# **Destination Lab Automation**

Experience the variety of automation using excellent liquid handling





# **Automated Liquid Handling**

Analytik Jena´s CyBio liquid handling systems perfectly fit your daily pipetting routines due to their easy handling and fast processing. Their small footprint allows easy integration into every laboratory. CyBio products provide high quality liquid handling technologies with the highest reputation for precision and reliability. The product portfolio ranges from entry-level up to fully automated robotic systems tailored to your needs. With CyBio liquid handling systems, you will save time, increase accuracy and avoid contaminations!

# Pipetting head technology

Well proven pipetting heads with air displacement quarantee for best pipetting results - every time

# Tip sealing technology

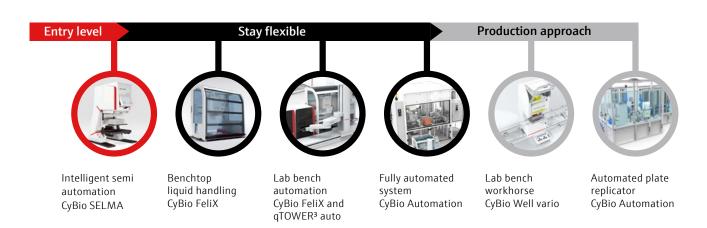
Perfectly sealed tips with support of CyBio TipTrays and an elastomer mat for highest precision and reliability

# CHOICE™ technology

Unique volume range from  $1 - 1000 \mu l$  for different formats in one pipetting head

# Precise positioning of microplates

Lifter system or head drive with precise XYZ movements ensures exact positioning of the tips in the microplates



# **Application Fields**







# Drug discovery

- Compound handling
- Hit picking
- Sample pooling
- Serial dilution
- Reformatting
- Replication

## Cells

- ADME/Tox
- Media exchange
- Cell seeding
- Transfection
- Cell-based screening

# Genomics

- DNA/RNA extraction
- PCR and qPCR set-up
- NGS sample preparation
- Gene assembly
- Mag bead clean-up
- Normalization
- RNAi

## Assays

- HTRF®
- ELISA
- FRET
- FP

# CyBio SELMA

# Fast and precise semi-automatic 96- or 384-fold pipettor



#### Accelerate your pipetting performance

- Fast and precise processing of 96- and 384well microplates
- Easy and fast tip changing with ready to use CyBio TipTrays

#### Simplify your pipetting tasks

- Easy and intuitive handling via touch screen without the need for programming
- Simple saving and loading of pipetting protocols

#### Use your lab space smartly

• Small footprint 307 x 325 mm (W x D)

#### Trust your results

 Error-free and reproducible results due to 96 or 384 parallel pistons and proven "tip sealing" technology

Heads	96- or 384-channel pipetting heads
Volume range	1 μΙ – 1000 μΙ *
Working positions	2
Dimensions (W x H x D)	307 x 480 x 325 mm

# CyBio FeliX

# Automated, single to multichannel pipettor



# Liberate yourself from work intense manual pipetting

- Fully automated pipetting in different formats and integrated tool and tip exchange
- Processing of whole microplates, columns, rows and single wells

#### Use your lab space smartly

 Ultra-compact design fitting on standard lab bench

#### Extend your experimental possibilities

 Numerous applications: plate replication, preparation of reaction set-ups for PCR and Next Generation Sequencing, ELISA and serial dilution

## Feel safe with your robot

- Precise motion and accurate plate placement
- Full accessibility and integrated devices with maximum safety

#### Embrace new discoveries

 The modular concept of CyBio FeliX enables customized configurations for a wide variety of applications and can be adapted at any time to changing requirements

### Start your applications in a blink

 An ergonomic and lucid designed user front-end allows easy and efficient start of predefined or user defined applications

#### **Build your own applications**

 A powerful graphical scripting environment allows access to every detail of CyBio FeliX's stunning functionality

#### Keep in step with the times

 Optional integration of various external devices like shaking and heating adapters

Heads	CHOICE™ heads	Robotic heads
	For single wells, column- and row-wise pipetting in 96- and 384-well format	96- and 384-channel heads for single wells, column-wise, row-wise and parallel pipetting in 96- or 384-well format
Volume range	1 µl – 1000 µl *	
Working positions	12	
Dimensions (W x H x D)	650 x 698 x 450 mm **	

