

ProZ Motorized Focus Columns

Motorized Stand for Nikon AZ100/LV100/SMZ18/25 and
Olympus BX2/BX3/MVX-10 Modular Microscope Components



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In addition to the standard model, variants exist for specialized applications. The ZC12EL has a larger base plate making it ideal for use with larger stages, such as Prior's H112 or H116, which have larger ranges of travel. A variant with no base plate, the ZC12FL, is ideal for use with optical tables.

Introduction

The ProZ Motorized Focus Column from Prior Scientific can be fitted to a large range of widely used microscopes and can be configured in a variety of ways to precisely match the requirements of the end user. The Z travel range is an impressive 254 mm. This, coupled with the ProZ's compatibility with 300 x 300 mm stages, makes the ProZ stand excellent for analyzing large or differently shaped samples that cannot be easily analyzed within a conventional microscopic set up. However, the ProZ is also extremely accurate, with a minimum resolution of just 0.25 microns, and encoders ensure the very best in accuracy and reliability.

The base is large (508 x 508mm) and provides a stable platform. Breadboard style bases are available; alternatively Prior stages can be mounted on the device so the end user can benefit from the exceptional XY accuracy. Numerous lighting options are also available for the ProZ stand, including basic reflected light, Köhler illumination and transmitted light*. The ProZ is compatible with Prior's Brightfield-LED or our Lumen 200 metal halide illumination systems.

The ProZ stand can be controlled via our OptiScan® or ProScan® control systems, allowing the ProZ motorized column to be integrated into a larger automated microscopy system. Drivers are available to allow integration of the ProZ stand into most commercially available imaging software packages.

General Specifications

Specification	Value
Travel Range:	254 mm
Base Size	508 mm ²
Minimum Resolution	0.25 µm (when encoded)
Stepper Motor	4 phase, 1.5 amp/phase (ProScan)
Controller Compatibility	ProScan III, OptiScan III, ES10ZE
Weight	45 kg (stand only)
Power Input	100-240 VAC, 50-60Hz
Communications	RS232 or USB (via Prior controller)
Recommended load	Up to 22.6 kg

*Variants with larger or no base plate are also available.

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Parts for Nikon Microscopes

The ProZ stand is compatible with a number of Nikon microscope modules, including the Nikon SMZ18/25 stereoscopic microscopes, the Nikon LV microscopes and the AZ100 microscopes. In many cases multiple microscope modules (e.g. a base and zoom body) may be attached to the ProZ stand. Note that not all configurations may be possible with all microscope types. Please contact Prior Scientific before ordering in order to ensure that the parts you are ordering will be suitable for your microscope module(s). If your microscope is not featured here please contact Prior for advice!

Products available from Prior

Part Number	Description
ZC12	Motorized ZDeck column with 254 mm of travel and 508 mm ² .
ZC12EL	Motorized ZDeck column with 254 mm of travel and 762 x 609.6 mm ² base plate. Requires H413 stage mount and an extended optical adapter. Compatible with XY stages with more than 304.8 mm of travel.
ZCL12FL	Motorized ZDeck column with 264 mm of travel and a flange mount for optical table mounting. NO BASEPLATE INCLUDED.
ZCAAZ	Nikon AZ100 optical mounting arm.
ZCALV	Nikon LV optical mounting arm.
ZCASZ25	Nikon SMZ optical mounting arm.
ZCAAZS	Extended Nikon AZ100 optical mounting arm for use with ZC12EL
ZCASM25S	Extended SMZ18/25 optical mounting arm for use with ZC12EL
ZCBRL	Prior H101 and H105 stage mount for reflected light only. Add HP1973 for manual stage dovetail option.
ZCBTL	Prior H101 and H105 stage mount for transmitted light. Accepts 50 mm diffuser/filter. Included Prior Brightfield-LED
HP1973	Ni Dovetail rotating mount for ZCBRL and ZCBTL
H413	Mounting stand for H112 and H116 stages.
ZCBCK	Universal clamping kit for non-Prior bases; includes 6 clamping arms.
ZC12FLNG	Pillar mounting adapter for 25 mm and one inch optical tables. Enables ProZ tower to mount directly to optical table.
H31ZFE	ProScan III controller with 3 stepper drives, for Z focus and 2 filter wheels OR 3 filter wheels. Includes 3 shutter drives and encoder input.
H31XYZE	ProScan III controller with X,Y,Z drives and encoder input
H31XYZEF	ProScan III controller with X,Y,Z drives, 3 shutter drives and encoder input.
ES10ZE	OptiScan III Z only controller.

