# SP40H
## SP Series Handheld Thermal Camera

The HIKMICRO SP40H high-performance handheld thermal camera is ideal for industrial, predictive, oil and gas, and utility maintenance inspections.

HIKMICRO SP40H has a high sensitivity (NETD < 30 mK) and high resolution (480 × 360) HIKMICRO VOx detector, and the temperature calibration is up to 2200°C. 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.

## ▪ Features

- Thermal resolution: 480 × 360 (172,800 pixels),NETD : < 30 mK (@ 30 °C,F#=1.0)

- Temperature measurement range : -40°C to 2200°C (-40°F to 3992°F)

- The 90° rotating screen and the 180° rotating lens design

- 1.x to 12.x continuous digital zoom

- Manual, automatic, and 1-Tap Level and Span

- 30 Hz image frequency

- Up to 4 hours continuous running

# ▪ Specification

| Infrared Image | |
|---|---|
| IR Resolution | 480 × 360 (172,800 pixels) |
| SuperIR | 960 x 720 (691,200 pixels) |
| NETD | <30 mK (@ 30 ℃, F#=1.0) |
| Image Frequency | 30 Hz |
| Spectral Range | 7.5 to 14 μm |
| Detector Pitch | 17 μm |
| F-number | L6: F1.2; L9: F1.1; L19: F1.0; L37: F1.0 |
| Focal Length | L6: 77.4 mm; L9: 51.4 mm; L19: 25.6 mm; L37: 12.6 mm |
| Field of View (FOV) | L6: 6° × 4.5°; L9: 9° × 6.8°; L19: 18.7° × 14°; L37: 37.3° × 27.8° |
| Spatial Resolution (IFOV) | L6: 0.22 mrad; L9: 0.33 mrad; L19: 0.66 mrad; L37: 1.35 mrad |
| Min. Focus Distance | L6: 2 m (6.56 ft); L9: 1 m (3.3 ft); L19: 0.15 m (0.49 ft); L37: 0.15 m (0.49 ft) |
| Focus Mode | Laser Assisted AF/Continuous AF/AF/Manual Focus/Touch AF |
| Focus Speed | Approx. 1 second |
| **Image Display** | |
| Visual Camera | 3264 × 2448 (8 MP) |
| Display | 1280 × 720 Resolution, 5″ LCD Touch Screen |
| Screen Brightness | Manual/Auto |
| Digital Zoom | 1.x to 12.x continuous |
| Color Palettes | White Hot, Black Hot, Rainbow, Ironbow, Red Hot, Fusion, Rain, Blue Red |
| Focus Mode Palette | Above/Below/Interval |
| Color Alarm | Above/Below/Interval/Insulation/Condensation |
| Image Modes | Thermal/Visual/Fusion/PIP/Blending |
| Viewfinder | No |
| **Measurement and Analysis** | |
| Object Temperature Range | Range 1: -40℃ to 150℃ (-40°F to 302°F); Range 2: 0℃ to 650℃ (212°F to 1202°F); Range 3: 300℃ to 2200℃ (572°F to 3992°F) |
| Accuracy | Range 1: ±2℃ for -40 to 0℃, ±1℃ for 0 to 100℃, ±1% for 100 to 150°C; Range 2: ±2℃ for 0 to 100℃, ±2% for 100 to 650°C; Range 3: ±2% for 300 to 2000°C |
| Measurement Tools | Center Spot, Hot Spot, Cold Spot<br>User-definable: Delta T, 10 spots, 1 line, 5 rectangles, and 5 circles |
| Level and Span Mode | Auto/Manual/1-Tap Touch-Screen |
| Inspection Route | Yes |
| SuperScene+ | Electrical Panel, PCB Inspection |
| **Data Storage and Communication** | |
| Image Storage Capacity | Approx. 130,000 Images (8MP) |

