

Thermo FLEX F50



Customize button

Customized buttons for more efficient measurements

You can set frequently used functions to three buttons.

Assignable functions

- Light ON / OFF • Image rotation • Composite display switching
- Auto scale ON / OFF • Temperature alarm ON / OFF
- Color alarm ON / OFF • Information ON / OFF
- Menu display ON / OFF • Switch to preview
- Thumbnail switching • Live mode switching

Default

- Blue: LED light ON / OFF • Green: Auto scale • Yellow: image rotation

Infrared Thermal Imaging Camera InfRec F50 series: Specification

		Basic model (with main basic functions)		Standard model		Online model		
Basic Performance	Field of View ¹⁾	F50A-BAS 35°×35°	F50B-BAS 70°×70°	F50A-STD 35°×35°	F50B-STD 70°×70°	F50A-ONL 35°×35°	F50B-ONL 70°×70°	
	Spatial Resolution	2.8mrad	5.3mrad	2.8mrad	5.3mrad	2.8mrad	5.3mrad	
	Focal Distance	30cm to infinity ²⁾	10cm to infinity ²⁾	30cm to infinity ²⁾	10cm to infinity ²⁾	30cm to infinity ²⁾	10cm to infinity ²⁾	
	Focus	Focus Free						
	Infrared Detector	Uncooled Focal Plane Array (Microbolometer)						
	Spectral Range	8 to 14μm						
	Recording Pixels	240×240 pixels						
	Frame Rate	7.5Hz						
	Measuring Range	-20°C to 350°C ³⁾						
	Sensitivity (NETD)	0.05°C at 30°C						
Image Display	Accuracy	±2°C or ±2% (Indicated Value) ⁴⁾						
	Auto Function	Auto Scale / Auto MAX / Auto point						
	Color Palettes	7 palettes (Olive, Rainbow, Brightness, Hot-white, Hot-black, etc.)						
	Gradation	256 / 128 / 64 / 16 grade						
	Visible Camera	CMOS camera 5M pixels						
	Visible/Thermal Fusion	Picture-in-Picture (with trimming function), Blending (transparency changeable, size & position adjustable)						
	Display Functions	1 to 4 times continuous digital zoom (Thermal, Visible, Fusion)						
Measuring Functions	Alarm Function	Alarm Display, Alarm Sound, Color Alarm, Alarm Recording						
	Temperature Correction	Emissivity (Full image, Multi-point), Environmental/Background, Emissivity Table						
	Point Temperature	5 Movable Points, Temperature Search/MAX/MIN x1 each						
	Temperature Display in Assigned Region	—		BOX × 1 (MAX, MIN and AVG in Box)				
	Line Profile	—		Line × 1				
Storage & Output	Delta Temp	—		Delta T × 1				
	Storage Device	micro-SD Card, Conforms to SDHC						
	Data Storage	Data Form	Still Image : JPEG with temperature data (14 bit) Recorded with Visible Image					
		Continuous Recording	—		Max 7.5Hz (Up to 10 sec.)			
		Interval Recording	—		3 sec to 60 min interval, with Visible Image recorded			
		Trend Graph	—		csv format			
		Line Profile	—		csv format			
		Voice Recording	30 sec Recording, replay per a Thermal Image					
	Text Annotation	Annotate up to 128 Characters per a Thermal Image, Characters imported from SD Card						
	Interface	File Transfer	—				USB2.0 (MTP)	
Real Time Transfer	—		—				USB2.0 Image transfer (Thermal Image with visible image, Max. transfer speed 1.5Hz) ⁴⁾	
Others	Display	4.8 inch HD (720 × 1280 pixels), Touch Panel						
	Auxiliary	LED Light (equipped Camera Unit)						
	Environment Resistance	Operating Temperature & Humidity	Camera Unit : -20°C to 70°C, 90%RH (non-condensing) / Controller Unit : -20°C to 50°C, 90%RH (non-condensing)					
		Storage Temperature & Humidity	Camera Unit : -40°C to 60°C, 90%RH (non-condensing) / Controller Unit : -40°C to 60°C, 90%RH (non-condensing)					
		Drop, Vibration & Shock	Engineered to withstand 1m drop, 29.4m/s ² (3G), 294m/s ² (30G)					
		Dust & splash proof	Protection class IP64 equivalent					
	EMC	Conforms to CE regulations (Class A)						
	Power Supply	Battery	Lithium-ion (built-in), Battery Operation: 4 hours (Typ.) (with power saving mode)					
	AC Adapter	100V - 240V AC 50/60Hz (AC Adapter by USB cable, micro B connector)						
	Dimensions	Camera Unit : Approx. 30mm×40mm×130mm (excluding projection and cable) / Controller Unit : Approx. 169mm(H)×92mm(W)×24.5mm(D)(excluding projection and cable)						
Weight	Camera unit : Approx. 100g / Controller unit : Approx. 400g (excluding cable)							
Accessory	Carrying case, micro SD Card, micro SD Card Adapter, USB AC Adapter, micro USB cable (for power-feeding and connection), Neck Strap, Operation Manual, Software(NS95DLT)							

