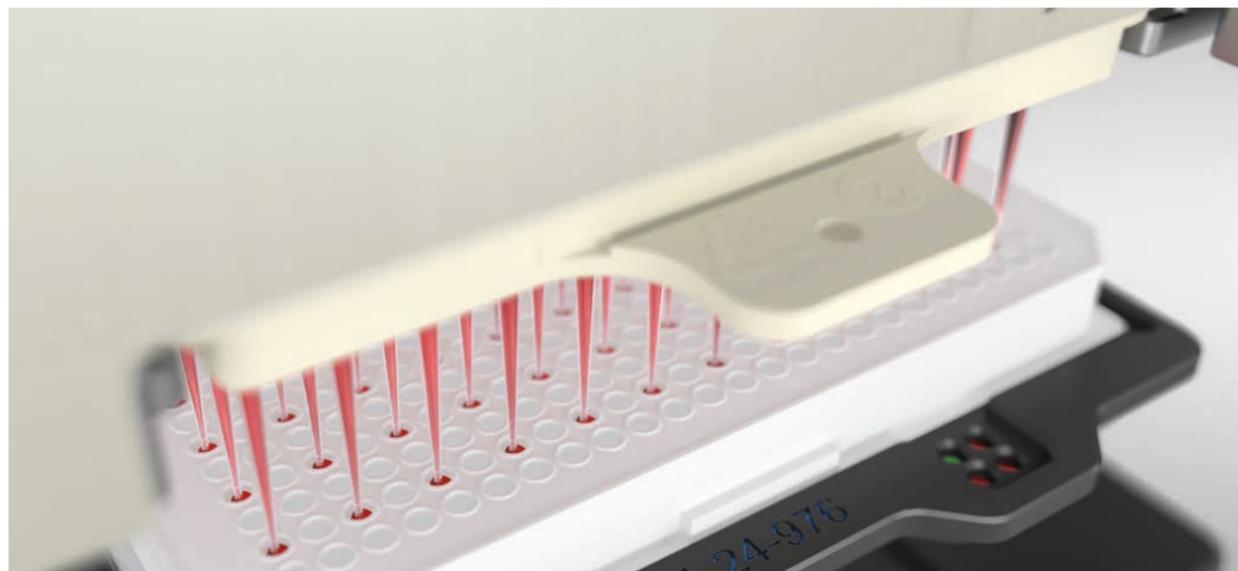
With the CyBio SELMA, 96 well and 384 well microplates can be processed quickly and easily. Additionally, specially designed magazines enable to work 8 channel-wise and 16 channel-wise.

Thus, adding controls or samples into individual columns and performing serial dilutions can be done conveniently and comfortably.



