

ASYMTEK Needle Sensor

Automatically Detect and Correct Needle Position Offsets

Features and Benefits

- Enables quick changeover of needle sizes or valves without any program modifications or reprogramming
- Automatically compensates for bent needles to maintain accuracy and consistency
- Delivers precise X, Y, and Z repeatability of ± 0.002 in.
- Designed for fast, straightforward mounting and installation



The ASYMTEK Needle Sensor reduces manual adjustment time and minimizes operator error. Needle positions can shift after changeover, and bent needles may result from unpredictable obstacles such as hanging cables or from dispensing material near components that were angled during upstream processes.

On the ASYMTEK Select Coat[®] SL-940 and SL-1040 conformal coating systems, needle position verification can be integrated directly into the process controls.

The optional Needle Sensor detects the needle tip location in the X and Y directions, as well as its Z height. ASYMTEK EasyCoat[®] 6 software then automatically adjusts subsequent coating operations to align with the detected needle tip position. If the needle is found to be outside defined process limits, the system alerts the operator to take corrective action.

Programmers have full control over when the verification routine is executed. It can be triggered at the start of production, based on a timer, after a specified number of coated assemblies, or in response to other system events or process controls on the conformal coating platform.

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Specifications

Minimum needle length	0.125 in.
Minimum needle diameter	30 gauge
Accuracy	±0.005 in.
Repeatability	±0.002 in.

Note: The Needle Sensor does not compensate for XYZ changes in needle position due to tolerances in parts, tooling, or fixtures.

Valves

- SC-400 PreciseCoat® conformal coating jet

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