

❖ CV-A50 IR

Monochrome Interlaced Near-IR



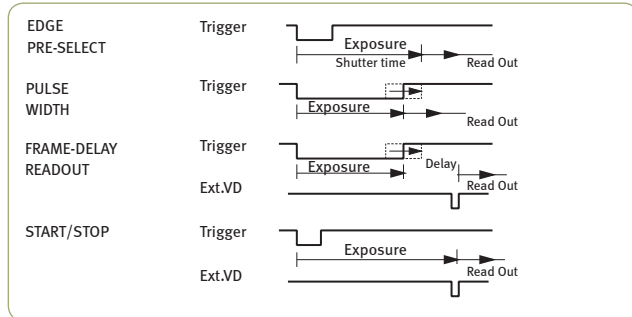
- Compact size 1/2" monochrome CCD camera
- CCIR: 752 (h) x 582 (v) pixels. EIA: 768 (h) x 494 (v) pixels
- Improved sensitivity, dynamic range and smear performance
- High S/N ratio up to 60 dB
- Shutter speeds from Off to 1/10,000 sec.
- Programmable exposure
- Interlaced or non-interlaced scanning. Field or frame accumulation
- Internal, external HD/VD or random trigger synchronization
- Edge pre-select, pulse width control, start/stop trigger modes
- Long time exposure with external VD pulse interval
- Frame-delay read out in connection with pulse width controlled shutter
- Exposure enable EEN, write enable WEN and pixel clock output
- Short ASCII commands for fast mode setup via serial port
- Setup by Windows NT/2000/XP software via RS 232C



Specifications for CV-A50 IR

Specifications	CCIR	EIA
Scanning system	625 lines 25 frames/sec.	525 lines 30 frames/sec.
CCD sensor	Monochrome 1/2" IT CCD	
Sensing area	6.4 (h) x 4.8 (v) mm	
Effective pixels	752 (h) x 582 (v)	768 (h) x 494 (v)
Pixels in video output	737 (h) x 575 (v)	758 (h) x 486 (v)
Cell size	8.6 (h) x 8.3 (v) μ m	8.4 (h) x 9.8 (v) μ m
Resolution horizontal	570 TV lines	
Sensitivity on sensor	0.02 Lux, Max gain, 50% video	
S/N ratio	59 dB	60 dB
Video output	Composite VS signal, 1.0 Vpp, 75 Ω	
Gamma	0.45 or 1.0	
Gain	Manual – Automatic	
Gain range	0 to +15 dB	
Accumulation	Field – Frame	
Synchronization	Int. X-tal. Ext HD/VD or random trigger	
Scanning	2:1 interlaced, non-interlaced	
HD sync. input/output	4 V, 75 Ω	
Trigger input	4 V, 75 Ω	
WEN output (write enable)	4 V, 75 Ω	
EEN out. (exposure enable)	4 V, 75 Ω	
Pixel clock output	4 V, 75 Ω	
Shutter	(Off), 1/100, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10,000 sec.	
Pulse width control	1.5 H to 1000 H	
Start/stop	1/50 to 1/10,000 sec. 1/60 to 1/10,000 sec.	
Long time exposure	1 field to ∞	
Programmable exposure	2.5 H to 252.5 H	
Frame delay readout	Time from PWC trigger input to ext. VD input	
Functions controlled by RS 232C	Scanning format, Trigger mode, Shutter speed, Trigger/WEN polarity, Accumulation, Shutter mode, Programmable exposure, AGC level, White clip, Setup, Manual gain, AGC/manual gain, Internal/potentiometer gain set, Gamma, Pixel clock, Commands and internal adjustments.	
Functions controlled by DIP switches	VD input/output, HD input/output, internal HD and VD 75 Ω termination on/off	
Operating temperature	-5°C to +45°C	
Humidity	20 - 80% non-condensing	
Storage temp./humidity	-25°C to 60°C./20% - 90 %	
Power	12V DC $\pm$ 10%, 1.5 W	
Lens mount	C-mount	
Dimensions	29 x 44 x 66 mm (HxWxD)	
Weight	150 g	

Trigger/Readout Modes

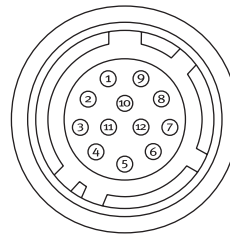


Ordering Information

CV-A50IR C 1/2" Near-IR monochrome CCD camera, CCIR
 CV-A50IR E 1/2" Near-IR monochrome CCD camera, EIA
 MP-40 Tripod Adapter (must be ordered separately)
 MP-70 Angle Adapter (must be ordered separately)

Connection description

DC-In / SYNC.



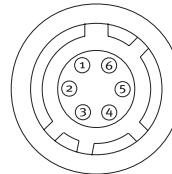
HIROSE HR10A-10R-12P

Pin

- Ground
- +12V DC
- Ground
- Video output
- Ground
- HD input/HD output
- VD input/VD output
- Ground
- Pixel clock output
- WEN output
- Trigger input
- Ground

(Pin configuration compatible with EIAJ standard)

RS-232/TRIGGER

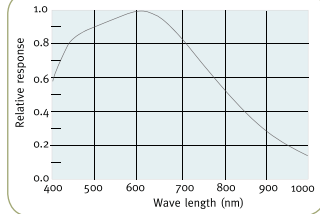


- | | | |
|-----|---|---------------|
| Pin | 1 | TXD |
| | 2 | RXD |
| | 3 | Ground |
| | 4 | Ground |
| | 5 | Trigger input |
| | 6 | EEN output |

Plugs for cable:

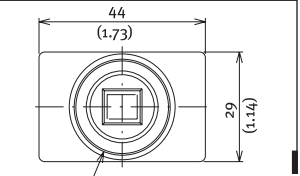
12 pin: HIROSE HR10A-10P-12S
 6 pin: HIROSE HR10A-7P-6S

Spectral Sensitivity

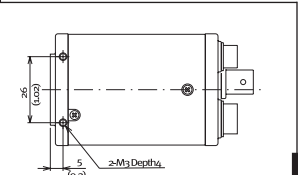


Dimensions

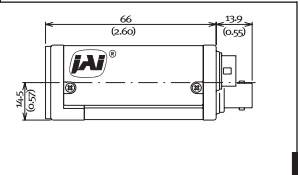
Front view



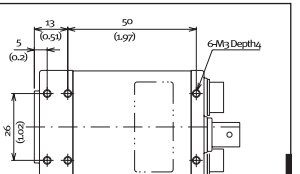
Top view



Side view



Bottom view



Rear view

