

## Application Note.....

### Customer Requirement:

Effectively read the value of MRP Printed on Paint cans

### Epsilon Solution:

Combines all P4 vision inspection tools including Blob, Gray Scale, GEO, Edge and Object

### Why Epsilon?

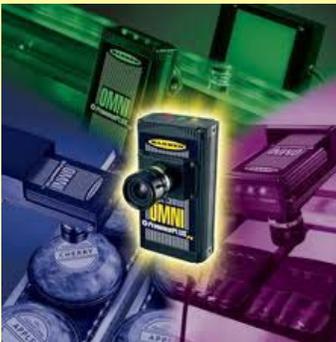
#### Effective Solution

Epsilon provides effective and reliable solutions for critical applications

Customer chose Epsilon for its excellent technical support track record.

### Customer Benefits:

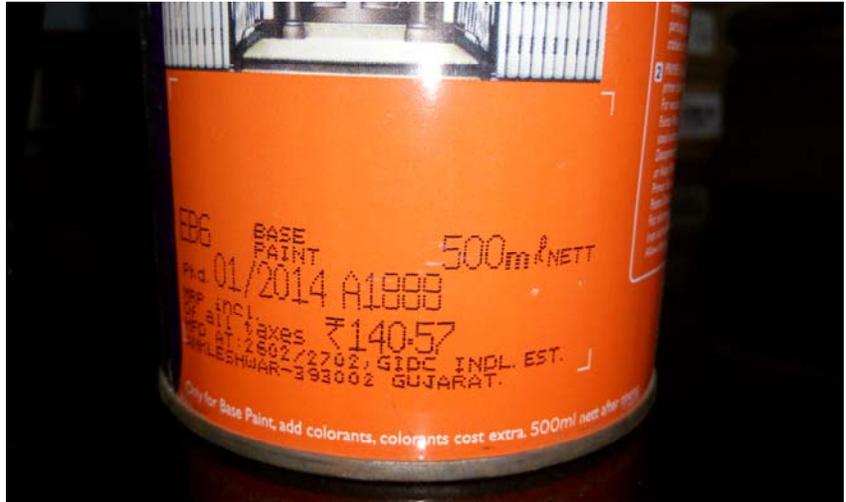
- Improved Productivity
- Easy installation
- Improved Speed



### PresencePLUS P4 Omni Features

- Standard OMNI model (640 x 480 pixels) provides accurate analysis at high speeds
- Includes remote TEACH, configurable I/Os, live video and communications standard to all PresencePLUS sensors
- Features compact, self-contained P4 housing

## Optical Character Recognition (OCR) on Paint cans after UJ mark Detection



### Background

Customer is a manufacturer of Liquid filling machines. Application is to read and verify the correct MRP Printed on the paint cans

### Challenge

When Paint cans comes in front of camera they are rotating so there is no reference to the camera for taking image and there is a shift in the image too. A bigger challenge is to use a light common for all colours of the cans which may not have white background patch for printing we have deployed red light

### Solution

We have to read the MRP on the paint cans after UJ Mark detection. Cans are continuously rotating so when the print over signal is given to the camera to capture the image there is some delay given for camera to capture the image because there is a gap between printer station and camera station. Camera reads MRP which are numeric characters. We have used OCR (Optical Character recognition) tool. This MRP Value is transferred to the HMI through Ethernet port over Modbus protocol. If MRP value does not match with the predefined value then Camera will give fail signal to the system and that will be removed from the conveyor automatically.

To work efficiently even in extreme print shift situations, the ₹ (Rupee symbol) is taken in reference to locate the price. Also, powerful ring light and high intensity spot lights are employed in tandem for quick exposure times and creating high contrast