



These products are manufactured at a factory which has received quality control system certification in accordance with the ISO international standards.

CERTIFICATE No.
JMI-0062
ISO 9001/BS 5750Pt1
EN 29001/JIS Z9901

Black-and-white CCD Camera **KP-MB30**



The Hitachi KP-MB30 is an ultra compact camera using The latest high grade 1/3" CCD sensor along with high density parts mounting technology. The KP-MB30 consists of a camera head and a CCU. The KP-MB30 features high sensitivity and high resolution, and is provided with various features including a multi-step electronic shutter, the Field-On-Demand function, the integration mode switching function, the HD/VD sync mode, and the non-interlace scanning function. Consequently, the KP-MB30 is most suitable for use with a microscope, or an image processing system.

Features

- **Small in size and light in weight**

The cylinder type camera head measures 12.6mm in diameter and 41.5mm in length (excluding a lens). Therefore, the camera can be installed in a limited space. A video signal can be obtained only by supplying 12VDC.

- **High resolution**

The latest high grade CCD sensor is used. The number of pixels is 410,000 (CCIR: 470,000), and the number of effective pixels is 768(H)x494(V) (CCIR: 752(H)x582(V)). The horizontal resolution is 570TVL (CCIR: 560TVL), and the vertical resolution is 485TVL (CCIR: 575TVL).

- **Multi-step electronic shutter**

The eight step shutter is selectable in speed from 1/100 (CCIR: 1/120) thru 1/10,000s.

- **Internal/external sync mode and interlace/non-interlace modes are available**

The sync mode and the scanning mode are automatically switched according to the type of sync signal supplied.

- **Field-On-Demand function**

A picture captured by an external trigger input signal at an optional timing can be obtained instantly. It is possible to

adjust the capture time by an external trigger signal and a shutter.

- **Frame/field integration modes available**

The frame or field integration mode can be selected along with the electronic shutter function to obtain the desired picture according to the application.

- **Various camera heads available**

Cylinder type camera head provided with a special lens mount and square type camera head provided with a C-mount are available. For the square type camera head, 1/3" or 1/2" CCD sensor is available, and the camera cable can be protruded from the rear or either of the side panels.(Specify the position of the camera cable at the time of order.)

- **Extension of camera cable**

Though the cable length is 3m, it can be optionally extended up to 20m or 30m. (As the cable length is fixed, the respective dedicated CCU is needed. Specify the cable length at the time of order.)

Specifications

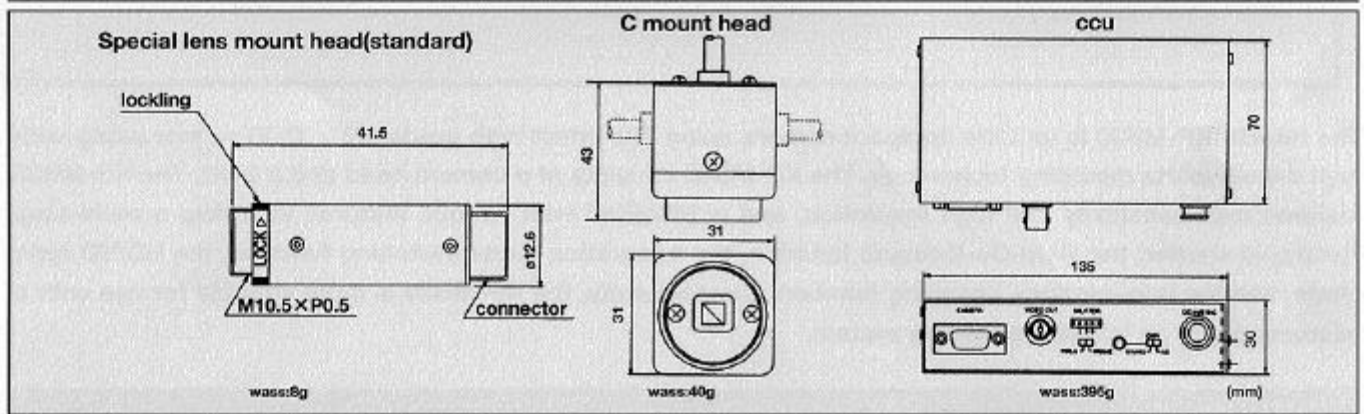
Imaging device	Flush type interline CCD of photo diode type
No. of total pixels	EIA: 811(H)x508(V) CCIR: 795(H)x598(V)
Pixel pitch	EIA: 6.35(H)x7.4(V) μ m CCIR: 8.5(H)x8.25(V) μ m
No. of effective pixels	EIA: 768(H)x494(V) CCIR: 752(H)x582(V)
Sensing area	EIA: 4.88(H)x3.09(V)mm CCIR: 4.89(H)x3.64(V)mm
Signal format	Conforms to EIA/CCIR standard
Hor. scanning frequency	EIA: 15.734kHz, CCIR: 15.62kHz
Vert. scanning frequency	EIA: 59.94Hz, CCIR: 60Hz
Sync system	Internal/external (automatically switched)
Internal sync scanning system	2:1 interlaced No. of scanning lines: 525 (CCIR:625) IV=2IH/525 (CCIR: 625)
External sync input	HD/VD: 2-6Vp-p, negative Input impedance: 1k Ω Frequency deviation: \pm 1%
External sync range	2:1 interlaced EIA: 521 thru 2047 lines/2FLD, 1FLD (61 thru 15Hz) CCIR: 621 thru 2047 lines/2FLD, 1FLD (51 thru 15Hz) Non-interlaced EIA: 260 thru 1023 lines/1FLD, 1FLD (61 thru 15Hz) CCIR: 310 thru 1023 lines/1FLD, 1FLD (51 thru 15Hz)
Video output	1.0Vp-p 75 Ω , unbalanced Video: 0.7Vp-p sync: 0.3Vp-p, negative
Hor./vert. resolution	EIA: 570TVL(H)/485TVL(V) CCIR: 560TVL(H)/575TVL(V)
Sensitivity	400 lx, 1/4, 3200K
Minimum illumination	0.5lx, 1/1.4
Signal-to-noise ratio	56dB

Electronic shutter	1/10,000, 1/4000, 1/2000, 1/1000, 1/500, 1/250, 1/120(CCCIR), 1/100(EIA)s OFF mode: Normal exposure Above modes are settable by external switches.
Integration mode	Field/frame integration mode settable by external switch
Gamma correction	Gamma=1.0 or correction settable by internal switch
GAIN	Fixed or manual setting
Field-On-Demand function	ON/OFF settable by internal switch
Power supply	12V \pm 1VDC, 350mA approx
Ambient conditions	Operating: -10 to 50°C, 90%RH or less Storage: -20 to 60°C, 70%RH or less
Anti-vibration	7G (10 to 60Hz, amplitude: 0.98mm constant, 60 to 200Hz, constant acceleration, amplitude variable)
Dimensions and mass	See attached drawings.
Standard composition	Camera head 1 CCU 1 Operation manual 1 Camera cable 3m (standard)
Optional units	Camera head fixing bracket, MA-C 230 12-pin plug, HR10A-10P-12S(01) AC adaptor, AP-130 Junction box, JU-M1A C-mount adaptor, ML-C230 Exclusive lenses (4, 12, 30mm) Optional cables (between CCU and junction box)

	Assy type	Mould type
2m	C-201KS	C-201KSM
5m	C-601KS	C-601KSM
10m	C-102KS	C-102KSM

Mould type: Produced upon receipt of order

Dimensions and mass



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●Specification are subject to change without notice.