

FALCON EYE COLOR NIGHT VISION

View and record in colors during day and night



KC-2000 MKII



KC-1000



KC-1100 MKII

Falcon Eye KC-2000 MKII

Camera

Image Sensor:	KClux™ - proprietary CMOS single plate sensor
Effective pixels:	1974 x 1100 (Approximately 2.2MP).
Pixel size:	5µm (H) x 5µm (V)
Optical size:	2/3"
Image Sensing:	Full color in night & day illumination Monochrome in IR mode
Filter:	RGB Primary Color Filter in color mode
Min. Subject Illumination:	0.005 lx (1/30, 50IRE, +72DB)
Sensitivity:	ISO 2,000,000. F11 2000lx
Video noise control:	KCnoise™ - proprietary 2D/3D noise reduction
Fog and smoke elimination:	KCfog™ - proprietary technology for enhanced visibility in foggy or smoky environments
Exposure mode:	Automatic, and manual settings of exposure time (1/8 sec - 1/10,000 sec)
White Balance setting:	Automatic, and manual select between 6 pre-sets
Frame rate:	Video mode: 30 fps. Progressive
Settings:	Menu operated by thumb joystick
Focus assist:	2 x electronic zoom
Lens Mount:	C, interchangeable lens system (compatible with most CCTV and DSLR lenses via adapters)
Overload response:	Rapid, makes consecutive recording possible even with large change in ambient light
Viewfinder:	Electronic (EVF) 0.45" WVGA, with Diopter Adjustment
Audio input:	Built in microphone - monaural with AGC. Optional external microphone

Output

Recording resolution:	HD (High Definition), 1280 (H) x 720 (V) pixels. 30 Hz
Recording file format:	Video: MOV, Photo: JPEG
Photo recording:	1 photo per sec., up to 9,999 photos, simultaneously with video
Audio Recording Format:	Linear PCM 16bit/48KHz.
Integrated storage media:	SD Card up to 32 GB (standard and WORM) Video Codec H.264 Video recording time (32 GB SD Card) Approximate: High mode: 300 minutes / Std. mode: 420 minutes / Low mode: 720 minutes
External storage media:	HDMI compatible video recorder. Uncompressed video

Power

Integrated battery:	7.4 V Li-ion battery, 4,900 mAh. Approximately 5 hours consecutively recording time
External power supply:	DC 10-16V

Body Design

Mobility:	Handheld type for portability and easy operation with buttons for video recording, photo capture, menu operation, focus assist, power on/off, and play back
Durability:	CNC machined aluminum block for extreme durability
Sealing:	Splash-proof IPX2 (lens excluded)
Connections:	External microphone 3.5mm stereo mini-jack with AGC, Power supply, Head phones 3.5mm stereo mini-jack, HDMI (Type A) out, Tripod screw 1/4"-20 UNC, Hot shoe for mounting of accessories"

Weight:	1,100 g (lens and battery not included)
Dimensions:	108 (W) x 100.1 (H) x 210.5 (L) mm (Lens not included)
Operational range:	Temperature: -10°C to 50°C
Relative Humidity:	30-90%

FALCON EYE KC-2000 MKII CAMERA

A new range of Falcon Eye cameras with truly unique features making it possible to view and record in colors during night - even in the near total darkness of scenes invisible to the human eye. The new IR feature of the MKII version, allows the camera also to see and record in monochrome in total darkness.

HANDHELD OPERATION

Compact, light weight and excellent portability. Designed for handheld shooting. Small form factor for covert operations. 5 hours continuous video recording using integrated battery and recording media.

EASY IDENTIFICATION

High resolution in clear colors and progressive scanning technology gives outstanding target recognition and identification capability.



AFFORDABLE LENSES

Interchangeable C-mount lenses offers great flexibility in focal length and magnification of more than 60X. Adapters are available for DSLR lenses.



In a no light environment the KC-2000 MKII can observe and record in monochrome using the IR-mode.

New MKII features

TWO-IN-ONE

Color and IR in same camera. Color mode in low light environment plus IR mode when there is no ambient light and IR illumination is turned on.



