

COHU

8890 Series Long Range Surveillance Cameras



- High performance day/night DSP color camera
- Boresight-ready monochrome camera
- Configurable with nearly any current Cohu camera
- High SNR for ultra clear images
- Robust IP67 enclosure
- RS232/422 control
- Long range telephoto lens
- Extreme low light capabilities
- Unlimited options and configurations for meeting precise project specifications
- Multi-manufacturer protocol control



Model 8890 shown with optional sunshield



Long Range Camera on Precise Pan/Tilt Positioner

Applications

The Cohu 8890 Series Camera is the ultimate high performance, long-range, surveillance solution. With its configurable camera, lens, and accessory options the 8800 excels at border, port, and shipboard security as well as range safety, intruder detection, and other targeting or tracking applications.

Perfect for perimeter security and targeting applications, at optimum configuration, the camera can precisely identify a human at 4km recognize at 6km and detect at 8km while vehicle detection will occur at 8km, recognize at 10km, and detect at 12km.*

Key Features

Standard features include your choice of day/night, color, or monochrome camera paired with your choice of long-range telephoto lens along with the included camera ID generator, serial control interface, and sunshield in a robust IP67 environmental enclosure.

Additional Options

In addition to the wide variety of standard options, the 8890 Series camera has several valuable options to choose from including optional paint scheme, video reticule overlay, boresighting, arctic faceplate heater, or the perfect option to make the camera fit your application.

**Ranges reduced by environmental variables.*

www.cohu-cameras.com

PORT SECURITY | SHIPBOARD SECURITY | INTRUDER DETECTION | BORDE

For design help, accessories or pricing, please contact:
sales@avsupply or call: 1-858-565-1101

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MODEL 8890 LONG RANGE DAY/NIGHT CAMERA

ELECTRICAL

Sensor

1/2" interline transfer CCD

Active Picture Elements

768(H) x 494 (V)

Resolution

540 TVL at color high mode
480 TVL at color normal mode
570 TVL at B/W mode

Synchronization

Internal, Multiplexed Vertical Drive, Line-lock,
External

Shutter

Off, 1/60 to 1/10,000

AGC

On (adjustable), off

Signal-to-Noise

50dB (AGC Off, Weight On)

Sensitivity - Color (30IRE)

0.09 lux (SENS UP; OFF)
0.003 lux (SENS UP: 32x) at F1.4

Sensitivity - B/W (10IRE)

0.008 lux (SENS UP; OFF)
0.0003 lux (SENS UP: 32x) at F1.4

Power Consumption

12VDC, 350mA (heater N/A)
24VAC, 4.0W/ 104W (heater off/on)
120VAC, 4.6W/ 104.6W (heater off/on)

MECHANICAL

Dimensions

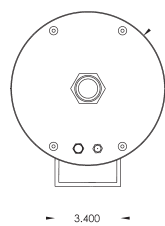
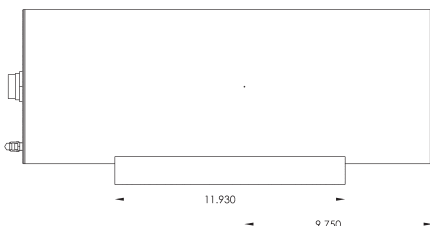
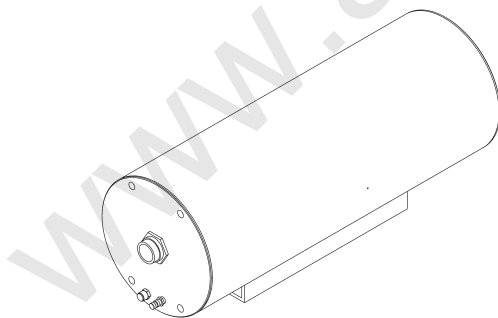
8" (dia.) x 21" (length)

Weight

Configuration Dependent

The 8890 Long Range Day/Night Camera features:

- Boresighting
- Long Range Telephoto Lens
- Serial Control
- Color Day/Night Camera
- Marine Paint and SS Hardware standard
- ID Generator
- Sunshield included
- Electronic Image Stabilization
- High SNR



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PAN AND TILT SYSTEM

The precision pan and tilt system combines a high power DC torque motor and high accuracy resolver with a directly mounted camera enclosure for maintenance free operation.

The integrated 16 bit resolver is directly coupled to each axis for superior control and accuracy, which is ideal for both long range IR and visible camera systems. Built-in control electronics and additional PC software provide precise, smooth motion at all speeds. Power, Video, and Control signals pass through the integrated base slip ring allowing for continuous rotation on the pan axis.