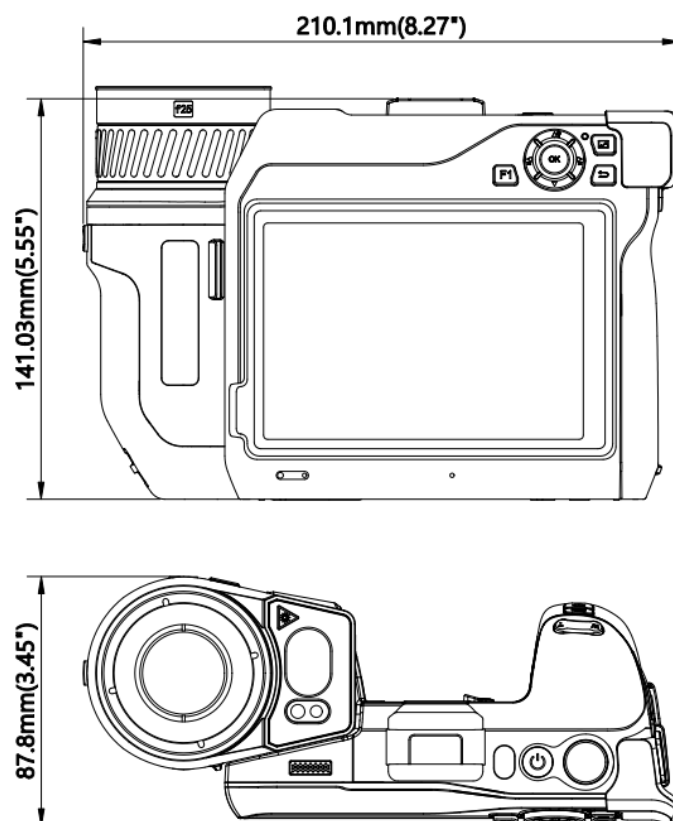| Annotations | Voice note: max. 60 seconds; Text note: max. 200 characters; QR Code note; Picture note; Tag note; Sketch |
|---|---|
| Video Storage Capacity | MP4 video max. 420h; Radiometric video max. 72h |
| Video File Format | MP4 video and radiometric video |
| Image Format | Radiometric JPEG |
| Radiometric Infrared-Video Streaming (Compressed) | Over UVC, Wi-Fi |
| Extendable Memory Card | Extendable 128 GB SD Card |
| **General** | |
| Wi-Fi | 802.11 b/g/n (2.4 GHz and 5 GHz) |
| Bluetooth | Bluetooth 4.2 |
| USB Interface | USB Type-C |
| Laser Pointer | Yes |
| HDMI Interface | HDMI-D |
| Laser | Yes, Class II, Wavelength: 635 nm; Power: <1 mW |
| Laser Distance Meter | Indoor distance: 50 m (164 ft); Outdoor distance: 10 m (33 ft). |
| GPS & Compass | Yes |
| Battery Type | Interchangeable and rechargeable Li-ion battery |
| Battery Operating Time | Approx. 4 hours |
| Battery Charging Time | Approx. 2.5 hours fully charged |
| Power Saving Mode | Yes |
| Programmable Buttons | 2 |
| Protection Level | IP54, IEC 60529 |
| Drop Test Height | 1 m (3.28 ft), IEC 60068-2-31 |
| Safety | IEC 61010-1 |
| EMC | EN 301 489-1, EN 301 489-17, EN IEC 61000-6-2, EN IEC 61000-6-4, EN 61326-1 |
| Vibration | 2 g, IEC 60068-2-6 |
| Shock | 25 g, IEC 60068-2-27 |
| Working Temperature Range | -20°C to 50°C ( -4°F to 122 °F) |
| Storage Temperature Range | -20°C to 60°C ( -4°F to 140°F) |
| Relative Humidity | <95% non-condensing |
| Weight | Approx. 1451 g (3.2 lb) |
| Dimension | 210.1 × 141.03 × 87.8 mm (8.27 × 5.55 × 3.45 in) |
| Tripod Mounting | UNC ¼" -20 |
| LED Light | Yes |
| Warranty | 3 years for the full product, 10 years for the detector, and 2 years for the battery. |

## ▪ Available Model

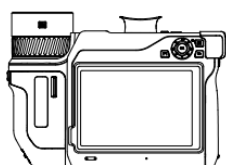HM-TP94H-Q/W-SP40H-L9

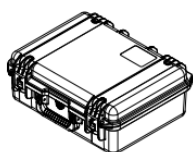HM-TP94H-Q/W-SP40H-L37
HM-TP94H-Q/W-SP40H-L19
HM-TP94H-Q/W-SP40H-L6

## ·Dimension



## · Packing List



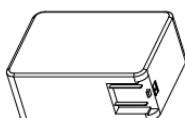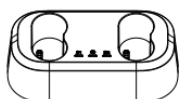| | | | | |
|---|---|---|---|---|
| Camera(x1) | Hard Carrying Case(x1) | QSG(x1) | Non-Dust Cloth(x1) | Lens Caps(x1) |
| Adapter(x1) | Charging Base(x1) | USB Cable(x2) | Wrist Strap(x1) | |
| Adapter Plug(x4) | Battery(x2) | HDMI Cable(x1) | Neck Strap(x1) | |

# Accessory

## Optional

**HM-AHBR01**
SP Series Desktop
Stand Bracket

**HM-SP650-MACRO**
SP Series Macro Lens
50 µm

**HM-SP620-MACRO**
SP Series Macro Lens

**HM-SP620-LENS**
SP Series 2X
Telephoto Lens

**HM-SP01-POUCH**
M/G/SP Series Pouch

**HM-SP630-LENS**
SP Series 3.3X
Telephoto Lens

**HM-7250DC**
SP Series Battery

**HM-SP610-LENS**
SP Series 1X
Telephoto Lens

**HM-SP605-LENS**
SP Series 0.5X Wide
Angle Lens

**HM-20322ZC**
SP Series Battery
Charger

**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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