



CV-A10 CL

Progressive Scan Monochrome Camera



- *Compact 1/2" progressive scan monochrome camera*
- *Camera Link equivalent of the popular CV-M10*
- *782 (h) x 582 (v) 8.37µm square pixels*
- *60 fps with full resolution*
- *250 with 1/8 partial scan*
- *Vertical and horizontal binning for higher frame rates and sensitivity*
- *High speed shutter from 1/60 to 1/300,000 second*
- *8 or 10 bit output via Camera Link*
- *Edge pre-select, pulse width and sensor gate trigger modes*
- *Programmable exposure, auto shutter and smearless readout*
- *Reset Continuous Trigger (RCT)*
- *Iris video output, auto shutter and AGC allow a wider light range*
- *LVAL synchronous or asynchronous accumulation*
- *Setup by Windows NT/2000/XP software via RS 232C or Camera Link*

The leading manufacturer of high performance camera solutions

Specifications for CV-A10 CL

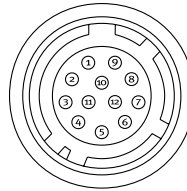
Specifications	CV-A10 CL
Scanning system	Progressive scan
Pixel clock	36.15 MHz
Line frequency	37.5 kHz (964 pixel clock/line)
Frame rate for full frame	60 frames/sec. (625 lines/frame)
CCD sensor	1/2" progressive scan monochrome
Sensing area	6.4 (h) x 4.8 (v) mm
Cell size	8.3 (h) x 8.3 (v) μ m
Effective pixels	782 (h) x 582 (v)
Pixels in video output	
Full	768 (h) x 576 (v) 60 fps
1/2 partial	768 (h) x 287 (v) 112 fps
1/4 partial	768 (h) x 143 (v) 177 fps
1/8 partial	768 (h) x 71 (v) 250 fps
Sensitivity on sensor	0.1 Lux (Max. gain, 50% video)
S/N ratio	>55 dB
Digital video output	8 or 10 bits in Camera Link
Iris video output. Analogue	0.7 Vpp
Gain	Manual - automatic
Gain range	-3 to +12 dB
Synchronization	Int. X-tal. Ext. HD/VD or random trigger
Ext HD/VD in. (Normal mode only)	4 V \pm 2 V. TTL or 75 Ω terminated
Inputs	Camera Link TTL
	Ext. trigger Ext. trigger TTL 4 \pm 2 V
Outputs	Camera Link TTL
	Pixel clock, LVAL, FVAL, DVAL, EEN EEN
Trigger modes	Continuous, Edge pre-select, Pulse width control and Sensor gate control and Reset continuous trigger
Accumulation	LVAL synchronous or asynchronous
Shutter speed EPS	1/60 to 1/300,000 second
Programmable exposure	1/8 line to 628 lines. (3.3 μ s to 16.7 ms)
Pulse width control	2 lines to 120 frames. (33 μ s to 2 s)
Auto shutter range	1/60 to 1/25,000
Readout modes	Partial scan. Full, 1/2, 1/4, 1/8 Vertical binning. Off, 2, 3 or 4 Horizontal binning. Off, 2, 3 or 4 Smearless
Control interface	RS 232C or Camera Link
Functions controlled by RS 232C	Shutter, Trigger, Scanning, Readout, Polarity, Black level, Gain, Gamma
Operating temperature	-5°C to +45°C
Humidity	20 - 80% non-condensing
Storage temp./humidity	-25°C to 60°C/ 20% to 90%
Vibration	10G (20Hz to 200Hz XYZ)
Shock	70G
Regulations	CE (EN50081-1 and EN50082-1), FCC part 15
Power	12V DC \pm 10%. 5 W
Lens mount	C-mount
Dimensions	35 x 44 x 80 mm (HxWxD)
Weight	150g

Ordering Information

CV-A10 CL 1/2" Progressive Scan Monochrome Camera

Connection Description

DC-IN/TRIGGER

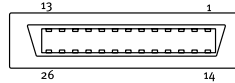


HIROSE HR10A-10R-12PB-01

- | | | |
|-----|----|------------------------|
| Pin | 1 | Ground |
| | 2 | +12V DC |
| | 3 | Ground |
| | 4 | Iris video |
| | 5 | Ground |
| | 6 | HD input/RXD RS 232C * |
| | 7 | VD input/TXD RS 232C * |
| | 8 | Ground |
| | 9 | EEN output |
| | 10 | Trigger input (TTL)* |
| | 11 | N/C |
| | 12 | Ground |

Camera Link interface

26 pin MDR connector
3M 10226-1A10L

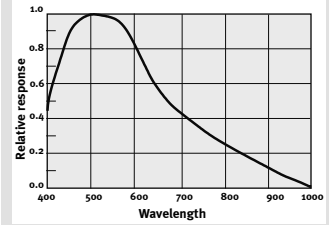


- | Pin | Signal | Function | |
|-----|--------|-----------------|-------------|
| 1 | 14 | GND | |
| 2 | 15 | X0-/X0+ | CL Data |
| 3 | 16 | X1-/X1+ | CL Data |
| 4 | 17 | X2-/X2+ | CL Data |
| 5 | 18 | Xclk-/Xclk+ | CL Clk |
| 6 | 19 | X3-/X3+ | CL Data |
| 7 | 20 | SerTC+/SerTC- | Serial in* |
| 8 | 21 | SerTFG-/SerTFG+ | Serial out* |
| 9 | 22 | CC1-/CC1+ | Trigger* |
| 10 | 23 | CC2+/CC2- | Not used |
| 11 | 24 | CC3-/CC3+ | Not used |
| 12 | 25 | CC4+/CC4- | Not used |
| 13 | 26 | GND | |

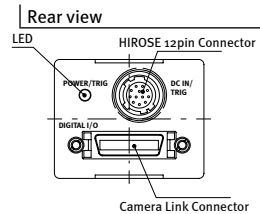
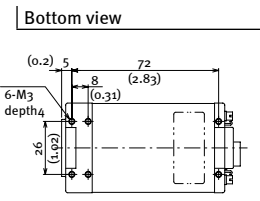
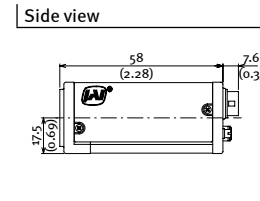
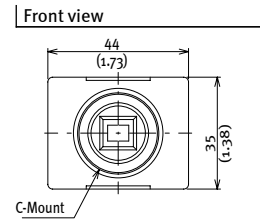
Camera Link base configuration.

* In 12 pin Hirose or Camera Link

Spectral Sensitivity



Dimensions



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