

# AdeptVision sAVI Inspection System

Powerful, compact vision system in an industrial enclosure

AdeptVision sAVI Inspection System is a self-contained, powerful vision controller offered by Adept in a compact, industrial enclosure. It includes proprietary software for capture, processing, analysis, displaying, and archiving of images, along with networking and general-purpose I/O. This stand-alone vision inspection system consists of the high performance Adept SmartController CX with the Advanced Vision Interface board (sAVI), and Adept's state-of-the-art locator tool - ObjectFinder 2000. The Adept AIM VisionWare application software provides you with an easy-to-use graphical programming environment. It supports quick program development, including interfacing to cell I/O and factory information systems. AdeptWindows, a graphical software that enables you to service the vision controller remotely, is included as a standard feature. Optional Adept DeskTop software provides a powerful graphical programming, controlling, and monitoring interface to Adept equipment using V+ or MicroV+. For advanced users, Adept DeskTop also contains ActiveV COM library which is comprised of encapsulated functions that interface to V+, making it easier to interface to the controller from Visual Basic or Visual C++.



The AdeptVision sAVI Inspection System includes:

- Adept SmartController CX with Advanced Vision Interface Board (sAVI) and 30 MB CompactFlash card
- Adept V+ real-time multi-tasking operating system and programming language
- Adept AIM VisionWare Graphical Application Software
- AdeptWindows Software
- NFS Client License
- Vision Calibration Kit
- Breakout cable for two cameras

## Key Features and Benefits

### *Fast Application Development*

Adept's patented AIM VisionWare graphical interface software is the perfect tool for prototyping different vision strategies for inspecting your product.

### *Comprehensive Vision Library*

The vision toolbox provides you with a complete range of tools including the state-of-the-art geometric locator -- ObjectFinder 2000. The controller supports object location with 360° rotation, gauging, presence/absence, alignment, and pattern matching.

### *Most Advanced Object Location Technology*

The ObjectFinder 2000 tool uses the most advanced contour detection technology to identify objects and patterns based on their geometric pattern. This results in outstanding robustness to clutter, lighting variations, image degradations, and occlusions.

### *Camera Capability*

Connect up to four VGA resolution cameras or two megapixel resolution cameras per vision controller\*.

### *Upgradeable, Multi-tasking Operating System*

Field-proven V+ OS can handle up to 28 simultaneous program tasks, and can be upgraded to handle robots and other motion devices without compromising vision performance\*\*.

### *Complete I/O Capability*

Digital I/O, RS-232/RS-422 serial, Ethernet, and DeviceNet are standard features of the controller. IEEE 1394-based Adept SmartServo is optional.

### *Distributed Servo Control Network*

IEEE 1394-based Adept SmartServo network reduces motion control wiring and complexity when used with the optional Integrated Motion and Vision license\*\*.

### *PC Connectivity*

With AdeptWindows PC software, you have everything necessary to leverage the PC as the user interface and share information through the DDE server. Optional Adept DeskTop software provides powerful graphical programming and ActiveX capabilities.

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## Compact Industrial Enclosure

The compact, rugged enclosure provides a robust and reliable platform for your vision system. It can be panel-mounted, rack-mounted, or placed on a table or desk.

## Options

- Integrated Motion and Vision License
- Adept SmartController Table/Rack Mount Kit
- Adept SmartMotion
- Adept SmartServo Kit
- Breakout cable for four cameras
- Adept DeskTop Software Kit

## Specifications

*Dimensions:* 328 x 187 x 80 mm (12.9 x 7.4 x 3.2 inches)

*Operating power:* 24 VDC  $\pm$  10%, 5A (customer-supplied)

*Environment:*

Temperature: 5 to 40 deg C

Humidity: 5 to 90%, non-condensing

*Mounting Options:*

Panel mount (kit included)

Tabletop and Rack mount (optional)

*Processors:*

Vision: Texas Instruments TMS320C80 DSP

*Memory:*

30 MB CompactFlash card (permanent storage)

32 MB RAM (volatile storage)

*Inputs and Outputs:*

- Four analog VGA resolution cameras, or two analog megapixel resolution cameras\*
- Two Strobes\*
- Twelve optically isolated digital inputs
- Eight optically isolated digital outputs
- DeviceNet
- Pendant; Safety and Power Control Equipment (optional\*\*)
- sDIO (optional, additional 32 inputs and 32 outputs)

*Communication:*

- Built-in 10/100Base-T Ethernet
- Three RS-232 ports
- RS-422/485 serial port
- Two Adept SmartServo ports\*\* (based on IEEE 1394)

*Software:*

- Adept V+ real-time, multi-tasking operating system
- Adept AIM graphical programming
- AdeptWindows PC user interface

*Regulatory:*

CE compliance

\* Optional breakout cable for four cameras required.

\*\*XUSR, XSYS, XFP, XMCP, and Adept SmartServo connectors can be activated with the optional Integrated Motion and Vision License.

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Specifications, subject to change without notice.

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