ACCURIS INSTRUMENTS

SMARTREADER™ UV-Vis

Flexibility For a Wide Range of Absorbance Assays

Monochromator Based System

UV-Vis Absorbance

Accepts 96 & 384-Well Plates

- *Intuitive, 10-inch color touch screen panel*
- *Stand-alone system with optional PC software (21 CFR Part 11)*
- *Perform Endpoint, Kinetic, & Spectral measurements*
- *Monochromator-based system (200 - 1000nm)*
- *Optional SmartDrop™ Accessory Plate for microvolume analysis of nucleic acids and proteins.*
- *MR9611 model includes cuvette port for cuvette measurements*

SMARTREADER™ UV-VIS

The Accuris *SmartReader™ UV-Vis* Microplate Reader (models MR9610/MR9611) has been designed with ease-of-use and fast results in mind. This instrument brings extensive capabilities to the lab bench and is designed for the busy lab with multiple users. The large touch screen command center is extremely user-friendly and allows for fast set up of new protocols, as well as modifying and running existing protocols.

Monochromator Technology

Utilizing an advanced monochromator and a long-life, broad-spectrum xenon flash bulb, the *SmartReader UV-Vis* can produce incident light at user-selected wavelengths from 200 to 1000 nm in 1 nm steps. A full 96 well plate can be read in only 15 seconds. The kinetic assay feature can be used to perform multiple reading over set periods of time, and the user can fully control programming the reading intervals. Using the optional SmartDrop™ plate allows UV absorbance (260/280nm ratio) evaluation of nucleic acids samples. Model MR9611 features a cuvette port for cuvette measurements from 200 - 1000nm. Other common applications for the absorbance function include:

- ELISA Assays
- Colorimetric Assays
- Spectral scanning
- Kinetic Assays

High Throughput Capabilities

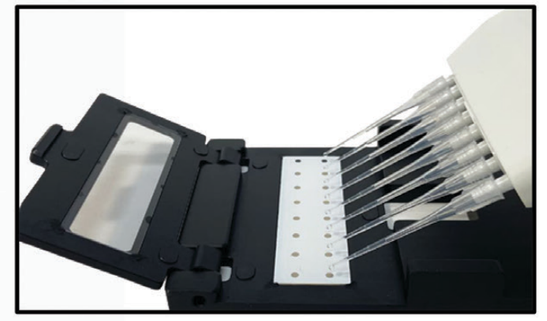
The MR9610 is designed for efficient processing of multiple samples and accepts standard 96 well plates as well as 384 well plates for high density screening (MR9611 includes cuvette port). The plate layout interface allows for a quick and intuitive setup of a plate well's contents. Users can highlight and label multiple wells to save time. The display shows a graphical representation of the plate. Users can label each well as required for: "known standard", "unknown sample", "blank well" , "QC Control well", "positive control", "negative control", and "empty".

Optimized Results with Plate Shaking & Incubation

Controllable plate shaking and incubation allow for optimization of assay results. The shaking speed can be controlled at different intensities with options for timed and pulsed shaking before a reading, or in between readings when performing a kinetic assay. The linear motion efficiently and uniformly mixes all samples in both 96 and 384 well plates. Temperature can be controlled from ambient +5ºC up to 45ºC, allowing for the processing of enzyme kinetics, and bacterial growth assays.

SmartDrop™ Accessory Plate

Absorbance measurements of exceptionally small volumes (<0.5ul) can be achieved using the SmartDrop™ Accessory Plate. The SmartDrop™ plate accommodates up to 16 samples and is ideal for checking nucleic acid concentrations and purity for Next Gen Sequencing, or protein concentrations.



***SmartDrop*™ Accessory Plate**

96-well Plate Layout Screen

96-well Reading Result Screen

Cuvette port, available on MR9611 model

Monochromator

Thermal Printer Available

PC Software Available

Touchscreen

10 in. Color Display

Data Transfer via USB

SmartReader™ UV-Vis Specifications

Model	MR9610 / MR9611
Plates Accepted	96 & 384-well microplates (MR9611 includes cuvette port
Display	10.0-inch color touch screen
Controls	Built-in touch screen for programming & operation
Light Source	High Energy Xenon Flash Lamp
Wavelength Range	200-1000 nm in 1 nm steps
Wavelength Precision	±0.2 nm
Wavelength Selection	Monochromator
Absorbance Range	0.0 - 4.0 OD
Bandwidth	< 2.5 nm
Detector	Dual silicon photoelectric detectors for measurement and reference
Linearity @ 450 nm	$R^2 \geq 0$ .999 (0.0 – 3.0 Abs)
Accuracy @ 450 nm	Accuracy @450nm 1.0% + 0.003 Abs (0 - 2.0 Abs); 2.0% [2.0 - 2.5 Abs)
Precision @ 450 nm	CV < 0.5% in precise mode CV < 1.0% fast mode
Measurement Speed	96 well plate: <8 seconds (fast mode); <28 seconds (precision mode) 384 well plate: <74 seconds (only precise mode available for 384)
Plate Shaking	Linear; three options: (16.8Hz, 1mm), (6.68Hz, 3mm), (2.44Hz, 15mm)
Incubation	From ambient + 5°C to 45°C
Communication Ports	1 B-type USB port for PC connection 1 Ethernet port 2 A-type USB ports for mouse and printer connections
Power Supply	Included power adapter: DC24V 6.67A, AC 100V-240V
Dimensions(W×D×H)	300×500×260mm / 11.8 x 19.7 x 10.25 inches
Weight	15.5kg / 34 Lbs.

Ordering Information

Cat. No	Description
MR9610*	SmartReader™ UV-Vis Microplate Absorbance Reader, 115V
MR9611*	SmartReader™ UV-Vis Microplate Absorbance Reader with cuvette port, 115V
MR9610-SDP	SmartDrop™ Accessory Plate
MR9610-PC	SmartReader™ PC Software for MR9610
MR9610-CFR	SmartReader™ PC Security Software (21 CFR Part 11 Compliant)
MR9600-TP	Thermal printer for MR9600/MR9610/MR9611
MR9600-PA	Extra paper rolls for MR9600-TP printer, pk/4

* Use part number "-E" to indicate 240V input and specify required plug type.