

Progressive Scan Monochrome CCD camera KP-F30/F33 Specifications

1. Specification

- (1) Imaging device Progressive scan Interline type CCD
 - Total number of pixels 692(H) × 504(V)
 - Pixel size 7.4(H) × 7.4(V) μm
 - Effective number of pixels 659(H) × 494(V)
- (2) Sensing area 4.88mm(H) × 3.66mm(V)(1/3 types)
- (3) Scanning system Progressive scan (KP-F30: 60 fps, F33: 30fps)
- (4) Lens mount C mount
- (5) Flange focal 17.526mm
- (6) Horizontal scan frequency 31.468kHz(KP-F30)/15.734kHz(KP-F33)
- (7) Vertical scan frequency 59.94Hz(KP-F30)/29.97Hz(KP-F33)
- (8) Sync system Internal/external (automatic selection)
- (9) External synchronization I/O ... External switch selection. Set to Input at the factory.
 - Input: HD/VD 4 ~ 6Vp-p Negative
 - Frequency deviation : ± 1 %
 - Impedance : 75Ω or high impedance (switch selection)
 - Output: HD/VD 4 ~ 5Vp-p Negative
 - Impedance : 100
- (10) Video output 1.0Vp-p 75 unbalanced
 - Video component: 0.7Vp-p
 - Sync component: 0.3Vp-p Negative
- (11) Resolution 500 TV lines (H)/485 TV lines (V)
- (12) Sensitivity 400Lx, F5.6(F33: F8) 3200K
- (13) Min. illumination 0.7lx(F33: 0.5), F1.4, Gain MAX, and no IR cut filter
- (14) S/N 50dB
- (15) Electronic shutter KP-F30:
 - 1/50000s, 1/10000s, 1/4000s, 1/2000s, 1/1000s, 1/500s, 1/250s
 - OFF: Normal exposure (1/60s)KP-F33:
 - 1/25000s, 1/5000s, 1/2000s, 1/1000s, 1/500s, 1/250s, 1/125s
 - OFF: Normal exposure (1/30s)External switch can be set. The Factory setting is OFF.
- (16) Gamma =1
- (17) Gain Manual Gain control. (REAR panel)

(18) Frame on demand function

ONE trigger, fixed shutter trigger, Reset control trigger and partial scan trigger(OPTION) can be set.

External switch setting.

Frame output of Factory setting (normality).

(19) Power requirement DC12V \pm 1V

(20) Power consumption KP-F30: 2.1W approx./KP-F33: 1.8W approx.

(21) Ambient temperature and humidity

Operating :-10-50 RH90% or less

Storage :-20-60 RH70% or less

Caution : For continued stable operation, the camera should be used under 40 or less when it is used continuously for extended period of time.

(22) Anti-vibration 98m/s² (10 to 60Hz,amplitude:0.98mm constant 60 to 200Hz amplitude : variable) (10 to 150Hz sweep: 1min, XYZ , 30min.)

(23) Resistance to shock 686 m/s² (Drop test, once each top, bottom, left and right)

(24) Dimensions 29(W) x 29(H) x 38.5(D)mm

(25) Mass 55g approx.

2.Composition

(1) Camera (W/IR cut filter)

(2) Operation manual

3.Optional accessories

(1) Tripod adaptor TA-F30

(2) 12 pin plug HR10A-10P-12S (01)

(3) AC adaptor AP-130

(4) Junction box JU-F30

(5) Dummy glass ARC1214 (AR coat)

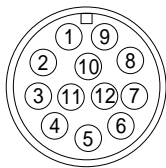
(6) Camera cable

	Molding type	Assy. type	Shielded type
2m	C-201-KSM	C-201KS	C-201KSS
5m	C-501KSM	C-501KS	C-501KSS
10m	C-102KSM	C-102KS	C-102KSS

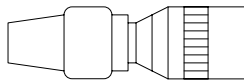
- Do order production of the Assy. and the Shielded type.

