H105N2F / H105E2F

Motorized flat top 6-inch travel stage for upright microscopy

Designed for upright industrial microscopy, the H105N2F and H105E2F combine 154 mm x 154 mm for 6-inch semiconductor wafer imaging with a flat top design for ease of sample loading and protection of precious samples.

The flat top design simplifies integration into customized microscopes and other optomechanical assemblies, and enables the use of this stage for transmitted light applications. Numerous sample holders dedicated to industrial applications are available for the H105N2F and H105E2F.

Featuring Prior's patented Intelligent Scanning Technology (IST) to optimize stage accuracy, linearity and other performance characteristics in combination with a 2 mm ballscrew for speed, the stages are optimized for scanning industrial samples reliably and efficiently.

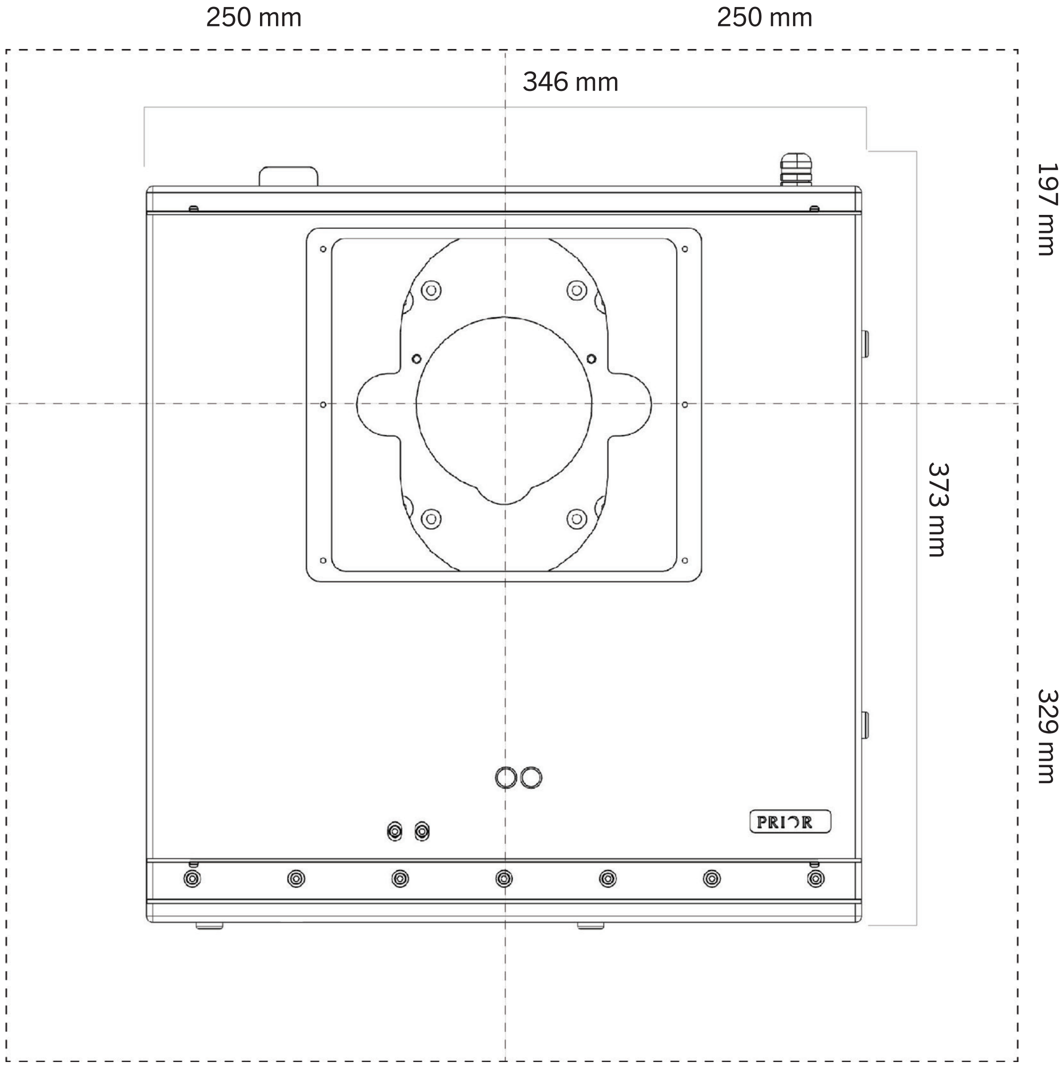
Key Features

- Easy to integrate into customized imaging solutions.
- Directly compatible with commerical industrial microscopes and software (appropriate package required).
- Aesthetic and user friendly flat top design.
- Travel range supports 6-inch wafers.
- Intelligent Scanning Technology™ (US Patent 7,330,307).

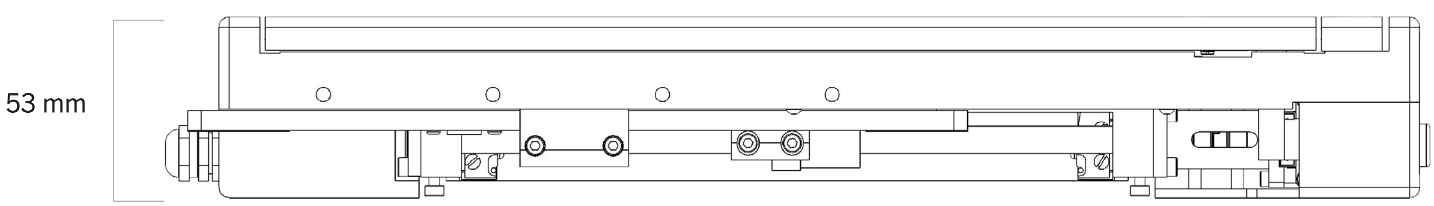
Applications

- Metrology
- Industrial microscopy
- Semiconductor inspection

Dimensions



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



Specifications

	H105N2F	H105E2F
Travel range	154 mm x 154 mm	154 mm x 154 mm
Unidirectional repeatability[1]	<0.9 µm	<0.6 µm
Bidirectional repeatability[1]	<3.6 µm	<0.9 µm
