

Product	Suggested Price
ProView 30	\$7,995
ProView 40ST	\$49,995
ProView 50ST	\$49,995
ProView 60	\$11,995
ProView 80	Call

System Specifications

ProView Head Mounted Displays						
	PV30	PV40	PV50	PV60	PV80	PV80
Field of View (degrees)	30	40	50	60	80	112
Resolution/Eye (arcmin)	2.25	3.4	3.4	4.5	6	6
Overlap	100%	100%	25%	100%	100%	30%
Brightness (foot lamberts)	25	>6	>6	25	>6	>6
Contrast	25:1	20:1	20:1	25:1	20:1	20:01
Transmission	Occluded	50%	50%	Occluded	Occluded	Occluded
Optics	Plastic	Reflective	Reflective	Plastic	VIM	VIM
Eye Relief	50 mm	30 mm	30 mm	25 mm	20mm	20mm
Weight (kilo)	0.8	0.8	0.9	0.9	1.15	1.15
Stereo/Mono Video Inputs	1 or 2	1 or 2	2	1 or 2	1 or 2	2

Common to all ProView Systems:

Display Type:	AMLCD, 2 full color TFT high speed polysilicon, (640 X 3) X 480 dots
Optics System:	Non pupil forming
Interpupillary Adjustment:	Independent for each eye
Interpupillary Range:	Meets 95 th percentile male/female adult
Headtracker Capability:	Accommodates Polhemus or Ascension sensors
Video Inputs:	One or two VGA 640 X 480, H & V-TTL, analog 0.7V P-P, 75 ohms, 60 Hz video inputs Autosense for stereoscopic or monoscopic operation Internal and external sync
Audio:	High Fidelity earbuds
Horizontal Scan Rate:	31.5 kHz
Vertical Scan Rate:	60.0 Hz
Genlocked Inputs:	Independent phased locked loops for left and right eye
Cable Length:	6 meters
Video Outputs:	2 VGA video loops to display monitor
Controls:	Audio adjust: mono control
Indicators:	LED power On/Off
Connectors:	VGA, 15 pin DA, female (video in) 2 VGA, 15 pin DA, female, (video out for monitor) 2 BNC, RGB H & V, (video in) 2 RCA, (stereo audio compass through) 2 (Cables are not provided for video or audio connectors.)
Power:	120 VAC, 60 Hz, or 240 VAC, 50 Hz, 25W (cable included)

Other Information:All ProView Systems can be mounted to military helmets (HGU-56/P, HGU-33/P, SPH-4B) using a custom interface or with an ANVIS mount. For custom applications or OEM information, contact HMD Sales at Kaiser.

The ProView™ 30 Head Mounted Display System



- **Designed specifically for the Professional User**
- **Full Color True VGA Resolution**
- **Autosense Logic for Stereoscopic or Monoscopic Viewing**
- **Hi-Fi Stereo Sound**
- **“Comfort-Fit” Headband**
- **Eyeglass Compatible**
- **Ruggedized for Durability**
- **Full Range of Adjustments**
- **See Around Capability**

The Display Products Group of KEO introduces the first head mounted display system designed specifically for the professional user. This display device has the highest resolution available using liquid crystal displays, making the ProView™ lightweight and versatile for many professional applications. It's full range of adjustments provide easy and fatigue-free viewing. Specially designed optics allow for hours of viewing without eye strain. The control unit is capable of accepting one or two VGA inputs, and easily adaptable to accepting NTSC inputs with a scan converter.

