

Specifications

Camera Models:
Insight Color: Color Camera
Insight B/W: Monochrome Camera

CCD Information:
Insight Color: Kodak KAI-2000
Color Mosaic

Insight B/W: Kodak KAI-2000 Monochrome

Imaging Area: 11.8mm x 8.9mm

Active Pixels: 1600 x 1200 (1.92 million)

Pixel Size: 7.4 µm square pixels

Full Well Charge Capacity:
35,000e

Insight Color Image Resolution:
Live Mode: 800 x 600
Captured Image: 1600 x 1200

Insight B/W Image Resolution:
Live Mode: 1600 x 1200
Captured Image: 1600 x 1200

Bit Depth of Insight Color:
Sampled at: 30 bit RGB
Saved file formats: 24 bit RGB,
36 bit RGB or 48 bit RGB

Bit Depth of Insight B/W:
Sampled at: 10 bit Monochrome
Saved file formats: 8 bit mono,
12 bit mono or 16 bit mono

Pixel Readout Rate:
Live mode: 36 MHz
(2 channels x 18 Mhz)

Captured Images: 18 MHz
(1 channel x 18 Mhz)

Live Image Frame Rate
(733 PIII w/810e Graphics):
Insight Color: 15 frames/s
Insight B/W: 15 frames/s

Acquisition Time to Monitor
(processor dependent):
Insight Color: < 6 seconds
Insight B/W: < 1 second

A/D Converter Full Scale Set to:
31,500 e (for Gain=1)

Signal to Noise Ratio: 58 dB

Anti-blooming Factor:
300x(nominal), 100x (minimum)

Exposure: Auto and User Defined

Range: 1 ms- 536 seconds
(1 Saturated Hot Pixel @ 5 sec. typ.)

Lens Mount: “C”-mount

Flange to Rear Lens Clearance:
0.46” (11.7 mm) maximum

Computer Interface Card Supplied:
PCI Bus Card

External Shutter Control:
BNC, TTL Level Output

Power Requirements:
100–240 VAC, 47–63 Hz

Weight: Camera: 1.5 lbs.

Power Supply: 0.5 lbs.

Certifications: CE, FCC Class A

Computer Requirements:
PC: Pentium 166 or greater
Windows 95/98/00/NT

Mac: Power PC w/ PCI Bus, Mac OS 8.6
or greater

RAM: 64 MB or greater

Video Card: Support of 24 bit RGB at desired
resolution

Software Features:

- Color Live Image Window
- Image Capture Window
- Predefined Image Types
- Auto Exposure
- Auto White Balance
- Flatfield Correction
- Zoom & Pan Window
- Image Enhancement Tools
- Annotation
- Calibration Mark
- Measure: Length,
Perimeter Area, Angle
- Print Layout Dialog
- On line Help Menu
- Imaging Archiving Database (PC only)
- Report Generator
- Sequential Imaging

Image File Formats:
TIFF, TIFF-JPEG, JPEG, BMP, PICT

File Size:
Insight Color:
24 bit / 5.49 MB
36 bit / 8.24 MB
48 bit / 10.99MB

Insight B/W:
8 Bit / 1.83 MB
12 bit / 2.75 MB
16 bit / 3.66 MB

Drivers Included:
Twain for Windows 95/98/00/NT
AppleEvent for Mac OS

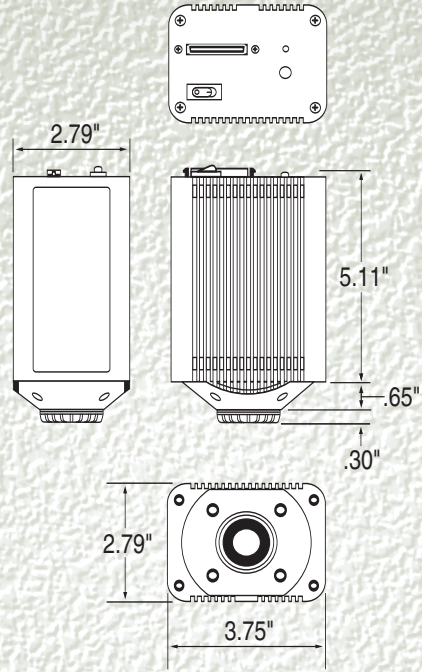
Native Drivers for 3rd Party Software:
Call or visit our website