Metric accuracy[1]	<0.21 µm/mm	<0.12 µm/mm
Full travel metric accuracy	<21.8 µm	<12.8 µm
Resolution[2]	0.04 µm	0.1 µm
Squareness[1]	40 arcsec	25 arcsec
Maximum velocity[3]	40 mm/s	40 mm/s
Maximum load	10 kg	10 kg
Encoders	No	0.1 µm
Motor type	200 step	200 step
Screw pitch	2 mm	2 mm
Weight	4.8 kg	4.8 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
H105N2F	Large Flat Top ProScan® stage for larger upright microscopes, with travel range of 154 x 154 mm, 2 mm pitch ball screw and 200 step motors for Prior OpenStand and Nikon microscopes.
H105E2F	Flat Top ProScan® stage for larger upright microscopes, with travel range of 154 x 154 mm, 2 mm pitch ball screw and 200 step motors for Prior OpenStand and Nikon microscopes. Encoded with 0.1 µm linear encoders.
H105N2OL	Large Flat Top ProScan® stage for larger upright microscopes, with travel range of 154 x 154 mm, 2 mm pitch ball screw and 200 step motors for Evident/Olympus microscopes.
H105E2OL	Flat Top ProScan® stage for larger upright microscopes, with travel range of 154 x 154 mm, 2 mm pitch ball screw and 200 step motors for Evident/Olympus microscopes. Encoded with 0.1 µm linear encoders.

UNITED KINGDOM
Prior Scientific Instruments Ltd.
Units 3-4 Fielding Industrial Estate
Wilbraham Road, Fulbourn
Cambridge, CB21 5ET
United Kingdom
Email: 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
Phone: +1 781 878 8442

GERMANY
Prior Scientific Instruments GmbH
Maria-Pawlowna-Str. 4
D-07743, Jena, Germany
Email: 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
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
Phone: +86 (0)512 6617 5866