



CV-A11

Compact Progressive Scan Monochrome Camera



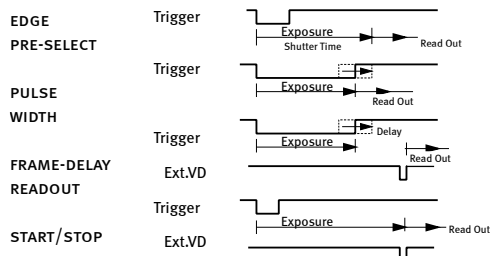
- Compact size 1/3" progressive scan monochrome CCD camera
- 659 (h) x 494 (v) square pixels (VGA format)
- Single channel video output
- High S/N ratio >56 dB
- Extended range of functions and options compared with CV-M10
- Shutter speeds from 1/30 to 1/100,000 second in 15 steps in normal mode
- Shutter speeds from 1/30 to 1/10,000 second in 10 steps in trigger mode
- Programmable exposure
- Partial scanning 1/2, 1/3 and 1/6 for higher frame rates
- 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 readout 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

The leading manufacturer of high performance camera solutions

Specifications for CV-A11

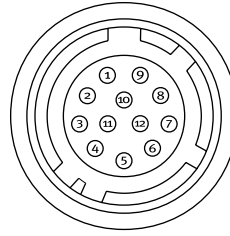
Specifications	CV-A11
Scanning system	Progressive 525 lines 30 frames/sec.
CCD sensor	Monochrome 1/3" IT CCD
Sensing area	4.9 (h) x 3.7 (v) mm
Effective pixels	659 (h) x 494 (v)
Pixels in video output	648(h) x 492 (v)
Cell size	7.4 (h) x 7.4 (v) μ m
Resolution horizontal	480 TV lines
Sensitivity on sensor	0.05 Lux, Max gain, 50% video
S/N ratio	>56 dB
Video output (with/without sync.)	Composite VS signal, 1.0 Vpp, 75 Ω Video signal, 0.7 Vpp, 75 Ω
Gamma	0.45 or 1.0
Gain	Manual - Automatic
Gain range	0 to +15 dB
Accumulation	Frame
Synchronization	Int. X-tal. Ext HD/VD or random trigger
Scanning	Progressive scan, 525 lines, 30 frame/sec. partial 1/2, 272 lines, 58 frame/sec. partial 1/3, 215 lines, 73 frame/sec. partial 1/6, 127 lines, 124 frame/sec.
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
Trigger	HD reset/HD non-reset
Shutter	1/30, 1/50, 1/60, 1/125, 1/250, 1/500, 1/1000, 1/2000, 1/4000, 1/10,000, 1/20,000, 1/40,000, 1/60,000, 1/80,000, 1/100,000 second
Pulse width control	1.5 H to 1000 H
Start/stop	1/30 to 1/10,000 second
Long time exposure	1 frame to ∞
Programmable exposure	0.5 H to 1023.5 H
Frame delay readout	Time from PWC trigger input to ext. VD input
Smearless readout	Reduced smear at high shutter speeds
Functions controlled by RS 232C	Scanning format, Trigger mode, Readout mode, Shutter speed, Trigger/WEN polarity, Clock/WEN output, Sync. output, 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 internal DIP switches	VD input/output, HD input/output, 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



Connection Description

DC-IN/SYNC.

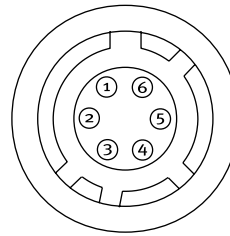


HIROSE HR10A-10R-12P

- Pin 1 Ground
2 +12V DC
3 Ground
4 Video output
5 Ground
6 HD input/HD output
7 VD input/VD output
8 Ground
9 Pixel clock output
10 WEN output
11 Trigger input
12 Ground

(Pin configuration compatible with EIAJ standard)

TRIGGER

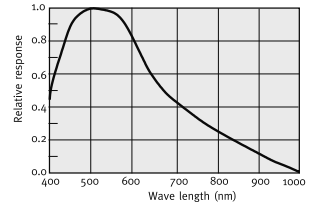


HIROSE HR10A-7R-6P

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

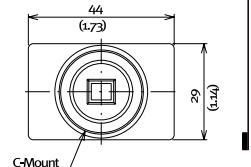
Plugs for cable:
12 pin: HIROSE HR10A-10P-12S
6 pin: HIROSE HR10A-7P-6S

Spectral Sensitivity

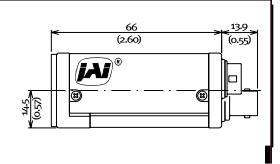


Dimensions

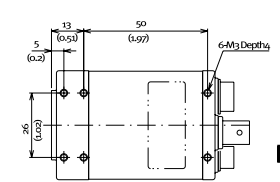
Front view



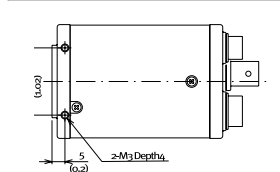
Side view



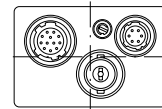
Bottom view



Top view



Rear view



Ordering Information

- CV-A11 1/3" Compact Progressive Scan Monochrome Camera
- MP-40 Tripod Adapter (must be ordered separately)
- MP-70 Angle Adapter (must be ordered separately)



THE MECHADEMIC COMPANY