BANNER ®
more sensors, more solutions

Customer

A global supplier of automotive components

Customer Requirement

Read invisible 2D Data Matrix barcode and send data via Ethernet IP to a PLC for traceability/error proofing

Banner Solution

iVu Plus BCR image sensor with long-range C-mount lens, UV spotlight and Ethernet IP capabilities

Why Banner?

Support and fast turnaround for an evolving technology – Banner is a leader in solving UV barcode applications, and in 2-3 days, the vision team combined various elements to create a complete UV solution

Customer Benefits

Enhanced quality control – 2D Data Matrix codes can be imprinted, detected and read without affecting product design

Cutting edge solution – Customer has a cost effective vision device in place for growing UV technology

iVu Plus BCR
with 50mm
C-mount
adapter lens

iVu Plus BCR Features:

• 50 mm C-mount adaptor lens provides long-range viewing

• 50 mm UV spotlight / 470 nm filter enables iVu Plus to detect small UV barcodes

• Ethernet IP network connection communicates pass/fail output to PLC

Learn More

Visit *www.bannerengineering.com* for product information and to locate a distributor

• iVu Plus BCR product overview

iVu Plus BCR Reads UV Barcodes for Traceability

The iVu Plus BCR sensor detects a 2D Data Matrix UV barcode printed on an automotive warning label.

Background

Many automotive suppliers are incorporating Ultra Violet (UV) barcodes for component traceability and quality control applications. The emerging technology uses UV-based ink that's only visible to the human eye when illuminated with a UV light source. The benefit? Suppliers can store key information (serial numbers, inspection results, etc.) in a small code that's printed directly on the component, without affecting design or aesthetics. And in the event of a recall or other issue, they can scan the code to verify that components were installed and tested in compliance with standards.

Challenge

Before shipping to the brand assembler, a supplier of auto visors needs to verify that Data Matrix UV barcodes have been printed on each visor's safety label. The obvious challenge is that the barcodes are invisible. And because UV technology is a relatively novel concept in the automotive world, the application was also new to the production process. With demand for a solution increasing, the supplier asked their equipment OEM to get a product on spec that could detect the invisible 0.25" x 0.25" barcode from 12" - 14" away and with a field of view of 1.5" x 1.0".

Solution

The company's OEM contacted Banner Engineering. In a matter of days, Banner added components to the standard iVu Plus BCR image sensor – specifically designed to read barcodes – to meet the OEM's target dimensions, UV application and deadline. Banner's 50 mm C-mount adaptor lens is critical to the solution, enabling the sensor to meet the long-range field of view and distance requirements. A 50 mm UV spot light and 470 nm filter give the iVu Plus the ability to detect the luminescent codes, and when it does (or does not), the iVu Plus sends a pass/fail output through the Ethernet IP network connection to the supplier's PLC. The iVu package not only solved the supplier's application, but it gave them a cost effective and reliable tool for the growing trends in UV technology.

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