

HQ:NSC19/AI BS

Soft Tapping Mode and LFM AFM Probe

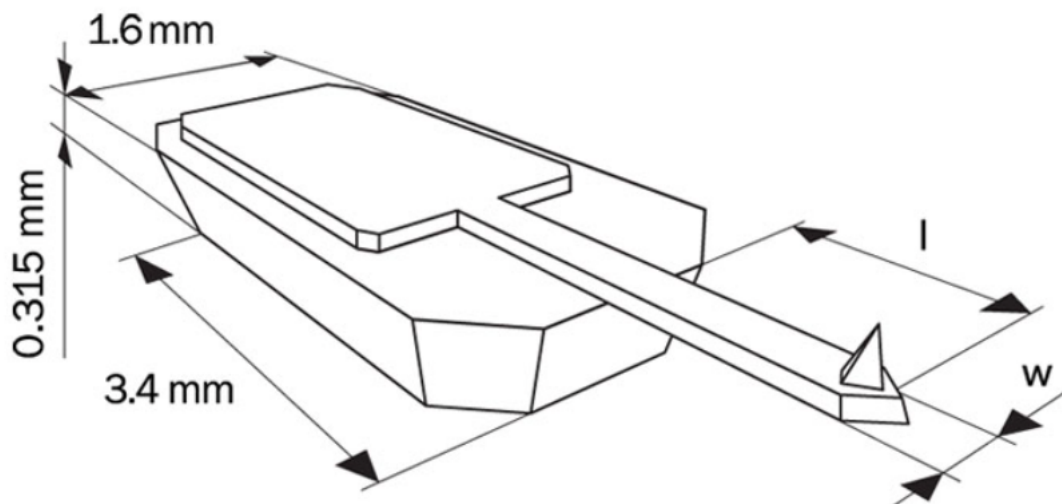
AFM probes of the HQ:NSC19 series combine relatively high resonance frequency and low force constant, which makes them suitable for imaging soft and fragile surfaces at relatively high speeds in Soft tapping mode. They are compatible with Bruker ScanAsyst® PeakForce Tapping™*. These AFM probes are also used in Lateral force microscopy due to their high sensitivity to lateral forces.

The HQ AFM probes offer high consistency of the AFM tip radius, the AFM cantilever reflectivity and the quality factor.

The aluminum reflective coating enhances the laser reflectivity of the AFM cantilever by approximately 2.5 times. For operation in liquids we recommend using the HQ:NSC18/Cr–Au BS with a reflective gold coating.

Coating

Reflective Aluminum



AFM Probe Specifications

AFM Tip

| SHAPE | HEIGHT | FULL CONE ANGLE | RADIUS |
|---------|--|-----------------|--------|
| Rotated | 15 μm (12 – 18 μm)* | 40° | < 8 nm |

AFM Cantilever

| CANTILEVER | SHAPE | FORCE CONST. | RES. FREQ. | LENGTH | WIDTH | THICKNESS |
|--------------|-------|------------------------------|---------------------------|--|---|--|
| Cantilever A | Beam | 0.5 N/m (0.05 – 2.3 N/m)* | 65 kHz (25 – 120 kHz)* | 125 μm (1 – 130 μm)* | 22.5 μm (19.5 – 25.5 μm)* | 1 μm (0.5 – 1.5 μm)* |

* typical values