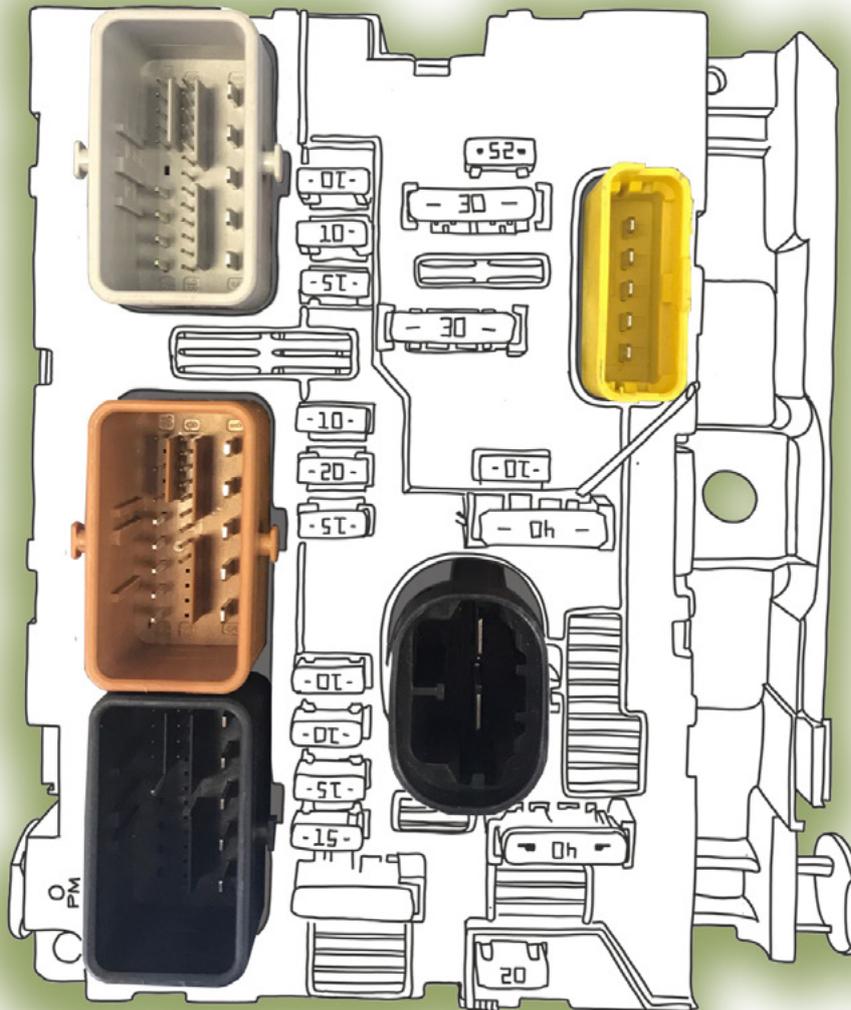


PinInspector3D

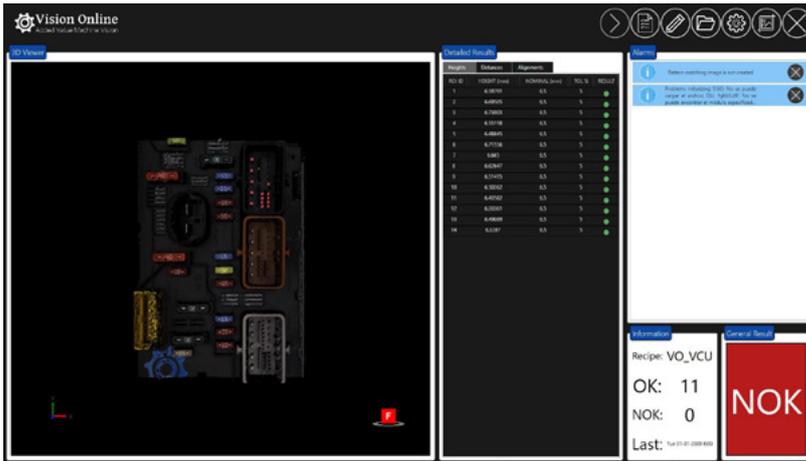
3D measurement
and verification
solution for pins #05



Vision Online

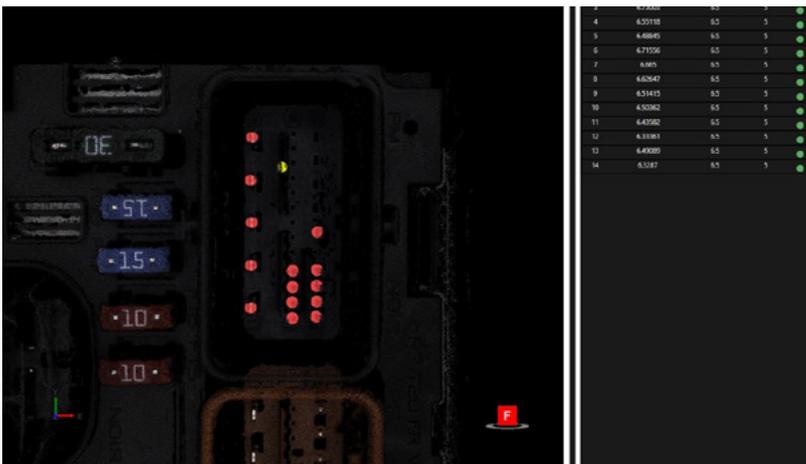
Added Value Machine Vision

What is Pin Inspector?



