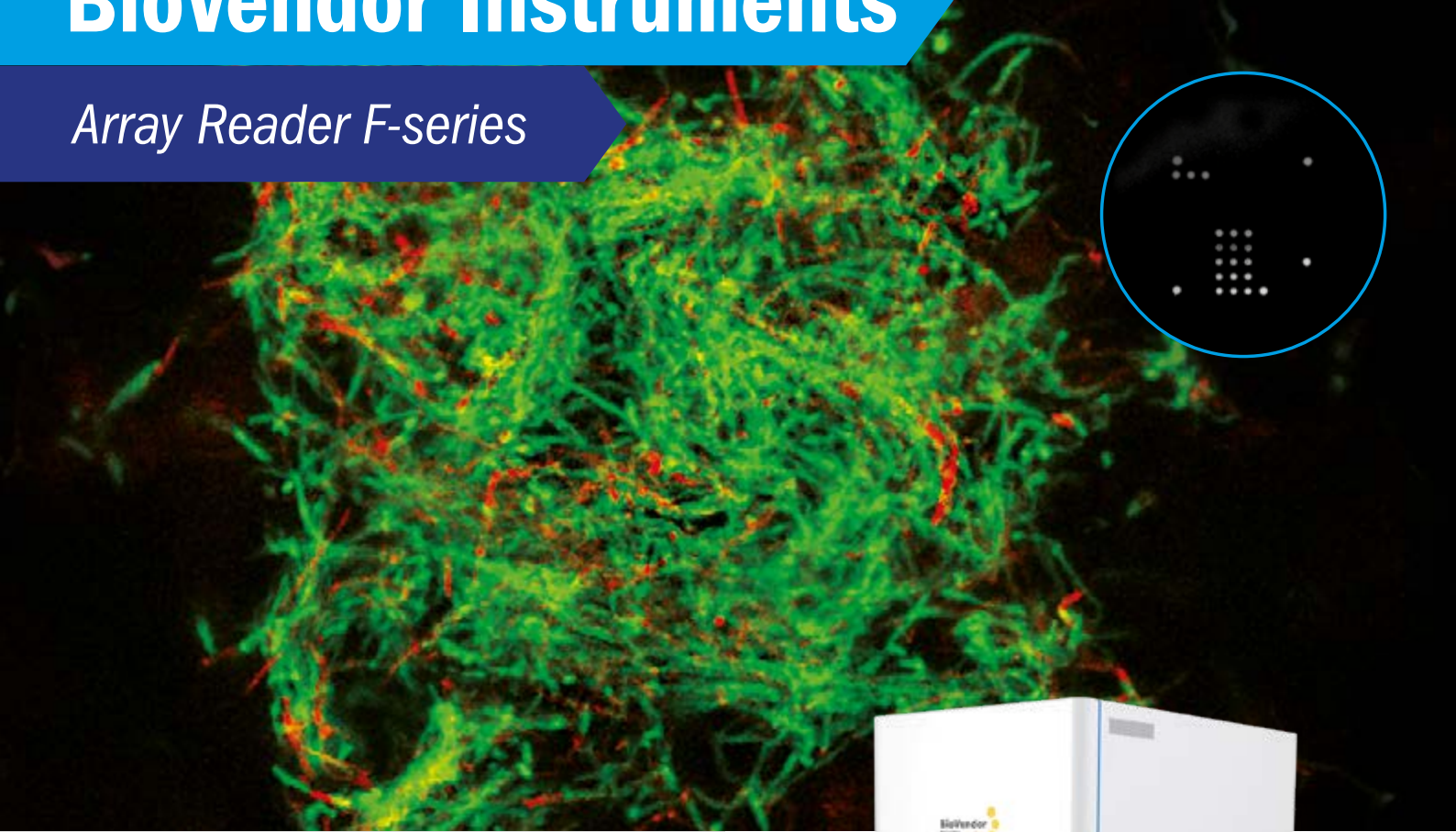


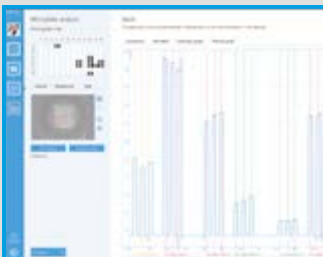
BioVendor Instruments

Array Reader F-series



- MICROBIOLOGY, IMMUNOLOGY & SEROLOGY
- BIOLOGICAL & PHARMACEUTICAL RESEARCH
- ONCOLOGY, GENETICS, IVF





ARRAY READER F-SERIES

The BioVendor Instruments' Array Reader F-series is a high quality array reader for fluorescent 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 intensity change)
- › DNA/Oligo/Array

KEY FEATURES

- › High-quality 2.3 Mpx CMOS camera
- › Fast reading, approx. 2 minutes/plate
- › Special LED lighting systems
- › Up to 3 fluorescent channels
- › Bottom lighting for bar/qr code reading
- › 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)

Configurations & Features

EXAMPLES

1st channel

- AlexaFluor 488 (490/525 nm)
- Coumarine 6 (443/494 nm)
- FITC (490/525 nm)

2nd channel

- AlexaFluor 555 (555/580 nm)
- Cy3 (550/570 nm)
- Rhodamine 6G (528/551 nm)
- TAMRA (555/580 nm)

3rd channel

- AlexaFluor 647 (650/665 nm)
- Atto 647N (645/669 nm)
- Cy5 (650/670 nm)

- Illustrative Configurations
- Create your own

Green fluorescent dyes

Yellow fluorescent dyes

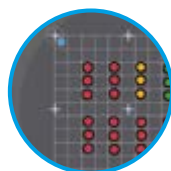
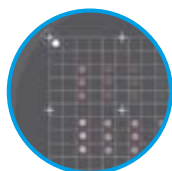
Red fluorescent dyes

FEATURES

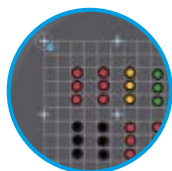
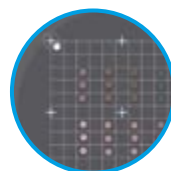
