PRIOR Scientific

PRECISION IN MOTION

PS3H122R
Focus Motor

The motorised focus control from Prior Scientific provides step sizes as small as 0.002µm, giving excellent resolution for precise and repeatable focussing in the Z-axis. For large movements when speed is required, the focus motor can be driven at speeds of up to 20 revs per second. An optional probe style encoder provides the highest accuracy and repeatability available. The drive has a rotating cable system, designed to present the cable from twisting around the drive. The focus motor can be controlled by either the ProScan™ III or OptiScan™ III control system.

Products available*

Part Number	Description
PS3H122R	Focus motor for ProScan™ III or OptiScan™ III

* Can come with a cable, weighing approximately 454 g and 2 m long

PRIOR Scientific

bsi. ISO 9001 Quality Management

FM 61600

Worldwide distribution

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PRIOR Scientific PRECISION IN MOTION

ES10ZE Controller

Motor controller for focus control

This Focus only controller from Prior offers an affordable solution for microscope automated focus. Compatible with a wide range of microscopes and third party imaging software, the ES10ZE offers fine and precise control over focussing.

With a compact design of only 160 x 125 x 60 mm the ES10ZE takes up little valuable laboratory space, and has both RS232 and USB connections, increasing its versatility. A focus encoder input is also present.

The controller also has a manual focus knob, and the screen offers an accurate position readout. Convenience of control is greatly increased by the presence of a number of speed options, and fast ‘Up’ and ‘Down’ options.

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PRIOR PRECISION IN MOTION
Scientific

ProScan® III
Microscopy Automation Control System

The ProScan III is an exceptionally versatile and powerful control system from Prior Scientific, able to control and coordinate a wide array of equipment, including motorised stages, focussing devices, filter wheels, shutters and illumination devices. With an elegant, modular design and extensive customisation options available, the ProScan III provides a powerful solution for the most demanding applications in automated microscopy.

- TTL commands can be sent to unit peripherals and external cameras; allowing for extremely fast control.
- Communicates via USB or RS232 (115200 baud)
- Compatible with a wide range of imaging software, allowing smooth integration of Prior components into the overall microscopy system.
- A Software Development Toolkit allows integration into third party software, and access to acceleration, speed and drive current is provided.
- Variants to support linear motor stages and encoded stages are available.
- Modular nature allows creation of a system perfectly suited to the precise needs of the end user. Ancillary boxes allow extensions in functionality to be accomplished quickly and easily.
- Compact design eases pressure on valuable lab space.
- Free firmware updates allow the user to benefit from the most up to date system performance.
-

For more information on the whole ProScan range from Prior Scientific, please look at our ProScan III Brochure, or contact us at uksales@prior.com

