

Automated ELISA Processing System

# Minimum Space Required







## Fits Anywhere in the Lab

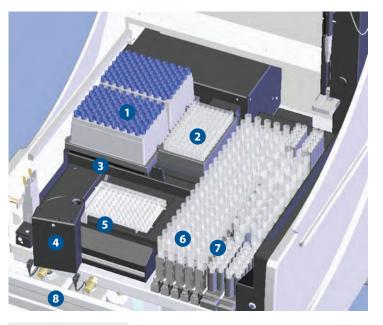
DYNEX DS2 Automated ELISA System is a compact, fully automated open system that delivers automated sample processing, incubation, reagent addition, washing and detection steps for assays as defined by the manufacturer. With DS2 you can run any assay from any vendor and can bring in tests that you are currently sending out with reliability and ease-of-use.

Designed with full walkaway capability, DS2 quickly and easily processes two 96-well microplates and up to 12 different assays simultaneously. The system also features a user-friendly control system, chain of custody management and on-board instrument diagnostics.

## Run Any Assay from Any Vendor

From clinical diagnostics, such as autoimmune and infectious disease to food safety and drugs of abuse testing, DS2 has the comprehensive capability needed to ensure the rigorous, repeatable analysis required to deliver the most accurate results.

## DS2 Workspace Area



- 1 2 sample-tip racks (216 tips total)
- 2 12 deep-well dilution strips (96 wells total)
- 3 Embedded reader and 2-plate incubator
- 4 Barcode reader (optional)
- 5 2 independent plate carriers
- 6 5 slide-in sample racks (100 samples total)
- 2 slide-in reagent and control racks
- Access panel to buffers, waste bottles and waste-tip container

## Reliable Workload Scheduling

DYNEX designed DS2 for simplicity, efficiency and reliability. The system uses a multi-function robot arm that does everything from pipetting to operating the barcode reader. For the past 2 years DS2 has achieved 98.5% uptime when mean time between failure target is set at 250 days.

- Schedule your preventive maintenance during slow periods
- Prevent unscheduled downtime

## Intuitive, Easy-to-Use DS-Matrix® Software

Feature rich and groundbreaking in its process simulation and ease-of-use, DS-Matrix software powers DS2 allowing for rapid integration of this automation in the lab. The simple, graphical interface of the DS2 can be operated by any lab technician with minimal training.

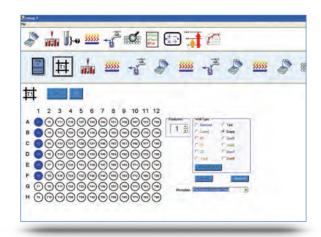
## Saves Space

DS2's vertical design and patented multi-plate carrier save space, enabling a minimal footprint, with maximum consumable storage:

- 216 sample tips
- 96 dilution vessels in convenient 8-way strips
- 20 reagent tips
- 8 large and 10 medium reagent bottles
- 24 standard/control bottles

The DS2 system footprint is about four square feet of linear counter space to process up to two 96-well microplates and 100 specimens making it ideal for a lab's expanding workload.

Utilizes the same linear space as a manual incubator and reader



Programming new assays is easy using the assay writer with its intuitive drag-and-drop icons.



Once you begin running your assay, the timeline and simulator show you exactly where you are in the process and how much time you have left.





## **About DYNEX Technologies**

DYNEX is a worldwide manufacturer of microplate instrumentation, seamlessly integrating advanced detection with fully-automated sample handling, consumables and accessories. The DYNEX systems have a proven track record of high-quality products, excellent service and support.