- Automatic Spot Localisation with Optional Manual Control
- Automatic Grid Layout with Optional Manual Control
- Multiplet Spot Analysis



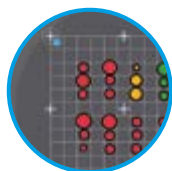
Spot localisation, fill/contour indication



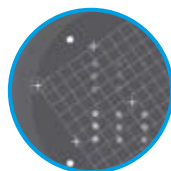
Spot localisation with offset and background



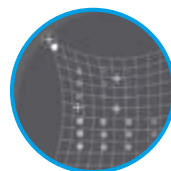
Analysis spot exclusion



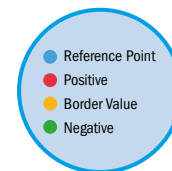
Variable spot/background size



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

Array Reader F-series	
Camera sensor	CMOS Sony Pregius
Camera resolution	2,3 Mpx (1920 x 1200 px)
Camera focus pane	1 - 20 mm
Camera pixel values	Greyscale
Lighting technology	Special LEDs with specific wavelengths
Lighting system	Epifluorescence – Specific Configuration (Up to 3 channels) Bottom White LED (only for bar/qr code reading)
Measuring time per plate	Approx. 2 minutes
PC connection	USB 3.0
Operating temperature	+5 to +40 °C
Power input	110 - 230 V, 50/60 Hz
Power consumption	15 - 25 W
Dimensions	250 x 350 x 400 mm
Weight	19 kg
PC All-in-One	Recommended Minimum System Requirements
CPU	Intel Core i5 or equivalent
RAM	8 GB
HDD	1 TB
USB	2x USB 2.0, 1x 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
Weight	6.7 kg
High quality photo printer	On demand
Built-in Bar/QR code reader	On demand

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