

Customer

An MNC manufacturing health drinks packed in tetra-packs

Customer requirements

Presence/Absence detection of date code and verification of 2D code on box on high Speed conveyor

Epsilon Solution

IVu Plus-Gen2 pattern vision sensor with 12mm lens, red ring light for date code and IVU Plus-Gen2 barcode vision sensor with 12mm lens, white ring light for 2D code

Why Epsilon?

Epsilon was chosen on the basis of successful previous projects with the same customer. Which was happy with Epsilon's services and quality workmanship.

Customer Benefits

Flexibility – User friendly tools and sensor options simplify any application changeover

User Interface – Touch Screen display allows the operator to manage the device and monitor inspection results.

ST2 Features:

- 3.5" diagonal color LCD flat-panel touch screen with wide viewing angle
- No external PC required to configure, change or monitor
- Multiple tools can be used in the same inspection.
- Recipe selection built-in

Learn More

Visit www.epsilonfiberoptics.com for more applications

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Deployed 160mm from its target, an IVu Plus TG-Gen2 with 12mm lens inspects for presence/absence detection of date code on box & Deployed 110mm from its target, an IVu Plus BCR-Gen2 with 12mm lens inspects for verification of 2D code on box.

Background

Special application done for Tetra-pack packaging industry. These industries need a high speed but cost-effective and reliable way to detect Presence/Absence of Datecode and verification of 2D code on box on high speed conveyor. Unprinted packet and wrong barcode packet is rejected by use of pneumatic pusher rejection mechanism to avoid mix-ups and avoid floating unprinted packet in market

Challenge

The color of the packets for various flavours is not same. It may be any color and traveling at speeds of up to 150/minute. So we choose universal white light. Since the line is high speed, packets running very close to each other and weight such that air purge rejection will not work, we choose pneumatic pusher with smaller 50mm stroke such that the plunger returns to home position before the next packet enters its zone & thus not blocking the movement of subsequent packets.

Solution

The Epsilon IVu Plus-Gen2 TG image sensor provides a simple way to detect presence absence of date code on box using match tool. The Epsilon IVu Plus BCR-Gen2 image sensor provides a simple way to verify 2D code on box. The image of the date code is compared with the pre-saved image for each batch. In event of date code missing and wrong barcode, an electronic output is generated from Camera. In this case output is used to eject the faulty Product by pneumatic pushercylinder.