The same scenes shot with the Falcon Eye camera, a consumer type video camera, and a professional Generation III Night Vision camera. See the videos at: www.falconeyecnv.com

Use the lever to switch between IR and Color mode



Falcon Eye KC-1000

Camera Head Unit

Minimum Subject Illumination: 0.005lx (F1.4, 1/30, +66 dB)
Image Sensor: KClux™ - proprietary CMOS single plate sensor, 2/3" size
Pixel size: 7.1µm (H) × 7.1µm (V)
Resolution - total: Approx. 1.47 Mpixles. 1408 (H) × 1042 (V) pixels
Resolution - effective: Approx. 1.33 Mpixles. 1288 (H) × 1032 (V) pixels
Filter: RGB Primary Color Filter (Bayer Array).
Sensitivity: F16 2000lx. ISO 2,000,000
S/N ratio: Over 50dB (Gamma =1, edge enhancement OFF)
Video noise control: KCnoise™ - proprietary 2D/3D noise reduction
Frame rate: 60 fps. Progressive
CCU Port: J45 x 1 (screw lock)
Lens mount: C
Overload response: Rapid, for recording with large change in ambient light

Camera Control Unit

Video output format: HDMI x 1 HD-SDI (BNC) x 1, (VBS)(BNC) x 1
Sync signal input: External sync input (VBS / bi-level) BNC x 1
USB: USB 2.0 x 1
Serial port: RS-232C (D-Sub 9-pin male) x 1
GPI (Contact type): 2 circuits (using unutilized serial port pins)
LAN: RJ45 x 1 (10Base, 100Base-TX)
IR remote receiver (optional): Front x 1, rear expansion port x 1
Camera port: RJ45 x 1
Video output format HDMI: 1920x1080/59.94p, 1920x1080/59.94i, 1920x1080/50p, 1920x1080/50i, 1280x720/59.94p, 1280x720/50p, 1920x1080/59.94p, 1920x1080/59.94i, 1920x1080/50p, 1920x1080/50i, 1280x720/59.94p, 1280x720/50p
Video outp. format 3G-HDSDI: 1920x1080/50i, 1280x720/59.94p, 1280x720/50p
Video outp. format Composite: NTSC, PAL down converted (letterboxed)
Still photo format: (USB) JPEG (1280x1024)
Fog and smoke elimination: KCfog™ - proprietary technology for enhanced visibility in foggy or smoky environments

General Specifications

DC Input Voltage: DC12V ± 10%. Power consumption 13W or less
Operat. temp./humidity range: 0°C - 45°C / 35-90%
Storage temp./humidity range: -20°C - 60°C / 20 - 90%
Dimensions Camera head: 46.0(W)×55.2(H)×51.9(D)mm
Dimensions camera control unit: 170.0(W)×47.0(H)×183.5(D)mm
Weight camera head/cont. unit: 160g / 1100g
Distance camera to control unit: Up to 100m (twisted pair cable) by using repeaters
Other features

Quality adjustment: Gain: Automatic / Shutter Priority / gain priority.
Shutter speed: AUTO / MANUAL (0- 78.0dB)
1/2, 1/4, 1/8, 1/15, 1/30, 1/60, 1/100, 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10000
Variable 0.35 ~ 0.55, OFF

Gamma correction: Variable 0.35 ~ 0.55, OFF
Knee: Fixed / Auto
White Clipping: Variable 100-109%
WDR: OFF / ON
DNR: OFF, LOW, MIDDLE, HIGH
White Balance: ATW / AWC / MANUAL
R/B: Variable gain 0-1023
Black Level: Variable -100-0-100
Chroma Level: Variable 0-255
Electronic zoom: x2
Image inversion: Upside down, flip horizontal, vertical and horizontal inv.
Picture freeze: Pause live video
Scene file: Up to 5
Test pattern: Color bars, gray scale, cross-line built-in
OSD: Display operation for menu, message, time, the scene file numbers, etc.



BROADCAST QUALITY

High quality output in HD-SDI / HDMI / Composite Video format.

FAST FRAME RATE

Captures action scenes with a fast frame rate of 60 frames per second at night.