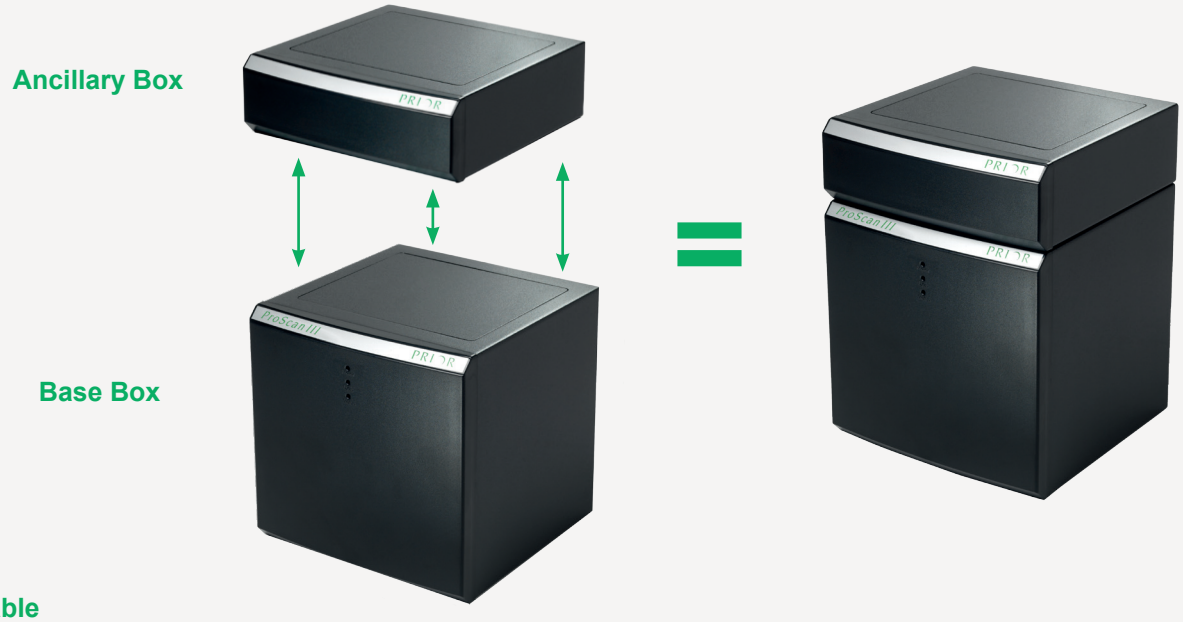
PRIOR PRECISION IN MOTION
Scientific

ProScan III

Microscopy Automation Control Centre

Modularity

The ProScan III is designed to fit as closely as possible the exact requirements of the end user. A single 'base' unit is available. This can be extended with the addition of 'ancillary' boxes to widen the functionality of the system. For example, a base unit controlling the X, Y and Z axis can be extended with the addition of an ancillary unit controlling filter wheels and shutters.



Products available

Product	Description
V31XYZE	ProScan III controller controlling encoded XY stage and focus, with 2 x RS232, USB and programmable TTL. Supplied with Software Development Toolkit for easy software integration.
V31XYZEF	ProScan III controller controlling encoded XY stage, encoded focus, 3 filter wheels and 3 shutters, with 2 x RS232, USB and programmable TTL. Supplied with Software Development Toolkit for easy software integration.
V31F	ProScan III controller to control either focus, 2 x filter wheels and 3x shutters OR 3 x filter wheels and 3 x shutters with 2 x RS232, USB and programmable TTL. Supplied with Software Development Toolkit for easy software integration.
VLD31XYZ	ProScan III controller controlling a linear XY motor stage and focus with 2 x RS232, USB and programmable TTL. Supplied with Software Development Toolkit for easy software integration.
VLD31XYZF	ProScan III controller to control linear motor stage, Z focus, 3 x filter wheels and 3 x shutters with 2 x RS232, USB and programmable TTL. Supplied with Software Development Toolkit for easy software integration.
V31ADF	Ancillary box containing controller for 3 x filter wheels and 3 x shutters.
V31ADXYZE	Ancillary box containing controller for encoded XYZ control.

Specifications

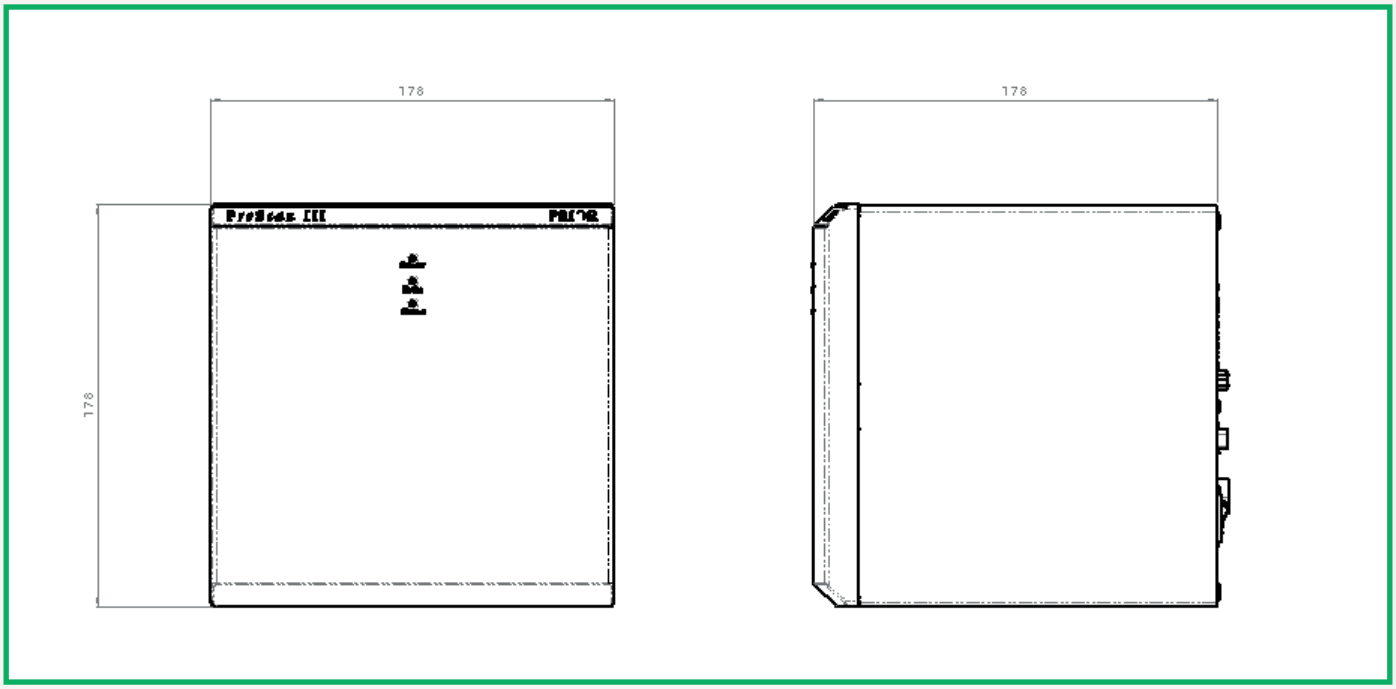
Specification	Value
Power	Universal Mains Output 110/240 V AC 50-60 Hz
Computer Interface	USB (HID or Virtual COM), RS232
COM Port Communications Protocol	8 bit word 1 stop bit, no parity no handshake, baudrate optionsof 9600, 19200, 38400, 57600 and 115200
Dimensions	175 x 175 x 175 mm (Ancillary box adds 59 mm in height)
Weight	3 kg, ancillary box adds 1 kg

