

# HT111LC

## Hardness testing motorized industrial stage

The HT111LC industrial hardness testing XY stage can withstand point loads of up to 100 kg without compromising its positioning performance.

This high load capacity makes it well suited to other heavy-duty industrial applications or as a microscope translation stage. It forms the base of the HT11 Series of heavy duty stages for whole animal and industrial imaging.

The HT111LC uses Prior's patented Intelligent Scanning Technology (IST) to optimize stage accuracy and linearity under challenging load conditions.



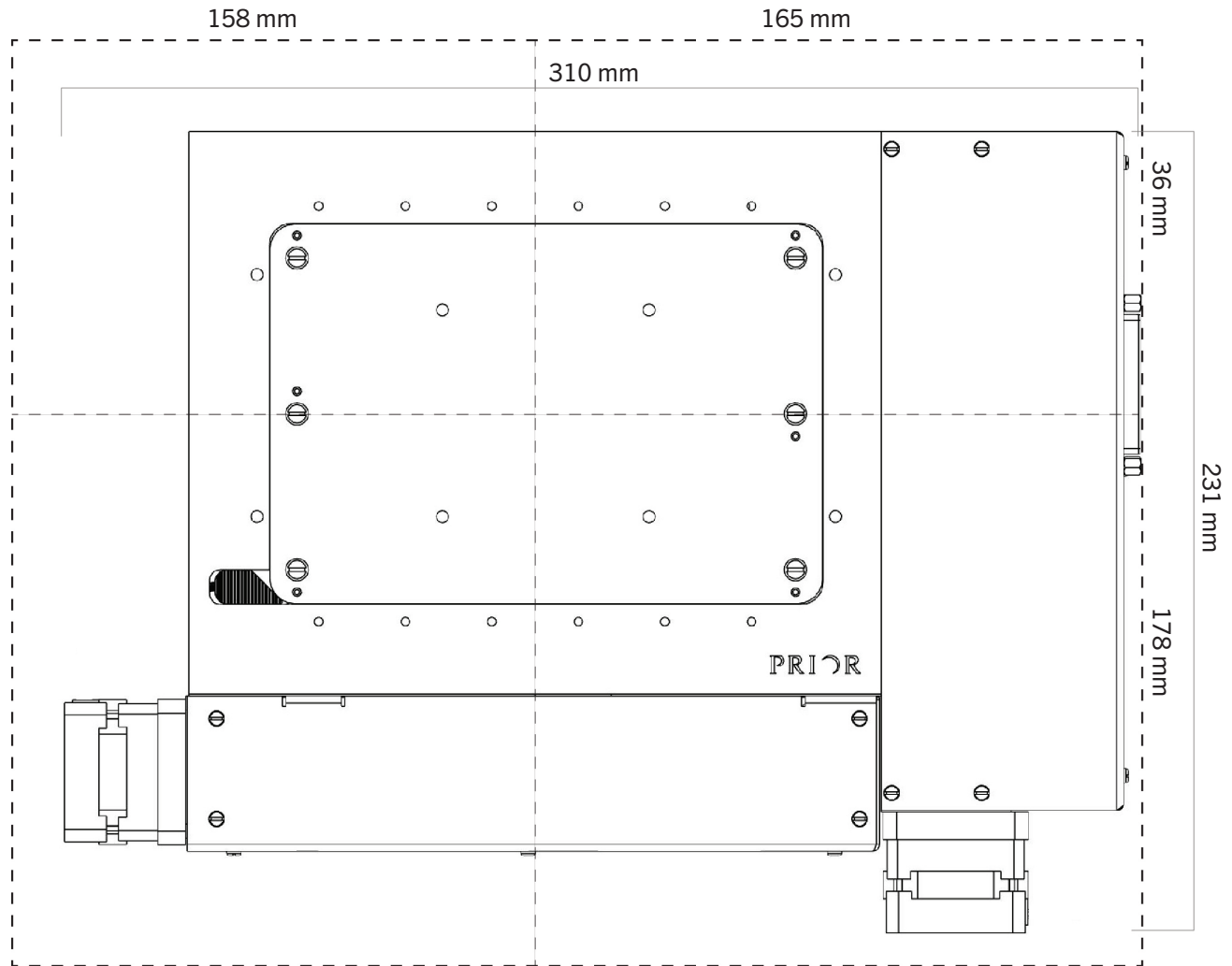
### Key Features

- Supports up to 100 kg mass or point load.
- Intelligent Scanning Technology™ (US Patent 7,330,307).
- Full DLL/SDK available for use with OEM software integration.
- Tough, scratch resistant coating.

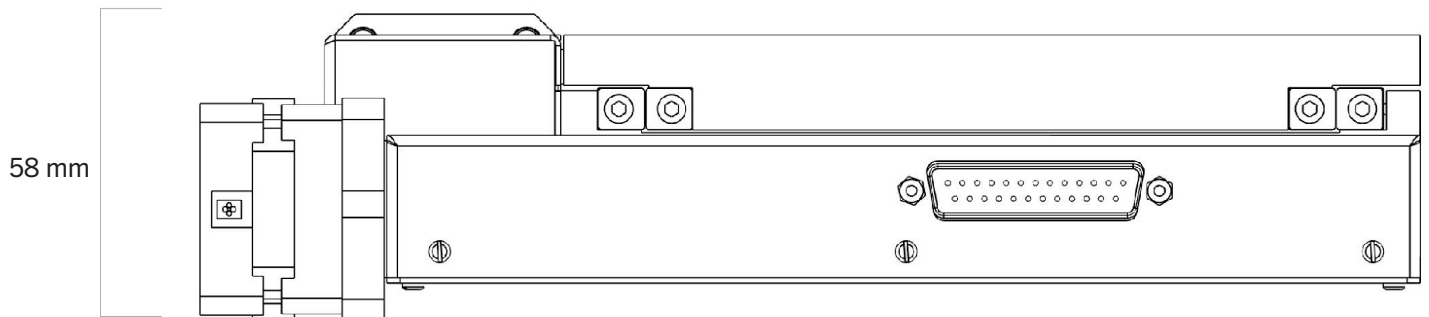
### Applications

- Industrial microscopy

## Dimensions\*



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



## Specifications

### HT1111LC

|                                           |                 |
|-------------------------------------------|-----------------|
| Travel range                              | 108 mm x 108 mm |
| Unidirectional repeatability <sup>1</sup> | < 0.6 µm        |
| Bidirectional repeatability <sup>1</sup>  | < 2.5 µm        |
| Metric accuracy <sup>1</sup>              | 0.16 µm/mm      |
| Full travel metric accuracy               | <16.0 µm        |
| Resolution <sup>2</sup>                   | 0.02 µm         |
| Squareness <sup>1</sup>                   | < 40 arcsec     |
| Maximum velocity <sup>3</sup>             | 30 mm/s         |
| Maximum load                              | 100 kg          |
| Encoders                                  | No              |
| Motor type                                | 400 step        |
| Screw pitch                               | 2 mm            |
| Weight                                    | 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                                                                                                                                          |
|-------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| HT1111LC    | Hardness testing stage, travel range 108 mm x 108 mm, with 2 mm pitch lead screws and 400 step motors, can accept significant point source payloads. |

### 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



ISO 9001  
Quality  
Management  
Systems  
CERTIFIED

ISO 14001  
Environmental  
Management  
CERTIFIED

ISO 45001  
Occupational  
Health and Safety  
Management  
CERTIFIED

