

# HiPo MPP-96, Microplate Photometer

Microplate Photometer HiPo is a compact tabletop device for measuring the results of ELISA and microbiological studies in 96-well microplates. Photometer is controlled and outputs data via computer. An extensive range of additional interference filters is available (with average increment of 10 nm).

The device is supplied with specialized software **QuantAssay**. Features of **QuantAssay** software:

- ELISA assays of any complexity can be carried out via robust assay editor with help of Assay Wizard
- Quantitative assay includes up to 20 standards
- Avidity/Affinity assays
- Multiplex assays with up to 7 assays on one plate
- Qualitative assay includes up to 11 controls
- BestFit function for selecting the best calibration curve
- User friendly interface: get your results in 3 clicks
- Save, load and export results
- Creates visual reports
- Save, load and export results
- Creates visual reports

## SPECIFICATIONS

Detection mode	Absorbance
Light source	LED, self-calibrating
Photodetector	8 silicon photodiodes
Plate type	96-well microplates (including strip-well microplates)
Reading Speed	5 - 8 s per wavelength
Measurement modes	Endpoint
Measurement channels	8
Reference channel	1
Measurement range	0 – 4.3 OD
Resolution	0.001 OD
Wavelength range	400 – 700 nm
Wavelength selection	up to 8* filters on wheel standard filters 405, 450, 492 and 620 nm
Shaking	4 amplitudes, 4 speeds
Software	<b>QuantAssay</b>
PC system requirements	Intel/AMD Processor, 1 GB RAM, Windows Vista/7/8, USB
Overall dimensions (W×D×H)	140 × 300 × 130 mm
Weight	4.6 kg
External power supply	Input AC 100–240 V 50/60 Hz, Output DC 12 V

\* — It is possible to install up to 4 additional filters on request. Additional filters are available in two specifications: optical absorption not less than 3.5 OD or 4.3 OD

 **ORDERING INFORMATION:** Cat. number

**HiPo MPP-96** BS-050108-A02

**Optional accessories:**

**OD Plate**, Verification tool BS-050108-AK

Additional filters\* On request

## NEW PRODUCT



Product video is available on the website



## Accuracy (405, 450, 492, 620 nm)

0.000 – 2.000 OD	≤ (0.5 % ± 0.010 OD) typical
2.000 – 3.000 OD	≤ (1 % ± 0.010 OD) typical

## Precision / Reproducibility (405, 450, 492, 620 nm)

0.000 – 2.000 OD	≤ (0.5 % ± 0.005 OD)
2.000 – 3.000 OD	≤ (1.0 % ± 0.005 OD)



# Quant Assay, Software for MPP-96



Software video is available on the website

ELISA assays of any complexity can be carried out via robust assay editor with help of Assay Wizard:

**Measurement options**

Assay name:

Assay Name (28.06 11:38:27)

Assay type

☐ Quantitative ☐ Qualitative ☐ Avidity ☐ Multiplex

Pos. control count  
Neg. control count  
Group count  
Standards count

Wavelength

☐ 405 nm ☐ 450 nm ☐ 490 nm ☐ 520 nm

Channel 1  
Channel 2  
Channel 3  
Channel 4

Description

**Form**

Qualitative assay includes up to 11 controls;  
Results can be outputted as Positive/Negative or Positive/Gray Zone/Negative;  
Gray zone can be set as symmetric and non-symmetric;  
Positivity ratio can be outputted

Choose Results types for Qualitative Assay

☒ Positive / Negative

☐ Positive / Gray Zone / Negative

Avidity/Affinity results be outputted as Positive/Negative or Positive/Gray Zone/Negative;  
Avidity index margins can be easily set;  
Avidity Index can be outputted

Margin

If AI < 0.30

If AI >= 0.30 and 0.50 <

If AI >= 0.50

Result

+

++

+++

User friendly interface: get your results in 3 clicks:

Choose an assay, a template and press Play

Choose an assay

Quantitative

Choose a Template

Usual template

Save, load and export results

Creates reports: Excel, PDF, CSV



Quantitative assay includes up to 20 standards;  
User can choose Standard/Reverse type of curves

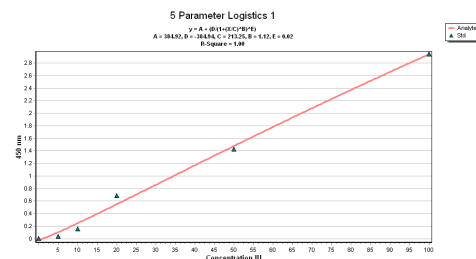
Choose a type of Quantitative Assay

☒ Quantitative Standard (OD directly proportional to the conc.)

☐ Quantitative Reverse (OD inversely proportional to the conc.)

