

JM CANTY

Process Technology

VECTOR SYSTEM - IN-LINE COLOR ANALYSIS

Applications:

- LPG in pipelines Dye mixing Fluid separation
- Chemical processes Crystallizers Quality control
- Plus many, many more!

Color analysis is a unique function of the Vector System. There are two systems available:

- Color analysis using a color system
- Color analysis using a Black & White system

The principle of operation is similar for all units. The video picture from a Vision System Camera is fed into the Vector System. This signal is then broken down into an array of pixels, approximately 512 X 512. The Vector then processes this information through complex Fourier transforms, and various signal analysis routines to analyze the color of a fluid.

Black & White

Black & White Vector systems use a gray scale system. The color of each pixel in the video picture is represented on a "gray scale", where color intensities are represented as a shade of gray, with the two extremes being black and white. Each color intensity is represented as a numerical value, with black being 0, white 255, and all others a shade of gray in between. In this manner, all colors are represented as a numerical value, and can be automatically processed, yielding valuable color readings.

Color Analysis

Using the same principle as a Black & White system, the Color Analysis system relies on a color or RGB Canty Vision System. This video signal is processed by the Vector Board, and broken down into a matrix of pixels. The color components in each of the primary colors are then analyzed, yielding a pallet of 256,000,000 different color combinations. This information is then processed, relating all colors to a finite, numerical representation. Complex data stratifications are then used to determine the color of the product.

ANALYSIS

Using these ideas, a color baseline can be established for virtually any product. Once this color varies by a certain degree, we can alarm. What's more, **Canty is able to do this in- line, on a repeatable basis.**

JM CANTY INC.

Buffalo, NY USA
Ph: (716) 625-4227
Fax: (716) 625-4228

JM CANTY LTD.

Dublin, Ireland
Ph: (353) (01) 459-8808
Fax: (353) (01) 462-5133

98A7565 1012299