The Applications

- **Industrial Inspection**
- **Non Destructive Testing**
- **Process Control**
- **Data Acquisition**
- **Remote Viewfinder**
- **Remote Conferencing**
- **Portable Computing**
- **Computer Training**
- **CAD/CAM Display**



The ProView™ 30's Specifications

DISPLAY	Type LCD Resolution/Eye Brightness Contrast	2 full color, active matrix TFT, high speed polysilicon LCDs (2) - (640 x 3) x 480 2.25 arcmin/color group 25 foot lamberts 25:1
OPTICAL	Field of View Transmission Optics Eye Relief Exit Pupil Overlap Stereo/Mono	30° diagonal - 18° (V) x 24° (H) Non see through Plastic aspheric lens - independent optical paths for each eye Eyeglasses compatible, 50 mm Non pupil forming 100% Yes
MECHANICAL	IPD IPD Range HMD Weight Headtracker	Readily accessible on each display module Meets 95th percentile male/female adult 32 ounces Accommodates either Polhemus or Ascension sensor
CONTROL UNIT	Video Inputs Horizontal Scan Rate(F_H) Vertical Scan Rate Genlocked Inputs Cable Length Video Outputs Controls Indicators (LED) Connectors Power	One or two VGA 640 x 480, H&V - TTL, analog 0.7V P-P, 75 ohms, 60 Hz video inputs Autosense for stereoscopic or monoscopic operation Internal and external sync 31.5 kHz 60.0 Hz Independent phased locked loops for left and right eye 20 feet 2 VGA video loops to display monitor Audio adjust:mono control Power on/off Video in VGA, 15 pin DA, female, (video in) 2 VGA, 15 pin DA, female, (video out for monitor) 2 BNC barrel connectors, RGB H&V, (video in) 2 sets RCA connectors, (stereo audio com pass through) 2 (cables are not provided to either video or audio connectors) 120 VAC, 60 Hz, or 240 VAC, 50 Hz, 25W (power cable included)

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The ProView™ 40ST/50st Head Mounted Display Systems



- AMLCD True Full Color VGA Resolution (922,000 Color Dots)
- See Through Optics Design (Infinity focus/non pupil forming)
- Brightness Control on the Head
- Parallel non-interlaced VGA Inputs
- Drift-free AMLCD Technology
- Dual Input Stereo Viewing
- Eyeglass Compatible
- Milcom Audio System
- ANVIS or ProView™ Interface
- Full Range of Adjustments

The Display Products Group of Kaiser Electro-Optics introduces the industry's first Full Color VGA Resolution See-Through HMD system. This device uses high resolution Active Matrix Liquid Crystal Displays, making the ProView™40ST or 50ST lightweight and versatile for simulation and industrial applications. With its ANVIS interface, it can either be configured to military and commercially available helmets or the ProView™ headband. The full range of adjustments provide easy and fatigue-free viewing. The control unit accepts two VGA inputs for wide field stereo viewing.

The Applications

- Virtual Environment Simulation
- Flight Training
- Non Destructive Testing
- Data Acquisition
- Mission Rehearsal
- Part Task Training
- CAD/CAM Display
- 3 D Visualization
- Command & Control
- Instrumentation Display
- Augmented Reality



The ProView™ 40ST / 50ST Specifications

DISPLAY	Type LCD Resolution/Eye Brightness Contrast	2 full color, active matrix TFT, high speed polysilicon LCDs (2) - (640 x 3) x 480 3.4 arcmin/color group 6 foot lamberts 20:1
OPTICAL	Total Field of View Transmission Optics Eye Relief Exit Pupil Overlap	PV40ST: 27° (V) X 36° (H) PV50ST: 54° (V) X 47° (H) See through Dual Reflective - independent optical paths for each eye Eyeglasses compatible Non pupil forming PV40ST: Full Overlap PV50ST 25° Overlap
MECHANICAL	IPD IPD Range Audio Intercom Head Mount Choices HMD Weight Headtracker	Readily accessible in front of each display module Meets 95th percentile male/female adult Head phones-Milcom System (included in helmet) Built in microphone-Milcom System (included in helmet) HGU-56/P, HGU-33/P, SPH-4B Helmets or ProView™ headband with ANVIS interface PV40ST: Display Module 1.3 lbs PV50ST: 1.3lbs, with helmet 2.7lb Accommodates either Polhemus or Ascension sensor
CONTROL UNIT	Video Inputs Horizontal Scan Rate(F _H) Vertical Scan Rate Genlocked Inputs Cable Length Video Outputs Controls Indicators (LED) Connectors Power	PV40ST: One or two VGA 640 x 480, H & V-TTL analog 0.7V P-P, 75 ohms, 60 Hz video inputs Autosense for stereoscopic or monoscopic operation Internal and external sync NOTE: PV50ST requires two parallel inputs (above) for separate eye points 31.5 kHz 60.0 Hz Independent phased locked loops for left and right eye 20 feet 2 VGA video loops to display monitor Audio adjust:mono control Power on/off, Valid video input VGA, 15 pin DA, female, (video in) 2 VGA, 15 pin DA, female, (video out for monitor) 2 BNC barrel connectors, RGB H&V, (video in) 2 sets RCA connectors, (stereo audio com pass through) 2 (cables are not provided to either video or audio connectors) 120 VAC, 60 Hz, or 240 VAC, 50 Hz, 25W (power cable included)

