

Z-Axis Motorized Focus Mount

The Z-axis motorized focus mounts offer a wide range of positioning solutions for a variety of applications. Many configurable options are available from a simple motorized linear axis to an X, Y and Z three axis stage system. Due to this versatility, the Z-Axis will be a useful component in a wide array of microscopy systems, complementing the motorized stages produced by Prior which offer superb accuracy and repeatability in the Y and X axes, by bringing the same precision to the Z axis. This flexibility also means the Z-axis will be especially useful for constructing customized systems for very specific purposes and OEM manufacturing.

Features:

- Large travel range of 38 mm
- 20 nanometer resolution
- +/- 0.7 μm repeatability
- Supports most Prior manufactured stages
- High precision ball screw drive
- Adjustable limit switches
- Compatible with the ProScan® System
- Can drive horizontally or vertically
- The Z-axis can be used either with a Prior stage, or on its own with a suitable sample insert.



Ordering information

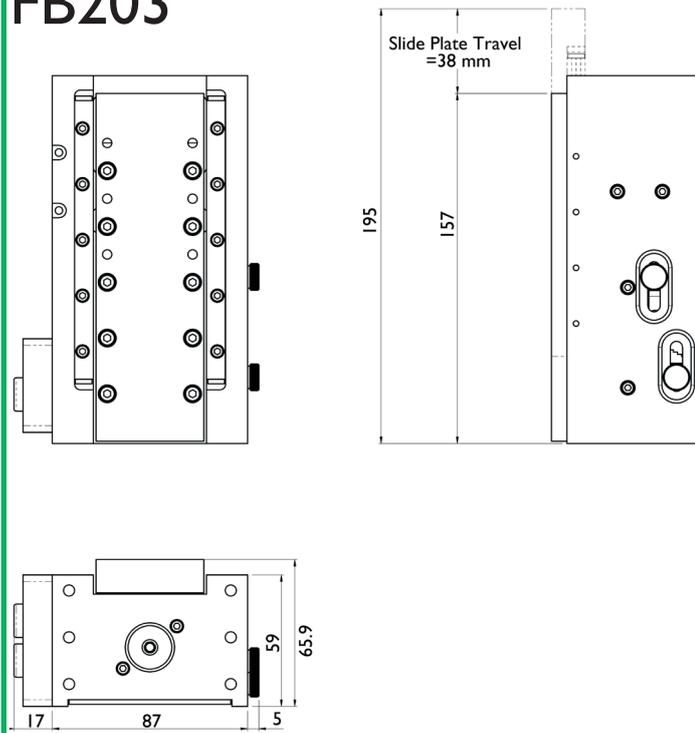
Part Number	Description
FB201	Manual Focus Block (please see separate FB201 datasheet)
FB203	Stand alone motorized linear axis
FB204	Stand alone motorized linear axis designed to hold an incident light Prior stage and provided with flanges for fitting to an optical table
FB204E*	As above with encoders
FB205	Stand alone motorized linear axis with offset base designed to hold an incident light Prior stage and provided with flanges for fitting to an optical table
FB205E*	As above with encoders
FB206	Stand alone motorized linear axis designed to hold a transmitted light Prior stage and provided with flanges for fixing to an optical base.
FB206E*	As above with encoders

*Contact Prior Scientific before ordering if you wish to use an FB204E, FB205E or FB206E with a ProScan III controller which controls a HLD117 linear stage.