PRIOR PRECISION IN MOTION
Scientific

ProScan III

Microscopy Automation Control Centre

Dimensions



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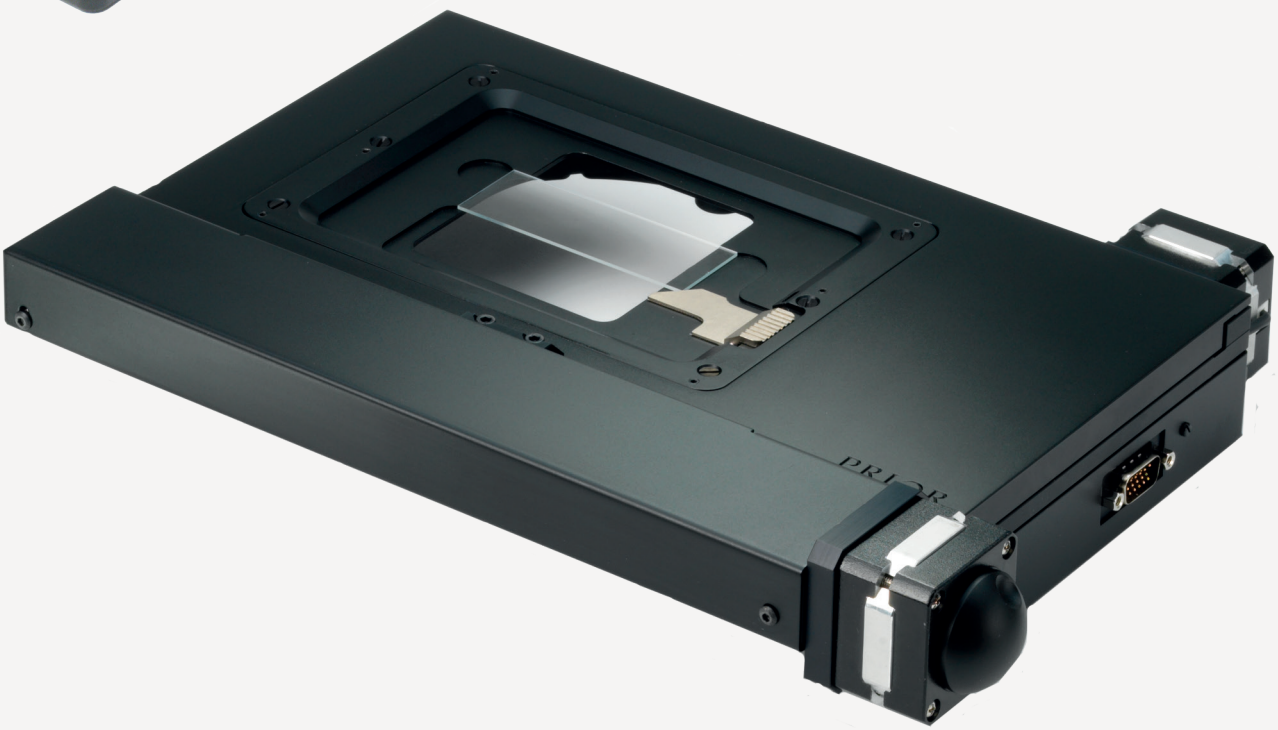
PRIOR PRECISION IN MOTION
Scientific

