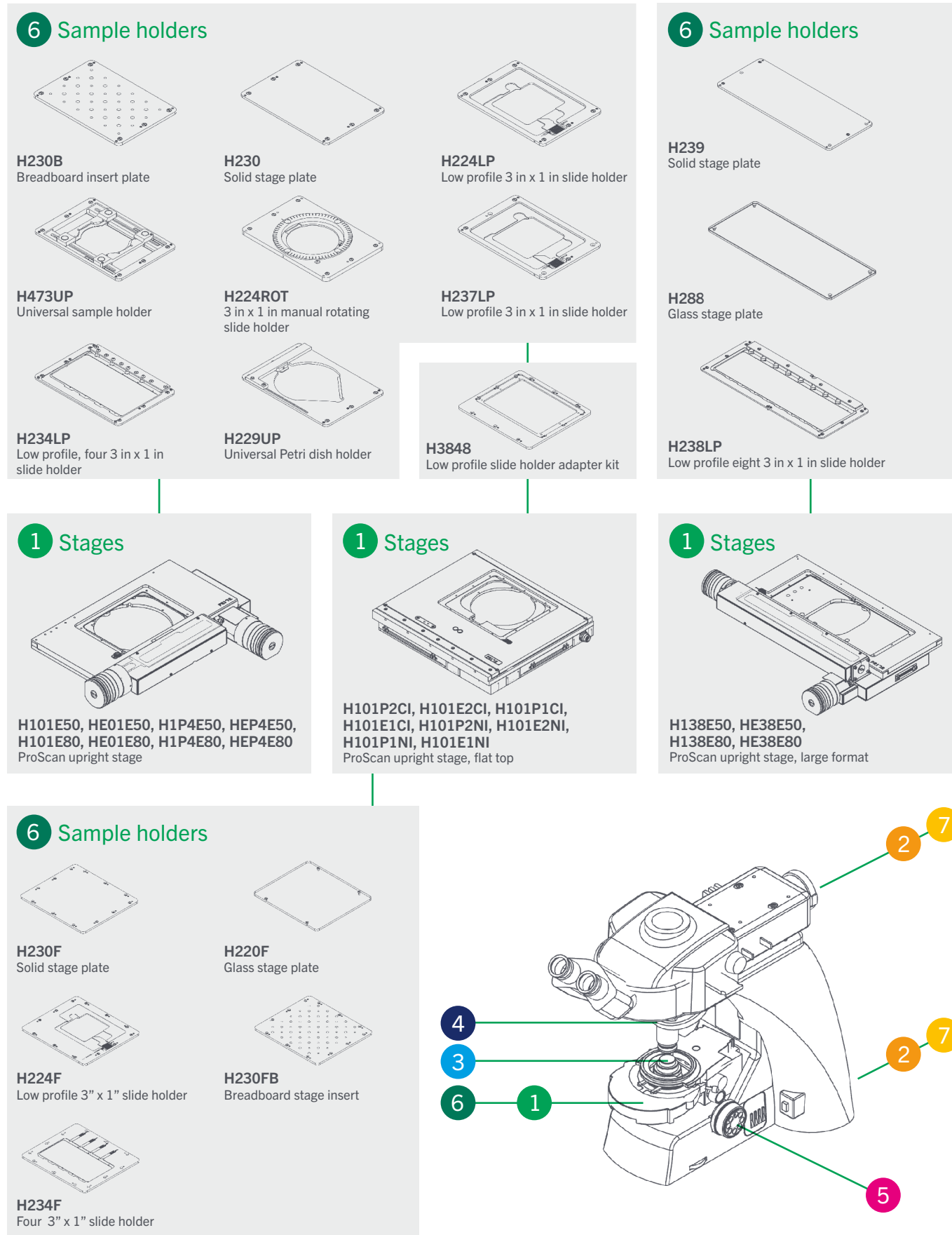


Nikon Ni configuration chart



See the following pages for more product information.

Contact Prior Scientific about robotic **slide loading** solutions.