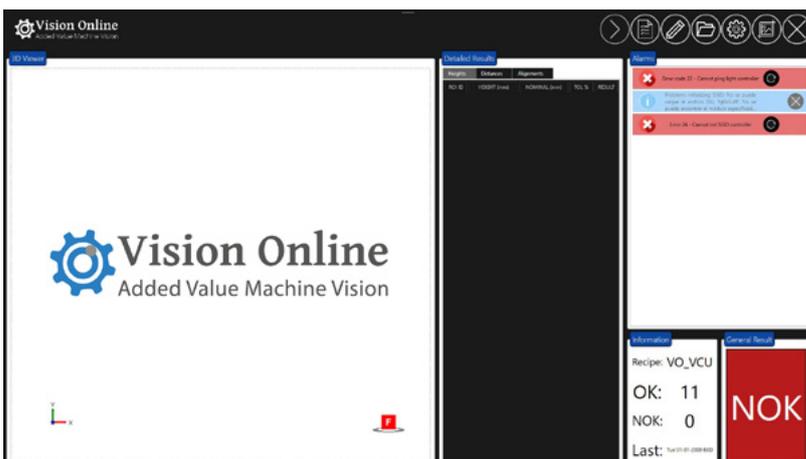
Pin Inspector is a 3D inspection system which verifies all main geometric dimensions on electrical connectors (e.g. pins presence/absence, wobble circle, heights, distances and alignments), providing an evaluation if an electrical component fulfills (or not) all requirements given by the user.

How does Pin Inspector do it?



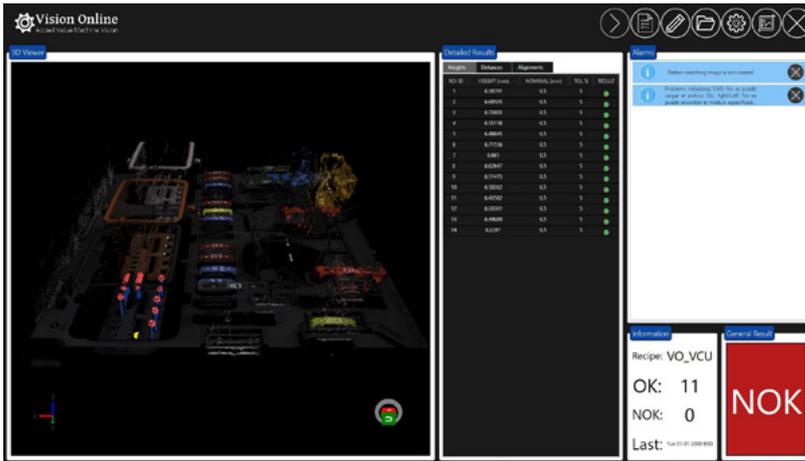
With stereo or fringe tri-dimensional image acquisition a point cloud representation of the electrical connector is extracted. Robust mathematical algorithms calculate pin's geometric dimensions. Additional 2D processing is mandatory in order to decrease and correlate the real process uncertainty's.

Intuitive user interface



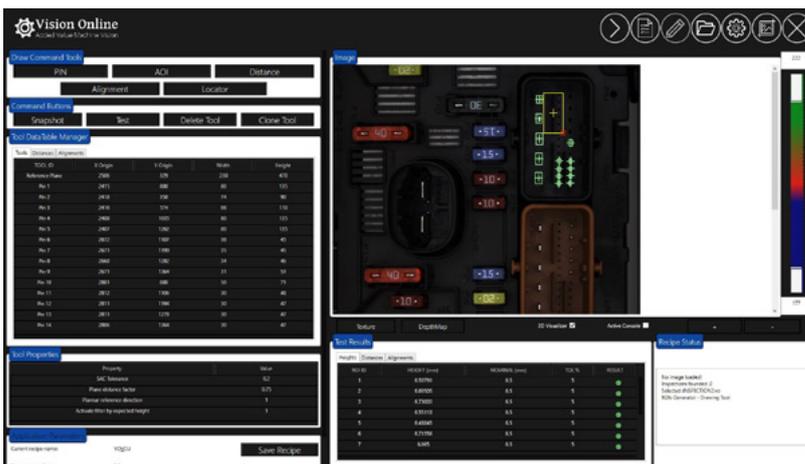
The command console user interface is custom-designed to conform to the highest and most demanding industrial companies real process needs. The interface that offers maximum ease in usability is the result of long-term testing done on true industrial processes, where users' feedback is our main input.