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## **DS2 Specifications**



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## **Ordering Information**

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Product #		Instrument/Components
62000		DS2 System
62010		DS2 System with barcode scanner
62700		Barcode scanner
Product #		Consumables
62910		Deep-well strips (250/box)
65950		Reagent tubes, 25 mL (24/pack)
62930		Reagent tubes, 15 mL (10/pack)
65920		Reagent tips (432/box)
65910		Sample tips (432/box)
65940		Control vials with caps (33/pack)



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#### **Physical Specifications**

Dimensions	Metric	Non Metric
Width:	54 cm	21 in
Depth:	68 cm	27 in
Height:	66 cm	26 in
Footprint:	0.36 sq m	3.9 sq ft
Bench Weight:	48 kg	105 lbs
Ship Weight:	78 kg	170 lbs

Noise: Noise output < 78 dB

#### **Power Supply Requirements**

Voltage: 100 – 240 V automatic conversion

Frequency: 50/60 Hz Power Consumption: < 300 VA

#### **System Specifications**

Number of Plates: 2

Sample Capacity: 100 per load

Continuous Sample Loading: Yes

Sample Tube Size: 10 mm – 16 mm diameter

40 mm – 100 mm height

Number of Reagents: Up to 8 (25 mL tubes)

Up to 10 (15 mL tubes)

Number of

Standard/Control Bottles: 24 (2 mL vials)
Assays per Plate: Up to 12

Dilution Wells Capacity: Up to 96 deep-well strips (12 x 8)

Sample Tip Capacity: 216 tips (2 x 108)

Reagent Tip Capacity: 20 tips

## **Reader Specifications**

 Photometric Range:
 0.100 – 3.0 OD

 Spectral Range:
 405 nm – 690 nm

 Filter Slots:
 6 wavelength

 Precision:
 < 1% CV (< 2.0 OD)</td>

 < 2% CV (2.0 – 3.0 OD)</td>

. 0.005.00

Accuracy:  $\pm$  0.005 0D or 2.5%

 $(0.000 - 3.000 \, \text{OD})$  whichever is greater

Read Time: < 30 sec (single wavelength)

## **Washer Specifications**

Manifold Configuration: 8-way

Programmable Volumes:  $50 \mu L - 1,000 \mu L$ 

Wash Buffer Capacity: 2 wash bottles at 2 L, with level-sensing

Residual Wash Volume: < 3 µL with super sweep

Dispense Precision:  $\leq 5\%$  CV (with 300 µL in a 96 well plate)

Waste Container: 1 x 1.5 L

#### **Incubator Specifications**

Number of Incubators: 2

Temperature Range: Ambient  $+ 4^{\circ}$  C to  $40^{\circ}$  C

Temperature Accuracy:  $\pm 1^{\circ}$  C across plate @  $37^{\circ}$  C

Shaking: Independent linear motion

14 – 20 Hz (periodic or continuous)

Temperature Monitoring: Yes

#### **Reagent Pipetting Specifications**

Reagent Tip Size: 1,300  $\mu$ L Reagent Pipetting Volume: 20  $\mu$ L – 1,000  $\mu$ L

Precision, Reagent Tip: < 3% CV at any operating volume above

20 uL (single-shot mode)

### Sample Pipetting Specifications

Sample Tip Size: 300 μL

Sample Pipetting Volume:  $10 \mu L - 250 \mu L$ 

Sample Pipetting Precision: < 3% CV at any operating volume above

10 uL (single-shot mode)

Dilution Range: 1 part in 199 one-stage dilution

1 part in 39,601 two-stage dilution

#### **Process Security**

Liquid Level Sensing: Yes (reagents, controls and samples)

Level Sensor System: Pressure differential

Clot Detection: Yes
Dispense Anomaly Detection: Yes
Tip Detection: Yes
Electronic Signature Pipetting: Yes
Alarms: Yes

#### Software

Controlling Software: DS-Matrix® Work Protocols (Assays): Unlimited

Data Processing: Quantitative and qualitative

Levey-Jennings: Yes Westgard Rules: Yes

Process Reporting: Event log + error log

Automatic Error Recovery: Yes Password Access Control: Yes

Attributes and specifications subject to change without notice.









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