

DHI-TPC-M40

Thermal Monocular Camera



- Vanadium oxide uncooled focal plane detector.
- Ultra-low power consumption.
- Fire detection and alarm.
- Connects to the mobile app through Wi-Fi.
- Connects to the external display through the CVBS port.
- Provides a laser for aiming.
- Calculates distance using video analysis.
- Lightweight and portable.
- IP67 rated.

Series Overview

M40 captures sharp thermal imaging at a fast framerate for smooth, impeccable vision on running targets and from moving vehicles. Designed to increase situational awareness at any time of day, M40 can detect humans, animals, and objects in complete darkness, haze, or through glaring light, equipping law enforcement professionals, hunters, and outdoor enthusiasts with reliable thermal imaging in tough conditions.

Functions

Advanced Image Processing

Designed to be precise, this thermal camera produces vivid video images through its enhanced detector and Dahua-developed image processing algorithm.

Video Ranging

With its hassle-free distance measurement feature, simply mark the top and bottom of a target on the screen, and the interface will automatically display the distance of the target from the monocular.

Fire Detection

Fire detection is now available for the first time with this monocular through Dahua's core technology. The monocular can automatically detect fires that break out in the scene and track them in real time.

Simultaneous Multi-user Connections

Multiple phones can connect to the monocular through the Wi-Fi at the same time. Through the mobile phone, you can watch the live view, capture images, record videos and configure parameters.

Diopter Adjustment

By adjusting the diopter adjustment knob, the thermal camera can be set to match the eyesight of different users, ensuring that each user sees a clear image.

Laser Eye Protection

The laser pointer is used to indicate a position. To protect the eyes from being injured, the laser pointer is automatically disabled after 10 s.

Portable and Low Power Consumption

With its small and lightweight design, it functions for longer periods while remaining fully charged, making long-term outdoor use more convenient.

Scene

Widely used in outdoor scenarios for hunting, rescue, animal observation, and more.

Technical Specification

General

Appearance	Thermal Monocular Camera
Type	Monitor

Thermal

Detector Type	Vanadium oxide uncooled focal plane detector
Effective Pixels	400 (H) × 300 (V)
Pixel Pitch	17 μm
Spectral Range	8 μm–14 μm
Sensitivity (NETD)	≤50 mK@f/1.0
Aperture	F1.0
Focal Length	13 mm; 19 mm; 25 mm
Field of View	13 mm (H: 24.0°; V: 22.6°) 19 mm (H: 20.4°; V: 15.3°) 25 mm (H: 15.5°; V: 11.6°)
Focus Control	Fixed-focal

Close Focus Distance		13 mm 3 m (9.84 ft) 19 mm 5.8 m (19.02 ft) 25 mm 9.5 m (31.16 ft)		
DRI Detection Distance	Thermal Focal Length	Detection Distance	Recognition Distance	Identification Distance
	13 mm	Vehicle: 1020 m (3,346.45 ft) Human: 382 m (1,253.28 ft)	Vehicle: 255 m (836.61 ft) Human: 98 m (321.52 ft)	Vehicle: 128 m (419.94 ft) Human: 49 m (160.76 ft)
	19 mm	Vehicle: 1490 m (4,888.45 ft) Human: 558 m (1,830.70 ft)	Vehicle: 372 m (1,220.47 ft) Human: 143 m (469.16 ft)	Vehicle: 186 m (610.23 ft) Human: 72 m (236.22 ft)
	25 mm	Vehicle: 1960 m (6,430.44 ft) Human: 735 m (5,692.25 ft)	Vehicle: 490 m (1,607.61 ft) Human: 189 m (620.07 ft)	Vehicle: 245 m (803.80 ft) Human: 94 m (308.39 ft)
Thermal Digital Zoom		4 levels		
Color Palettes		4 (white hot/alarm/rainbow/iron red)		

Display

Video Compression	H.265
Frame Rate	50 Hz
Display Screen Dimensions	0.4 inch
Resolution	1280 (H) × 960(V)

Function

Storage	Micro SD card (Max. 256 G)
Laser Aiming	180 m (590.55 ft), Class 2 (IEC 60825-1)
Buzzer	Yes

Intelligence

Fire Detection	Yes
Cold/Hot Spot Trace	Yes

Port

Analog Output	1 × CVBS output
Wi-Fi Hotspot	Yes
USB	Micro USB

Power

Power Supply	5 VDC, 0.5 A or built-in battery
Battery Capacity Display	Yes
Power Consumption	<2.2 W
Battery Life	>5 h (Wi-Fi hotspot off, @25°C)
Charging Time	<3 h

Environment

Operating Temperature	-20 °C to +55 °C (-4 °F to +131 °F)
Operating Humidity	≤90%
Storage Temperature	-20 °C to +60 °C (-4 °F to +140 °F)

Physical Characteristics

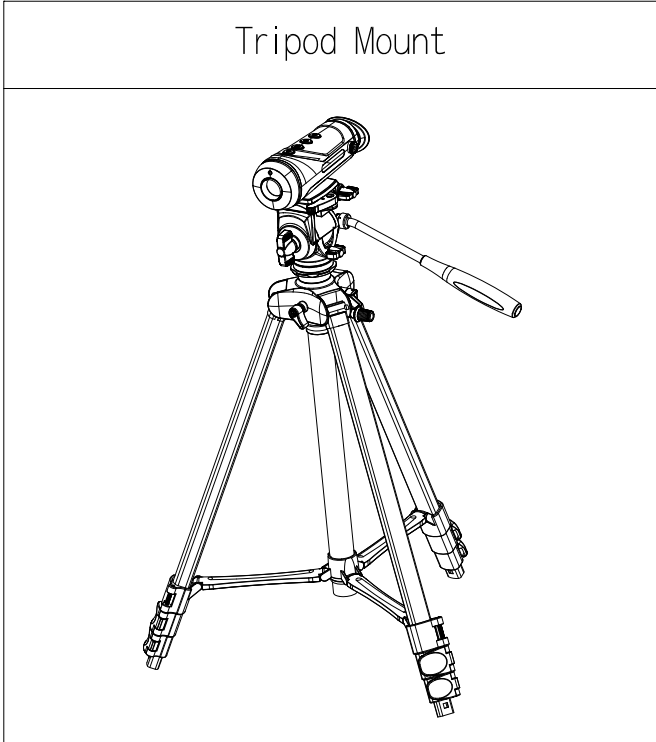
Protection	IP67
Operating Temperature	187.5 mm × 66.5 mm × 68.5 mm (7.38" × 2.61" × 2.69") (L × W × H)
Packaging Dimensions	228 mm × 186 mm × 124 mm (8.97" × 7.32" × 4.88") (L × W × H)
Net Weight	450 g (0.99 lb)
Gross Weight	1.1 kg (2.42 lb)
Installation	Handheld; tripod
Power Adapter	Included
Lens	Included
Bracket	Optional
Drop Test Height	2 m (6.56 ft)

Ordering Information

Type	Model	Description
Thermal Monocular Camera	DHI-TPC-M40-B13-Y	Lens: 13 mm; Color: Yellow
	DHI-TPC-M40-B19-Y	Lens: 19 mm; Color: Yellow
	DHI-TPC-M40-B25-Y	Lens: 25 mm; Color: Yellow
	DHI-TPC-M40-B13-G	Lens: 13 mm; Color: Black
	DHI-TPC-M40-B19-G	Lens: 19 mm; Color: Black
	DHI-TPC-M40-B25-G	Lens: 25 mm; Color: Black

Installation

Tripod Mount



Dimensions (mm[inch])

