# Data Sheet

SensoSpot FLUORESCENCE

Sensovation Smart Imaging Solutions

## SensoSpot® Fluorescence
### Low Density Microarray Analyzer

## The Power of Multiplexing

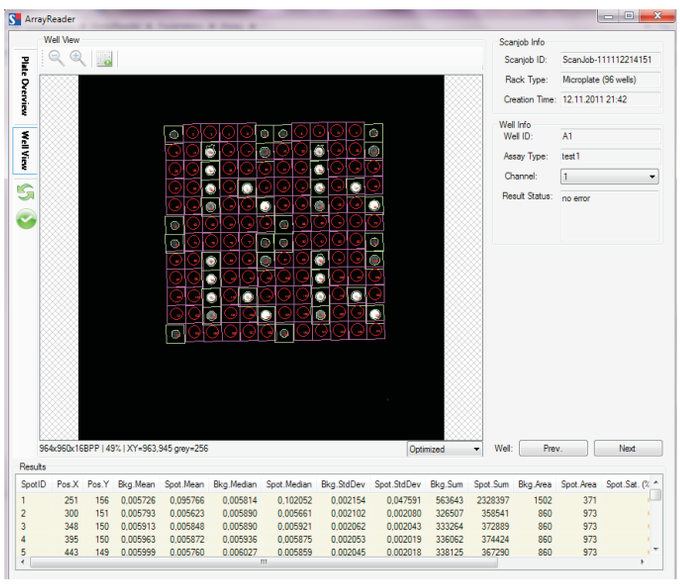
Multiplexing saves time, reagents, and sample. Sensovation's **SensoSpot® Fluorescence** Array Reader enables users to detect and analyze many assays in each well of a 96-well-plate, multiplexed arrays on slides or proprietary formats. **SensoSpot® Fluorescence** is designed to read low density microarrays with spot sizes of 50µm and larger. **SensoSpot® Fluorescence** is ideally suited for multiplexed ELISAs and genotyping assays and is easily integrated with standard laboratory automation.

Sensovation's Fluorescent Array Reader is an innovative detection instrument capable of reading multiplexed arrays in a variety of formats. **SensoSpot®** is user-friendly and especially designed for routine use in diagnostic and biochemical analysis.

**SensoSpot® Fluorescence** provides the same functionality as a confocal, laser-based microarray scanner but at a fraction of the cost.

**SensoSpot® Fluorescence** is available in three different versions:

- Blue/red for dyes such as FITC / Alexa 488 and Cy5 / Alexa 647
- Green/red for dyes such as Cy3 and Cy5 / Alexa 647
- 3-color version: blue/green/red for all above mentioned dyes




*Screenshot from Array Reader software. "Well-view" showing a fluorescent microarray image acquired by **SensoSpot® Fluorescence**. The array analysis is based on automatic spot detection using outline feature. The spot intensities and other measurement data are listed together with statistical parameters in the result table.*

**SensoSpot® Fluorescence** is a fully integrated, standalone instrument with touchscreen and built-in PC. The instrument comes standard with ArrayReader Software, a powerful and intelligent "on-board" instrument control and array analysis software. The microarrays are analyzed in real-time, right during measurement. Intelligent spot-tracking algorithms assure that each spot is found and analyzed, based on spot shape and spot size.

**SensoSpot® Fluorescence** reads and analyzes 96 microarrays in a standard SBS microplate within less than 3 minutes. No lasers are used, no moving parts in the optical system. The imaging areas can be programmed freely on the tray which has the footprint of a SBS microplate (85mm x 125mm). On this footprint you can analyze 96-well or 384-well plates. Alternatively you can analyze up to 4 slides in parallel using Sensovation's 4-slide carrier or any application-specific biochip format.

This instrument concept is unique in the industry - with obvious advantages: A compact and rugged instrument at affordable cost, providing fast result presentation with highest sampling flexibility, ideal for routine diagnostic applications.

