PickMaster™ External Sensor for SICK IVC-3D
Enable 3D-vision to high speed picking

PickMaster application software with SICK IVC-3D, adds 3D vision technology to the ABB packaging application. It offers the ability to accurately check the quality of object height, size and shape of natural shaped products - even when those characteristics vary such as in bread, cookies, fruits, vegetables and meat.

**PickMaster 3**
The ABB PickMaster software is the benchmark leader for comprehensive configuration of complex robotics picking and packing systems. The flexible interface and tightly integrated conveyor tracking capability with its 2D vision technology is the proven solution for successful robot integration in high speed picking and packing application. By adding the External Sensor for SICK IVC-3D, a new field of opportunities is enabled for high speed picking and packing applications.

**Benefits of using 3D-vision tools**
When including height in the object detection, targets with poor or varying contrast and targets with large variations in shape are handled very well. Even objects of the same color as the belt, e.g., black-on-black or white-on-white, can be managed. There are also no misdetections due to variation in background such as belt discoloration thanks to the use of 3D. As long as the detected height is within the accepted tolerances, objects will be picked. Objects with incorrect height will be ignored or sorted accordingly.

**Improved picking process**
By distinguishing the shape of each object, the picking process can be adapted to permit handling of more delicate objects by minimizing the risk of damaging them and it can also recognize and sort overlapping products. The use of 3D information also eliminates inaccuracies introduced by parallax projection errors known from 2D vision systems over wide conveyor belts.

**Integrated for PickMaster 3**
The External Sensor for SICK IVC-3D communication software enables any SICK IVC-3D camera to be used together with PickMaster 3 to provide three dimensional position data to any ABB robot. The SICK IVC-3D Belt Pick Toolkit provided by SICK, is a ready out of the box solution with an intuitive web interface for setup, calibration and configuration to detect free-form objects and send the x, y, and z coordinates and the z-axis orientation of each object to PickMaster 3.
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In situations using high product density conveyors, the SICK IVC-3D can offer improved performance in detection of closely located- or even overlapping products.

Specification

ABB PickMaster 3
ABB External Sensor for SICK IVC-3D communication software
SICK IVC-3D Camera
Sick IVC-3D Belt Pck Toolkit