

# BioVendor Instruments

## *Array Reader C-series*



- MICROBIOLOGY, IMMUNOLOGY & SEROLOGY
- BIOLOGICAL & PHARMACEUTICAL RESEARCH
- RESEARCH & DEVELOPMENT





## ARRAY READER C-SERIES

The BioVendor Instruments' Array Reader C-series is a high quality array reader for colourimetric applications. The instrument is designed to analyse microarray multiplex assays within each well, and can also perform analysis of information in the whole well. The hardware is designed and optimized for standard SBS microtiter plate format with 96 wells.

## APPLICATIONS

- › Multiplex Antibody Determination (Immunology & Infectious diseases)
- › Planar Array Multiplex Immunometry
- › Biological Research & Drug Discovery
- › Microbiology (well colour change)
- › DNA/Oligo/Array

## KEY FEATURES

- › 5 MPx (up to 13 MPx) CMOS colour camera
- › Fast reading, approx. 2 minutes/plate
- › Visible (White) LED lighting systems
- › Lighting from the top (opaque wells), from the bottom (transparent wells)
- › Reading of all or just selected wells and/or strips
- › Optional camera adjustment (sharpness, exposure time, and gain) for optimal image quality
- › Automated grid layout, spot/well localisation, and image analysis with manual control

## OPEN SYSTEM

- › Modular software for various types of analysis
- › Easy-to-use and automated module for kit consumers
- › Special, flexible and complex module for kit producers
- › Application available in 32bit and 64bit software package
- › Possibility to add new features when required by customers

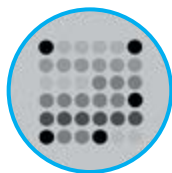
## SOFTWARE SPECIFICATIONS

- › Customised assay layout format
- › Optional manual control of grid fitting
- › Optional manual control of spot localisation
- › Detailed comparison of wells/spots results
- › Complex image analysis, evaluation, reporting
- › Importing of GAL/XML files with settings
- › Exporting to various file formats and different databases (Embedded DB/Database servers)

# Examples & Features

## EXAMPLES

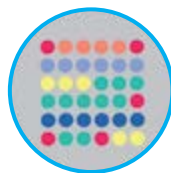
- Assay Analysis
- Whole Well Analysis



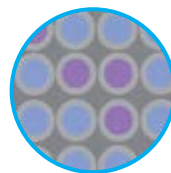
Grey scale spots



One colour scale



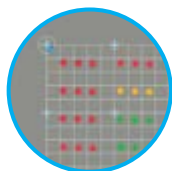
Full colour scale



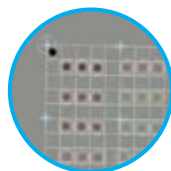
Well colour change & background

## FEATURES

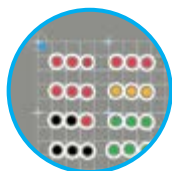
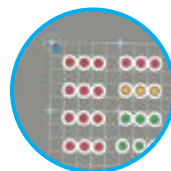
- Automatic Spot Localisation with Optional Manual Control
- Automatic Grid Layout with Optional Manual Control
- Multiplet Spot Analysis



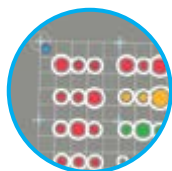
Spot localisation, fill/contour indication



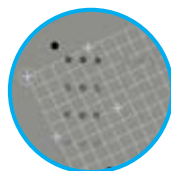
Spot localisation with offset and background



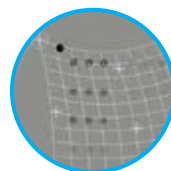
Analysis spot exclusion



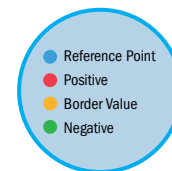
Variable spot/background size



Grid layout rotation



Grid layout deformation



Final diagnosis and results



## We are our own customers

Research and development of the array reader system is based on requirements identified in our own laboratory. The needs of laboratory employees are carefully analysed and transformed into software development requirements. At the end of the implementation process, the system is deployed in our laboratory for testing and validation by professional immunologists.



## Custom-tailored system, OEM

We are able to better meet the unique characteristics and needs of our customers' laboratories. Thanks to the modularity and flexibility of our system, we are able to produce fully customised solutions for every laboratory, and every customer. Do you need to work with other types of information, other software features, or produce customised reports? We are not afraid of new, challenging and complex tasks.



## Validation and testing process

Our team of researchers, analysts, and developers, in cooperation with specialists from serological and immunological laboratories, have created a training database of millions of spots. The database is still growing and is properly annotated, allowing trusted validation of image analysis.



## Our algorithms are always up to date

We are committed to ensuring the seamless integration of our products into your laboratory. Engineers working in our software laboratory, in cooperation with University Centres of Excellence, are continually improving the software to improve user ergonomics, automated image processing, and analysis. We provide customer care from the moment of delivery and initial training, through to its final recycling, along with maintenance and updates throughout the lifetime of the product.

## TECHNICAL SPECIFICATIONS

<b>Array Reader C-series</b>	
Camera sensor	CMOS
Camera resolution	5 MPx (up to 13 MPx)
Camera focus pane	1 - 20 mm
Camera pixel values	Greyscale/Colour values
Lighting technology	Long life LED, White
Lighting system	Top (reflected), Bottom (transmitted)
Measuring time per plate	Approx. 2 minutes
PC connection	USB 2.0 / USB 3.0 compatible
Operating temperature	+5 to +40°C
Power input	110 - 230 V, 50/60 Hz
Power consumption	15 - 25 W
Dimensions	250 x 230 x 400 mm
Weight	16 kg
<b>PC All-in-One</b>	<b>Minimal System Requirements</b>
CPU	Intel Pentium/Core i3/Core i5
RAM	DDR3, 4 - 8 GB
HDD	500 - 1000 GB
USB	3x USB 2.0; 2 x USB 3.0
Display	23", 1920 x 1080 (Touch)
Operating System	Windows 7 and higher
Power Consumption	150 W
Dimensions	564 x 444 x 53 mm, Touchscreen 23"
Weight	6.7 kg
<b>High quality photo printer</b>	<b>On demand</b>
<b>Built-in Bar/QR code reader</b>	<b>On demand</b>

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