OptiScan III™
Motorised Stage Systems



PRIOR PRECISION IN MOTION
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OptiScan III™

Motorised Stage Systems

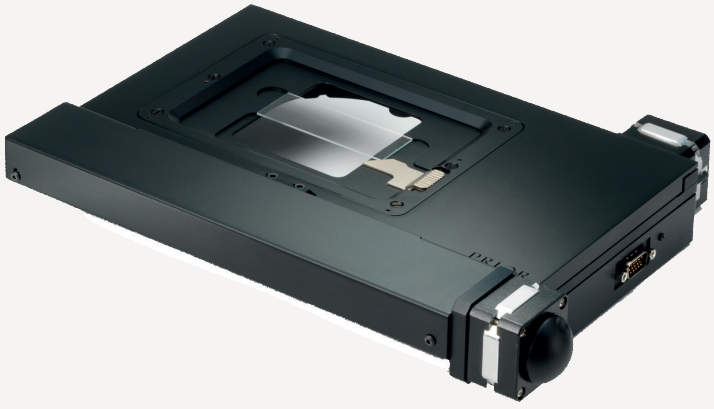
The OptiScan™ III is the latest in a long line of high quality, precise automated systems designed and manufactured by Prior Scientific. Routine microscopy applications can be performed with much greater accuracy and speed without sacrificing either affordability or reliability. The combination of the OptiScan™ III controller, motorised stages and focussing mechanisms allows great flexibility and creates a powerful system tailored to your specific needs.

OptiScan™ III Controller

The controller is at the heart of the system and is compact, yet powerful and versatile. It is compatible with the majority of popular image analysis software, allowing seamless integration between software and hardware. The controller is supplied with a software development tool-kit that includes comprehensive DLL, a VB demo program and a full complement of ASCII commands. The software developer can utilise either the USB or the RS232 serial port for software communications. The OptiScan™ III Controller can be used to control both motorised stages and focussing mechanisms. The 'plug & play' facility provides automatic configuration of system components making system set up very easy. Onboard flash memory enables simple firmware upgrades from your own computer.

Motorised Stage Systems

OptiScan™ stages are ideally suited to a wide range of imaging applications. A wide range is available to fit most inverted and upright microscopes, and are compatible with the full range of Prior specimen holders; so examination of glass slides, multiwell plates, Petri dishes and metallurgical specimens is possible. Thanks to a unique S-curve acceleration algorithm, movement and positioning is smooth and without vibration.



PRIOR PRECISION IN MOTION
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OptiScan III™

Motorised Stage Systems

Focus drive

By adding the PS3H122 Focus Drive into your microscope, it is possible to finely control not only the motorised stage but also the focussing of the microscope itself, via either a joystick or from a computer. Step sizes as small as 0.1µm give extra resolution for precise focussing and repeatability. If larger movements are required, the motor can be driven at speeds of up to 16 revs/s.

Ergonomic joystick

The joysticks offer precise and ergonomic control of the stage, and, if required, the focus drive, allowing the user to use the joystick to focus the microscope as well, offering total and precise control of the X, Y and Z axes.

Prior Scientific manufactures a wide range of products designed for a huge range of microscopy applications; from automated systems to illuminators, sample holders, filter wheels and robotic slide loaders.

Specifications

Power	Universal external power supply; Input 100-240V, 50/60Hz max 1.6A
Communications Protocol	USB, RS232 at 9600,19200, 38400 or 115200 baud, 8 bit word, 1 stop bit, no parity, no handshake
Axes	X Y and Z
Dimensions	294 mm x 193 mm x 60 mm
Weight	2.2 kg

PRIOR PRECISION IN MOTION
Scientific

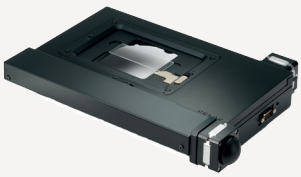
OptiScan III™
Motorised Stage Systems

OptiScan™ III Flexibility

Many different applications require or benefit from microscope automation. Designed with this in mind, OptiScan™ III is flexible and its components can be configured to precisely match your requirements and budget. Furthermore, the modularity of the system means that it is simple to upgrade your system if your requirements change. Please contact a Prior representative, email us or visit our website to learn more.

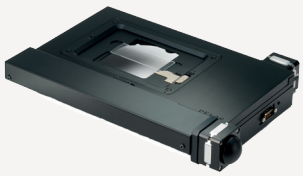
2 Axis System

Used solely for control of the motorised stage



3 Axis System

Used for control of the motorised stage and of focussing



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