

# HM-TP96-Q/W-SP60-L12/50

## Handheld Thermography Camera



The HIKMICRO SP60 high-performance handheld thermal imaging camera is ideal for industrial, predictive, oil and gas, and utility maintenance inspections.

HIKMICRO SP60 has a high sensitivity (NETD < 30 mK) and high resolution (640 × 480) HIKMICRO VOx detector, and the temperature calibration is up to 650°C. This flexible and ergonomic thermal imager provides an electronic viewfinder and a 180° rotating lens, making long-day outdoor inspections easier. Advanced features help thermal imaging professionals to easily survey equipment and find signs of malfunction, such as GPS and compass annotations, continuous digital zoom, and 1-Tap level and span.

Connect HIKMICRO Viewer App or HIKMICRO Analyzer software to transfer, analyze, and share pictures, and generate reports for free.

### Key Features

- **Thermal resolution: 640 × 480 (307,200 pixels), NETD: < 30 mK (@25°C, F# = 1.0)**
- **Temperature measurement range: -20°C to 650°C (-4°F to 1202°F)**
- **Accuracy: Max. (± 2°C/3.6°F, ± 2%)**
- **The 90° rotating screen and the 180° rotating lens design**
- **1024 × 768 OLED electronic viewfinder and auto-brightness 5-inch color LCD display**
- **1.x to 12.x continuous digital zoom**
- **Manual, automatic, and 1-Tap level and span**
- **Manual focus, continuous autofocus, autofocus, and laser-assisted focus**
- **GPS, BDS, GLONASS or GALILEO & compass annotation functions**
- **25 Hz image frequency**
- **8 MP optical camera**
- **Up to 4 hours continuous running**

## Specification

THERMAL MODULE	
<b>DETECTOR TYPE</b>	Vanadium Oxide Uncooled Focal Plane Array
<b>IR RESOLUTION</b>	640 × 480 (307,200 pixels)
<b>DETECTOR PITCH</b>	17 μm
<b>SPECTRAL RANGE</b>	8 to 14 μm
<b>NETD</b>	< 0.03°C (30 mK) at 25°C (77°F) ambient temperature, F# = 1.0
<b>FOV (FIELD OF VIEW)</b>	L12: 12° H × 9° V; L25: 50° H × 37.3° V
<b>IMAGE FREQUENCY</b>	25 Hz
<b>FOCAL LENGTH</b>	L12: 51.4 mm; L50: 12.6 mm
<b>FOCUS</b>	Continuous Autofocus/Autofocus/Manual Focus/Laser Assisted Focus
<b>FOCUS SPEED</b>	Approx. 1 second
<b>MINIMUM FOCUS DISTANCE</b>	L12: 1 m; L25: 0.2 m
<b>INTERCHANGEABLE LENS OPTIONS</b>	Yes
<b>LENS RECOGNITION</b>	Automatic
<b>IFOV (SPATIAL RESOLUTION)</b>	L12: 0.33 mrad; L50: 1.35 mrad
<b>F-NUMBER</b>	L12: F1.1; L50: F1.0
OPTICAL MODULE	
<b>BUILT-IN VISUAL CAMERA</b>	3264 × 2448 (8 MP)
<b>FOCUS</b>	Fixed
<b>FOV</b>	65° H × 51° V
<b>PICTURE RESOLUTION</b>	Configurable: 2 MP, 5 MP, 8 MP
<b>VIDEO RESOLUTION</b>	960 × 720
IMAGE DISPLAY	
<b>DISPLAY</b>	1280 × 720 Resolution, 5" LCD Touch Screen
<b>SCREEN BRIGHTNESS</b>	Manual/Automatically adjust
<b>LENS ROTATION</b>	180°
<b>DISPLAY ROTATION</b>	90°
<b>VIEWFINDER</b>	Built-in 1024 × 768 pixels
<b>DIGITAL ZOOM</b>	1.x to 12.x continuous
<b>COLOR PALETTES</b>	7: White Hot, Black Hot, Rainbow, Ironbow, Red Hot, Fusion, Rain
<b>IMAGE MODES</b>	Thermal/Optical/Fusion/PIP