VIDEO OUT/DC IN/SYNC connector

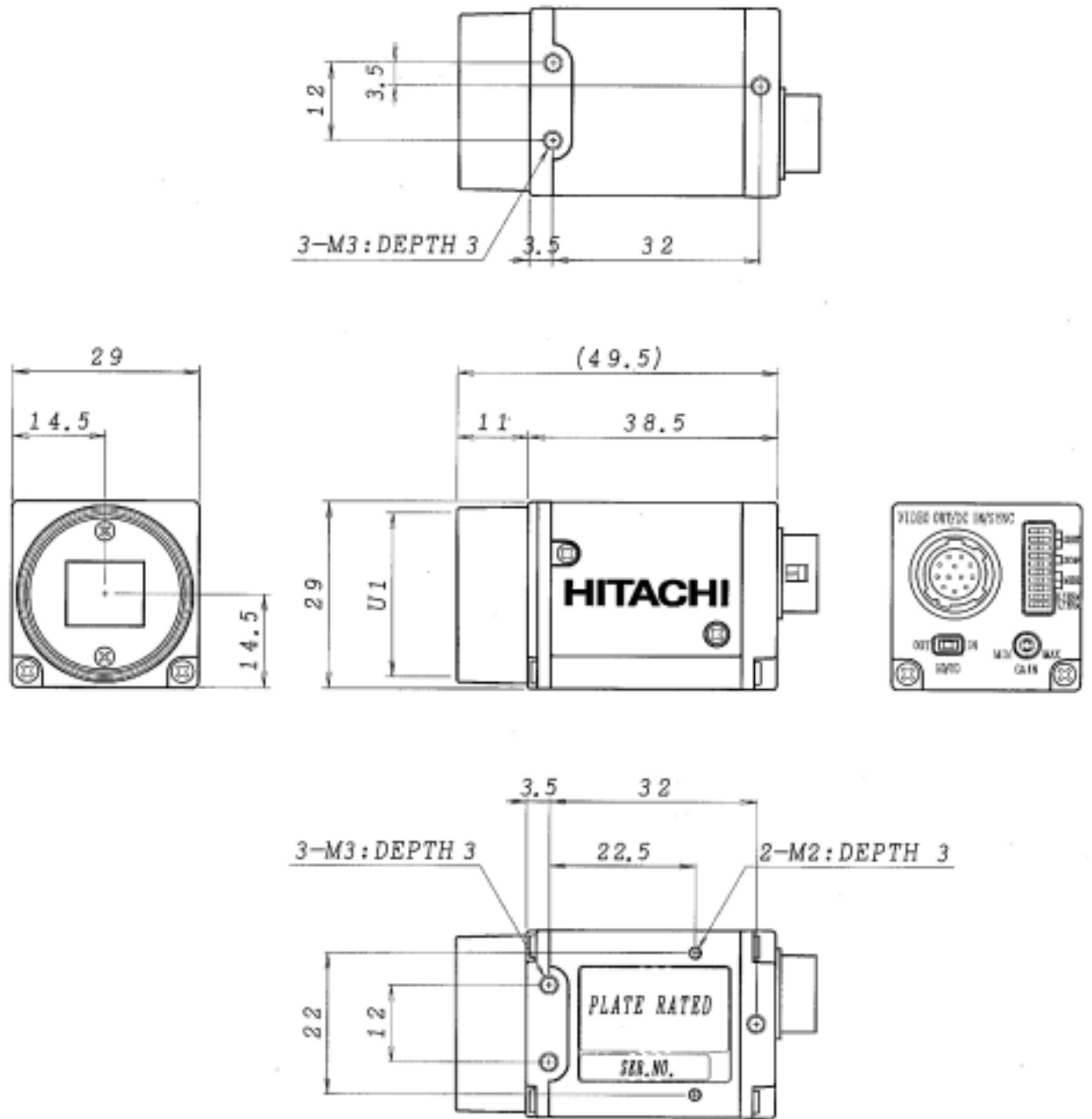
Pin No.	Internal sync mode	External sync mode				
		HD/VD	Frame on demand			
			ONE Trigger	Fixed shutter	Reset control	Partial(option)
1	GND	GND	GND	GND	GND	GND
2	12VDC	12VDC	12VDC	12VDC	12VDC	12VDC
3	GND (Pin 4)	GND (Pin 4)	GND (Pin 4)	GND (Pin 4)	GND (Pin 4)	GND (Pin 4)
4	Video out	Video out	Video out	Video out	Video out	Video out
5	GND (Pin 6)	GND (Pin 6)	GND (Pin 6)	GND (Pin 6)	GND (Pin 6)	GND (Pin 6)
6	-	HD IN/OUT	HD IN/OUT	HD IN/OUT	HD IN/OUT	HD IN/OUT
7	-	VD IN/OUT	Trigger IN	Trigger IN	Trig/VD IN	Trigger IN
8	GND (Pin 7)	GND (Pin 7)	GND (Pin 7)	GND (Pin 7)	GND (Pin 7)	GND (Pin 7)
9	NC	NC	NC	NC	NC	NC
10	WEN	WEN	WEN	WEN	WEN	WEN
11	-	-	-	-	Trigger B IN	-
12	GND (Pin 11)	GND (Pin 11)	GND (Pin 11)	GND (Pin 11)	GND (Pin 11)	GND (Pin 11)



Viewed from this side



External view



Mass: approx. 55g

Color: Black

Notice

The specifications of this equipment are subject to change without notice for improvement. Prior to placing your order, be sure to confirm that these specifications are the latest ones.

Hitachi Kokusai Electric guarantee that the equipment shipped from our factory conforms to the Hitachi Kokusai Electric's standard warranty conditions and perform quality control within the range necessary to perform the warranty.

Warranty and Service

- 1) The guarantee period is one year after the date of purchase. However, the defects due to erroneous use or intentional act are excluded.
- 2) Defect occurring after expiration of the guarantee period will be repaired at cost to the customer if it is possible to restore the intended function.
- 3) Our standard Warranty scope pertains only to the camera unit. Secondary losses to a user's system, possibly attributable to malfunction of the camera, are outside the scope of this Warranty. Further, Hitachi bears no liability to reimburse or otherwise compensate for costs incurred in dismantling and reassembling an affected system.
- 4) Hitachi bears no liability to reimburse or otherwise compensate for loss or damage to business, software, database or other property possibly attributable to malfunction of the camera.
- 5) Hitachi Kokusai Electric is not liable for the losses caused when the equipment is used in a system used for business trades, production process, medical fields, crime prevention applications, etc.
- 6) The parts used in the equipment have their respective lives. The lives of such parts will be shortened under environments of high temperature or high humidity.

When stable operation is required for a long time, it is recommended to perform periodic maintenance and inspection every one or two years.