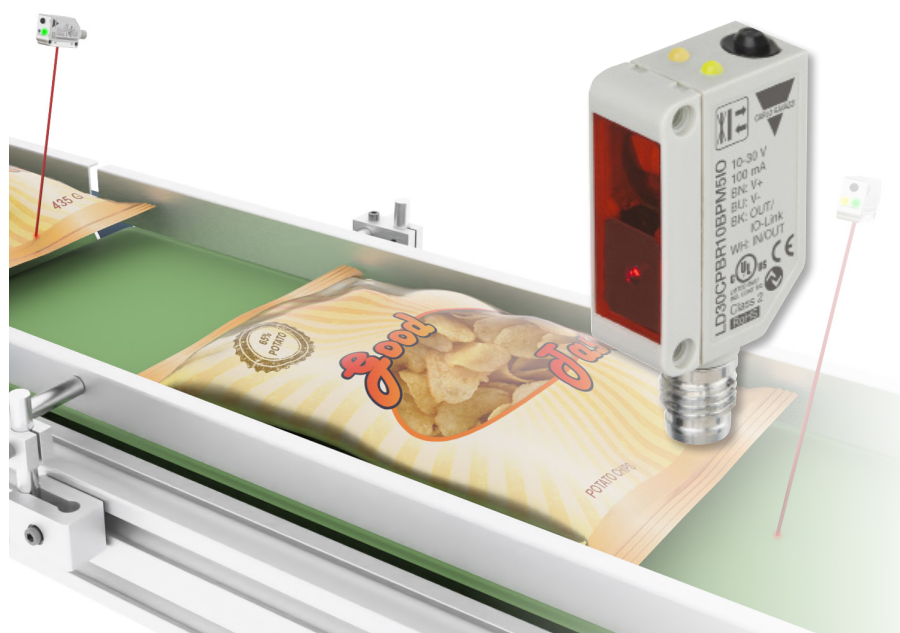


Application note



Subject:
**Case packaging machine with
 a buffer conveyor**

Industry:
Conveyors in packaging lines

Product:
LD30xPBR..IO

Customer:
OEMs, System integrators

CUSTOMER ISSUE

Manufacturers of packaging lines need to have flexible machines to pack a variety of products.

The packaging machine has a buffer conveyor and a packaging station moving the objects into a case. It is not possible to constantly readjust the sensors so as to adapt them to the variety of objects to be packed.

OUR SOLUTION

The LD30CPBR...IO or the LD30EPBR...IO can be set to background suppression or, in this case, to the foreground suppression mode via an IO-Link master or our SCTL55 Smart Configurator.

There is a small 1 mm visible round red laser spot to facilitate the sensor alignment. The sensors can be set to foreground suppression mode to see the green conveyor belt, either with a single teach or dynamically to compensate for the movement of the belt.

The sensor expects to see the conveyor belt so if any object blocks the view of the belt, it reflects the light away from the sensor or absorbs all the light from the sensor it is detected as an object.

By means of IO-Link the sensor can be configured to a variety of functions, e.g. a built-in time delay that can be set to avoid small dropouts in the detection.

BENEFITS

- The foreground suppression mode, with the small visible red laser spot, allows reliable detection of highly reflective or dead black objects close to the conveying belt avoiding unnecessary production stops
- In IO-Link mode, valuable downtime can be avoided thanks to the predictive maintenance functions such as Quality of Run, Quality of Teach, Temperature and dust alarms, Excess Gain, and Auto Adjustment
- In addition, the IO-Link allows easy customization of distances, timers, logic functions as well as different output configurations