<b>PIP</b>	Resizable and movable infrared area on the visual image
<b>FUSION</b>	Thermal image with visual camera details
<b>LEVEL/SPAN</b>	Auto/Manual/1-Tap Touch-Screen
<b>MEASUREMENT AND ANALYSIS</b>	
<b>OBJECT TEMPERATURE RANGE</b>	-20°C to 650°C (-4°F to 1202°F)
<b>ACCURACY</b>	Max. ( $\pm 2^{\circ}\text{C}/3.6^{\circ}\text{F}$ , $\pm 2\%$ )
<b>MEASUREMENT PRESETS</b>	Center Spot, Hot Spot, Cold Spot, Off
<b>USER-DEFINED MEASUREMENT POINTS</b>	10 points
<b>USER-DEFINED MEASUREMENT LINES</b>	1 line with Max./Min./Avg. temperature
<b>USER-DEFINED MEASUREMENT AREAS</b>	3 areas with Max./Min./Avg. temperature
<b>HIGH TEMPERATURE ALARM</b>	Audible/visual alarm of above temperature threshold, User-defined temperature threshold
<b>ON-CAMERA EMISSIVITY CORRECTION</b>	Variable from 0.01 to 1.0 or selected from the materials list
<b>ON-CAMERA REFLECTED TEMPERATURE COMPENSATION</b>	Automatic, based on the input of the reflected temperature
<b>ON-CAMERA TRANSMISSION CORRECTION</b>	Automatic, based on the inputs for distance and humidity
<b>DATA STORAGE</b>	
<b>STORAGE MEDIA</b>	Default Storage: Removable Card (64 GB); Max. Storage Capacity: 128 GB
<b>IMAGE STORAGE CAPACITY</b>	Approx. 60,000 images (The size of a single image is about 900 KB to 1.3 MB)
<b>IMAGE FILE FORMAT</b>	Radiometric image with measurement data included JPEG image without measurement data included
<b>VOICE NOTE</b>	Max. 60 seconds
<b>TEXT NOTE</b>	Max. 200 characters
<b>VIDEO STORAGE CAPACITY</b>	Approx. 64 h (The size of a one-minute video is about 15 MB to 20 MB)
<b>VIDEO FILE FORMAT</b>	Standard MP4 non-radiometric video
<b>SOFTWARE</b>	
<b>PC SOFTWARE</b>	HIKMICRO Analyzer
<b>APP</b>	HIKMICRO Viewer App
<b>CAST SCREEN</b>	UVC Alarm Client
<b>BATTERY</b>	
<b>POWER SUPPLY</b>	12 VDC/3 A, 5 VDC/3 A (Charging via USB), fast charging
<b>BATTERY TYPE</b>	Dismountable and rechargeable Li-ion battery