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Note: Kaiser reserves the right to make design changes for product improvements.

The ProView™ 60 Head Mounted Display System



- Full Color True VGA Resolution
- 100% Overlap
- Autosense Logic for Stereoscopic or Monoscopic Viewing
- Hi-Fi Stereo Sound
- “Comfort-Fit” Headband
- Eyeglass Compatible
- Ruggedized for Durability
- Full Range of Adjustments
- Hi Contrast and Brightness

The Display Products Group of KEO introduces the ProView 60, a 60 degree field of view HMD. This display device has the highest resolution available using liquid crystal displays, making the ProView™ lightweight and versatile for many simulation and training applications. Clear, crisp imagery offers virtual environment training a more realistic experience. It's full range of adjustments provide easy and fatigue-free viewing. Specially designed optics allow for hours of viewing without eye strain. The control unit is capable of accepting one or two VGA inputs, allowing versatility in monoscopic or true stereoscopic viewing.

The Applications

- Virtual Environments
- Simulation & Training
- Augmented Reality
- Command & Control
- 3D Visualization
- Flight Training
- Portable Computing
- Computer Training
- CAD/CAM Display

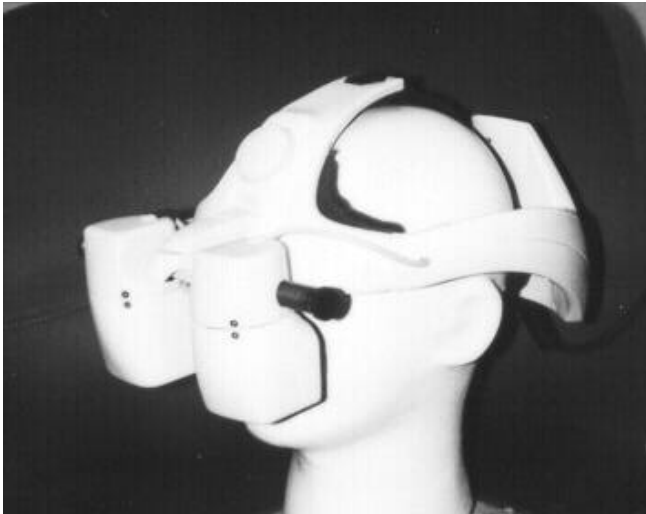


The ProView™ 60's Specifications

DISPLAY	Type LCD Resolution/Eye Brightness Contrast	2 full color, active matrix TFT, high speed polysilicon LCDs (2) - (640 x 3) x 480 4.5 arcmin/color group 25 foot lamberts 25:1
OPTICAL	Field of View Transmission Optics Eye Relief Exit Pupil Overlap Stereo/Mono	60° diagonal - 36° (V) x 48° (H) Non see through Plastic aspheric lens - independent optical paths for each eye Eyeglasses compatible, 20 mm Non pupil forming 100% Yes
MECHANICAL	IPD IPD Range HMD Weight Headtracker	Readily accessible on each display module Meets 95th percentile male/female adult 30 ounces Accommodates either Polhemus or Ascension sensor
CONTROL UNIT	Video Inputs Horizontal Scan Rate(F _H) Vertical Scan Rate Genlocked Inputs Cable Length Video Outputs Controls Indicators (LED) Connectors Power	One or two VGA 640 x 480, H&V - TTL, analog 0.7V P-P, 75 ohms, 60 Hz video inputs Autosense for stereoscopic or monoscopic operation Internal and external sync 31.5 kHz 60.0 Hz Independent phased locked loops for left and right eye 20 feet 2 VGA video loops to display monitor Audio adjust:mono control Power on/off Video in VGA, 15 pin DA, female, (video in) 2 VGA, 15 pin DA, female, (video out for monitor) 2 BNC barrel connectors, RGB H&V, (video in) 2 sets RCA connectors, (stereo audio com pass through) 2 (cables are not provided to either video or audio connectors) 120 VAC, 60 Hz, or 240 VAC, 50 Hz, 25W (power cable included)

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The ProView™ 80 Head Mounted Display System



- **See Around Capability**

