

PC Vision System

FJ Series - Integrate vision to your own PC system



- Flexible vision system
- Easy customization
- Highly robust cutting-edge algorithms

Quick installation on your PC-based Systems

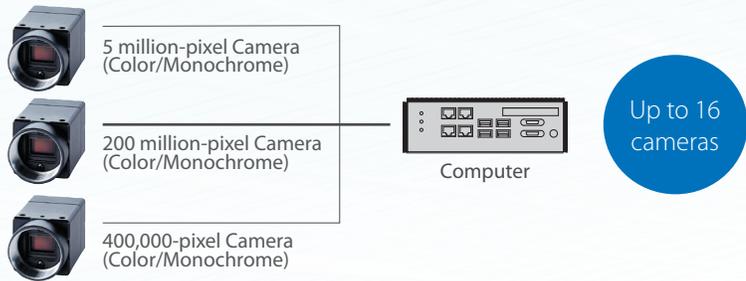
Omron now provides a complete machine vision solution for the manufacturing floor, developed as a package for installation on PC-based systems

Cameras

Connect quickly and expand easily

Gig E Cameras

Take advantage of quick connectivity and reliable operation of six different GigE cameras with FJ software compatibility. The system can be expanded to incorporate up to 16 cameras.



Measurement Controls

Simple programming and quick testing

Menu-driven software

More than 100 proven processing items from Omron feature a GUI developed specifically for manufacturing automation with the goal of reducing program development work in comparison with library-based programming.



Algorithms

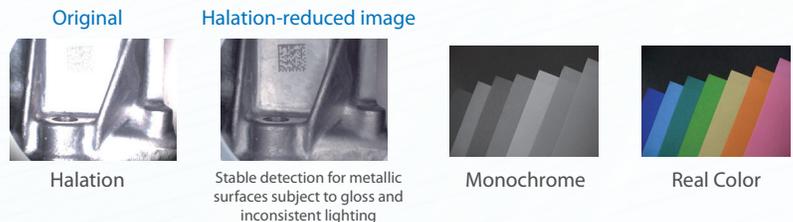
Highly robust measurement algorithms

HDR Sensing

The dynamic range has been increased by up to 5,000 times to enable clear imaging of inspection objects that was previous not possible due to lighting inconsistencies or halation.

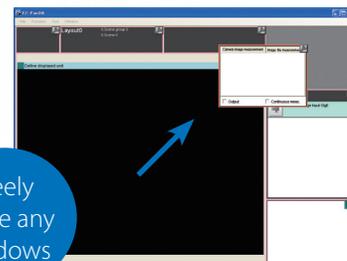
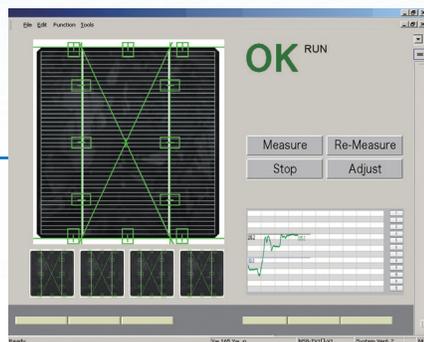
Real Color Sensing

The use of real color data in inspections makes it possible to detect minute differences in colors that are difficult to see with gray conversion or filtering.



GUI Design

Fast and easy GUI customization



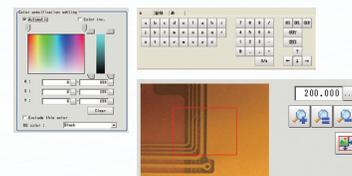
(This example was created with FJ's Application Producer and Visual Studio®.)

Layout Editor

You can easily customize the positions, sizes, and functions of windows and buttons based on Omron's GUIs, which are highly appraised for being simple to use and easy to understand.

Wide range of GUI modules

You can use a variety of custom controls and sample codes implemented in Application Producer to create your own GUIs easily.



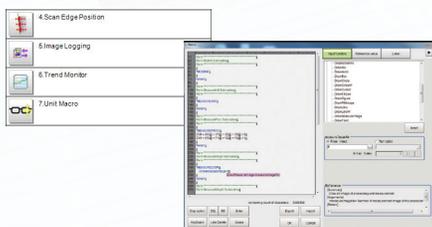
Programming

Implement your own programs

Optionally, you can implement your own program as a dedicated processing item (inspection tool) using Visual Studio® and Application Producer software.