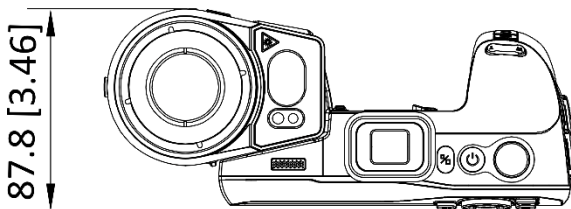
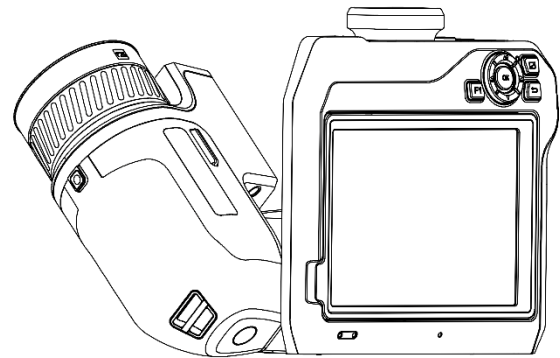
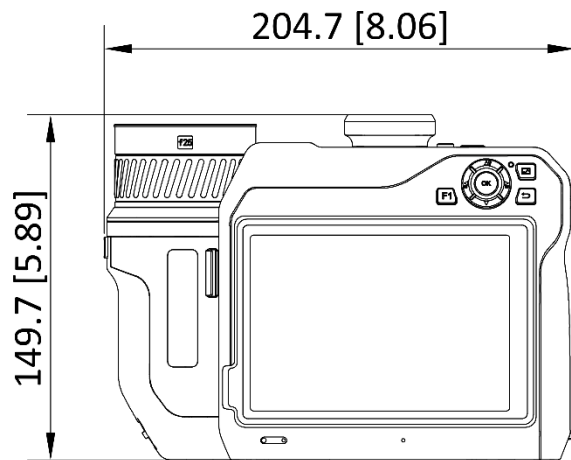
<b>BATTERY OPERATING TIME</b>	4 hours continuous running per battery (actual life varies depending on settings and usage)
<b>BATTERY CHARGING TIME</b>	2.5 h to full charge
<b>BATTERY CHARGING SYSTEM</b>	Two-bay battery charger or in-imager charging, fast charging
<b>AC OPERATION</b>	AC operation with included power supply (100 VAC to 240 VAC, 50/60 Hz)
<b>GENERAL</b>	
<b>WI-FI</b>	802.11 b/g/n (2.4 GHz)
<b>BLUETOOTH</b>	Bluetooth 4.2
<b>USB INTERFACE</b>	USB Type-C
<b>HDMI INTERFACE</b>	HDMI-D
<b>SD CARD INTERFACE</b>	64 GB SD card
<b>LED LIGHT (TORCH)</b>	Yes
<b>LASER POINTER</b>	Yes
<b>LASER DISTANCE METER</b>	Indoor distance: 50 m (164 ft); Outdoor distance: 10 m (33 ft).
<b>LASER TYPE</b>	Class II, Wavelength: 635 nm; Power: < 1 mW
<b>GEOLOCATION</b>	Location data automatically added to every image from the built-in GPS, BDS, GLONASS or GALILEO
<b>COMPASS</b>	Camera direction automatically added to every image
<b>CARRYING CASE</b>	Yes
<b>PROTECTION LEVEL</b>	IP54 (protected against dust, limited ingress; protection against water spray from all directions)
<b>WARRANTY</b>	3 years for whole product, 10 years for detector, and 2 years for battery
<b>RECOMMENDED CALIBRATION CYCLE</b>	1 year (assumes normal operation and normal aging)
<b>SAFETY</b>	IEC 61010-1: Overvoltage Category II, Pollution Degree 2
<b>ELECTROMAGNETIC COMPATIBILITY</b>	EN55032: 2015+A11: 2020 EN50130-4: 2011+A1: 2014 EN61000-3-3: 2013 EN 61010-1: 2010
<b>AUSTRALIAN RCM</b>	EN55032: 2015+A11: 2020 EN50130-4: 2011+A1: 2014 EN61000-3-3: 2013
<b>ROHS COMPLIANT</b>	Yes
<b>VIBRATION</b>	0.03 g <sup>2</sup> /Hz (3.8 g), 2.5 g IEC 60068-2-6
<b>SHOCK</b>	25 g, IEC 68-2-29
<b>WORKING TEMPERATURE RANGE</b>	-20°C to 50°C ( -4°F to 122 °F)
<b>STORAGE TEMPERATURE RANGE</b>	-20°C to 60°C ( -4°F to 140°F)
<b>RELATIVE HUMIDITY</b>	< 95% non-condensing

<b>WEIGHT</b>	Approx. 1590 g (3.51 lb)
<b>DIMENSION</b>	204.7 mm × 149.7 mm × 87.8 mm (8.06" × 5.89" × 3.46")
<b>TRIPOD MOUNTING</b>	UNC ¼"-20
<b>LANGUAGE</b>	
<b>LANGUAGE</b>	21 Languages English, German, French, Spanish (Spain), Portuguese (Portugal), Italian, Czech, Slovak, Polish, Hungarian, Romanian, Dutch, Danish, Norwegian, Finnish, Swedish, Russian, Turkish, Japanese, Korean, Chinese (Traditional)

## Available Model

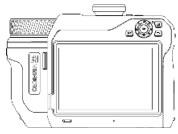
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## Dimension



Unit: mm [inch]

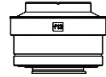
## Packing List



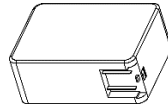
**Camera (× 1)**



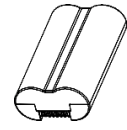
**L12/50 Lens (× 1)**



**Power Adapter (× 1)**



**Charging Base (× 1)**



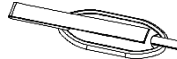
**Battery (× 2)**



**USB Cable (× 1)**



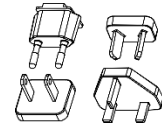
**HDMI Cable (× 1)**



**Hand Strap (× 1)**



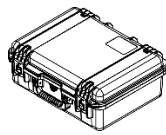
**Neck Strap (× 1)**



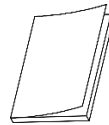
**Adapter Plugs (US,  
UK, EU, AU)**



**Dustproof Cover (× 1)**



**Carrying Case (× 1)**



**Quick Start Guide (× 1)**

**COMPLIANCE NOTICE:** The thermal series products might be subject to export controls in various countries or regions, including without limitation, the United States, European Union, United Kingdom and/or other member countries of the Wassenaar Arrangement. Please consult your professional legal or compliance expert or local government authorities for any necessary export license requirements if you intend to transfer, export, re-export the thermal series products between different countries.



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