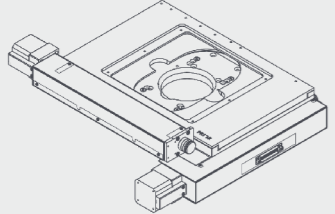
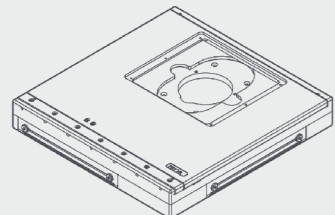


Nikon L300 configuration chart

1 Stages

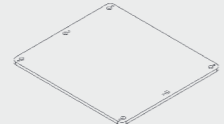


H105/2NI, HE05/2NI
ProScan stage

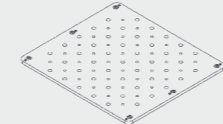


H105N2F, H105E2F
ProScan stage

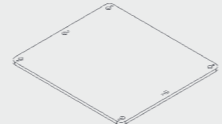
6 Sample holders



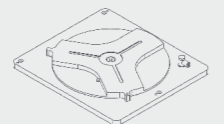
H227
Glass stage plate assembly



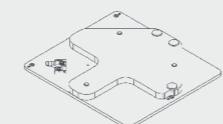
H231B
Breadboard stage insert assembly



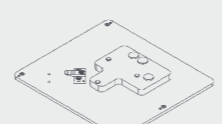
H231
Aluminum stage plate assembly




HWC15V
Wafer chuck rot + vac 150 mm



H146
Wafer chuck, 150 mm sprung

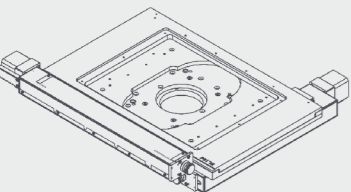


H143
Wafer chuck spring loaded 3 in




HWC15S
Wafer chuck (4 in & 6 in wafers)

1 Stages

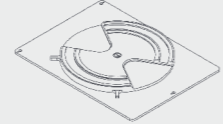


H116/2NI, HE16/2NI
ProScan stage for up to 8 inch diameter wafers

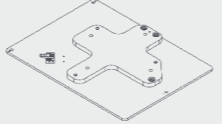
6 Sample holders




H225
Glass stage plate assembly




HWC20S
Wafer chuck, rotating



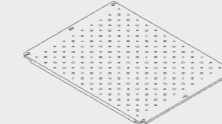
H149, H149N
Wafer chuck



H232
Aluminum stage plate assembly

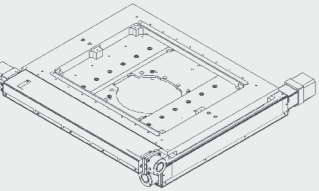


HWC20V
Wafer chuck, rotating, vacuum




H232B
Breadboard stage insert

1 Stages

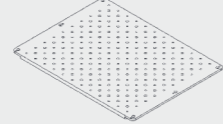


H112/2ST, HE12/2ST
ProScan Stage, 154 x 154 mm travel, part encoded, 2 mm Pitch, 200 step

