

# H101N1F / H101E1F

## Motorized flat top high resolution stage for upright microscopy

The H101N1F is a motorized XY stage for upright microscopes and is fully customizable for integration into OEM devices.

The most accurate and precise flat top stage, it uses a 1 mm pitch ballscrew and 200 step motor drive configuration to provide high resolution movement and improved straightness. The encoded H101E1F also uses 0.1  $\mu\text{m}$  linear encoders to provide exceptional long-range repeatability. Prior's patented Intelligent Scanning Technology (IST) optimizes stage accuracy and linearity.

A slim profile with a completely flat top plate allows easy access to the sample for loading and compatibility with a wide range of optics.

The H101N1F accommodates a variety of specimen types including glass slides, multiwell plates, semiconductor wafers, and metallurgical samples.



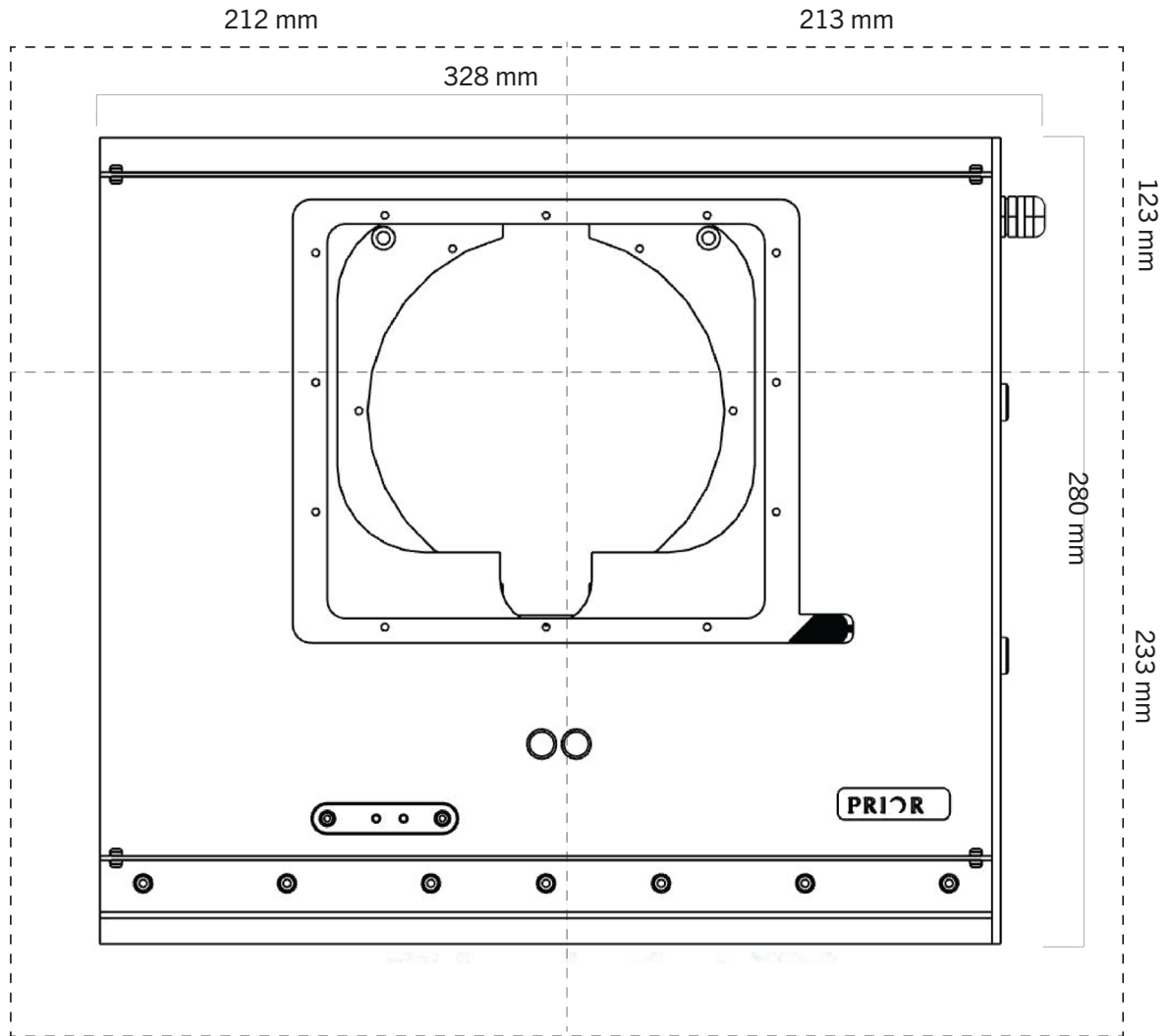
### Key Features

- Easy to integrate into customized imaging solutions.
- High step resolution and accuracy.
- Aesthetic and user-friendly flat top design.
- Intelligent Scanning Technology™ (US Patent 7,330,307).

