PRI DR®

H117P1N4 / H117E1N4

Motorized high performance stages for inverted microscopes

The H117P1N4 and H117E1N4 inverted stages are designed for use with Nikon inverted microscopes and Prior's OpenStand-V imaging system development platform.

The flat top design facilitates compatibility with many stage top incubation systems and positioning of periphal equipment around samples for complex imaging operations. The H117E1N4 also uses 0.1 µm linear encoders for closed loop control and exceptional long-range repeatability.

Featuring Prior's patented Intelligent Scanning Technology (IST) to optimize stage accuracy, linearity and other performance characteristics, and being directly compatible with NanoScan SP Series piezo stages, the H117P1N4 and H117E1N4 are ideal for high end life science imaging.

Whilst the stages are typically configured with a 1 mm pitch ballscrew and 400 step motor for maximum resolution, alternative drive configurations focusing on speed may be available depending on your region.



Key Features

- Compatible with Nikon inverted microscopes and NIS elements software (appropriate package required).
- Flat top design for easy sample loading.
- Compatible with NanoScan SP series piezo stages, stage top incubators and other peripheral equipment.
- Optimized for resolution and repeatability.
- Intelligent Scanning Technology™ (U.S. Patent 7,330,307).

Applications

- High content screening
- Confocal and super-resolution microscopy
- Multiphoton microscopy
- Fluorescence microscopy



Dimensions*



*Outer dimensions are the maximum footprint of the stage when at the limits of travel.



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Specifications

	H117P1N4	H117E1N4
Travel range	114 mm x 75 mm	114 mm x 75 mm
Unidirectional repeatability ¹	<0.7 µm	<0.6 µm
Bidirectional repeatability ¹	<2.2 µm	<0.9 µm
Metric accuracy ¹	0.17 μm/mm	0.09 µm/mm
Full travel metric accuracy ¹	<17.0 µm	<9.0 µm
Resolution ²	0.01 µm	0.1 µm
Squareness ¹	<40 arcsec	<35 arcsec
Maximum velocity ³	15 mm/s	15 mm/s
Maximum load	10 kg	10 kg
Encoders	No	$0.1\mu m$ linear encoders
Motor type	400 step	400 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
H117P1N4	Flat top ProScan® stage for Nikon Ti2/Ti and OpenStand inverted microscopes with travel range 114 x 75 mm, 1 mm pitch ball screw and 400 step motors.
H117E1N4	Flat top ProScan® stage for Nikon Ti2/Ti and OpenStand inverted microscopes with travel range 114 x 75 mm, 1 mm pitch ball screw and 400 step motors. Encoded with 0.1 μ m 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



prior.com