

JM CANTY

Process Technology

VECTOR SYSTEM - BLACK SPECK DETECTION

The Vector System is a unique process control system designed for use in virtually any environment. A complete system consists of a Canty Vision System Camera, Canty lighting, and the microprocessor based Vector System. The Vector System itself consists of two main components : a Vector Processor and controlling software.

Vector System

The Vector System accepts a video image from a Canty Vision Camera System, and stores that image in memory. The Vector then breaks down that picture into a matrix of pixels. Each pixel is analyzed, and the color or gray scale intensity of each pixel is stored in memory as a numerical value. For example, a black and white system uses a shade of gray scale where black is represented by the number 0, and white by 255. All shades of gray in-between are then scaled appropriately. Thus, colors or gray scale intensities can be represented by numerical values. This information can then be accessed by the Vector , and used to control your process.

Black Speck Detection Software

Black Speck detection is accomplished using the fundamentals of the gray scale system. All of our Vector System packages rely on one principle - if you can see it, we can measure it! Black speck detection uses the same principle. A Canty Vision/Lighting system is used in-line to view your process. Typical monitoring areas include pipelines, process vessels, etc.. The Vision System provides a remote view into the process. The resulting video is then fed into the Vector System with opacity/black speck detection software.

The Vector System continuously monitors the flow of fluid as it moves by our Vision System. Since black specs are a different color (and hence gray scale) from the fluid they appear in, they are extremely easy to differentiate from the background fluid. If a black speck occurs - that particle is immediately detected and an optional 4-20 mA output option can be provided. Various magnification lenses are available with Canty Particle Sizing Systems to monitor down to 10 micron!

Particle Sizing Software

Particle Sizing software may also be used to monitor the size, shape and distribution of the black specs. Particle sizing systems are available down to 10 micron. Please the consult the factory or your local Canty representative for details.

Multiplexing - Allows user to multiplex up to 8 cameras with one Vector System. The system will control up to 8 Canty Vision Camera Systems, providing the same software module is required on each system.

4-20 mA Output Option- Allows user to obtain 4-20 mA outputs from the Vector System .

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