

# Application Note...

## Customer

Wading service provider and cap manufacturer.

## Customer requirements

To detect Presence/Absence of wad in bottle cap on high Speed conveyor

## Epsilon Solution

Epsilon's fiber optic sensor with controller.

## Why Epsilon?

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

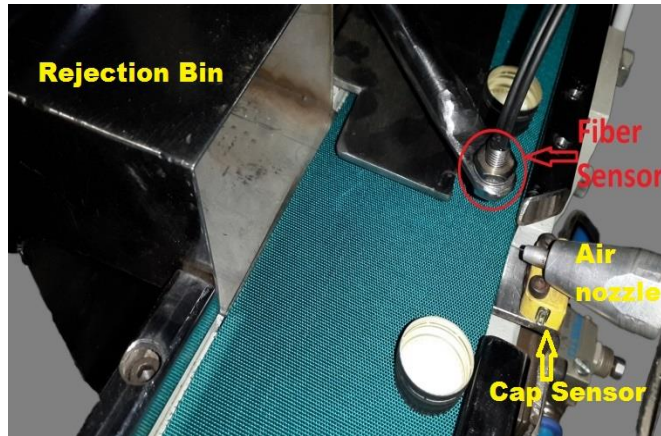
## Customer Benefits

- Reliable operation at various speeds.
- No false or multiple output.
- Simple system because use of distance sensor
- System work on up to 1000 products per minute.
- Flexible system
- Sensor has different mode of operation which will help to do critical operation.
- Trigger sensor is used to detect cap.
- Controller based system helps you to adjust delay time before rejection
- System ensures you that no faulty product per will go to end customer
- Alarm gives you instant indication for faulty products.
- Cost effective & efficient system.

## Learn More

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## Detect the Presence/Absence of Wad in Bottle Cap on High Speed Conveyor



Fiber optic sensor mounted on 25MM from its target, with Epsilon's intelligent controller which inspects for presence/absence of wad in bottle cap on high speed conveyor

## Background

Special application done for wading service provider and cap manufacturer. These industries need a simple, cost-effective, and reliable way to detect presence/absence of wad in each bottle cap on high speed conveyor. In case of missing of wad that bottle cap is rejected by using rejection mechanism.

## Challenge

Customer has wide range of caps with different size and colour. Bottle caps are travelling at a speed of up to 1000 caps per minute. The wad thickness is 2MM so we have to give system with sensor which has less than 2 MM resolution. Conveyor has also some vibration while running.

## Solution

The epsilon's fiber optic sensor provides a simple way to presence/absence of wad in bottle cap .If the cap with no wad comes then controller gives 24V output pulse to solenoid coil to eject that faulty cap. We have also provided buzzer and lamp indication for faulty product. on delay and off delay of output pulse is adjustable using push button provided in controller.