Nikon Ni configuration guide

The Nikon Ni is an upright microscope with three variants; Ni-E (focusing stage type), Ni-E (focusing nosepiece type), Ni-L and Ni-U. The below information refers only to the Ni-E (focusing stage type), Ni-L and Ni-U. Please refer to the following section for the Ni-E (focusing nosepiece type). Prior Scientific offers an extensive range of upgrades for this microscope.

Motorized XY stages and sample holders

Many stages are compatible with the Ni-E (focusing stage type) and Ni-U. Stages with the suffix –E80 and –NI are compatible with the Ni-E (focusing stage type) and with the Ni-L/Ni-U when fitted with a Nikon SSR substage. Stages with the suffix –E50 and –CI are compatible with the Ni-L/Ni-U when fitted with a Nikon SS substage only. All the sample holders listed in the first section of the above table are compatible with the H101E50, HE01E50, H1P4E50, HEP4E50, H101E80, HE01E80, H1P4E80, and HEP4E80. All the sample holders listed in the third section are compatible with the flat top H101P2CI, H101E2CI, H101P1CI, H101E1CI, H101P2NI, H101E2NI, H101P1NI, and H101E1NI. In addition, sample holders from the first section are compatible with the flat top stage range when combined with the H3848. The large-format H138E50, HE38E50, H138E80, and HE38E80 can support up to eight slides.

Part	Description
H101E50	ProScan upright stage, part encoded, 2 mm pitch, 200 step, Nikon SS substage
HE01E50	ProScan upright stage, encoded, 2 mm pitch, 200 step, Nikon SS substage
H1P4E50	ProScan upright stage, part encoded, 1 mm pitch, 400 step, Nikon SS substage
HEP4E50	ProScan upright stage, encoded, 1 mm pitch, 400 step, Nikon SS substage
H101E80	ProScan upright stage, part encoded, 2 mm pitch, 200 step, Nikon SSR substage
HE01E80	ProScan upright stage, encoded, 2 mm pitch, 200 step, Nikon SSR substage
H1P4E80	ProScan upright stage, part encoded, 1 mm pitch, 400 step, Nikon SSR substage
HEP4E80	ProScan upright stage, encoded, 1 mm pitch, 400 step, Nikon SSR substage
H473UP	Universal sample holder (slides, Petri dishes, small flasks), upright
H224LP	Low profile 3 in x 1 in slide holder
H234LP	Low profile, four 3 in x 1 in slide holder
H237LP	Low profile 3 in x 2 in slide holder
H229UP	Universal Petri dish holder, upright stages, up to 90 mm diameter
H230	Solid stage plate, H101A stages
H224ROT	3 in x 1 in manual rotating slide holder
H230B	Breadboard insert plate M4 & M6 (H101)
H220	H101 glass stage plate assy

Large Format XY motorized stages and sample holders

Part	Description
H138E50	ProScan upright stage, part encoded, 2 mm pitch, 200 step, for up to 8 slides, Nikon SS substage
HE38E50	ProScan upright stage, encoded, 2 mm pitch, 200 step, for up to 8 slides, Nikon SS substage
H138E80	ProScan upright stage, part encoded, 2 mm pitch, 200 step, for up to 8 slides, Nikon SSR substage
HE38E80	ProScan upright stage, encoded, 2 mm pitch, 200 step, for up to 8 slides, Nikon SSR substage
H238LP	Low profile eight 3 in x 1 in slide holder
H238PLP	Low profile eight 3 in x 1 in slide holder, part recessed
H239	Solid stage plate, H138 stages
H288	Glass stage plate, H138 stages

Flat top XY motorized stages and sample holders

Part	Description
H101P2CI	Proscan upright stage, flat top, 2 mm pitch, 200 step, Nikon SS substage
H101E2CI	Proscan upright stage, flat top, encoded, 2 mm pitch, 200 step, Nikon SS substage
H101P1CI	Proscan upright stage, flat top, 1 mm pitch, 200 step, Nikon SS substage
H101E1CI	Proscan upright stage, flat top, encoded, 1 mm pitch, 200 step, Nikon SS substage
H101P2NI	Proscan upright stage, flat top, 2 mm pitch, 200 step, Nikon SSR substage
H101E2NI	Proscan upright stage, flat top, encoded, 2 mm pitch, 200 step, Nikon SSR substage
H101P1NI	Proscan upright stage, flat top, 1 mm pitch, 200 step, Nikon SSR substage
H101E1NI	Proscan upright stage, flat top, encoded, 1 mm pitch, 200 step, Nikon SSR substage
H3848	Low profile slide holder adapter kit for H101F
H230F	Solid stage plate, H101F stages
H224F	Low profile 3 in x 1 in slide holder, extended, H101F stages
H234F	Four 3 in x 1 in slide holder, H101F stages
H220F	Glass stage plate, H101F stages
H230FB	Breadboard stage insert assembly (H101F)

