Factory Drive Recorder STC-FDR-SW01

OMRON

Record the moment of an event



Efficient identification of problem causes with a video recorder

Breakage of objects at an unmanned factory operated by robots



Grasp unexpected behavior of robot arms

Simple configuration facilitates installation



Industrial camera

Factory Drive Recorder software

Quality defects at a production site where the environment is strictly controlled



Grasp that the operator is working with the sterile machine door opened

When a defect occurs at a production site where sterile machines are used, it is difficult to identify the cause because the situation is unknown.

For example, the camera records a video showing the machine state before and after the particle volume abnormality, leading to identification of defect causes.

- Recording trigger: Sensor installed for environmental measurement
- Automatic recording before and after abnormality

Record the moment of state change

Automatic recording of events by trigger input

The camera records a video showing the machine state for up to 60 minutes before and after the problem by being triggered by external input from the sensor or PLC or by TCP command input. This allows you to quickly understand what happened by replaying the video.



Shows that the operator opened the machine door



Shows that the operator made a mistake

Factory-specific recording functions for various applications

This software provides seven types of recording: Trigger Recording that includes Time Trigger, Motion Detection, and Master Image Comparison as well as external trigger input, Continuous Recording that records a video for up to one year, and Manual Recording for 60 minutes. It can be used for continuous remote monitoring of machine status, review of production problems, work process tracing for recall purposes, and many other industrial applications.

Automatic recording by detecting change in image

Videos before and after problems can be recoded by Motion Detection that uses the difference from the preceding image under specified conditions (see below), and Master Image Comparison.



Triggered by when an indicator lights red

Remote status monitoring + continuous recording

You can remotely monitor the site status in real time without recording or continuously record for up to one year*1.



*1. Recording time varies depending on the storage capacity of your PC or HDD.

Accurate recording of events with various types of cameras

See details on cameras.

Omron offers a wide selection of more than 100 models of cameras to meet your needs.

Fits in narrow spaces

The 19 mm square ultra-compact remote head camera can be installed in narrow spaces.



Records subtle changes

The 20.4 Mpix high-resolution camera can clearly record changes in machine state.

0.4 Mpix 20.4 Mpix

Check for incorrect mounting of fittings

Records high-speed lines

A 0.4 Mpix camera can record high-speed production lines as fast as 400 fps.



Check for insufficient liquid volume due to bottle position deviation

Simultaneous recording of wide and narrow areas

Omron's broad portfolio of cameras, including a camera with a long cable required for wide-area recording to shoot the entire manufacturing site, can be freely combined with lenses for different fields of view. These combinations enable capturing wide and narrow areas at the same time, allowing you to accurately analyze problems by replaying the videos.



3-step easy system configuration

STEP1 Prepare devices

The camera and software bundle is ready for immediate use without the need for verification and programming which are required to build a system by combining general cameras with vision software. Recording can be started immediately by using input from the sensor or PLC installed at the production site as trigger.



Note: Up to eight cameras can simultaneously record. A hub is required to connect cameras depending on the PC specifications and the number of connected cameras.

*1. Omron's STC Industrial Cameras can be used. See page 7 for details.

STEP2 Install

Install the Factory Drive Recorder software and camera driver (SentechSDK)*1 on your PC or IPC.

*1. Install the latest version of the camera driver (SentechSDK) downloaded from the Omron Sentech' s website.



Steps Set recording conditions

Configure camera settings, recording settings, and settings for saving recorded videos.



Ordering Information

Software

Item	Max. no. of connectable cameras	Model
Factory Drive Recorder	8 per PC	STC-FDR-SW01

Industrial Camera STC Series

Item		Max. resolution	High-speed*1	Compact	Cable extension (100 m)	Model
GigE Vision Camera	Small CMOS Camera STC-M Series	20.4 Mpix			\checkmark	Refer to the <i>Industrial</i> <i>Camera Catalog</i> (Cat. No. Q259).
	Small CMOS Board Camera STC-B□S Series	20.4 Mpix		\checkmark	\checkmark	
USB3 Vision Camera	Small CMOS Camera STC-M Series	20.4 Mpix	\checkmark			
	Small Remote Head Camera STC-R Series	1.6 Mpix	\checkmark	√ (Ultra-compact)		
USB3 (UVC) Camera	Small CMOS Collar Camera STC-S133UVC Series	1.3 Mpix		\checkmark		

Note: The USB3 Vision or GigE Vision Camera cannot be simultaneously used with the USB3 (UVC) Camera.

*1. The maximum frame rate depends on your PC performance, the number of connected cameras, and the camera type. Test the products before actual use.

Ratings and Specifications Specifications

Item		Description	
Components		Installation CD (Factory Drive Recorder installer, SentechSDK installer, manual), license ID	
	CPU	Core-i5 2 GHz or faster (Core-i7 3 GHz or faster recommended)	
System requirements	RAM	8 GB min. (16 GB min. recommended)	
	Storage	At least 1 GB of available space is required for installation. Allocate sufficient space to save recorded images.	
	OS	Windows 10 (64-bit)	
Video	Frame rate	Depends on the number of connected cameras, image resolution, and performance of the PC	
	Save format	AVI format (Motion IPEG)	

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Item	Function	Description	
Display	Live Display	Displays a live image from the connected camera	
	Video Display	Displays recorded video	
Recording	Continuous Recording	Records as configured (days and time)	
	Manual Recording	Starts and stops recording manually	
	Trigger Recording	Records when triggered	
Recording setting	Camera Settings	Exposure time, gain, frame rate, White balance (Color camera)	
	Trigger Settings	Time Trigger, Motion Detection, Master Image Comparison, Trigger Signal (external input to camera, TCP command input	
	Save Settings	Save folder, file name, Clock display, External input display	
	Language Setting	English or Japanese	
I/O setting	External Input	External trigger input to camera, TCP command (Manual recording start/stop, Trigger recording start/stop, trigger input, Capture, File name change, Folder path change, Trigger type change)	
	External Output	Message output via TCP (start and stop recording, Recording file name)	
History	Display Recording History	Shows a list of latest 100 recorded files	
	Export History File	Exports recording history and recorded files in HTML format	

Recording methods

Recording method		Description	Recording time	
Continuous Recordir	ng	Records as configured (days and time)	Up to 1 year (366 days)	
Manual Recording		Starts and stops recording manually	Up to 60 minutes	
Trigger Recording	Time Trigger	Records once a day at specified time	Up to 60 minutes*1 before and after trigger	
	Motion Detection	Records when the difference between an image and the preceding image exceeds the specified value		
	Master Image Comparison	Records when the difference between a predefined still image and a camera image exceeds the specified value		
	Trigger Signal (External trigger, I/O)	Records when a trigger signal is input to the camera		
	Trigger Signal (TCP command)	Records when a TCP command is input to the camera		

*1. When the recording time before a trigger is long, it takes a long time to create a video file.

Related Products



Status Sensing Solution

The catalog introduces (Cat. No. E603)

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