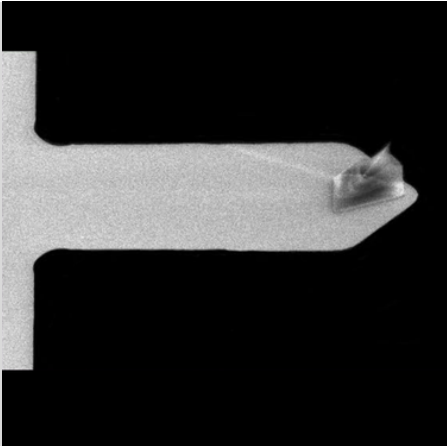


Product overview

**SENSE 100 :**

AC-mode liquid imaging probe for soft or biological samples. Sharp silicon tip integrated onto a silicon nitride cantilever with a gold reflective backside coating, and exhibits exemplary dimensional tolerances.

- Equivalent to the Olympus BioLever AC40TS
- High-resolution imaging of biomolecules
- High-speed imaging of soft materials
- High-sensitivity force spectroscopy



Product selection guide

| Model     | Primary application       | Key feature                           | Resonant frequency (kHz) | Spring constant (N/m) | Tip radius (nm) |
|-----------|---------------------------|---------------------------------------|--------------------------|-----------------------|-----------------|
| SENSE 100 | AC-mode imaging in liquid | Equivalent to Olympus BioLever AC40TS | 100                      | 0.1                   | 5               |

Cantilever specifications

| Parameter                | Nominal Value   | Range Value |
|--------------------------|-----------------|-------------|
| Spring constant (N/m)    | 0.1             | 0.07–0.13   |
| Resonant frequency (kHz) | 100             | 80–120      |
| Shape                    | Rectangular     |             |
| Length (µm)              | 38              | 37–39       |
| Width (µm)               | 16              | 15–17       |
| Thickness (µm)           | 200             | 190–210     |
| Material                 | Silicon Nitride |             |

Tip specifications

| Parameter           | Nominal Value              | Range Value |
|---------------------|----------------------------|-------------|
| Radius (nm)         | 5                          | <10         |
| Exposed Height (µm) | 2.5                        | 2-3         |
| Total Height (µm)   | 7                          | 6-8         |
| Set back (µm)       | 3.5                        | 3-4         |
| Shape               | Tetrahedral                |             |
| Cone angle (°)      | 15                         | 10-30       |
| Material            | Silicon (n-type, antimony) |             |

Chip specifications

| Parameter         | Value |
|-------------------|-------|
| Length (mm)       | 3.4   |
| Width (mm)        | 1.6   |
| Thickness (mm)    | 0.3   |
| Cantilever anchor | Yes   |
| Alignment grooves | No    |

Coating

| Coating             | Value              |
|---------------------|--------------------|
| Frontside/Tip       | None               |
| Backside/Reflective | 5 nm Ti / 40 nm Au |

Application

To learn more about the Sense 100 application, [click here](#)

Notes:

- Nominal values for spring constants and resonant frequencies are calculated using well-known formulae and based on expected probe dimensions
- The ranges are calculated using measured dimensional variation
- The SENSE 100 exhibits exemplary dimensional tolerances, characteristic of all NuNano AFM probes

Supplier information:

Albasci B.V. is a trusted partner for Nu Nano Ltd AFM probes. This datasheet compiles technical specifications and product information provided by the manufacturer, Nu Nano Ltd.

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