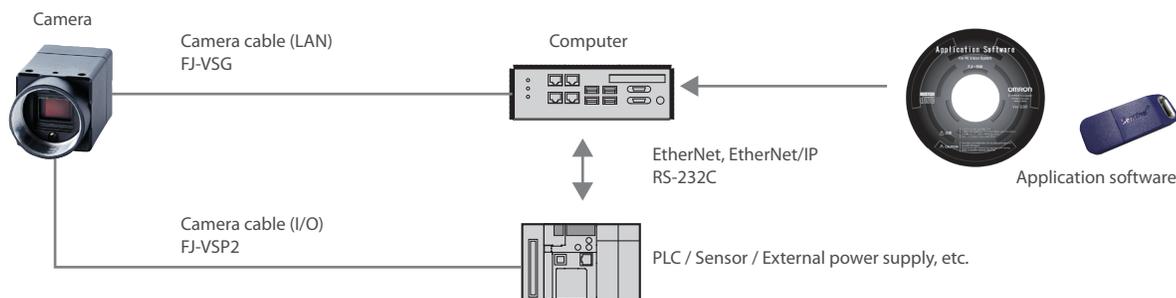
Macro Processing Items

You can implement advanced calculations on the processing flow as a macro processing item with little effort. This allows you to edit the program on the controller without a need for compilation and makes system development and adjustment a quick and easy process.



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System Configuration



Ordering Information

Type			Model	Operating environment	
Camera & Software Vision Package • Application software x 1 license (CD-ROM x 1, Dongle key x 1) • Camera x 1 unit		400,000 pixels	Monochrome	FJ-SG2-S	<ul style="list-style-type: none"> • CPU: Intel Pentium Processor (SSE2 or higher) • OS: Windows7 Professional (32/64bit) or Enterprise (32/64bit) or Ultimate (32/64bit), Windows 10 Pro (32/64bit) • .NET Framework: .NET Framework 3.5 or higher • Memory: At least 2 GB RAM Available disk space: At least 2 GB • Camera interface: Ethernet 1000BASE-T • Display: XGA (1024 x 768), True Color (32-bit) or higher • Optical drive: CD/DVD drive
		400,000 pixels	Color	FJ-SCG2-S	
		2 million pixels	Monochrome	FJ-S2MG2-S	
		2 million pixels	Color	FJ-SC-2MG2-S	
		5 million pixels	Monochrome	FJ-S5MG2-S	
		5 million pixels	Color	FJ-SC-5MG2-S	
Camera (Single unit)		400,000 pixels	Monochrome	FJ-SG2	
		400,000 pixels	Color	FJ-SCG2	
		2 million pixels	Monochrome	FJ-S2MG2	
		2 million pixels	Color	FJ-SC2MG2	
		5 million pixels	Monochrome	FJ-S5MG2	
		5 million pixels	Color	FJ-SC5MG2	
Camera cable (LAN)		Cable length: 3 m, 5 m, 10 m, 20 m, 40 m	FJ-VSG □M		
Camera cable (Power, I/O)		Cable length: 3 m, 5 m, 10 m	FJ-VSP2 □M		
Development environment Application Producer (Version 6.31A or higher)	Media only	CD-ROM	FH-AP1	<ul style="list-style-type: none"> • CPU: Intel Pentium Processor (SSE2 or higher) • OS: Windows 7 Professional (32/64bit) or Enterprise (32/64bit) or Ultimate (32/64bit), Windows 8 Pro (32/64bit) or Enterprise (32/64bit), Windows 8.1 Pro (32/64bit) or Enterprise (32/64bit), Windows 10 Pro (32/64bit) or Enterprise (32/64bit)W The following operating environment is required to use the camera FJ-S□□□G2. Windows 7 Professional (32/64bit) or Enterprise (32/64bit) or Ultimate (32/64bit), Windows 10 (32/64bit) • .NET Framework: .NET Framework 3.5 or higher • Memory: At least 2 GB RAM Available disk space: At least 2 GB • Browser: Microsoft® Internet Explorer 6.0 or later • Display: XGA (1024 x 768), True Color (32-bit) or higher • Optical drive: CD/DVD drive • The following operating environment is required to use the Camera FJ-S G2. Camera interface: Ethernet 1000BASE-T • The following software is required to customize the software: Microsoft® Visual Studio® 2008 Professional, or Microsoft® Visual Studio® 2010 Professional, or Microsoft® Visual Studio® 2010 Professional 	
	1 license		FH-AP1L		

Camera Ratings and Performance

	FJ-SCG2/SG2	FJ-SC2MG2/S2MG2	FJ-SC5MG2/S5MG2
Imaging element	Progressive scan 1/2.9" CMOS	Progressive scan 1/1.7" CMOS	Progressive scan 2/3" CMOS
Effective pixels	720 (H) x 540 (V)	1,624 (H) x 1,240 (V)	2,448 (H) x 2,048 (V)
Frame rate	282.8 fps	54.6 fps	21.9 fps
I/F	Gigabit Ethernet (1 Gbit/s)		
Lens mount	C mount		

Refer to the datasheet for details

OMRON AUTOMATION AMERICAS HEADQUARTERS • Chicago, IL USA • 847.843.7900 • 800.556.6766 • automation.omron.com