Runtime monitor screen



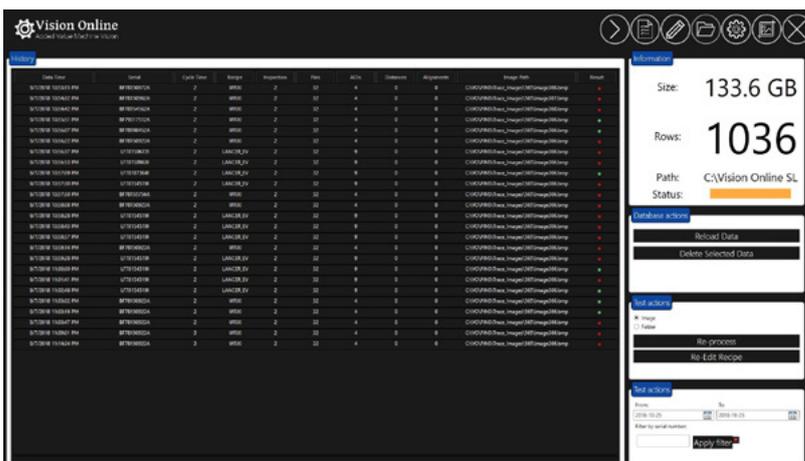
It's composed of three main parts: First one offers a view of the point cloud in real time (point cloud is updated every trigger). Second provides the global system alarms overview and the third shows the OK and NOK statistical counters.

Recipes editor screen

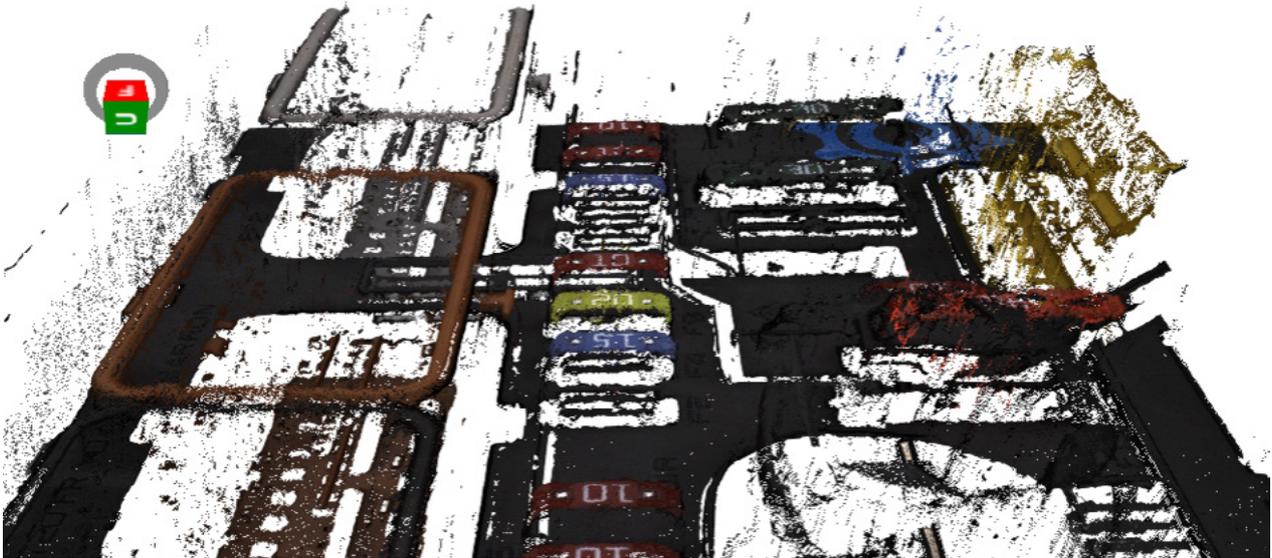


Quality and accuracy assurance are closely related to the quality of the user configured recipes attributes. For that reason, the user interface has a specifically designed area where user can set-up all the tools with their respective features and tolerances through drag and draw. Besides, users can check the recipes with real process data using a temporal test.

Historical monitor screen



Responding to information management's increasing importance in Industry 4.0-environments, Pin Inspector's interface includes a traceability-module. It saves all relevant data and images and moreover offers re-processing options on historical data. A custom-designed database makes CRUD functions available and user-created recipes can be executed on true process data.



Technical specifications	STEREO	FRINGE
2D Spatial resolution	25 μm^*	60 μm^*
Height resolution	10 μm^* (4 μm)* Dual version	30 μm^{**}
Free working distance	173.6 mm	181 mm
Process control	STEREO	FRINGE
Image acquisition mode	Line scan	Multiple capture no movement
Scanning Volume	120 x Lines** x 8.2 mm^3	120 x 80 x 20 mm^3
free working distance	173.6 mm	181 mm
Output data	PointCloud / Color	PointCloud / Mono

* According to surface texture and reflections.

** Lines refer to number of lines acquired in the movement direction

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