

APPLICATION NOTE AN006

Glue Dispensing

PACKAGING

INDUSTRY: Packaging

APPLICATION: Verification of glue placement for folder/gluer

The Challenge

A leading supplier of glue application and glue detection systems needed to verify the placement of glue on various packaging materials in a high-speed process to improve quality, throughput and to reduce operating cost by minimizing down-time. Proper glue placement on seams is necessary for packaging integrity.

The Solution

EMX Industries, Inc. has developed the UVX-300G-C Luminescence sensor designed to detect the presence of a wide variety of adhesives with luminescent tracers. The glue contains a luminescent tracer causing it to emit visible light when illuminated with a UV light source. Since the sensor detects only luminescent materials, it will not respond to changes in the background such as printing. The UVX-300G-C with its 50mm accessory lens provides a 1.5 mm light spot for high spatial resolution allowing dot patterns to be recognized. The sensor provides a discrete output to indicate presence and is easily integrated into automated systems. The output automatically configures for NPN or PNP operation.



The photo shows the UVX-300G-C sensor. The sensor features a 2-digit display indicating the signal level measured by the sensor. A modulated, 370nm UV light source prevents the sensor from being affected by ambient light. Calibration and light source intensity adjustments are provided to allow the sensor to operate efficiently over a wide range luminescent materials and distances. A remote lock feature prevents unauthorized changes to the sensor settings.

UVX 300G-C Luminescence sensor

The photos show the UVX-300G-C sensor viewing a typical folding carton side seam with and without the glue present. The display shows the signal level from the luminescent tracers in the glue, the red LED indicates that the signal is above the threshold setting. The fast response of the UVX-300G-C provides a sampling rate >3000/second making it ideal for high-speed packaging applications. The UVX-300G-C provides the reliability necessary to assure that the glue is applied properly to each and every product.



Glue present



Glue missing

Equipment Required

[UVX-300G-C](#)
UVX-300-L50

UVX Luminescence sensor, display range 0-99, calibration adjustment
Lens, 50mm