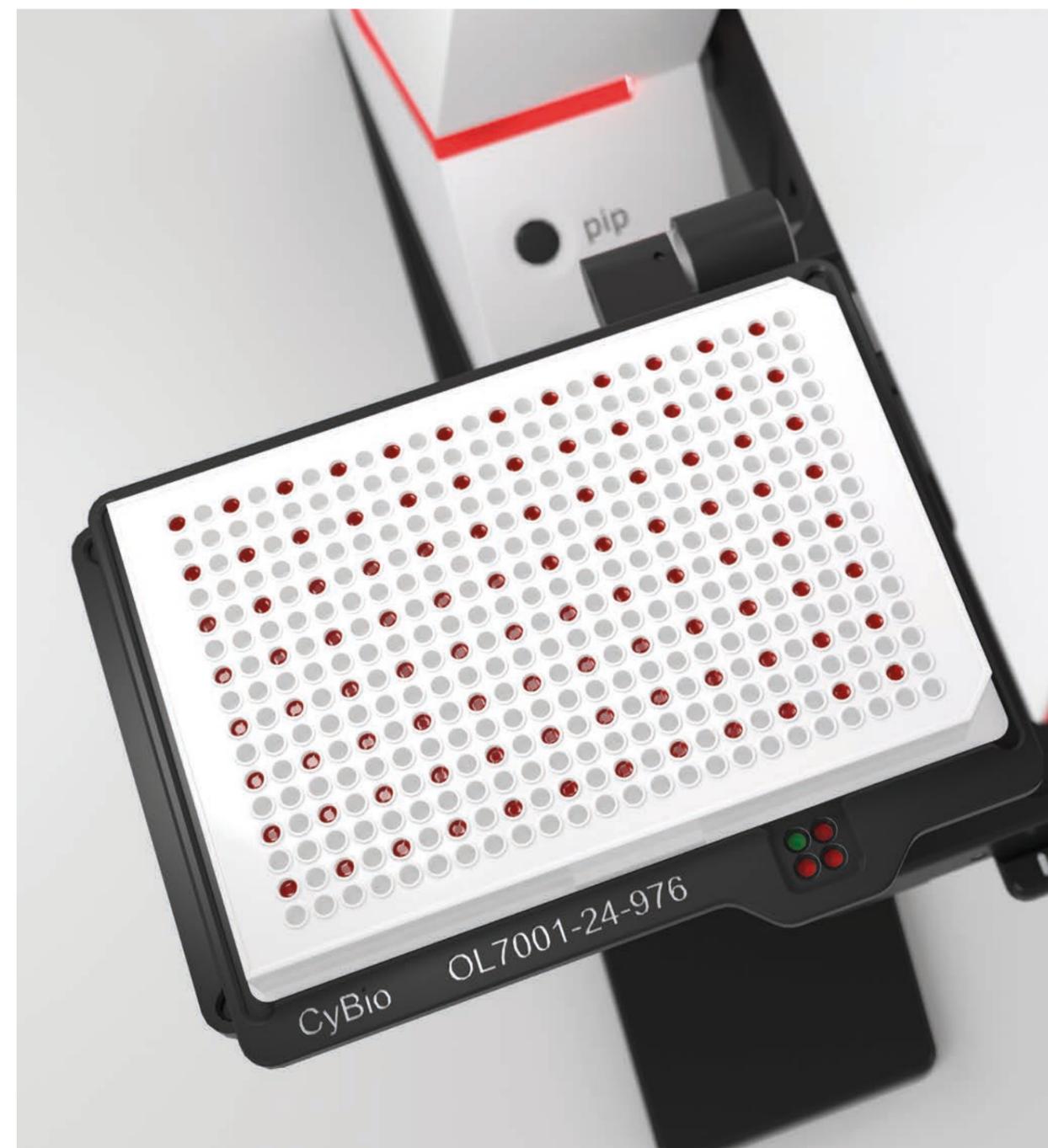
Serial dilution is very simple using the 8 channel magazine in combination with the serial dilution pipetting mode.

Another very beneficial accessory is the microplate adapter 384. With this adapter, 384 well microplates can be processed quadrant-wise with the 96 channel CyBio SELMA\*<sup>1</sup>. The slide function makes handling very easy and shows you the currently processed quadrant ensuring precise and reliable filling of the 384 well microplates.



The first quadrant of a 384 well microplate is filled by a 96 channel CyBio SELMA using the microplate adapter 384.

\*<sup>1</sup> Not applicable for the CyBio SELMA 96/1000 µL.