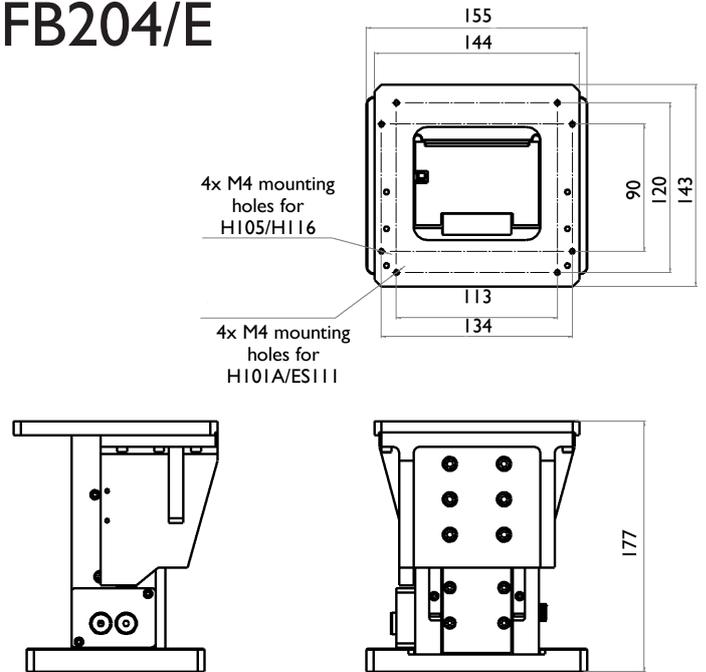
Z Axis
Motorized Focus Mount

Dimensions

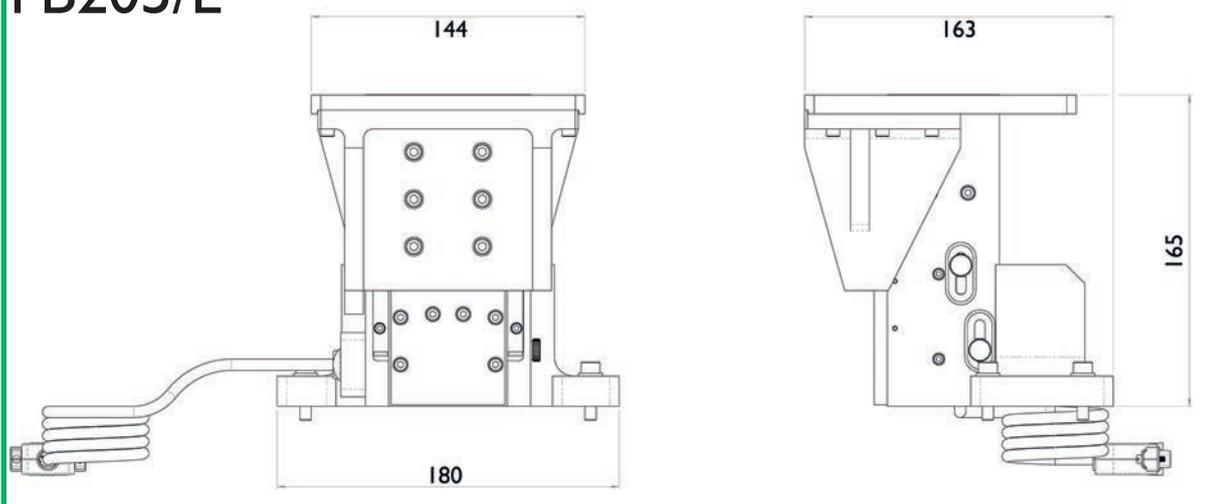
FB203



FB204/E

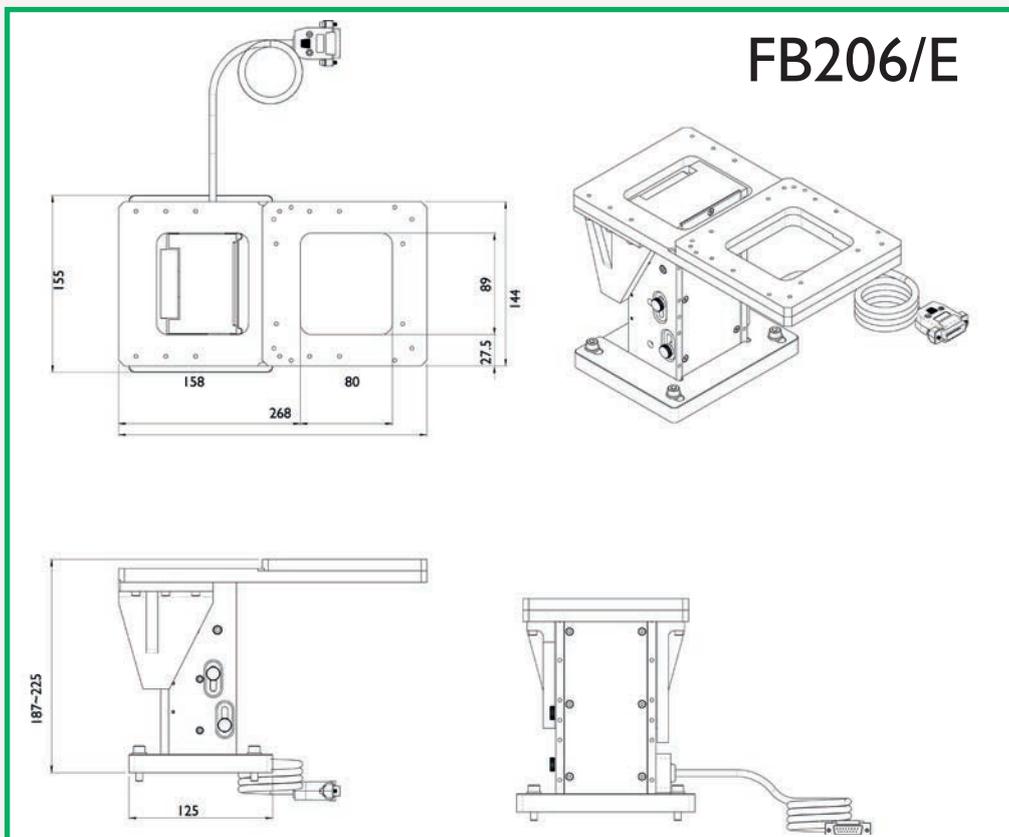


FB205/E



Z Axis

Motorized Focus Mount



FB206/E

Specifications

	FB203	FB204/205/206	FB204E/205E/206E
Dimensions (at minimum range)	165 x 92 x 66mm	177 x 155 x 143 mm (204) 180 x 163 x 144 mm (205) 187 x 155 x 268 mm (206)	177 x 155 x 144 mm (204E) 180 x 163 x 144 mm (205E) 187 x 155 x 268 mm (206E)
Resolution*	20 nm	20 nm	100 nm
Straightness* (over full travel)	+/- 3.5 µm	+/- 3.5 µm	+/- 3.5 µm
Full travel repeatability*	+/- 0.7 µm	+/- 0.7 µm	+/- 0.7 µm
Full travel metric accuracy*	<5 µm	<5 µm	<5 µm
Drive mechanism	Zero backlash precision ball screw	Zero backlash precision ball screw	Zero backlash precision ball screw
Travel range	38 mm	38 mm	38 mm
Speed range w/ max load	1-14 mm/s	1-14 mm/s	1-14 mm/s
Encoder	No	No	0.1 µm encoder
Max load	14 kg	14 kg	14 kg
Cable length	1m	1m	1m