Items Included:
Camera, PCI Plug-In Board, Power Supply,
Power Cord,Power Supply Cable, Data Cable,
Software Install CD
(includes Windows Twain Driver
and Mac AppleEvent), User Guide,
1 Year Limited Warranty

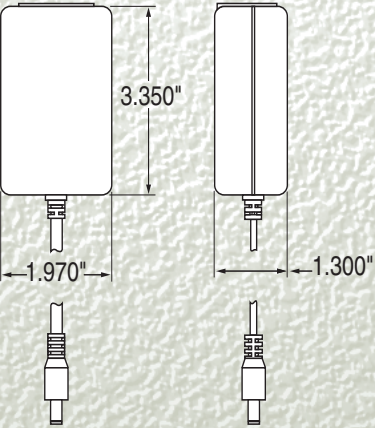
Suggested Couplers:
D10XXC: 1x C-Mount Coupler or
HRU060-CMT: 0.6x Ultra-Wide Field of
View (25 FN) Plan Apochromat C-Mount
Coupler

Suggested Lens:
“C”- Mount Lens for 1” Format CCD

Camera Dimensions



Power Supply Dimensions



DIAGNOSTIC
instruments, inc.

6540 Burroughs St.
Sterling Heights, MI 48314-2133 USA
Ph: 586-731-6000
Fx: 586-731-6469
E-mail: Info@diaginc.com
Website: www.diaginc.com

Don't Let Video Technology
Limit Your Resolution ... GET



INSIGHT

Digital Cameras

provide real-time

viewing and

high resolution

digital images in

an easy to use

interface.

DIAGNOSTIC
instruments, inc.



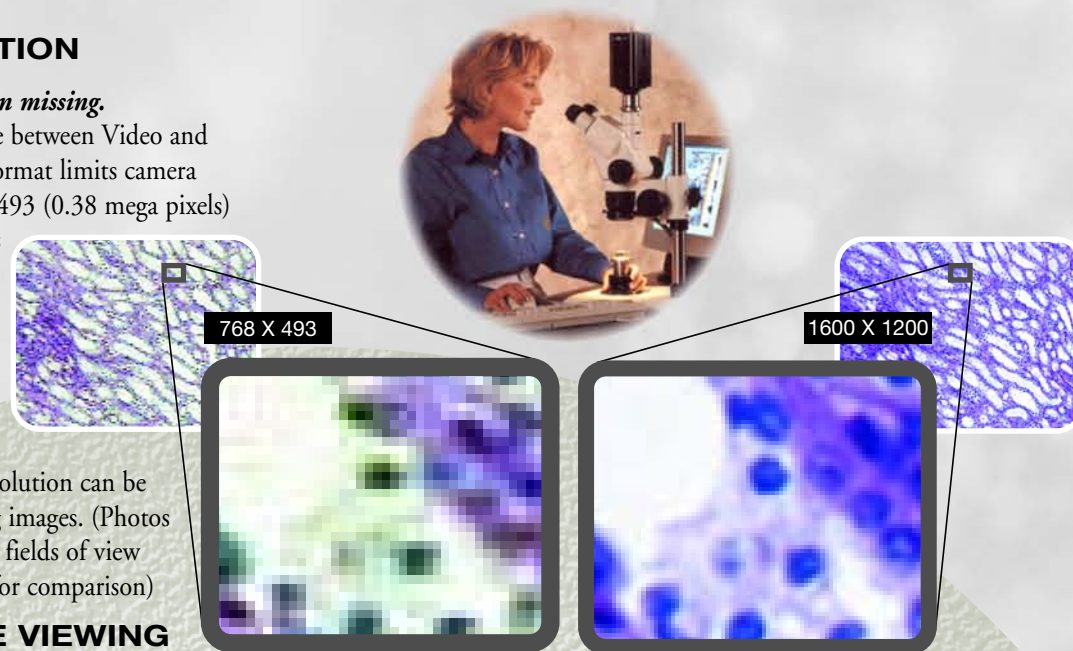
SPOT INSIGHT™

Allows you to take the next step in...

... RESOLUTION

See what you've been missing.