BestFit function for selecting the best calibration curve from following models:

4/5 Parameters logistics, Piece-wise linear, Linear, Index/Logarithm/Exponent regression models



Install up to 7 assays on one plate by using multiplex

	1	2	3	4	5	6	7
A	Smp1	Smp1	Smp1	Smp1	Smp1	Smp1	Smp1
	0	1	2	3	4	5	6
B	Smp2	Smp2	Smp2	Smp2	Smp2	Smp2	Smp2
	0	1	2	3	4	5	6
C	Smp3	Smp3	Smp3	Smp3	Smp3	Smp3	Smp3
	0	1	2	3	4	5	6

Easy fill of the samples

Name Smp 2

Group 2

	1	2	3	4	5	6	7	8	9
A	Smp1	Smp1	1.296	1.368	1.915	1.814	1.581	1.633	2.592

PDF report contains: Experiment information, Results table, List of variables and it's calculations, Interpretation parameters

Cell Type	Sample Name	Assay Group	OD 450 nm	Result 1	Result 2	Results			
						Mean Concentration	Calculated Concentration	Mean (OD)	Standard Deviation (OD)
A1	Std 50	0.008	OK	0.0	1.24 R	1.24 R	0.008	0.000	0.000
A2	Std 50	0.008	OK	0.0	1.24 R	1.24 R	0.008	0.000	0.000
A3	Std 1	1.296	In Range	45.21 R	44.05 R	1.332	0.036	2.70%	
A4	Std 1	1.368	In Range	45.21 R	46.38 R	1.332	0.036	2.70%	
A5	Std 9	1.915	In Range	62.62 R	66.30 R	1.865	0.051	2.71%	
A6	Std 9	1.814	In Range	62.62 R	60.95 R	1.865	0.051	2.71%	
A7	Std 17	1.581	In Range	54.14 R	53.29 R	1.607	0.026	1.62%	
A8	Std 17	1.633	In Range	54.14 R	56.99 R	1.607	0.026	1.62%	
A9	Std 25	2.592	Out of Range	119.57 R	87.51 R	3.405	0.884	25.00%	
A10	Std 25	2.592	Out of Range	119.57 R	105.50 R	3.405	0.884	25.00%	
A11	Std 33	3.0	In Range	28.47 R	28.47 R	0.810	0.000	0.000	
A12	Std 33	3.0	In Range	28.47 R	28.47 R	0.810	0.000	0.000	
B1	Std 51	0.008	OK	5.0	2.48 R	2.48 R	0.008	0.000	0.000
B2	Std 51	0.008	OK	5.0	2.48 R	2.48 R	0.008	0.000	0.000
B3	Std 2	1.080	In Range	38.08 R	37.12 R	1.110	0.030	2.70%	
B4	Std 2	1.140	In Range	38.08 R	39.04 R	1.110	0.030	2.70%	
B5	Std 10	1.0	In Range	52.41 R	53.78 R	1.054	0.042	2.70%	
B6	Std 10	1.0	In Range	52.41 R	51.04 R	1.054	0.042	2.70%	
B7	Std 18	1.0	In Range	45.48 R	45.78 R	1.340	0.022	1.61%	
B8	Std 18	1.0	In Range	45.48 R	45.15 R	1.340	0.022	1.61%	
B9	Std 20	2.0	In Range	97.84 R	73.54 R	2.880	0.720	25.00%	
B10	Std 20	2.0	In Range	97.84 R	125.28 R	2.880	0.720	25.00%	
B11	Std 34	3.0	In Range	27.83 R	27.83 R	0.790	0.000	0.000	
B12	Std 34	3.0	In Range	27.83 R	27.83 R	0.790	0.000	0.000	
C1	Std 52	0.160	OK	10.0	7.01 R	7.01 R	0.160	0.000	0.000
C2	Std 52	0.160	OK	10.0	7.01 R	7.01 R	0.160	0.000	0.000
C3	Std 3	0.900	In Range	32.15 R	31.35 R	0.925	0.025	2.70%	

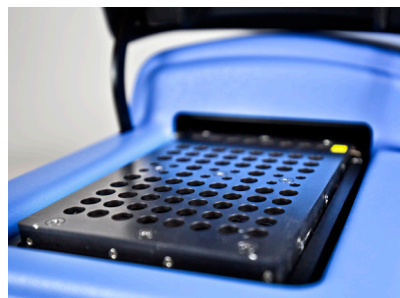
## OD Plate, verification instrument for MPP-96 HiPo



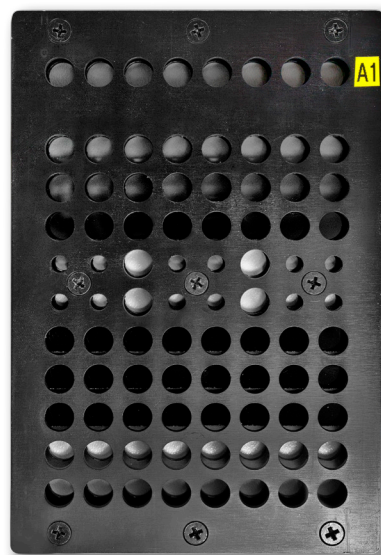
OD Plate is the quality verification instrument for microplate photometer MPP-96 HiPo. The instrument is designed to verify the accuracy and precision of measurements of the photometer at 6 levels of optical density: 0.3; 0.6; 1.0; 2.0; 3.0; 4.0 OD. The instrument is supplied with the following verification wavelengths: 405, 450, 492, 540, 570, 620 and 650 nm. Additional verification wavelengths are available in the range from 400 to 700 nm.

Instrument is provided in a shockproof container with an USB flash drive containing:

- Copy of measurement results in an accredited laboratory
- User manual



Optical density levels	0.3; 0.6; 1.0; 2.0; 3.0; 4.0 OD
Available verification wavelengths range	400 – 700 nm
Standard verification wavelengths	405, 450, 492, 540, 570, 620, 650 nm
Instrument dimensions	128 × 86 × 12 mm
Net weight	0.2 kg



### ORDERING INFORMATION:

**OD Plate**, Verification tool

Cat. number

BS-050108-AK