

Customer

An MNC manufacturing health drinks packed in tetra-packs

Customer requirements

Presence/Absence detection of straw on box in high Speed conveyor

Epsilon Solution

Epsilon ECA-SDS2 laser sensor

Why Epsilon?

Epsilon is always chosen as a trusted solution provider for difficult applications

Detect the Presence/Absence of straw on box on high speed conveyor



Deployed 50mm from its target, an ECA-SDS2 sensor with Epsilon intelligent controller inspects for presence/Absence detection of straw on box on high speed conveyor

Customer Benefits

Flexibility – Only one time mounting of sensor and continuously monitoring presence/Absence of straw on box for different speeds
No need of separate box detection sensor

User Interface – LED indication for monitoring inspection results on sensor and epsilon intelligent controller

ECA-SDS2 Features:

- The algorithm in ECA-SDS2 sensor wait for end of box and then straw signal is set accordingly
- Reliable operation in various speeds.
- Setting not required for different pack sizes.
- No false or multiple output.

Learn More

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Background

Special application done for Tetra pack packaging industry. These industries need a simple, cost-effective, and reliable way to detect presence/absence of straw on box on high speed conveyor after straw applicator. In case of missing of straw on box is rejected by use of rejection mechanism.

Challenge

The size of the packet changes, color of the packet is not same. It may be any color and travelling at speeds of up to 150/minute. The straw is covered by transparent plastic and its position on the box may keep varying without consistency. We have to avoid multiple pulses while strictly checking that no box travels without straw pasted on it.

Solution

The Epsilon ECA-SDS2 sensor provides a simple way to detect presence of straw on box. The algorithm in ECA-SDS2 sensor wait for end of box and then straw signal is set accordingly, If straw was present then 0V is set otherwise +PWR . In the event of straw missing, pneumatic pusher mechanism ejects the packets in to the ejection bin. The sensor is capable of finding straw on 1box per sec to 30 boxes per second.

Product Image

