Locating the substrate surface is a very critical aspect of precision dispensing. For some applications the needle must be positioned 0.0010" to 0.0015" (25 μm to 38 μm) above the surface. Contact surface sensing is the most versatile and reliable method of surface sensing.

- **Contact surface sensor** is not subject to surface textures or colors like a laser. A laser’s repeatability is reliant on the consistency of a reflected beam; surface textures and colors affect that reflectivity, altering the laser feedback from substrate type to substrate type.

- **Probe tip** has a substrate contact area of 0.015" (380 μm) in diameter. The tip may be customized for specific applications, either with a larger or smaller diameter probe.

- **Cycle time** for a surface sense is approximately one (1) second. The cycle time is the same for all substrates.

- **Design** incorporates a linear slide for smooth sensor tip extension.

- **Sensor** is isolated from moving parts

- **Continuous testing** has yielded repeatability of ±0.0003" (±7 μm) on all surfaces.