

LT3310 Substage

Our range of stages are suited for orthogonal positioning solutions in atmosphere, SEM/FIB, UHV and at low temperatures.

The LT3310 is primarily used in SEM/FIB to enhance the accuracy and functionality of the standard microscope stage. Its smooth motion and rotational axis make it ideal for cell counting. In addition, the LT3310 is designed for nanomanipulation applications where weight and space are highly restricted and for high-precision work in extreme environments.



APPLICATIONS

Substage for SEM & FIB

Cell counting

Particle counting

CUSTOMIZATION

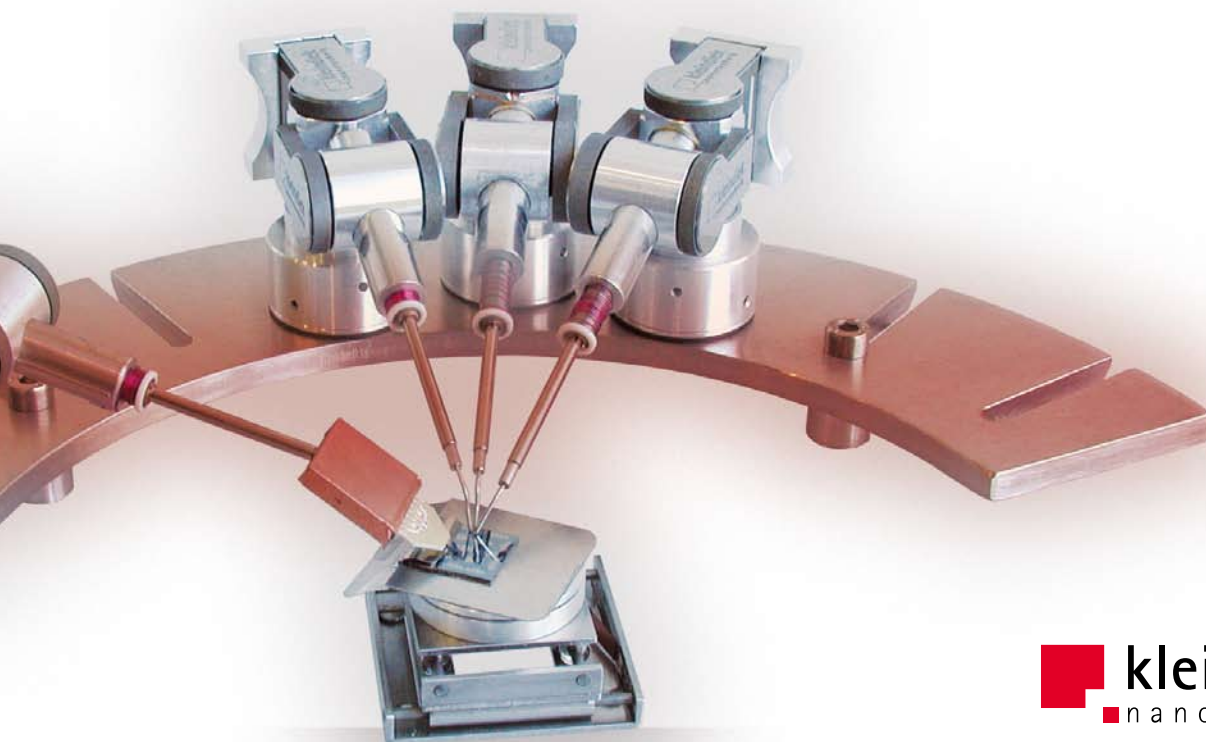
Two or three linear axes

Rotational axis

Ultra high vacuum compatible

Low temperature compatible

Non-magnetic material



LT3310 Substage

More compact and more flexible

- Small and practical
- Plug-and-play system with modular design
- Interfacing solutions for most SEM/FIB instruments (including load lock)
- Fast setup and removal

Clearer and simpler

- Result-oriented operation which leads to increased throughput
- Intuitive control interfaces, user-friendly software and API support
- User-friendly and easy to learn
- Compact, stand-alone electronics
- Pioneering cabling technology with compact vacuum feedthrough

More robust and more stable

- Compact construction delivers higher resonance frequencies
- Excellent stability
- Virtually unsusceptible to vibrations
- Reliable operation (one year endurance test)
- Fast pre-positioning by hand
- Functions in extreme working environments

Faster and more precise

- No backlash or reversal play
- Sub-nanometer resolution (< 0.5 nm)
- Coarse and fine displacement in one drive
- High operating velocity (up to 1 mm/sec)
- Low drift (1 nm/min)
- Smooth motion

Technical specifications

- Length 33 mm
- Width 33 mm
- Height XY 11.6 mm
Height XYZ 30 mm + 7 mm travel
Height XYR 16.6 mm
- Weight XY 22 g
Weight XYZ 34 g
Weight XYR 27 g
- Travel XY 10 mm
Travel Z 7 mm
Travel R 360° unlimited
- Speed up to 1 mm/s
- Resolution XYZ < 0.5 nm
Resolution R 10^{-7} rad
- Load 50 g
- Lift 25 g
- Maximum sample size 25 mm × 25 mm
- Temperature range 273 K to 353 K
UHV version 273 K to 393 K
Low temp. version 77 K (4 K*) to 393 K
- Lowest pressure 10^{-7} mbar
UHV version 2×10^{-10} mbar
- Substage mounting 4 × 2 mm holes
- Sample mounting 4 × M2 holes
- Material Stainless steel

*Requires special control unit

X, Y = HORIZONTAL
Z = VERTICAL
R = HORIZ. ROTATION

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