# Ready to use solution for nucleic acid extraction on CyBio FeliX

## Automated SmartExtraction - we change the way to prep

SmartExtraction is Analytik Jena's innovative technology for extracting high molecular weight DNA. This technology significantly simplifies the automated DNA extraction by avoiding long centrifugation and filtering procedures. Instead, the entire process is reduced to fewer pipetting and incubation steps. In addition, pre-filled and sealed reagent labware make the handling easier. SmartExtraction on CyBio FeliX makes the automated isolation of nucleic acids a fast and efficient procedure. The increasing demands on automated liquid handling solutions can be met with our compact system.

The automated protocol has been designed with a standard deck layout and the application workflows are embedded in a ready-to-use graphical user interface.

The flexible automation solution contributes to reproducibility of the results and increases the efficiency of lab processes. Automated extraction of DNA for downstream processes leads to simple, parallel preparation of samples with minimum effort and maximum consistency. In addition, the CyBio FeliX can also be used for other downstream routine liquid handling tasks.

## Automated magnetic particle based extraction

Analytik Jena offers a variety of different nucleic acid extraction kits for the CyBio FeliX liquid handling system. The principle of the extraction is based on nucleic acid binding to magnetic particles. This optimized process leads to high yields with high purity and ensures a final product that is free of proteins, nucleases or other contaminants.

The automated system operates all pipetting and mixing steps, including those that take place during the routine.



# CyBio Well vario

# Automated, simultaneous pipetting platform with a series of interchangeable pipetting heads



#### Stay precise while being flexible

- Powerful platform with a wide range of configuration opportunities
- Extensive volume range due to interchangeable pipetting heads
- Advanced capillary technology for reliable nanoliter pipetting
- A working volume range allows liquid transfers from 50 nl up to 250 µl on one platform

#### Use your reagents cost-effectively

 Saves reagent costs with accurate nanolitre pipetting

#### Automate depending on your needs

 Powerful graphical scripting environment allows access to every aspect of this reliable and flexible liquid handling robot

Heads	96-, 384- or 1536-channel pipetting heads
Volume range	50 nl – 250 μl *
Working positions	3 up to 10
Dimensions (W x H x D)	284 x 795 x 370 (without plate moving assembly)

# CyBio QuadStack

# Compact and flexible microplate storage with four stacks



#### Be flexible and secure

- The ergonomic design allows a comfortable loading and unloading of microplates
- Three different stack heights and different access modules for versatile operation possibilities

#### Push your throughput limits

• Plate presentation in only 2 s

#### Save valuable lab space

Small footprint with a capacity of up to 260 plates

Footprint (W x D)	370 x 380 mm	
Stack heights	265, 555, 755 mm**	
Capacity	up to 260 microplates (shallow wells)	

# CyBio QuadPrint

# Compact, high speed and precise barcode label printer



#### Stay flexible in plate orientation

Flexible labeling on all four sides of the microplate

## Avoid laborious manual adjustment

- Automatically adjustable label height
- Direct transfer from stack to label position

## Just print your barcodes

- A well designed user front-end allows easy and efficient barcode definition and printing
- Your data can be linked into this application to create linear or 2D barcodes that you need

Weight	~ 75 kg
Plate capacity	126, 174 (shallow wells) **
Speed (including plate handling)	< 20 sec for labeling 4 sides
Footprint (W x D)	1560 x 460 mm
Height	966.5, 1166.5 mm**

# For Your Individual Systems and Closed Applications

# **Automation solution**

Depending on your application needs and degree of automation, we are happy to consult with you to choose the most appropriate format from a range of different integration concepts.

Whether you need small-scale benchtop integration or a multi-assay system completely enclosed in an air-conditioned biosafety cabinet, Analytik Jena helps to maximize your productivity at every level.

