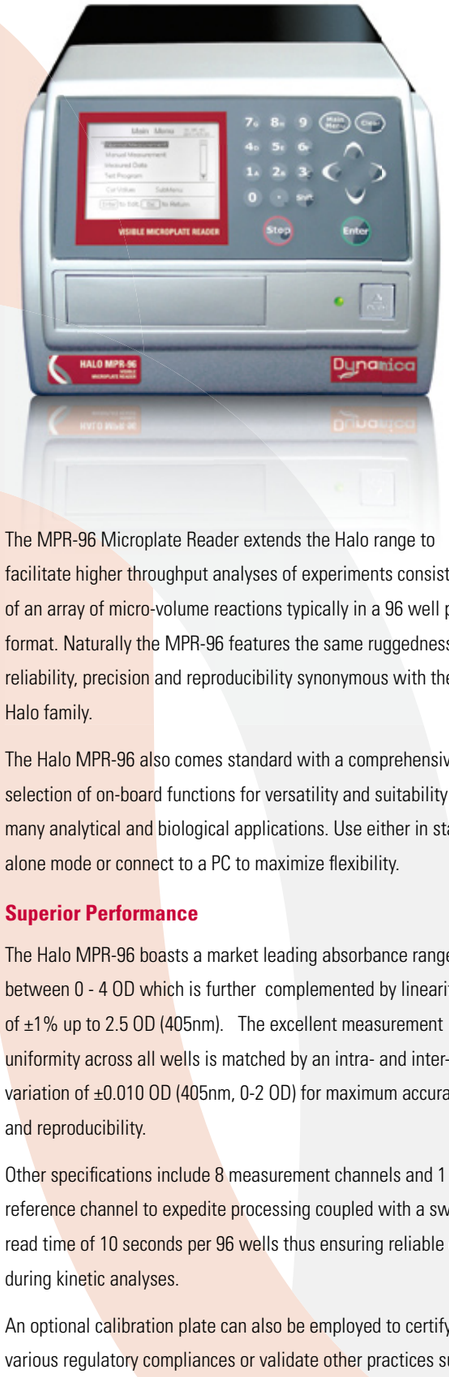
Halo MPR-96

Visible Microplate Reader



The MPR-96 Microplate Reader extends the Halo range to facilitate higher throughput analyses of experiments consisting of an array of micro-volume reactions typically in a 96 well plate format. Naturally the MPR-96 features the same ruggedness, reliability, precision and reproducibility synonymous with the Halo family.

The Halo MPR-96 also comes standard with a comprehensive selection of on-board functions for versatility and suitability to many analytical and biological applications. Use either in stand alone mode or connect to a PC to maximize flexibility.

Superior Performance

The Halo MPR-96 boasts a market leading absorbance range between 0 - 4 OD which is further complemented by linearity of ±1% up to 2.5 OD (405nm). The excellent measurement uniformity across all wells is matched by an intra- and inter-plate variation of ±0.010 OD (405nm, 0-2 OD) for maximum accuracy and reproducibility.

Other specifications include 8 measurement channels and 1 reference channel to expedite processing coupled with a swift read time of 10 seconds per 96 wells thus ensuring reliable data during kinetic analyses.

An optional calibration plate can also be employed to certify various regulatory compliances or validate other practices such as precision assurance.

Exceptional Wavelength Range

The flexible filter based system allows for measurements within a spectrum range from 400nm through to a maximum of 750nm. Model MPR-96UV extends the measurement to 340nm UV range.

Additionally, the large selection of interference filters caters for the most common and critical wavelengths. Up to 5 interference filters can be mounted on the carousel which is easily accessible for effortless and quick replacement of filters if the need arises.

Versatile by Nature

The exceptional capability of the Halo MPR-96 imparts the flexibility to perform the simplest of functions such as the generation of raw data and qualitative evaluations through to more complex functions involving kinetics and curve fits (select from linear, point to point, quadric, cubic or logistic types).

The Halo MPR-96 accepts 96 well microplates in flat bottom as well as U and V shaped configurations. The unit can also be automated for high throughput by integrating compatible robotic handling systems.

Diverse Range of Measurement Modes

Select from 'Fast' mode when quick measurement is required (for example screening applications) to 'Accurate' mode when high resolution is necessary.

Other modes include:

> 'Centre Measurement' to detect small samples with a non-linear surface.

> Single or dual wavelengths.

> Plate shaking (4 speeds, linear motion) before measurement or in-between cycles (for example during kinetic analyses).

User Friendly Operation and Information Rich LCD Display

The 90mm x 68mm, backlit LCD screen with adjustable brightness control is sufficiently large to display a comprehensive array of data even in a graphical format, for example up to 48 wells i.e. half of a 96 well plate can be displayed concurrently with the added capability to zoom in on specific data points. Other displayed parameters in addition to measurement results include operation prompts, plate layout and historical data.