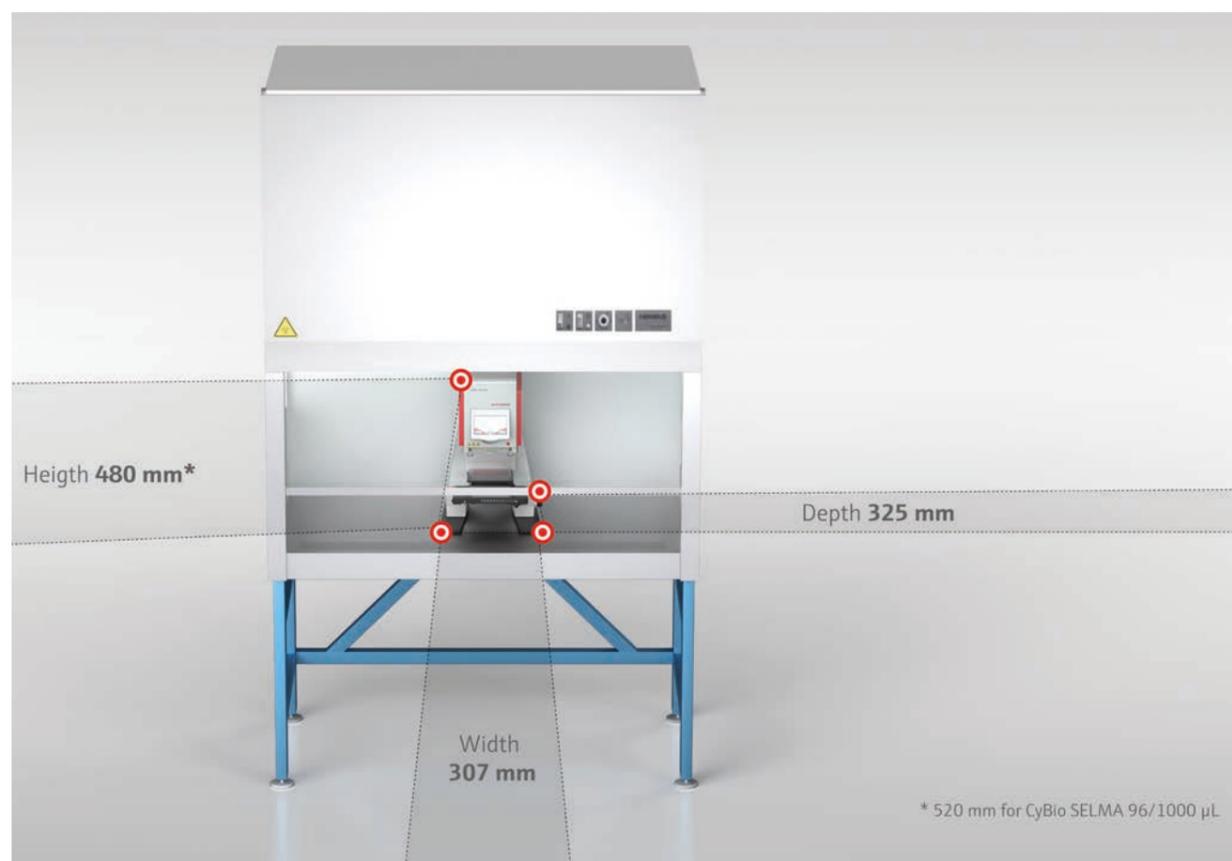
The quadrant-wise filling of 384 well microplates can be easily conducted with a 96 channel CyBio SELMA\*<sup>1</sup> using the microplate adapter 384.

## Technical Data

Pipetting channels	96 or 384
Processing column by column	yes
Tip types 96	25 µL, 60 µL, 250 µL or 1000 µL
Tip types 384	25 µL or 60 µL
Microplate formats	96, 384
Work positions	2
Dimensions (Wx H xD)	307 x 480 x 325 mm <sup>*1</sup>
Weight	approx. 18 kg <sup>*2</sup>
Ambient operating temperature	15 °C to 37 °C
Humidity	< 85% at 30 °C

\*1 CyBio SELMA 96/1000 µL H= 520 mm

\*2 CyBio SELMA 96/1000 µL approx. 20 kg



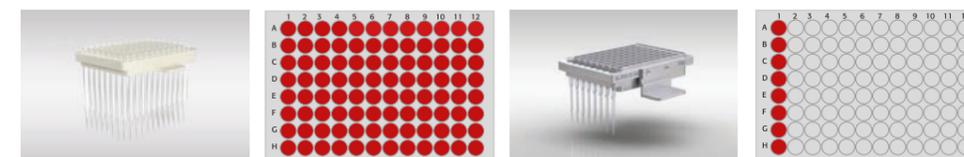
With its compact design, the CyBio SELMA fits on any lab bench as well as into most laminar flow hoods.

