Costar
VIDEO SYSTEMS

MODEL SI-M100

MEGA PIXEL PROGRESSIVE SCAN CAMERA

The model SI-M100 is a high-resolution machine vision camera. It is based on the progressive scan technology, featuring high performance and versatile functions within a tiny and robust package. Over a million pixels (1.3K x 1K) in 2/3" CCD format provide extremely high resolution for discerning the finest details. The SI-M100 is user-friendly with all switch settings on the rear panel. Full frame shuttering with asynchronous random trigger function achieves real time dynamic image capturing. The SI-M100 is an ideal monochrome machine vision camera for applications in medical/scientific imaging, character/pattern recognition, definition graphics and many others.

FEATURES

- Monochrome mega pixel progressive scan camera
- High resolution 2/3" CCD sensor Sony
- 1300(H) x 1030(V) x 6.7 mm square pixels
- C Mount
- Robust and compact
- Asynchronous reset
- High sensitivity 0.1 Lux, F1.4, AGC on
- Excellent S/N ratio >56db
- 11 step Shutter 1/12 to 1/10,000
- 5:4 ratio aspect
- 5 step longtime exposure
- HD and VD in/out, WEN and pixel clock possible
- Pixel synchronized image transfer possible
- User friendly Switches on rear for easy mode settings
- RS 232C serial interface (Windows NT)

Our people make a difference.

Choice. Value. Service.

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Tel: 972-446-8900 • Fax: 972-446-8866 • 1-888-446-1301 • www.costar-usa.com

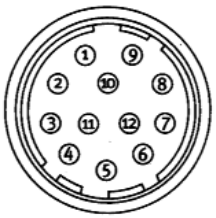
MODEL SI-M100

Specifications for SI-M100

Model	SI-M100
Imaging device	Interline CCD (2/3")
No. of pixels	1360 (H) x 1034 (V)
Pixel pitch	6.7 µm (H) x 6.7 µm (V)
No. of effective pixels	1300 (H) x 1030 (V)
Sensing area	8.71mm (H) x 6.90mm (V)
Lens mount	C-mount
Pixel clock out	20.25mhz
Hor. scanning frequency	12.528khz
Vert. scanning	12hz
Line frequency	1616 pixel clock/line
Sync system	Internal x-tal or external HD/VD
Scanning system	Progressive scan
Frame rate normal	12 frames/sec. (1044 lines/frame)
Frame rate double speed	24 frames/sec. (522 lines/frame) Vert. pixel binning
Video output	.7Vpp, 75 Ohm
HD/VD In	3-5Vpp, 75 Ohm terminated
Trigger In	TTL 2-5 V
SG In	TTL 2-5 V
HD/VD Out	3.5-4.5V, 150 Ohm terminated
WEN Out	3.5-4.5V, 150 Ohm terminated
Switches on rear	Shutter, read out, trigger, control
Long time exposure	1/6, 1/3, 1/2, 1, 2 sec.
Sensitivity	380-900 NM
Spectral sensitivity	.1 lux, f 1.4 AGC On
Signal-to-noise ratio	50dB (Analog output)
Electronic shutter	1/10000, 1/6000, 1/3000, 1/800, 1/400 1/200, 1/100, 1/50, 1/24, 1/12
Gamma correction	.45 - 1.0
Gain	Auto/Manual
S/N ration	>56 db
Power supply	DC12V
Power consumption	500mA approx.
Temperature	-10°C to 45°C
Humidity	20-50% non-condensing
Anti-shock	3G (30 min. for each of XYZ directions)
Anti-vibration	30G (once for each surface of top, bottom, left and side panels
Dimensions	40 (H) x 50 (W) x 90 (D) mm
Mass	250g

Connection Description

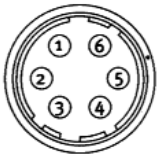
DC-IN/SYNC.



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

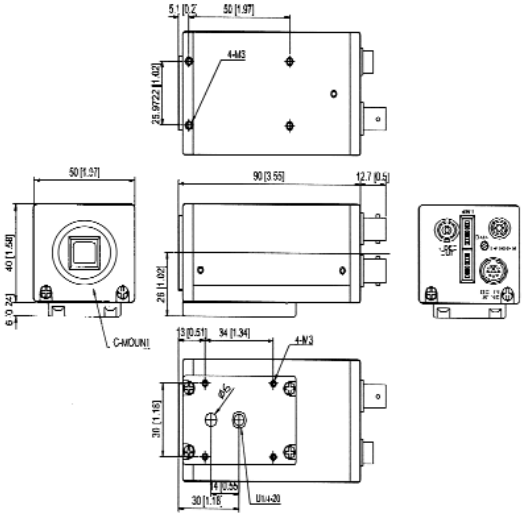
RS 232C/TRIG.

RS 232C/TRIG.

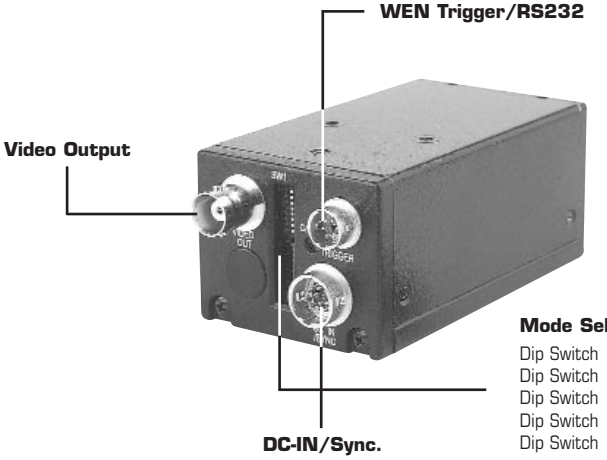


Pin 1 TXD
2 RXD
3 Ground
4 Ext. SG in
5 Trigger in
6 WEN out

Dimensions



Mode Select Switch



Mode Select Switch

Dip Switch	1-4:Shutter
Dip Switch	5:Read Out
Dip Switch	6,7:Ext. Trigger
Dip Switch	8:RS232 Interface
Dip Switch	9-16:Reserved

Design and specifications subject to change without notice.

Conversion: 1" = 25.4mm
Measurement conversions are approximate

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