

PLW20 Well Plate Loader

Automatic Well Plate Loader for High Content Screening

The PLW20 Well Plate Loader from Prior Scientific is an advanced robotic system for automatic well plate handling. Adaptable to most modern inverted microscopes, the simple, rugged and compact PLW20 together with a Prior ProScan stage combines to provide a system designed specifically for high content screening applications with a capacity of 20 well plates.



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Accurate loading for effective imaging

Many applications require the imaging of a large numbers of samples contained in multiple well plates. Combined with the H117 ProScan stage which provides precise positioning in the x and y axis the user has the full control required for high content screening applications.

The PLW20 well plate loader has two stainless steel racks, allowing for easy cleaning and sterilization. Up to 20 well plates up to 19mm high, either covered or uncovered, can be accommodated by the loader. The loader is designed to be compatible with a wide a range of well plates. The entire loading cycle is less than thirty seconds per well plate. The three axes of the well plate loader are all encoded, ensuring perfect placement of the well plate on the stage and return of the plate post scan. The loader is stationary between operations, which, along with the single metal plate which accommodates both the loader and microscope, almost eliminates vibration during the imaging process.



Safeguarding Samples and Data Integrity

Well plates can represent a substantial investment in time and resources, and the well plate loader is designed to protect the well plates during the loading process. Multiple sensors ensure safe and accurate transfers between the hotel and the microscope stage. The presence of the well plate racks is also monitored, which allows the system to respond intelligently if racks are changed in the middle of the run. A well plate detection system is able to automatically scan and quantify the number of well plates in each rack, as well as identify their location. An optional 2D barcode scanner is also available to ensure that the correct image is matched to the correct well plate.

Practical and Convenient

A comprehensive Software Development Kit is supplied free with the loader, allowing for simple and straightforward integration with third party software. Additionally, the well plate loader is fully compatible with the Prior ProScan system. Furthermore, the well plate loader is designed to be as unobstructive as possible in the laboratory, with very quiet operation and a small footprint of only 0.47m².

Please consult your microscope dealer for advice on the appropriate objectives to use with the well plate loader.

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Use with slides

Newly available from Prior Scientific is the PLW110. This allows the loader to load slides, as well as well plates, meaning that users using inverted microscopes to examine slides can now benefit from the same advantages offered by the well plate loader. No modification to the loader itself is needed, allowing the loader to be used in facilities which serve a large number of users with differing requirements.



Performance Specifications

Capacity	20 well plates (in two racks of 10 plates in each rack)
Communications	USB communications
Scanning Stage Compatibility:	Compatible with ProScan H117 inverted stages
Footprint	0.47m ²
Dimensions	840 mm (W) x 550 mm (L) x 660 mm (H)
Input voltage	100-240V AC
Regulatory Compliance	Fully CE compliant
Load/unload Cycle Speed	29 seconds

Plate Management Systems

Rack Sensor	Racks can be swapped while unit is running
Well Plate Detection	Racks are scanned for plates present. Plates are barcode read prior to loading for random access
Handling sensors	Well plate presence sensors are built into both the gripper arm and stage insert, for confirming safe and accurate transfer.
Barcode Readers	Optional 2D reader available

Ordering Information

Part Number	Description
PLW20	Well Plate Loader System
PLW106	Barcode reader for Well Plate Loader system
PLW107	Fixing kit for microscopes when using PLW20
PLW110	Slide holder for Well Plate Loader system