

# HQ:NSC18/AI BS

## Soft Tapping Mode AFM Probe

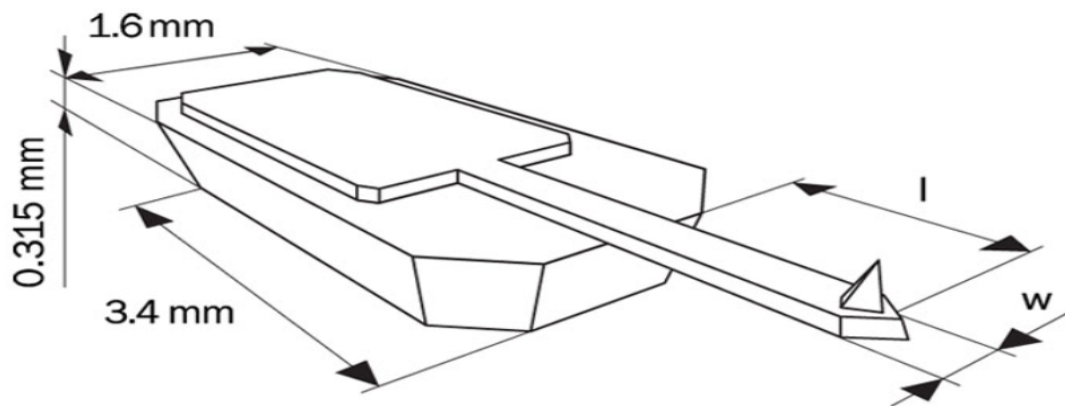
AFM probes of the HQ:NSC18 series are suitable for soft tapping and Lift mode operation AFM (e.g. EFM and MFM) since they provide high stability in tapping mode as well as high sensitivity to magnetic and electric forces that may be weak. These AFM probes are also used for mapping of materials properties in Force modulation mode and true topography imaging of soft samples in Soft tapping mode.

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 $\mu\text{m}$ (12 – 18 $\mu\text{m}$ )*	40°	< 8 nm

### AFM Cantilever

CANTILEVER	SHAPE	FORCE CONST.	RES. FREQ.	LENGTH	WIDTH	THICKNESS
Cantilever A	Beam	2.8 N/m (1.2 – 5.5 N/m)*	75 kHz (60 – 90 kHz)*	225 $\mu\text{m}$ (1 – 230 $\mu\text{m}$ )*	27.5 $\mu\text{m}$ (24.5 – 30.5 $\mu\text{m}$ )*	3 $\mu\text{m}$ (2.5 – 3.5 $\mu\text{m}$ )*

\* typical values