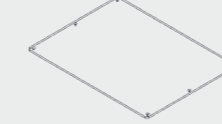
6 Sample holders




H233
Aluminum stage plate assembly




H233B
Breadboard stage insert assembly



H221
Glass stage plate assembly

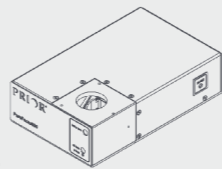


HWC30S
Stepped wafer chuck 300D




HWC30V
300 mm vacuum wafer chuck

4 Autofocus



PF850
PF head, controller with digipot power supply



LF320
PF850 flange set

5 Motorized focus

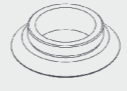


PS3H122R
Generic focus drive and adapter




H3909
Focus sleeve

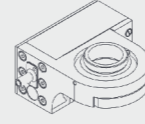
3 Objective positioner



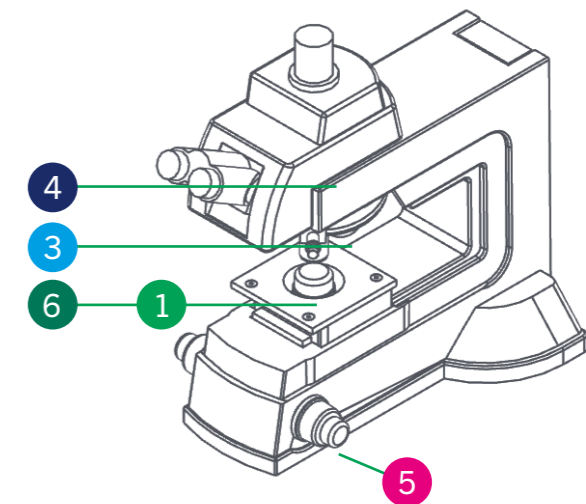
QG-OP-MIC-M25
QG-OP-MIC-M32
Microscope adapter



QG-OP-Obj-M25
Objective adapter



QGOP200-UP-D1
QGOP400-UP-D1
QGOP400-UP-HL-D1
QGOP800-UP-D1
QGOP800-UP-HL-D1



Nikon L300 configuration guide

The Nikon L300 industrial microscope is designed primarily for 12-inch wafer scanning. The L300N uses episcopic illumination, the L300ND uses episcopic and diascope illumination, and neither model is motorized. Prior Scientific can offer several motorization options for both systems.

Motorized XY stages and sample holders

The H112/2ST and HE12/2ST are the largest stages available for L300 microscopes and can support up to 12 in x 12 in travel wafers. The H116/2Ni and HE16/2Ni are also available systems and offer up to 10 in x 8 in travel for scanning smaller wafers. Contact Prior Scientific if using a 100x objective with the HE16/2NI or HE12/2NI as this may restrict the available travel range depending on the sample holder chosen. Contact Prior Scientific if using a H112/2ST or HE12/2ST with an L300ND as the condenser from the diascope pathway will clash with the stage. The H105/2NI, HE05/2NI, H105N2F, and H105E2F are also available for smaller wafers. When using a H105-type stage without a wafer chuck, the H2100 is required. The H105N2F and H105E2F feature a flat top design for easy loading. The HWC30V, HWC20V, and HWC15V are fitted with a vacuum nozzle, but no vacuum pump system is supplied. Other smaller stages from Prior are compatible with the L300; please get in touch with Prior Scientific to learn more. Prior Scientific can also provide stages with dedicated vacuum shuttle systems compatible with Nikon wafer loading systems for example.

Motorized XY stages and sample holders for up to 6 inch diameter wafers

Part	Description
H105/2NI	ProScan stage, 154 x 154 mm travel, part encoded, 2 mm pitch, 200 step, Nikon
HE05/2NI	ProScan stage, 154 x 154 mm travel, encoded, 2mm Pitch, 200 step, Nikon
H105N2F	ProScan stage, 154 x 154 mm travel, non-encoded, 2 mm pitch, 200 step, Nikon
H105E2FL	ProScan stage, 154x 154 mm travel, encoded, 2 mm pitch, 200 step, Nikon
H2100	Stage spacer (H105/116 to L200)
H227	H105 glass stage plate assembly
H231	H105 aluminum stage plate assembly
H231B	Breadboard stage insert assembly (H105)
H143	Wafer chuck spring loaded 3 in
H146	Wafer chuck, 150 mm sprung, H105 stages
HWC15S	H105 wafer chuck (4 in and 6 in wafers)
HWC15V	Wafer chuck rot + vac 150 mm/H105

Motorized XY stages and sample holders for up to 8 inch diameter wafers

Part	Description
H116/2NI	ProScan stage, 255 x 215 mm travel, part encoded, 2 mm pitch, 200 step, Nikon
HE16/2NI	ProScan stage, 255 x 215 mm travel, encoded, 2 mm pitch, 200 step, Nikon
H2100	Stage spacer (H105/116 to L200)
H225	Glass stage plate 8 in x 8 in assembly
H232	H116 aluminum stage plate assembly
H232B	Breadboard stage insert assembly (H116)
H149	Wafer Chuck, 200 mm sprung, H116 stages
H149N	Wafer chuck, 200 mm notched sprung, H116 stages
HWC20S	Wafer chuck, rotating, 150 mm/200mm, H116 stages
HWC20V	Wafer chuck, rotating, vacuum, 200 mm, H116 stages