Compatible Parts from Nikon*

Part Number	Description
LV-DIA	Base for diasopic illumination (Nikon LV)
LV-ARM	Basic Optical Arm for mounting to episcopic illuminators and nosepiece (Nikon LV)
AZ-STD	Base (Nikon AZ100)
AZ-SMZ	Focussing Mount adapter (Nikon AZ100)
AZSTGE	Manual Episcopic stage (AZ-STGE)

*Please call Prior for information about other compatible Nikon components

ProZ Motorized Focus Columns

Parts for Olympus

The ProZ stand is compatible with a number of Olympus microscope modules, including the Olympus MVX-10 and the Olympus BX2/BX3 microscope. In many cases multiple microscope modules (e.g. a base and zoom body) may be attached to the ProZ stand. Note that not all configurations may be possible with all microscope types. Please contact Prior Scientific before ordering in order to ensure that the parts you are ordering will be suitable for your microscope module(s). If your microscope is not featured here please contact Prior for advice!

Products available

Part Number	Description
ZC12	Motorized ZDeck column with 254 mm of travel and 508 mm ² .
ZC12EL	Motorized ZDeck column with 254 mm of travel and 762 x 609.6 mm ² base plate. Requires H413 stage mount and an extended optical adapter. Compatible with XY stages with more than 304.8 mm of travel.
ZCL12FL	Motorized ZDeck column with 264 mm of travel and a flange mount for optical table mounting. NO BASEPLATE INCLUDED.
ZCABX	Olympus BX2/BX3 optical mounting arm for RFA illuminator
ZCAMVX	Olympus MVX-10/SZX optical mounting arm (contact Prior if using SZX fluorescence attachment)
ZCAMVXS	Extended Olympus MVX-10/SZX adapter for use with ZC12EL - contact Prior if using SZX fluorescence attachment.
ZCBRL	Prior H101 and H105 stage mount for reflected light only. Add HP1973 for manual stage dovetail option.
ZCBTL	Prior H101 and H105 stage mount for transmitted light. Accepts 50 mm diffuser/filter. Included Prior Brightfield-LED
ZCBKOE	Kohler illumination module for Z column; includes condenser mount and BX dovetail stage mount.
ZCBBBFOB	BF/Oblique illuminator module for Z column
ZCBBXRL	BX stage dovetail mount reflected light only for Z column.
HP1770	BX dovetail for ZCBRL and ZCBTL
H413	Mounting stand for H112 and H116 stages.
ZCBCK	Universal clamping kit for non-Prior bases; includes 6 clamping arms.
ZC12FLNG	Pillar mounting adapter for 25 mm and one inch optical tables. Enables ProZ tower to mount directly to optical table.
H31ZFE	ProScan III controller with 3 stepper drives, for Z focus and 2 filter wheels OR 3 filter wheels. Includes 3 shutter drives and encoder input.
H31XYZE	ProScan III controller with X,Y,Z drives and encoder input
H31XYZEF	ProScan III controller with X,Y,Z drives, 3 shutter drives and encoder input.
ES10ZE	OptiScan III Z only controller.

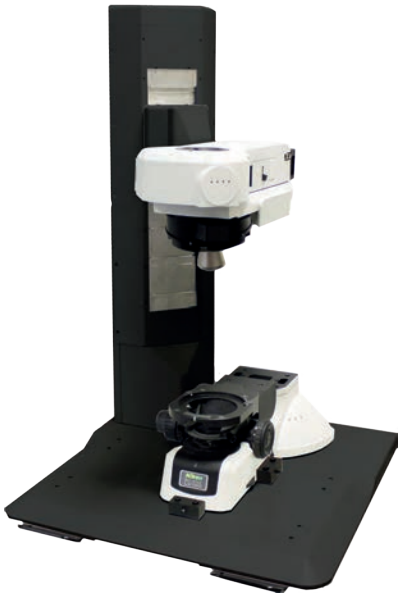
Compatible parts from Olympus*

Part Number	Description
SZX2-ILLD/ILLB	Transmitted Base (requires dovetail S-X125) for BX2/BX3
S-X125	BX3 stage mount dovetail

*Please call Prior for information about other compatible Olympus components

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Example Configurations



Nikon LV mounted on a ProZ stand. The Nikon LV-ARM and Nikon LV-DIA base are both mounted on the ProZ.



Nikon AZ100 mounted on a ProZ stand, with a Prior motorized stage and a Nikon AZ-STD base.



Nikon SMZ mounted on a ProZ stand, on a breadboard base.



Olympus BX2/BX3 (left) mounted on a ProZ stand. The BX2/BX3 zoom body and Prior's ZCBKOE are mounted to the ProZ stand.

Olympus MVX-10 (right) mounted on a ProZ stand. The MVX-10 zoom body and SZX2-ILLD are mounted to the ProZ stand.



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