What's the difference between Video and Digital? The video format limits camera resolution to 768 X 493 (0.38 mega pixels) while digital cameras have no such restrictions. Insight's 1600 x 1200 (1.92 mega pixel) image sensor easily outperforms video. The difference in resolution can be seen in the following images. (Photos are unretouched and fields of view have been matched for comparison)



...REAL TIME VIEWING

Stop fragmenting your work environment.

View and capture your images right on the computer screen. Don't use separate video monitors or small LCD screens to view your images, followed by cumbersome transfer of image data via memory cards to your computer.

... PRODUCTIVITY

Stop wasting time and money with film cameras. Can you imagine not having to take multiple pictures to get one good shot? Can you imagine not having to wait for film processing to see your results? With Insight what you see is what you get, and you get it right away!

...GREAT IMAGES

Clean signals make a difference.

Where is the cleanest signal? Right at the CCD sensor. That's where Insight

digitizes its signal, not after conversion to the video format and a long trip down a frame grabber cable.

...DISTORTION FREE IMAGES

Direct mapping of square pixels.

Do you need an undistorted picture? Insight's square CCD pixels map directly to square image pixels. The perfect geometry of the CCD sensor is preserved in the final image. Video cameras are subject to distortion introduced by rectangular CCD pixels and conversion to the video format. With the Insight camera, the accuracy of your measurement is never in question.

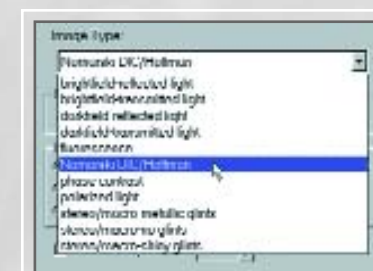
...VALUE

Why pay the same price for a lower resolution video system? Insight provides over 5 times more pixels than video technology.

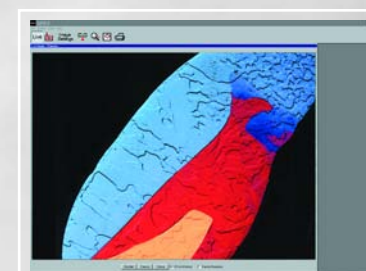


EASE OF USE

Designed from the ground up for microscope use, INSIGHT makes taking pictures easy.



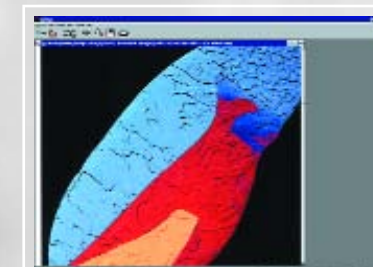
[Pick Your Technique](#)



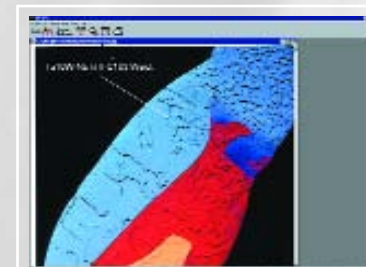
[View In Real Time](#)



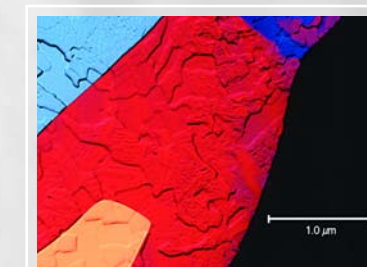
[Tweak The Live Image](#)



[Capture What You See](#)



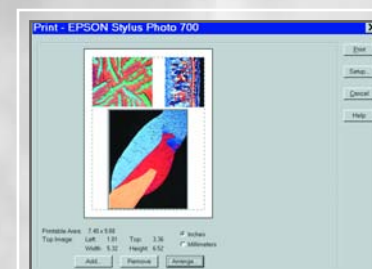
[Write On The Image](#)



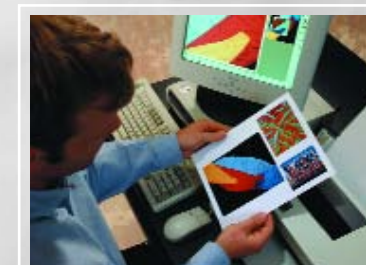
[Add A Calibration Mark](#)



[Measure Objects](#)



[Arrange Images For Printing](#)



[Print Them Out](#)



[Get Home On Time](#)