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Nippon Avionics Co., Ltd.

<http://www.avio.co.jp/english/>

Nippon Avionics to Begin Sales of its Thermal Imaging Camera, to Eliminate Blind Spots when Performing Facility Diagnostics

**With a Mechanism for Removing and Attaching Camera Units, and
the Ability to Gauge in All Directions and in Confined Spaces
Supports Monitoring Plant Status, Evaluating Home Airtightness, and
Thermal Design for IoT Electronic Components**

TOKYO: Nippon Avionics Co., Ltd. (TOKYO: 6946) ("Avio") plans to launch a new style of infrared thermal imaging camera "Thermo FLEX F50 Series" ("F50") with a removable camera-head, on September 1st, 2017(*). We provide a lineup with a total of 6 different models to enable customers to select 3 types of models with 2 types of wide-angle lenses are available. Avio offers a wide variety of usages such as "Facility Inspection", "Home Inspection", and "Research and Development". Prices will range from ¥450,000 to ¥650,000 at the regular price.



(* We will begin to ship this product to our distributors from September 1st, and they will deliver to customers in the middle of September.)

Since 1971, Avio has been committed to develop thermal imaging camera for more than 50 products over 45 years as a leading company in Japan. The new concept "F50", has termed "**FREE-STYLE**" with the 4 elements, solves the various issues arisen by our field survey. "F50 offers a small, light and user-friendly stylish camera with enhanced functionality," said Shoichi Kimura, Business Planning Team. "We are expecting F50 will work well as a good partner."

4 Elements Comprise the New "FREE-STYLE" Concept

1. An angle-independent mechanism, with removable camera-head
2. A focus-free wide-angle lens, eliminating the need for focusing
3. Touchscreen operability, enabling easier use for novices
4. Environmental temperature resistance, enabling its use in external equipment and thermostatic chamber

Video to Introduce its Unique Characteristics

Video Link: <http://www.avio.co.jp/special/english/thermoflex>

“F50” addresses issues that have been prevalent in the following 3 fields.

Condition-Based Maintenance for Plants Status Monitoring

The new style of angle-independent mechanism, can be inspected the gap and the backside of facilities at plants, contributes to “Predictive Diagnosis” for the accidents that have been increasingly occurring at plants. In addition, F50 is compact and lightweight, and have operators safe with both hands free except when shooting. F50 contributes greatly to the “Condition-based maintenance (CBM)” needed periodically while the facility remains in operation. (CBM is a facility diagnostic method that began at nuclear power plants in the US and that has subsequently been adopted worldwide.)

Checking the Airtight, Insulated Properties of Homes

F50, as a home inspection performance review tool, can inspect problems such as faults in insulation, water leakage and termites, which unable to check visually. It is possible to shoot a wide swaths of wall space within rooms by 70° focus-free wide-angle lens at a single and to check behind ceilings and the space under floors from holes and spaces at the smallest scale

Supporting Thermal Design for IoT Electronic Parts

F50 will greatly increase the efficiency of thermal evaluation for electronic components and motherboards which support leading-edge technologies like IoT. F50 can be operated in a device such as thermostatic chamber with removed compact camera-head which withstands up to 70°C from outside of the device. Moreover, F50 can create trend graphs and saved them as CSV files without a PC. Consequently, it is unnecessary to attach the thermocouples in environmental temperature testing and to analyze the data on PC.

Other Features

F50 can also be attached to rescue dogs during disasters, can search for survivors trapped beneath the rubble, and can also be attached to robots for surveying the place where humans cannot go. You can create a graph instantly for capturing abnormality of temperature without a PC. On-line analysis is possible by dedicated software. Which increases working efficiencies. Moreover, you can take advantage of “Sky Off” function. It was a problem that the accurate measurement has been difficult since the setting the temperature pulled to the temperature of sky and cloud. This new “Sky Off” function resolves the problem.

Avio continues to help the industry growth and society to become ever safer, offering methods to resolve issues in different fields as we maximize our accumulated experience in infrared technology.

About Nippon Avionics Co., Ltd.

Nippon Avionics has been offering leading-edge technologies as a comprehensive electronics

manufacturer since our founding in 1960. We have been actively involved in efforts to bring together various different technologies, including sensors and communication, to promote greater technological density, greater functionality, improved systems, and more, all based on our superior electronics technology. We work to meet society's needs across a broad range of applications, from consumer devices to medical, office, manufacturing, defense, and aeronautic uses.

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