Take advantage of more than 25 years experience in Lab Automation either in realizing fully new approaches or applying an already established solution.



qPCR (1)	The fully automated qPCR system is based on the high performance qTOWER <sup>3</sup> auto real time PCR cycler and includes enhanced sample preparation and automated sealing. It applies a smart robotic integration and allows for an ultracompact design fitting on a standard lab bench.
MALDI-TOF (2)	Accelerated and advanced sample preparation to accomplish the demands of the new standard for ultra-HTS 'Hit' Identification on Brukers rapifleX MALDI PharmaPulse.  The automated system covers the whole process from matrix and sample transfer to the MS reader, including features such as "On target washing" – desalting or active drying. Combining the speed, homogeneity and high density of Analytik Jena's unique 1536 channel pipettor technology with Bruker's rapifleX MALDI PharmaPulse delivers unprecedented screening capability for HTS biochemical assays.
SynBio (3)	Based on broad experiences in academic and industrial laboratory automation for synthetic biology, Analytik Jena provides solutions for specific topics such as automated characterization platforms as well as fully integrated systems. The combination of Analytik Jena's liquid handling technology with state-of-the-art robot arms, flexible docking solutions for exchangeable instrumentation, optionally sterility enclosures and powerful software packages including the integration of the latest scientific instrumentation, allows for future proof integrated solutions.

# CyBio Software

Our software packages which are designed and optimized for specific use ensure perfect integration of our instrument into your laboratory.

# CyBio Application Studio



Whether single instrument or small integration this ergonomic and lucid designed software allows easy and efficient start of predefined applications. These are some of its impressive features:

- Start your application in a blink
- Fit perfectly to touch screens (e.g. mounted on CyBio FeliX) as well as desktop PCs
- Create your own style (colors, pictures, fonts ...)

# CyBio Overture



The software allows easy and timeeffective translation of manual processes into the "language" of liquid handling instruments. Here are some of its outstanding features:

- Simplify your workflow by smart color identification
- Let your software calculate volumes and concentrations for you
- Visualize your process by 2D & 3D view

# CyBio Composer



This powerful graphical scripting environment allows access to every aspect of our reliable and flexible instruments. We ensure implementation of Analytik Jena and third party devices for your solution.

- Control single instruments or small scale workstations
- 21 CFR Part 11 compliant implementation allows the usage also in regulated environments

## CyBio Scheduler



This software simplifies the workflow and data management from small scale to complex workstations in time-effective manner:

- · Time and throughput optimized workflow execution
- Flexible automatic or interactive multi-tier error handling
- Multi-faceted interfaces with your LIMS, databases or other data sources
- Online status visualization provides detailed labware and process status information

# **Consumables**

## CyBio Tips

- Designed for perfect interaction with the instrument
- Tip Sealing Technology perfectly sealed tips with support of CyBio TipTrays and an elastomer mat for highest precision and reliability
- Extremely smooth tip surface yields a very low retention volume
- High straightness and constancy of tip lengths allow for pipetting smallest volumes into pre-filled and dry microplates

Types ***	Description	Usage
CyBio TipTrays	For highly parallel pipetting in 96- and 384-well format with semi-automatic tip exchange	CyBio SELMA, CyBio Well vario
CyBio RoboTipTrays	For highly parallel pipetting in 96- and 384-well format with automatic tip exchange	CyBio FeliX
CyBio TipRacks	For single well, 8-channel column and 12-channel row pipetting	CyBio FeliX
CyBio TipBoxes	For single well, 8- and 16-channel column and 12- and 24-channel row pipetting	CyBio FeliX

# **Service**

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



We care about your success.

We set the standard in Product Innovation.

Our highly skilled service staff is committed to excellence.

#### Your benefits

- Software upgrades with installation and training
- Online and phone support
- Worldwide service network
- Factory trained field service engineers
- 24-48 hour on-site service response\*

#### Just call our service team

Service contact Germany, Austria, Switzerland:

- **+**49 3641 77 9449
- service.cybio@analytik-jena.de

## Service contact in the USA:

- **+**1 781 376 9899
- service.usa@analytik-jena.com

\*Based on service contracts

## Service contact in the UK:

- +44 162 266 2118
- cybio.ne@analytik-jena.com

# Worldwide partners

Analytik Jena's contact partners are available for you worldwide on-site.



## Headquarters

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