CV-M10 SX

Progressive Scan Monochrome Camera

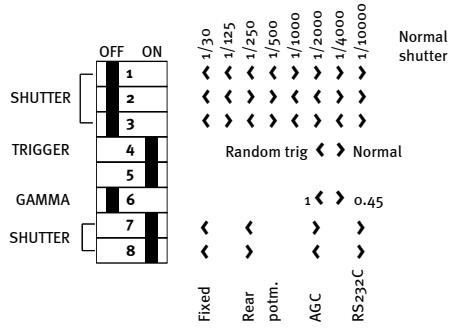
- *1/2" progressive scan monochrome CCIR (SVGA) and EIA (VGA) camera*
- *Successor of the popular CV-M10BX/RS series*
- *Improved sensitivity and smear performance*
- *782 (h) x 582 (v) square pixels for CCIR (SVGA) version*
- *659 (h) x 494 (v) square pixels for EIA (VGA) version*
- *Single channel video output*
- *Extremely short shutter speed, down to 1/917,000 sec. for CCIR (SVGA)*
- *Internal, external HD/VD or random trigger synchronization*
- *Edge pre-select (EPS) and pulse width control (PWC) trigger modes*
- *Frame-delay readout*
- *H reset and H non-reset trigger*
- *Long time integration modes*
- *WEN and pixel clock output for easy interfacing*
- *Setup by Windows NT/2000/XP setup software via RS 232C*

The leading manufacturer of high performance camera solutions

Specifications for CV-M10 SX

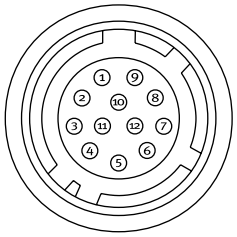
Specifications	CCIR	EIA
Scanning system	Progressive scan	
CCD sensor	Monochrome 1/2" IT CCD	
Sensing area	6.61 (h) x 4.97 (v) mm	
Frame rate (progressive)	25 frames/sec. (625 lines/frame)	29.97 frames/sec. (525 lines/frame)
Line frequency	15.625 kHz	15.734 kHz
Pixel frequency	14.75 MHz	12.2727 MHz
Effective pixels	782 (h) x 582 (v)	659 (h) x 494 (v)
Pixels in video output	737 (h) x 575 (v)	648 (h) x 486 (v)
Cell size	8.3 (h) x 8.3 (v) µm	9.9 (h) x 9.9 (v) µm
Sensitivity on sensor	0.05 Lux, Max gain, 50% video	
S/N ratio	>56 dB (AGC off, Gamma 1)	
Video output	Composite 1.0 Vpp, 75 Ohm	
Gamma	0.45 or 1.0	
Gain Gain range	Manual - automatic 0 to +15 dB	
Synchronization	Int. X-tal., Ext HD/VD or random trigger	
Scanning	Progressive	
HD/VD input	4V, TTL or 75 Ω terminated	
HD/VD output	4V from 75 Ω source	
Trigger input	4V, TTL or 75 Ω terminated	
WEN output	4V from 75 Ω source	
Pixel clock output	4V from 75 Ω source	
Trigger modes	Continuous, Edge pre-select (EPS), Pulse width control (PWC)	
Trigger	HD synchronous or H reset	
Shutter (EPS mode)	EIA: 16 steps 1/30 to 1/800,000 CCIR: 16 steps 1/25 to 1/917,000	
Shutter (PWC mode)	1 H to 625 H	
Long time exposure	8 steps, 2 to 16 fields	
Functions controlled by RS-232C	Shutter, Trigger, Black level, Gain AGC level, White clip	
Camera rear panel controls	Shutter, Trigger, Scan, Gamma, Gain	
Vibration	10 G (20 to 200 Hz in XYZ)	
Shock	70 G	
Regulations	CE (EN50081-1, EN50082-1), FCC part 15	
Operating temperature	-5°C to +45°C	
Humidity	20 – 80% non-condensing	
Power	12V DC ±10%. 5 W	
Lens mount	C-mount	
Dimensions	40 x 50 x 80 mm (HxWxD)	
Weight	245 g	

Switch Setting



Connection Description

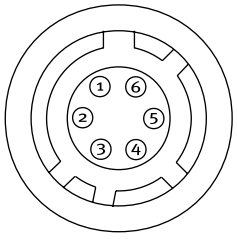
DC-IN/Sync.



HIROSE HR 10A-10R-12P. Male

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

RS 232C/TRIGGER

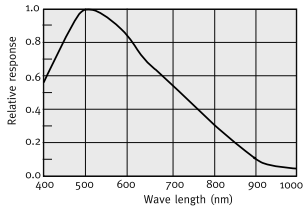


HIROSE HR 10A-7R-6P. Male

Pin		
	1	TXD
	2	RXD
	3	Ground
	4	N.C.
	5	Trigger input
	6	WEN output

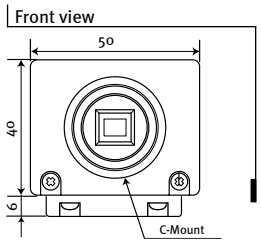
* Pixel clock output by internal jumper setting.

Spectral Sensitivity

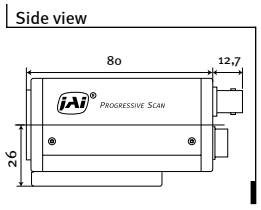


Dimensions

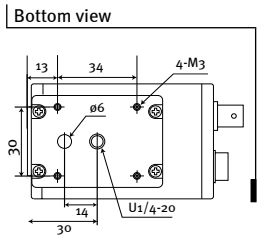
Front view



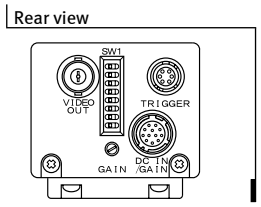
Side view



Bottom view



Rear view



Ordering Information

CV-M10SX C 1/2" Progressive Scan Monochrome Camera. CCIR (SVGA)

CV- M10SX E 1/2" Progressive Scan Monochrome Camera. EIA (VGA)

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