¹⁾ Tolerance : ±3° ²⁾ For temperature accuracy : 100cm to infinity ³⁾ For temperature accuracy : 30cm to infinity ⁴⁾ Environment temperature of camera unit in operation : 15°C or higher (in case of lower than 15°C : Measuring Range in -20°C to 300°C) ⁵⁾ Environment temperature of camera unit in operation : 0°C to 40°C (other conditions : ±4°C or ±4%) ⁶⁾ In order to transfer Thermal image by F50A-ONL/F50B-ONL, it is required to upgrade to "InfRec Analyzer NS9500 Professional" (optional software)
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WARNINGS & CAUTIONS

* Before using this product, please carefully read the provided Operation Manual.
 * WARNINGS & CAUTIONS : section to ensure proper operation. * Please do not place the product in high temperature, high humidity or high inert gas environments.

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New-Style Thermal Imaging Camera With Removable Unit

InfRec
Infrared Camera

FREE STYLE

THERMAL IMAGING CAMERA "Thermo FLEX F50"

TOUCHSCREEN

Intuitive & Easy Operation
for beginners

REMOVABLE

Removable camera head
for various styles & scenes



NIPPON AVIONICS CO., LTD.

"Angle-Free" Camera-Head to Visualize the Invisible Risks

- Tilt the camera head to measure high angle position...
- Remove the camera head to turning around the backside of the equipment...

We realized "Angle-Free" thermal imaging camera can be freely used "Rotation Style" and "Separation Style", which innovates the measurement operation.

"Thermo FLEX F50" contributes to the visualization of invisible risks and the efficiency of measurement work.

Easy and Intuitive Controller

Intuitive operation is possible with the touchscreen. Furthermore, you can operate with many hardware keys even wearing gloves. We optimized the controller for your comfortable operation in any scenes and at any angles.

"Free Style" thermal imaging camera offers various camera styles

A new style of thermal imaging camera "Thermo FLEX F50" has a removable camera-head and controller. You can take various measurement styles in a wide variety of measurement scenes!



Rotation Style: Camera-head can be tilted and can be mounted on the both joint of controller.



Separation Style: Removed camera-head from controller. Camera-head can be freely operated.



The camera-head and controller can be mounted on tripod by screw.

"Look Up", "Look Down", "Turn Around", "Attach On", "Put In" — Shoot Freely in Any Styles!

Efficient measurement is possible even in the place such as narrow space and inside a device, etc.



Rotating camera-head by tilting sense provides you comfortable shooting without facing upward to the high angle.

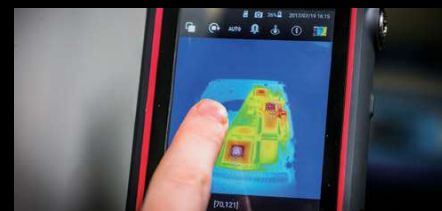


You can shoot from any angle comfortably by the removable camera-head while watching the controller.



The camera-head can be attached to a helmet with a sense of wearable or the controller, and can be attached to a pole as camera stick.

Easy Touch Operation even Beginners



The function such as "Temperature Scale Setting" and "Point Measurement" by touch operation are equipped. Intuitive operation makes the thermal measurement easy and efficient.

Easy Hardware Key Operation even wearing gloves



Frequent operation such as "Temperature Scale Setting" and "Recording" can be performed by hardware key. Comfortable one-hand measurement is possible even wearing gloves.

Up to 70°C heat-resistant camera-head



The small camera-head can be put into a device such as thermostatic chambers. You can operate remotely by touchscreen of the external controller while checking the measurement status.

Attachable camera to tripod and wall



The camera-head and controller can be mounted on a tripod or fixed on a wall for stable and easy measurement. The camera can be supported various usages with many combinations of commercial accessories freely.