

PRESS RELEASE

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OMRON TO INTRODUCE FHV7-SERIES SMART CAMERA WITH WORLD'S FIRST MULTI-COLOR LIGHT AND 12 MEGAPIXEL IMAGE SENSOR

Omron Corporation (HQ: Shimogyo-ku, Kyoto. CEO: Yoshihito Yamada) has announced the global release of its new FHV7-series Smart Camera combined with illumination and image processing functionality for advanced vision inspections. Thanks to the world's first multi-color light^{*1} and a best-in-class^{*2} 12-megapixel high-resolution camera, only a single FHV7-series Smart Camera is required for achieving the industry's highest standards of precision in vision inspections on a high-mix production line.

While consumers' quality requirements are becoming stricter, corporate social responsibility is increasingly important. To meet these requirements, manufacturers are introducing stricter quality control checks, to maintain and improve product quality and to promptly identify causes of defects. In addition, in line with the trend of mass customization to satisfy changing consumers' needs, different products are more often produced on a single line, which requires quality inspections of products in different colors and sizes. To carry out such advanced quality inspections in flexible production, it is crucial to minimize downtime for changeover to different products.

It is in this context that Omron is entering the field of high-performance smart cameras that make it possible to easily adopt advanced vision inspection in manufacturing processes. Equipped with a multi-color light and an autofocus lens, the FHV7 Series can respond flexibly to changes in the color and size of objects to be inspected. This eliminates the need for special skills for camera installation and adjustment to cater for different products and inspection criteria, even in a flexible production line where many different types of products are produced in different quantities. Moreover, image processing at best-in-class speeds^{*2} and a 12-megapixel camera delivering best-in-class resolution make it possible to achieve higher precision of inspections and raise production quality without dropping the speed of production.

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Added to these features is a high-speed image compression algorithm that compresses inspection images at double^{*3} the regular speed, enabling all image data to be saved even during measurement and allowing complete traceability in production processes where quality control is paramount.

At one one-quarter of the case volume of Omron's leading model, the FH-Series Sensor Controller, the FHV7 Series offers the same high level of image processing capacity. This is achieved by integration of Omron's high-speed, high-precision image processing technology with compact, high-speed, high-resolution camera design technology provided by Omron SENTECH which was acquired in July 2017.

By using the FHV7-series Smart Camera Omron accelerates innovative automation together with its customers and continues to pursue remarkable enhancements in productivity and quality control for the manufacturing industry.

Features

1. **Single camera for inspecting various products**

- Multi-color light provides a quick solution to the issue of measuring different colors. When the product design is changed or a new model is added, you can simply change a parameter instead of replacing or fine-tuning lights.
- The image sensor with a maximum of 12 megapixels enables high-precision inspections for wider areas. This eliminates the need for installing multiple cameras or a mechanism to move a camera to capture different inspection points on different models on the same production line. This reduces design work and component costs.
- The autofocus lens covers a focal length range from 59 to 2,000 mm^{*4}. Even when products in different sizes are produced, the focus range can be changed easily by parameters. This eliminates the need for a mechanism for moving the camera, reducing design work and component costs.

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2. **Modular structure for a wide range of applications**

- Modular structure allows you to freely combine the lens and light with the camera.
- The footprint of the camera is not affected by module replacement, reducing design and maintenance work.

3. **Raising production quality without sacrificing cycle time**

- Dual-core CPU provides the fastest image processing speed among smart cameras – four times faster than the previous speed. Production cycle time can be maintained even if resolution is increased or inspection items added.
- High-speed logging, which enables measurements to be conducted while image data is being saved, and high-speed image data compression allow complete traceability.

*1. The world's first smart camera with a multi-color light. Based on Omron investigation in October 2018.

*2. Fastest speed and highest resolution in a smart camera. Based on Omron investigation in October 2018.

*3. Compared with measurement time and data save times for vision sensors installed in customers' machines. Based on Omron investigation in October 2018.

*4. Focus range varies depending on lens type.

About Omron

Omron Corporation is a leading industrial automation company that leverages its core sensing & control technologies to expand into businesses, such as control components, electronic components, automotive electronic components, social infrastructure, healthcare, and the environment. Omron was established in 1933, and has around 36,000 global employees, offering products and services in over 117 nations and regions.

In the industrial automation business, Omron is contributing to making an affluent

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society by offering automation technologies which drive innovation in manufacturing as well as products and customer support. For more detail, industrial.omron.eu.

About "*innovative-Automation!*"

As a leader in industrial automation, Omron has extensive lines of control components and equipment, ranging from image-processing sensors and other input devices to various controllers and output devices such as servo motors, as well as a range of safety devices and industrial robots. By combining these devices via software, Omron has developed a variety of unique and highly effective automation solutions for manufacturers worldwide. Based on its reservoir of advanced technologies and comprehensive range of devices, Omron set forth a strategic concept called "*innovative-Automation!*" consisting of three innovations or "i's"-- "*integrated*" (control evolution), "*intelligent*" (development of intelligence by ICT), and "*interactive*" (new harmonization between people and machines). Omron is now committed to bringing innovation to manufacturing sites by materializing this concept.

Note

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Omron to Introduce FHV7-series Smart Camera with World's First Multi-color Light and 12 Megapixel Image Sensor. (Photos: Omron, PR065)

This press release and relevant photography can be downloaded from www.PressReleaseFinder.com.

Alternatively for very high resolution pictures please contact Anouk Luykx (aluykx@emg-pr.com, +31 164 317 017).