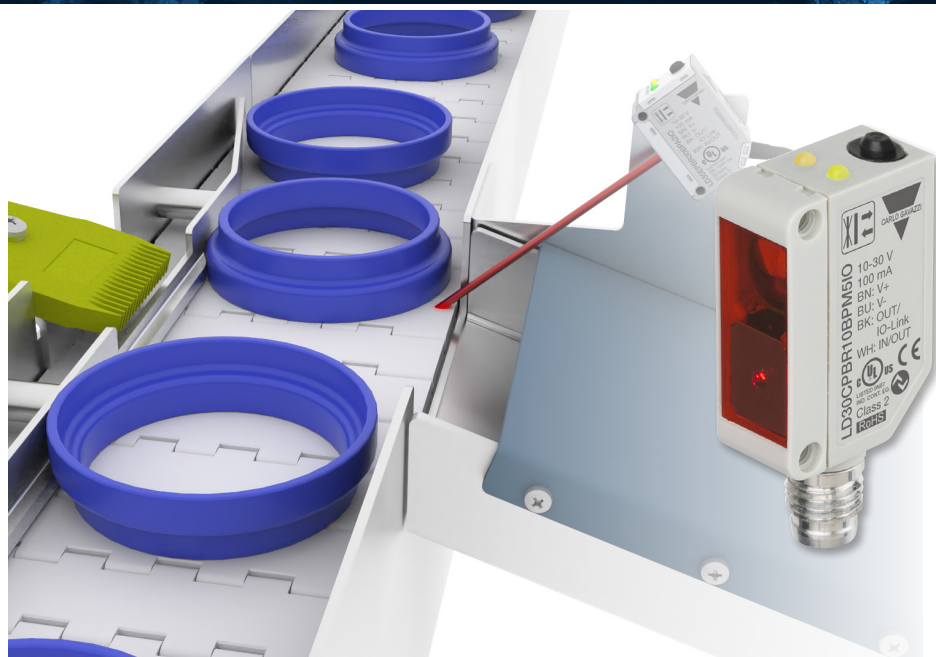


Application note



Subject:
Bowl feeder system for part orientation

Industry:
Conveyors in materials handling and packaging lines

Product:
LD30xPBR..IO

Customer:
OEMs, System integrators

CUSTOMER ISSUE

It is required to sort parts from a vibratory bowl feeder, so the parts are correctly orientated.

The correct position is with the largest diameter pointing upwards. If the largest diameter is pointing downwards this part needs to be blown back into the vibratory bowl feeder.

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.

The small 1 mm round laser spot is aligned to the white conveying belt and taught in foreground suppression mode to recognize the belt. If the large diameter is blocking the sensor from seeing the belt, the blow nozzle sends the part back into the vibratory bowl.

By means of IO-Link the sensor can be configured to a variety of functions.

BENEFITS

- The foreground suppression mode, with the small visible red laser spot, allows reliable detection of the white conveyor. Only a small part of the large diameter has to block the view of the white conveyor to detect the object
- 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