

# Fastec InLine

Network-ready high-speed monitoring system



**InLine Camera**

The Fastec InLine Monitoring System (FIMS) is a unique high-speed event capture and analysis system for production and packaging environments. Using advanced Fastec InLine high-speed digital cameras, the FIMS system captures line stoppages and automatically stores the high-speed images for analysis. The system is fully automatic, so the line operator can focus on clearing the stoppage and not worry about the camera. Key features of the basic system include:

- Event-based triggering
- Automatic capture and storage of high-speed digital images
- Automatic reset
- File creation time and date stamp
- Numbered file name to track events
- Ability to store unlimited events for later viewing
- Ability to review a saved event while in record mode

FIMS continually monitors operator-selectable areas of your production line with the InLine high-speed digital cameras. When a failure is sensed, FIMS instantly stops recording and automatically downloads the high-speed images, via Gigabit Ethernet, to a pre-selected computer on the network, where they are saved in an .avi file format. When the download is complete, FIMS automatically resets itself into record-ready mode, awaiting the next failure.

Rather than operating in a vacuum, FIMS communicates with the production line PLCs (programmable logic controllers). As a result, the PLC interfaces allow specific camera views to pinpoint errors on the line. FIMS is like having another set of eyes on the floor; you just point the high-speed digital camera and walk away. When a line problem occurs, you can quickly scroll through the images and analyse the problem in slow motion.

FIMS is network-ready. Multiple InLine high-speed digital cameras can be networked to download to a single review station, central server or central archive library. Imagine being able to scroll through an entire third shift or weekend of stoppages from a remote monitor in your office. Stoppage patterns can be quickly determined and adjustments made to the line.

## High-Speed Production Monitoring

### Fast

Record up to 1000 frames per second and stop the action.

### Compact

Multiple mounting options. Easily fits into tight spaces on production lines

### Easy

Capture thousands of images with the automatic download and reset feature and review them anywhere on the network with the free media player

### Connected

Control Multiple InLine cameras via Gigabit Ethernet. Multiple triggering options and powerful analysis software.

## InLine Solves Problems Everywhere

### For the Production Line

- Analyse and reduce jams
- Build historical database of machine performance
- Tie into machine vision systems with images and data showing why failures occur
- Lower scrap and rejected material costs

### For the Machinery Manufacturer

- Add value with integrated image and data acquisition
- Reduce the number of costly service incidents

# Fastec InLine

## Key Features (basic system)

- Automatic triggering
- Automatic capture and storage of high-speed digital images
- Automatic reset
- Time & date stamp
- Numbered file name to track events
- Ability to store unlimited events for later viewing
- Ability to review a saved event while in record mode.

## Further Enhancements

With the optional MiDAS 4.0 Data Acquisition Software, FIMS can also capture and display external sensor data. Information such as line speed, pressure, voltage, temperature, PLC output, etc. is automatically captured and downloaded and fully synchronized to the video images. Up to 64 external inputs can be simultaneously monitored, captured and displayed with the digital video.

The Fastec InLine Monitoring System can also operate in conjunction with machine vision inspection systems. Machine vision systems are very efficient at inspecting and rejecting non-standard items on a high-speed production or packaging line. However, they only give you half the story. They can reject a bad item, but they can't tell you what caused that item to be bad in the first place.

## Specifications

### Models Available

InLine 250, InLine 500 & InLine 1000 (monochrome and colour)

### Sensor Array

CMOS array, 8-bit mono, 24-bit colour

### Shutter

1x, 2x, 3x, 4x, 5x, 10x and 20x the recording rate

### Record Modes

Begins recording when the record function is enabled. Continues to record and store images in memory until an external trigger is received. The adjustable trigger position determines how many frames are stored before and after the trigger signal is received.

### Playback Modes

Single step mode plus auto playback at 1, 2, 3, 4, 5, 10, 15, 25, 30, 50, 60, 125, and 250 frames per second, forward and reverse.

### Display

Uses PC monitor

### Control Functions

Via PC. Set record rate, Set shutter speed, Set playback rate, Set trigger point, Record, Stop, Download.

### I/O Connectors

Power on/off, Hirose multiple input connector, Gigabit Ethernet RJ45

### Trigger Input

Contact closure or standard TTL signal, 3 to 30VDC

### Mounts

Global, 1 microsecond minimum exposure

### Camera Size

C-mount lens mount, multiple ¼-20 tripod mounts top and bottom

### Camera Weight

60mm x 60mm x 170mm

0.5Kg

## Record Time Matrix

Resolution	Record Rate			Memory		
	(fps)	256Mb	512Mb	1Gb	2Gb	4Gb
640 x 480	50	21.8 secs	43.7 secs	87.4 secs	174.7 secs	349.4 secs
640 x 480	125	8.7 secs	17.5 secs	34.9 secs	69.9 secs	139.8 secs
640 x 480	250	4.4 secs	8.7 secs	17.5 secs	34.9 secs	69.9 secs
440 x 330	50	43.7 secs	87.4 secs	174.7 secs	349.4 secs	698.9 secs
440 x 330	125	17.5 secs	34.9 secs	69.9 secs	139.8 secs	279.6 secs
440 x 330	250	8.7 secs	17.5 secs	34.9 secs	69.9 secs	139.8 secs
440 x 330	500	4.4 secs	8.7 secs	17.5 secs	34.9 secs	69.9 secs
320 x 240	50	87.4 secs	174.7 secs	349.4 secs	698.9 secs	1397.8 secs
320 x 240	125	34.9 secs	69.8 secs	139.8 secs	279.6 secs	559.1 secs
320 x 240	250	17.5 secs	34.9 secs	69.8 secs	139.8 secs	279.6 secs
320 x 240	500	8.7 secs	17.5 secs	34.9 secs	69.8 secs	139.8 secs
320 x 240	1000	4.4 secs	8.7 secs	17.5 secs	34.9 secs	69.8 secs

For More Information  
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