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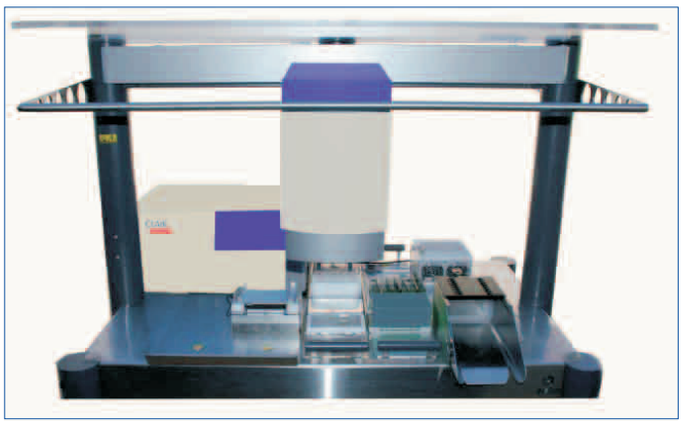

***SensoSpot***® *is robot friendly. The instrument can be integrated into liquid handling stations for full automation of multiplexed assays.*

## Features and Benefits

- Standalone instrument with touchscreen and PC
- Powerful on-board array analysis software
- Up to 3 fluorescent channels
- Compact, robust, affordable
- Automated spot analysis
- Multi-format: 96-well plates, slides, biochips
- Easy integration with liquid handling systems
- ISO 9001 / 13485 certified

## Multiplexed Detection & Analysis

**SensoSpot Fluorescence**® is suited for a variety of applications:

- Immunoassays
- Gene expression
- Protein arrays

Ideal for studying and diagnosing multifactorial diseases such as:

- Infectious diseases
- Autoimmune diseases
- Allergy

## Specifications

| | | |
|---|---|---|
| **Imaging system** | | |
| Resolution on the sample: | 6.7 µm | |
| Camera pixel resolution: | 1296 x 964 full resolution | |
| Scan time for complete 96-well plate: | <3 min. + integration time | |
| Excitation: | High Power LED, typ. 60mW | |
| Excitation wavelength: | | |
| SensoSpot blue/red | 434 – 513nm; 586 – 643nm | |
| SensoSpot green/red | 493 – 544nm; 609 – 645nm | |
| SensoSpot blue/green/red | 414 – 480nm; 523 – 542nm; 628 – 637nm | |
| Emission Detection Wavelength: | | |
| SensoSpot blue/red | 524 – 562nm; 655 – 692nm | |
| SensoSpot green/red | 563 – 590nm; 665 – 717nm | |
| SensoSpot blue/green/red | 493 – 518nm; 560 – 608nm; 654 – 720nm | |
| Sample holder: | Supports SBS format Microplates. With flat glass bottom, designed for microarrays. Focus plane is between 1mm and 10mm above the seating plane of the microplate. | |
| **Dimensions and weight** | | |
| Mechanical dimensions: | Width | 440 mm |
| | Depth | 340 mm |
| | Height | 210 mm |
| Weight (without touch screen) | 15 Kg | |
| **Environmental** | | |
| Operating temperature | +15 to +35 degrees Celsius | |
| Relative humidity | 10 to 75 % non-condensing | |
| Storage temperature | +5 to +40 degrees Celsius | |
| **Electrical** | | |
| AC input | 100-240V, 47-63 Hz | |
| Input power | max. 150W | |
| Monitor supply output | 12DVI max. 2,5A | |
| **Result data** | | |
| Image storage format | 16-bit TIFF grayscale | |
| Results storage format | CSV spreadsheet, XML files | |
| **Touch screen monitor** | | |
| Touchscreen type | Resistive | |
| Resolution | 800x600 pixel | |

***SensoSpot*® *Fluorescence*** is a generic imaging reader, independent of application. The customer is informed that the use of this product in combination with third party intellectual property may have implications according to patent law.



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