OPTIONAL RECORDING

By connecting image recorder or a PC, it is possible to record videos in HD quality.

POWER SAVING

Advanced non-cooling type technology consumes minimum level of power.

KC-1100 MKII



FALCON EYE

Falcon Eye KC-1100 MKII

Camera Specifications

Minimum Subject Illumination: 0.005lx (F1.4, 1/30, +66 dB)
Image Sensor: CMOS, 2/3" size, color
Pixel size: 5.0µm (H) × 5.0µm (V)
Resolution - total: Approx. 2.6 Mpixles. 2270 (H) × 1144 (V) pixels
Resolution - effective: Approx. 2.2 Mpixles. 1974 (H) × 1100 (V) pixels
Filter: RGB Primary Color Filter (Bayer Array).
Sensitivity: F11 2000lx
Horizontal definition: Over 900TV lines
Spectral Sensitivity: 390-700 nm
Dynamic Range: 250%
S/N ratio: Over 50dB (Gamma =1, Detail mode OFF)
Video noise control: KCnoise™ - proprietary 2D/3D noise reduction
Overload response: Rapid, makes recording possible with large change in ambient light

Frame rate: 60 fps. Progressive
Electronic zoom: x1, x2, x3, x4, x5, x6, x7, x8, x9, x10
Picture flip: Vertical flip, horizontal flip, vertical & horizontal flip

Test patterns: Color bars, grayscale, crosslines available internally

Privacy mask: 8 masks GRAY/WHITE/BLACK
OSD: Operation menu S/N RATIO Over 50dB (γ=1, edge enhancement OFF)
CS

Lens mount: 4-pin DC iris control

Lens control: Picture Quality Control: OFF / AUTO (S/N, STD, MOVE) / MANUAL x1, x2, x4, x6, x8, x12, x16, x24, x32, x64

Electronic sensitivity boost: Auto: AGC / HYPERS-AGC, Manual: LOW / MID / HIGH

Gain: OFF, 1/50, 1/60, 1/100, 1/125, 1/250, 1/500, 1/1,000, 1/2,000, 1/4,000, 1/10,000

Electronics shutter: 9x5 area select
Backlight correction: 45 / 0.75 / 1
Gamma correction: Off, Low, High
DNR: ATW1 / ATW2 / AWC / manual
White balance: OFF/WDR/AUTO KNEE/AUTO BLK/STRETCH
WDR mode: KCfog™ - proprietary technology for enhanced visibility in foggy or smoky environments
Fog and smoke elimination: R/G/B/Ye/Cy/Mg 6-axis control

Color matrix: Digital / Chroma / Black Level

Other: Interface Specification
Video output:

HD-SDI (BNC) x 1
Composite Video (BNC) x 1
External sync input (VBS / 2 level sync) BNC x 1

Port: Serial RS-485
GPI (Contact type): IR cut filter (switchable)
Output format HD-SDI: 1080i/59.94, 1080p/29.97, 720i/59.94, 720p/29.97, 1080i/50, 1080p/25, 720i/50, 720p/25

Output format Composite video: NTSC, PAL downconv. (letter b./side cut/sque.)

General Specifications
DC Input Voltage: DC12V ± 10%. (ripple 50mVp-p or less)
Power consumption: 7W
Oper. temp./ humidity range: 0°C - 50°C / 35-90%
Storage temp. / humidity range: -20°C - 60°C / 20 - 90%
Dimensions (Excl. protrusions): 78.0 (W) × 64.0 (H) × 139.0 (D) mm
Weight: 650g

The Falcon Eye Camera Lineup



KC-1000



KC-1100 MKII



KC-2000 MKII

THE COMPANY BEHIND FALCON EYE

Komamura Corporation was established in 1947 and has for more than 60 years been an important player in the international professional camera business.

Komamura Corporation developed and marketed the Horseman Professional Camera product range. First for large format film and later new models with world first technology for digital photography.

Komamura Corporation has now shifted the focus from professional photographic equipment into ultra high sensitivity recording technology, and has amazed the world with the introduction of the new Falcon Eye product range.