The seamless and chemical resistant keypad is designed for easy and quick selection of the navigation and function features when in stand alone mode whilst simultaneously protecting against any laboratory spills.

Validation Functions

To ensure optimum instrument performance, a self-diagnostic function incorporating a number of parameters is executed each time the Halo MPR-96 is switched on.

Stand Alone or PC Operation

The Halo MPR-96 is fully equipped and capable of executing all functions in stand alone mode. Simply connect a compatible printer to the USB port for the direct printout of plate data, reports and graphs (please visit our website for updated list of printers). For more advanced functions, analyses and reporting, the Halo MPR-96 can also be connected via USB ports to a PC (preferred with Windows® XP™ Pro or above operating system) for direct control with the optional software.

On-Board Storage Data

The Halo MPR-96 (in stand alone mode) boasts on-board flash memory for the storage of up to 30 test programs and up to 50 sets of plate measurement data. Programs and measurement data can easily be recalled, edited and deleted. Furthermore, plate measurement data can be readily downloaded to USB2.0 supported external memory devices (for example memory sticks or external hard-disks) for transfer and further processing to a computer supporting commercial spreadsheets (such as Microsoft® Excel™).

Temperature Control

The optional peltier regulated module allows for temperature control within a range of ambient +4°C to +50°C (±0.5°C precision) with excellent temperature uniformity among wells and is suitable for applications requiring incubation and/or maintenance of a sample at a constant temperature for example during kinetic analyses,.

Other Features

The microplate tray smoothly and effortlessly slides out and slides in to facilitate the loading and measurement of microplates. The durable motor ensures consistent and long-lasting operation. The microplate tray can be operated in both stand alone and PC control modes.

The halogen lamp features long life stability and can also be easily accessed and changed within minutes.

MikroWin2010 Compliant

MPR-96 extends the data analysis function to computer with the optional MikroWin2010 data reduction software. With different package selection, MikroWin2010 fits for routine applications as well as extended screening, curvefit and kinetic studies.

Dynamica

HALO MPR-96 SPECIFICATIONS	
Wavelength Range	400nm -750nm (340-750nm for MPR-96 UV)
Photometric Range	Absorbance: 0 to +4.0 OD
Resolution	0.001 OD
Stability	±0.001 OD (15 minutes after start up)
Accuracy	Better than ±1.0% ±0.01 OD (405nm, 0.000 – 2.500 OD) Better than ±2.0% ±0.01 OD (405nm, 2.500 – 3.000 OD)
Repeatability	Better than ±0.5% ±0.005 OD (405nm, 0.000 – 2.500 OD) Better than ±1.5% ±0.005 OD (405nm, 2.500 – 3.000 OD)
Linearity	Better than ±1.0% (405nm, 0.000 – 2.500 OD) Better than ±2.0% (405nm, 2.500 – 3.000 OD)
Filter Capacity	5 position [4 standard (405nm, 450nm, 492nm, 620nm) + 1 optional (between 400nm to 750nm)] (UV model with 340nm as standard)
Reading Speed	Single wavelength, fast mode, 96 well: ≤10 seconds Dual wavelength, fast mode, 96 well: ≤15 seconds
Plate Types	96 well with flat, U or V shape bottom
Optical System	8 measurement channels, 1 reference channel
Detector	Silicon Photodiodes
Light Source	Halogen (WI) Lamp
Display	Back-lit LCD 90(W) x 68(H) mm: Resolution 320x240 pixels.
Shaking	Linear, 4 speed selectable
Temperature Control (optional)	Ambient +4°C to +50°C
Temperature Accuracy (optional)	±0.5°C
Printer Interface Connection	USB interface
Printer Language	Support PCL - 5 or above
External Storage	USB flash drive
Dimensions	290(W) x 425(D) x 200(H) mm
Net Weight	15Kg
Gross Weight	20Kg
Power Requirements	110 - 220 V auto switching, 50/60Hz
Power Consumption	50W (standby), 100W (operation)

Halo MPR-96 Ordering Information

PRODUCT	CATALOG NUMBER#
Halo MPR-96 Visible Microplate Reader 400-700nm	MPR-96
Halo MPR-96 Visible Microplate Reader 400-700nm with Temperature Control Module (Ambient +5 to 50 deg C)	MPR-96-TCM
Halo MPR-96-340 Microplate Reader 340-700nm	MPR-96-340
Halo MPR-96-340 TCM Microplate Reader 340-700nm with Temperature Control Module (Ambient +5 to 50 deg C)	MPR-96-340-TCM
Other wavelength filer selection from 340 to 700nm (contact us for detail selections)	MPR-IF-XXX
MikroWin2010 Lite (Screening & Curve Fit, basic functions)	WR-302-03
MikroWin2010 Full Version 1 (Screening & Curve Fit, extended functions)	WR-302-04
MikroWin2010 Full Version 2 (Screening & Curve Fit & Kinetic, extended functions)	WR-302-05

For more information on MikroWin2010 and it's features, please visit www.mikrotek.de

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