Objective positioners and adapters

When ordering, ensure the correct part number is used to specify inverted calibration. Objective positioners require a threaded adapter to fit the microscope nosepiece and the microscope objective. Nikon microscopes typically use M25 threads; please contact Prior Scientific if the nosepiece uses an alternative thread size. Some Ni 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/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-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

Motorized focus

The PS3H122R plus H3940 combination is required to drive the fine focus knob of the Ni-L/Ni-U microscopes. The coarse focus will not be motorized. The H122KNI direct coupling can be added for more precise motorized control. The Ni-E (focusing stage type) contains an inherent motorized focus, so no Prior Scientific focus motor is required unless using the PF850 autofocus.

Part	Description
PS3H122R	Generic focus drive and adapter with rotating cable system preventing cable twisting
H3940	Nikon Ni-U/Ni-C focus sleeve.
H122KNI	Direct fine focus coupling kit for Nikon 50i / 80i / 90i.

Autofocus

The PF850 is standalone hardware autofocus. The PF850 should be mounted between the objective and filter turret for fluorescence imaging. The PF200, PF209, and PF300 are required for setup and maintenance. The PF404 is required for use with piezo nanopositioning systems. Please note that the Ni-E inherent motorized focus cannot be used with the PF850 and that the PF850 should only be used with piezo focusing devices on the Ni-E. The PF850 is not compatible with the Ni-E.

Part	Description
PF850	PF head, controller with digipot power supply, cables
LF320	PF850 flange set (Nikon)
PF209	PureFocus setup sample slide
PF201	PureFocus setup camera alignment target type 2, DIA 25 x 0.75
PF300	PureFocus setup camera jig
PF404	Piezo cable for PF850 15D to BNC

Illumination

The L200NI and L200SNI are recommended for fluorescence microscopy, [see datasheet for details](#). Note that the L200SNI has a built-in shutter mechanism that can be controlled via a ProScan III controller, so a standalone shutter is not required. The L220NI and L220SNI are available for customers doing fluorescence imaging in the far-red. The L200 and L220 systems can be fitted to the NI-FLEI episcopic attachment or other attachments that take 9 mm diameter liquid light guides.

Part	Description
L200SNI	L200 standard box, lamp, light guide, shutter and Nikon collimator
L200NI	L220 standard box, lamp, light guide and Nikon collimator
L220SNI	L220 standard box, lamp, light guide, shutter and Nikon collimator
L220NI	L220 standard box, lamp, light guide and Nikon collimator

Excitation path

Filter wheels are not supplied with filters. Contact Prior Scientific if you wish to purchase a filter wheel stand that can be fixed to an optical table. For systems requiring a shutter and filter wheel, it is recommended to buy one of the combinations listed above. The HF220 adapter is needed for filter wheels and shutters in the episcopic path (via the NI-FLEI episcopic attachment). Excitation accessories are not compatible with the NI-FLEI-2 epifluorescence attachment.

Part	Description
HF220	Filter wheel adapter (Nikon)
HF202HT	25 mm high temperature standalone shutter
HF204HT	35 mm high temperature standalone shutter
HF110A	Filter wheel, 10 position, 25 mm diameter filters without stand
HF106A	Filter wheel, 6 position, 25 mm diameter filters without stand
HF108A	Filter wheel, 8 position, 32 mm diameter filters without stand
HF110A + HF200HT	10 position 25 mm diameter filter wheel plus shutter combination
HF108A + HF201HT	8 position 32 mm diameter filter wheel plus shutter combination