The 8890 pan and tilt system takes advantage of these technologies to provide one of the industry's most precise, long range positioners.

MODEL 8890 POSITIONER SPECIFICATIONS

Operating Voltage	24VDC
Operating Temperature	-32°C to +70°C (-25°F to +158°F)
Pan Speed	0.01 to 30°/sec
Pan Angle	Continuous
Tilt Speed	0.01 to 30°/sec
Tilt Angle	+/- 45°
Resolution	0.005
Position Repeatability	+/- 0.01°
Position Accuracy	+/- 0.1°
Backlash	None
Payload	50 lbs (22.7kg)
<i>(Camera Approximately 18lbs)</i>	
Continuous Torque	1000 oz-in (7.06 N-m) @ 24VDC
Weight	37 lbs (less camera)
Environmental Seal	IP67

CONTROL SPECIFICATIONS

- RS-422 interface
- Proprietary motion control algorithm
- Predictive control loop
- Hardware and software position, speed and acceleration control
- Trapezoidal Speed Profile

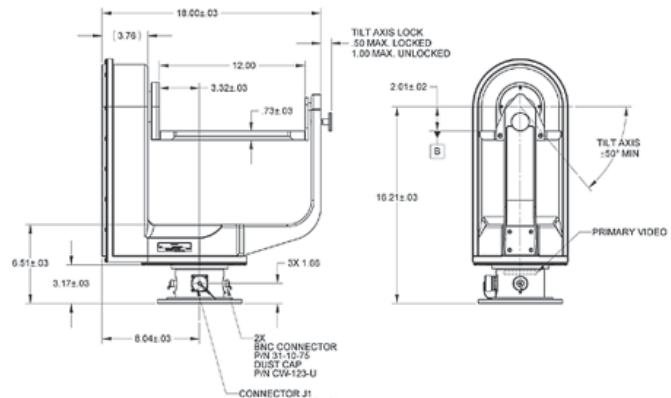


CONFIGURATION OPTIONS

Gyro Stabilization:	Dual Axis (both pan and tilt)
Marine Package:	Includes upgraded materials, improved seals and powder coat paint with epoxy primer
Finishes:	Sky white polyurethane paint (standard) Sandk Black, or other custom colors available

GYRO STABILIZATION SPECIFICATIONS

- Maintains Pointing accuracy within 1 milliradian of residual
- Motion frequencies within frequencies up to 5 Hz
- Higher frequencies controlled with electronic stabilization
- Dual Gyro modes optimize performance for boats or masts and towers



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Cohu Long Range Cameras*							
OBJECT OF INTEREST		HUMAN (1m x 1m target)			VEHICLE (3m x 3m target)		
Lens	Focal Length	Detect	Recognize	Identify	Detect	Recognize	Identify
P22A	17 - 374 mm	7km	2.4km	1.4km	22km	7km	4.4km
P22B	23 - 506 mm	10km	3.2km	1.9km	30km	9.5km	5.8km
P50A @ 1x	12.5 - 750 mm	15km	4.8km	2.9km	30km	14.5km	8.8km
P50A @ 2x	25 - 1500 mm	30km	9.7km	5.9km	30km	29km	17.5km

The figures shown are based upon measurements used by the U.S. Army. Detection is defined as an object resolution of 4 htvl minimum. Recognition is defined as an object resolution of 16 htvl minimum. Identify is defined as an object resolution of 26 htvl minimum.

* These figures reduced by camera height and environmental variables.

ENVIRONMENTAL SPECIFICATIONS

(common to all Cohu enclosures)

Protection Rating

IP67/NEMA 4X/NEMA TS2/ASTM-B117

Operating Temperature Limits

-40 to +140°F (-40 to +60°C)

Arctic Heater available for colder environments

Humidity

Up to 100% relative humidity

EMI

FCC rules, Part 15, Subpart J for Class A devices

ORDERING INFORMATION

8894 -X 0 0 0 / XXXX

Type

9 - Barrel on pan/tilt positioner

Power

4 - 24V AC or DC

Camera*

1 - 1/2" Monochrome RS-170

3 - 1/2" Color Day/Night NTSC

4 - 1/2" Monochrome CCIR

6 - 1/2" Color Day/Night PAL

Paint

0 - Standard Cohu white

Heater Option

0 - Standard Heater: -40 to 140°F (-40 to 60°C)

Unassigned

0 - Unassigned

Motorized Zoom Lens

P22A - 17-374mm f2.3

P22B - 23-506mm f3.1

P50A - 12.5-750mm f3.8

* Configurable with the Cohu 2700, 3600 or nearly any current Cohu camera.

Cohu reserves the right to change specifications without notice. Trademark names are used for reference only.

www.cohu-cameras.com

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