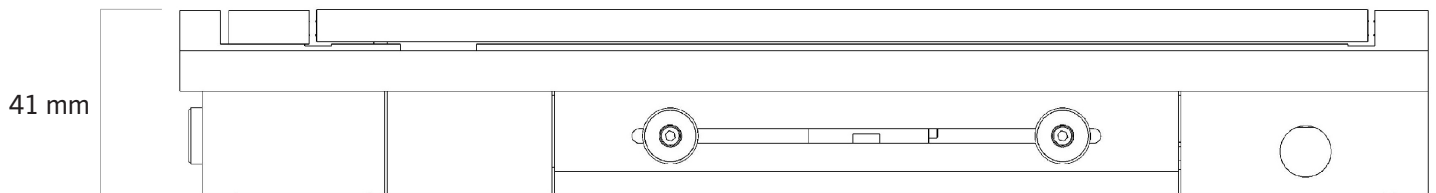
### Applications

- Confocal and super-resolution microscopy
- Fluorescence microscopy
- Metrology
- Slide scanning

## Dimensions\*



\*Outer dotted line shows the maximum footprint of the stage when at the limits of travel.



## Specifications

	H101N1F	H101E1F
Travel range	114 mm x 75 mm	114 mm x 75 mm
Unidirectional repeatability <sup>1</sup>	<0.8 µm	<0.3 µm
Bidirectional repeatability <sup>1</sup>	<3.2 µm	<0.5 µm
Metric accuracy <sup>1</sup>	0.12 µm/mm	0.08 µm/mm
Full travel metric accuracy <sup>1</sup>	<12.0 µm	<6.5 µm
Resolution <sup>2</sup>	0.02 µm	0.1 µm
Squareness <sup>1</sup>	<25 arcsec	<25 arcsec
Maximum velocity <sup>3</sup>	30 mm/s	30 mm/s
Maximum load	10 kg	10 kg
Encoders	No	0.1 µm linear encoders
Motor type	200 step	200 step
Screw pitch	1 mm	1 mm
Weight	5 kg	5 kg

1. As per Prior Scientific's test methodology, typical value.  
 2. Defined as the minimum motor step resolution for non-encoded stages, defined as the encoder resolution for encoded stages.  
 3. Defined as 2.5x the default velocity, true maximum velocity is dependent on sample mass.

## Ordering Information\*

Part Number	Description
H101N1F	ProScan® stage for upright microscopes, with travel range of 114 x 75 mm, 1 mm pitch ball screw and 200 step motors.
H101E1F	ProScan® stage for upright microscopes, with travel range of 114 x 75 mm, 1 mm pitch ball screw and 200 step motors. Provided with 0.1 µm linear encoders.

\*These stages can be adapted to numerous commercial microscopes. See our website, or contact Prior, for a full list of options.

### UNITED KINGDOM

Prior Scientific Instruments Ltd.  
 Units 3-4 Fielding Industrial Estate  
 Wilbraham Road, Fulbourn  
 Cambridge, CB21 5ET  
 United Kingdom  
 Email: [inquiries@prior.com](mailto:inquiries@prior.com)  
 Phone: +44 (0)1223 881711

### U.S.A.

Prior Scientific, Inc.  
 80 Reservoir Park Drive  
 Rockland, MA. 02370  
 U.S.A.  
 Email: [info@prior.com](mailto:info@prior.com)  
 Phone: +1 781 878 8442

### GERMANY

Prior Scientific Instruments GmbH  
 Maria-Pawlowna-Str. 4  
 D-07743, Jena, Germany  
 Email: [jena@prior.com](mailto:jena@prior.com)  
 Phone: +49 (0)3641 242 010

### JAPAN

Kayabacho 3rd Nagaoka Bldg 10F,  
 2-7-10, Nihonbashi Kayabacho, Chuo-Ku,  
 Tokyo103-0025, Japan  
 Email: [info-japan@prior.com](mailto:info-japan@prior.com)  
 Phone: +81 (0)3 5652 8831

### CHINA

Prior Scientific Instruments (Suzhou) Ltd.  
 Room 118, Meilihua Hemu Park  
 No. 393 Suhong Middle Road, Suzhou Industrial Park  
 Suzhou, 215000, China  
 Email: [info-china@prior.com](mailto:info-china@prior.com)  
 Phone: +86 (0)512 6617 5866