Motorized XY stages and sample holders for up to 12 inch diameter wafers

Part	Description
H112/2ST	ProScan stage, 154 x 154 mm travel, part encoded, 2 mm pitch, 200 step, Nikon
HE12/ST	ProScan stage, 154 x 154 mm travel, encoded, 2 mm pitch, 200 step, Nikon
H221	Glass stage plate 12 in x 12 in assembly
H233	H112 aluminum stage plate assembly
H233B	Breadboard stage insert assembly (H112)
HWC30S	Wafer Chuck, 300D, (H112 stages)
HWC30V	Wafer chuck, rotating, vacuum, 300 mm, H112 stages

Objective positioners and adapters

When ordering, ensure the correct part number is used to specify inverted calibration. Objective positioners require a threaded adapter to be fitted to the microscope nosepiece and the microscope objective. Nikon L300 microscopes use M25 or M32 threads depending on the nosepiece fitted. Some L200 nosepieces have a raised lip surrounding the objective positions, which may clash with the objective positioner; a 15 mm spacer can be added to clear the lip. Please note that the two objective positions adjacent to the objective positioner will not be usable due to space constraints; additional positions may be unusable on smaller nosepieces. A high load calibration is available for specialist heavy objectives. Prior objective positioners can be controlled via NIS Elements by serial port connection. Alternative Prior Scientific/Queensgate manufactured objective positioners can also be purchased exclusively from Nikon.

Part	Description
QGOP200-UP-D1	OP200 Objective Scanner with NPC-D-6110 controller Upright 0-500g load
QGOP400-UP-D1	OP400 objective scanner system incl. NPC-D-6110 controller for upright microscopes (0–500 g load)
QGOP400-UP-HL-D1	OP400 objective scanner system incl. NPC-D-6110 controller for upright microscopes (500–1000 g load)
QGOP800-UP-D1	OP800 objective scanner system incl. NPC-D-6110 controller for upright microscopes (0-500 g load)
QGOP800-UP-HL-D1	OP800 objective scanner system incl. NPC-D-6110 controller for upright microscopes (500-1000 g load)
QG-OP-MIC-M25	OP microscope adapter M25 x 0.75
QG-OP-MIC-M32	OP microscope adapter M32 x 0.75
QG-OP-OBJ-M25	OP objective adapter M32 x 0.75 to M25 x 0.75
QG-OP-SPACE-M25	M25 x 0.75 static objective spacer to align with OP400 objective
QG-OP-SPACE-M32	M32 x 0.75 static objective spacer to align with OP400 objective

Autofocus

The PF850 is standalone hardware autofocus. The PF850 should be mounted above the fluorescence turret in most cases. For fluorescence systems, please contact Prior Scientific if the dichroics are known to block 850nm wavelength light. The PF201, PF209 and PF300 are required for setup and maintenance. The PF404 is required for use with piezo nanopositioning systems. The PF850M is recommended for most semiconductor scanning applications. Discuss your samples with Prior Scientific before ordering.

Part	Description
PF850	PF head, controller with digipot power supply, cables
PF850M	PF head, controller with digipot power supply, cables
LF320	PF850 flange set (Nikon)
PF209	PureFocus setup sample slide
PF200	PureFocus Setup camera alignment target type 1, RMS.DIA 0.8 x 36
PF300	PureFocus setup camera jig
PF404	Piezo cable for PF850 15D to BNC

Motorized focus

The PS3H122R plus H3909 combination is required to drive the fine focus knob of the L300 microscope. The coarse focus will not be motorized.

Part	Description
PS3H122R	Generic focus drive and adapter with rotating cable system preventing cable twisting
H3909	Focus adapter (Nikon LV100)