## Pipetting Heads

### 96 channel CyBio SELMA

Head type	Head 96/25 µL	Head 96/60 µL	Head 96/250 µL	Head 96/1000 µL
CyBio TipTray Type <sup>*1</sup>	96/25 µL	96/60 µL	96/250 µL	96/1000 µL
Specified volume range precision <sup>*2</sup>	2 µL – 5 µL ≤ 2% CV > 5 µL – 25 µL ≤ 1% CV	3 µL – 5 µL ≤ 2% CV > 5 µL – 60 µL ≤ 1% CV	10 µL – 25 µL ≤ 2% CV > 25 µL – 250 µL ≤ 1% CV	25 µL – 100 µL ≤ 2% CV > 100 µL – 1000 µL ≤ 1% CV
Unspecified volume range	0.5 µL – 2 µL	1 µL – 3 µL	5 µL – 10 µL	10 µL – 25 µL

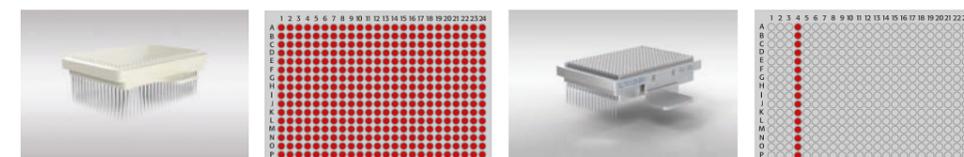
Each CyBio SELMA can be used with a CyBio TipTray 96 or with an 8 channel magazine.



### 384 channel CyBio SELMA

Head type	Head 384/25 µL	Head 384/60 µL
CyBio TipTray Type <sup>*1</sup>	384/25 µL	384/60 µL
Specified volume range precision <sup>*2</sup>	2 µL – 5 µL ≤ 2% CV > 5 µL – 25 µL ≤ 1% CV	3 µL – 5 µL ≤ 2% CV > 5 µL – 60 µL ≤ 1% CV
Unspecified volume range	0.5 µL – 2 µL	1 µL – 3 µL

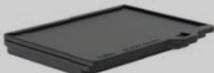
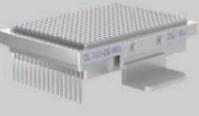
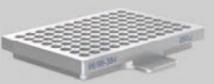
Each CyBio SELMA can be used with a CyBio TipTray 384 or with a 16 channel magazine.



<sup>\*1</sup> Also certain bulk tips are available.

<sup>\*2</sup> Specified volume range based on Analytik Jena's in-house quality control as described in the Application Note "Photometric and Gravimetric Liquid Handling Check Procedure to determine the Random Error (Precision) and the Systematic Error (Accuracy) of Automated Liquid Handling Systems (ALHS)".

## Accessories and Tools

96 channel CyBio SELMA	8 channel magazine	Tip magazine for 8 tips, for column-wise transfers such as serial dilutions. Available for all CyBio SELMA 96 versions.	
	Microplate adapter 384	Adapter for filling of 384 well microplates in 4 steps with CyBio SELMA 96 (in quadrants). Not suitable for usage with CyBio SELMA 96/1000 µL.	
384 channel CyBio SELMA	16 channel magazine	Tip magazine for 16 tips, for column-wise transfers such as serial dilutions with CyBio SELMA 384/25 µL and CyBio SELMA 384/60 µL.	
96 channel and 384 channel CyBio SELMA	Tip magazine	The reusable metal tip magazine is perfectly suited for long term usage of tips. This magazine can be either filled with bulk tips or with tips out of a CyBio TipTray using a tip transfer tool.	
	Tip transfer tool	Tip transfer tool for transferring CyBio tips out of a CyBio TipTray 96 or 384.	



# Your Partner in Service

Our highly trained and motivated service staff ensures less downtime with yearly preventive maintenance and calibration visits. We offer operator training and application support on-site and at our facilities.



We set standards in product innovation.

We care about YOUR success.

Our service is committed to excellence.

## Your benefits

- Service hotline
- Worldwide service network
- Trained field service engineers
- 24-48 hour on-site service response\*

Contact our local service centers for more information

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\*Based on service contracts

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