

# SENSPEX

Applied Science & Technology

## SPX-800

### Long-Range Multi-Sensor System

The newly designed SPX-800 is a Senspex integrated electro-optical infrared (EO-IR) multi-sensor camera system featuring a state-of-the-art high-definition visible camera and an extreme long-range thermal camera on a high-speed pan/tilt positioning unit. In good conditions, the camera system enables man-sized target detection at ranges in excess of 25 km. The 785mm continuous zoom infrared camera integrates advanced cooled photodetector technology with up to a 1280 x 1024, 10 $\mu$ m pitch focal plane array and operates in the 3-5 $\mu$ m MWIR spectral region, making it an ideal choice for marine and high humidity environments. The SPX-800 dual sensor camera system combines high-end performance with unparalleled long range target detection, recognition capabilities, reliability, and ease of use.



## FEATURES

### System

- IP Network Video & Control
- Built-in Health and Status Monitoring
- Multiple Command Protocol: PelcoD, TASS, ONVIF, Subsystem Pass

### Thermal Imaging Camera:

- F/4.0 Continuous Zoom Lens
- 12.5° to 0.7° Horizontal Field of View
- 18X Optical, 8X Digital Zoom
- Cryo-cooled MWIR Detector
- HD: 1280 x 1024 px FPA
- Autofocus
- Onboard Digital Image Enhancement
- Electronic Image Stabilization
- Sealed and Backfilled IP67 Housing

### Visible Spectrum Camera:

- 30x Optical, 12x Digital Zoom
- Full HD1080p 2 MPx Image Sensor
- Wide Dynamic Range (WDR)
- Defog Function
- Electronic Image Stabilization
- Day/Night ICR
- 0.002 Lux Minimum Illumination

### Integrated Precision Positioning System:

- High Speed Direct Drive
- 16-bit Position Sensing
- Fastest 240°/sec Motor Speeds
- 0.1° accuracy
- 0.02° repeatability
- Hundreds of On-Board Presets
- Supports External Preset Data

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# SPX-800

## System Specifications

<u>Video Formats</u>	Analog: NTSC/PAL, CVBS, Differential UTP; Digital IP: HEVC/H.265, H.264, MJPEG, RTP, RTSP, ONVIF
<u>Control Interface</u>	RS232/422/485, HTTP/TCP/IP, ONVIF Pelco D, TASS, Subsystem pass-through
<u>Presets</u>	Hundreds of onboard presets, supports external preset data transfer
<u>Housing</u>	IP67 rated, sealed & dry nitrogen backfilled, lens defrosters
<u>Environmental</u>	MIL-STD-810H
<u>Operating Temp:</u>	-32°C to 55°C
<u>Storage Temp:</u>	-40°C to 70°C
<u>Power</u>	18-26 VDC / 200W Max
<u>Weight</u>	~102 lbs. (46 kg)
<u>Dimensions</u>	25.5" (L) x 23" (W) x 22" (H)
<u>Part Number</u>	SD Thermal Imager: 950058-00 HD Thermal Imager: 950062-00

## Vector 50-Pan & Tilt Positioner

<u>Drive</u>	Direct Drive Servo
<u>Pan Range</u>	360° Continuous
<u>Pan Speed</u>	<0.01°/sec to >300°/sec
<u>Tilt Range</u>	±60°
<u>Tilt Speed</u>	<0.01°/sec to >300°/sec
<u>Precision</u>	16 bit encoding
<u>Accuracy</u>	±0.1°
<u>Repeatability</u>	±0.02°

## Thermal Camera Characteristics

<u>Focal Plane Array</u>	Cryo-cooled MWIR SSL High Operating Temperature
<u>Spectral Band</u>	3 μm to 5 μm
<u>Resolution</u>	SD Option: 640 x 512 px HD Option: 1280 x 1024 px
<u>Cooler Lifetime</u>	20,000 Operating Hours* *Typical test result, actual life depends on operating pattern and conditions
<u>Warranty</u>	2 years
<u>Lens Type</u>	F/4 Diamond-like coated Continuous Zoom
<u>Field of View</u>	SD Option: 12.5° x 9.4° Wide 0.7° x 0.5° Narrow HD Option: 16.6° x 13.3° Wide 0.93° x 0.74° Narrow
<u>Lens Features</u>	Auto and Manual Focus, Auto Gain, Edge Enhancement, White/Black Hot

## Visible Camera Characteristics

<u>Sensor</u>	1/3" HD CMOS
<u>Resolution</u>	1920x1080 px, 2MPx
<u>Zoom</u>	Continuous Zoom 30X Optical, 12X Digital
<u>Field of View</u>	63.7° wide to 2.3° narrow (Optical HFOV)
<u>Signal to Noise</u>	>50dB
<u>Min Illumination</u>	0.013 Lux ICR-On 30 FPS 0.002 Lux ICR-On 1/4 FPS
<u>Features:</u>	Day Night ICR, Wide Dynamic Range, Defog, Noise Reduction, Image Stabilization, Motion Detection

Manufacturer reserves the right to change specifications to reflect latest changes in technology and improvements at any time without notice.

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