- **Designed specifically for the Professional User**
- **Full Color True VGA Resolution**
- **Autosense Logic for Stereoscopic or Monoscopic Viewing**
- **“Comfort-Fit” Headband**
- **Eyeglass Compatible**
- **Ruggedized for Durability**
- **Full Range of Adjustments**

The ProView™ 80 is the first wide field of view head mounted display system designed specifically for the professional user. This display device has the highest resolution available using liquid crystal displays, making the ProView™ lightweight and versatile for many professional applications. With a 30° overlap, the total field of view becomes 112°, giving the user an immersive environment. It's full range of adjustments provide easy and fatigue-free viewing. Specially designed optics allow for hours of viewing without eye strain. The control unit is capable of accepting one or two VGA inputs, allowing for stereoscopic viewing.

The Applications

- **Virtual Environment**
- **Simulation Tasks**
- **Command & Control**
- **Data Acquisition**
- **CAD/CAM Display**
- **3 D Visualization**
- **Flight Training**
- **Computer Training**
- **Remote Sensor Use**



The ProView™ 80's Specifications

DISPLAY	Type LCD Resolution/Eye Brightness Contrast	2 full color, active matrix TFT, high speed polysilicon LCDs (640 x 3) x 480 color pixels 6 arcmin/color group >6 foot lamberts 20:1
OPTICAL	Field of View Transmission Optics Eye Relief Exit Pupil Overlap Stereo/Mono	80° diagonal w/100% overlap: 50° (V) x 65° (H) or 112° diagonal w/ 30° overlap: 50° (V) x 100° (H) Non see through VIM® optics - independent optical paths for each eye Eyeglasses compatible, 50 mm Non pupil forming 100% and 30% Yes
MECHANICAL	IPD IPD Range HMD Weight Headtracker	Readily accessible on each display module Meets 95th percentile male/female adult 2.5 lbs Accommodates either Polhemus or Ascension sensor
CONTROL UNIT	Video Inputs Horizontal Scan Rate(F _H) Vertical Scan Rate Genlocked Inputs Cable Length Video Outputs Controls Indicators (LED) Connectors Audio Intercom	One or two VGA 640 x 480, H&V - TTL, analog 0.7V P-P, 75 ohms, 60 Hz video inputs Two inputs required each with correct eye point position and distortion mapping for the 30° overlap case Autosense for stereoscopic or monoscopic operation Internal and external sync 31.5 kHz 60.0 Hz Independent phased locked loops for left and right eye 20 feet 2 VGA video loops to display monitor Audio adjust:mono control Power on/off Video in VGA, 15 pin DA, female, (video in) 2 VGA, 15 pin DA, female, (video out for monitor) 2 BNC barrel connectors, RGB H&V, (video in) 2 sets RCA connectors, (stereo audio compass through) 2 (cables are not provided to either video or audio connectors) Hi Fidelity earbuds Built in microphone
	Power	120 VAC, 60 Hz, or 240 VAC, 50 Hz, 25W (power cable included)

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