

H101F ProScan™ Flat Top Stage

Motorized Stepper Stage for Upright Microscopes



Prior Scientific proudly introduces our latest and most innovative motorized stage for upright microscopes, the H101F flat top stage. Significant benefits of the new ProScan H101F include:

- Super thin flat top design provides unlimited obstruction free space for objective and nose piece rotation
- Ultra low profile sample holders for use with high NA objectives/condensers
- Larger sample holder design area (176mm x 154mm) accommodates a variety of applications such as large tissue sections and other custom sample holders
- Easy access to condenser and other sub-stage microscope adjustments
- Optional embedded high resolution XY encoders provide the highest precision available
- Externally adjustable limit switches allowing for quick and simple stage travel adjustment
- Smaller stage cable and connector simplifies cable routing
- Older model sample holders are compatible by adding a simple adapter plate

The H101F flat top stage is compatible with the widest variety of image analysis software programs when controlled with the ProScan III controller. Prior stages have a well deserved reputation for quality and repeatability. They are manufactured using the highest quality components: precision bearings, zero backlash recirculating ball screws, X and Y limit switches, two high precision stepper motors and tough scratch resistant coating.

Features:

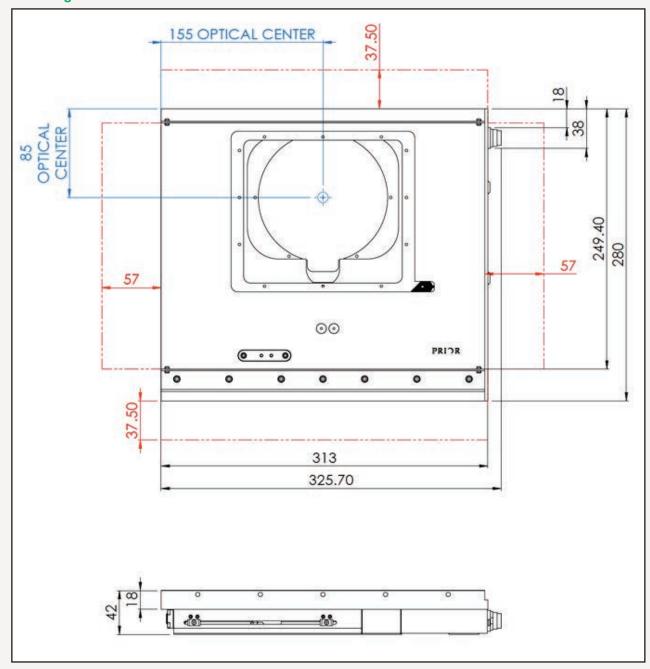
- Travel range of 114mm x 75mm
- Intelligent Scanning Technology (IST) provides highest precision available
- Optional 100nm linear scales provide highest precision available
- Minimum step size (resolution) of the stage is 0.02 microns
- Standard stages are customized to any microscope or mount
- Stage inserts for slides, petri dishes, microtitre and Terasaki trays
- · Externally adjustable limit switches



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Outline Drawing







Worldwide distribution

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Specifications

| Performance | H101P2F | H101P1F | H101E2F | H101E1F |
|---|---------------------------|--------------------------|---------------------------|--------------------------|
| Uni-Directional Repeatability (Average)* | +/-0.7(0.2)µm | +/-0.7(0.2)μm | +/-0.7(0.2)µm | +/-0.7(0.2)µm |
| Minimum Step Size | 0.04µm | 0.02µm | 0.04µm | 0.02µm |
| Recommended Speed (Max. Speed) | 40mms ⁻¹ (100) | 20mms ⁻¹ (50) | 40mms ⁻¹ (100) | 20mms ⁻¹ (50) |
| **Metric Accuracy | 0.2µm/mm | 0.2µm/mm | 0.2μm/mm | 0.2µm/mm |
| Maximum Travel Range | 114mmx75mm | 114mmx75mm | 114mmx75mm | 114mmx75mm |
| Maximum Load | 10kg | 10kg | 10kg | 10kg |
| Weight | 4kg | 4kg | 4kg | 4kg |
| Ball Screw Pitch | 2mm | 1mm | 2mm | 1mm |
| Motor Type | 200 S.P.R*** | 200 S.P.R*** | 200 S.P.R*** | 200 S.P.R*** |
| Encoders | No | No | 0.1µm resolution | 0.1µm resolution |

^{*}Using a Prior ProScan™ controller with backlash correction enabled, all repeatability is uni-directional.

Controller Options



Patented Intelligent Scanning Technology (IST):

The ProScan™III controller and stage include as standard IST which significantly improves the metric accuracy of the ProScan™ stage.



Prior Interactive Control Center:

The PS3J100 local control center provides positional feedback and the ability to measure distances. The stage can be controlled either via the joystick or via fine individual X and Y control knobs.

Ordering Information

| Part Number | Description |
|-------------|---|
| H31XYZE | Encoded X, Y and Z axis control |
| H31XYZEF | Encoded X, Y and Z axis, filter wheel and shutter control |





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^{**} Requires the use of Prior ProScan Controller and are based on the Prior method of testing. Based on performance with IST enabled, and measured over the full travel range.

^{***}S.P.R: Full steps per revolution of motor.