

*Quality Lighting™*



HIGHMAST

DESIGN-5410-LD-CLD

# Camera Specifications

The Cohu 3920 i-Dome Highmast mounted camera is QL's answer to your need for high quality video surveillance in a small, unobtrusive package. It's a high performance color camera by day, and a highly sensitive monochrome camera at night. With its fast positioner and sealed and pressurized enclosure, it is an exceptional value for today's security professional.



**Mounting Arm:**

2" pipe arm attached to luminaire ring.

**Rugged Enclosure:**

Designed to withstand shock and vibration.

**High Performance Camera:**

The CCTV camera has automatic "Day/Night" technology with digital signal processing.

**Dome:**

Acrylic dome is sealed and pressurized to provide maximum protection.

## High Performance Camera

The high performance color CCTV camera has automatic "Day/Night" technology, digital signal processing, automatic light exposure, a 3.6 mm to 82.8 mm (23X) zoom lens with 10X digital zoom, and automatic focus. The Day/Night technology automatically switches the camera from providing natural color images during the day to monochrome mode at night to greatly extend the night time capability of the camera.

## Reliable positioning

The Cohu 3920 features a high speed pan & tilt with 360 degree continuous rotation and up to 64 user-defined preset positions, each with a two-line, 24 character title. The auto-flip feature positions the camera for continuous viewing of any subject that passes directly beneath the dome. Electronic "privacy zones" can be established to prevent viewing of certain scenes.

## Ready for the Outdoors, Discreetly

The housing meets the rigorous, yet aesthetic, requirements of nearly any outdoor installation. Its small size and light weight provide a low profile installation that looks similar to a luminaire and creates very low wind loading. The dome is sealed and pressurized to provide maximum protection against grime and insects. It is rated IP67 and additionally meets NEMA power and operating temperature standards for TS-2 traffic control systems. The viewing sphere is premium acrylic for high optical quality, and resists chemical and environmental corrosion. All gaskets are high grade material that resists degradation.

## Designed for Low Maintenance

Cohu cameras stand the test of time, as well. They are designed for easy installation, and built with high reliability components designed to last much longer than a typical dome camera. The rugged enclosure is designed to withstand shock and vibration. The temperature inside the enclosure is maintained above 40° F.

## Control System Compatibility

The communication system is standard Cohu protocol via RS232 or RS422 data, which provides for easy firmware feature upgrades via the serial port at the pole base. This feature eliminates expensive bucket truck service calls and the resulting inconvenience. A digital feedback system for camera position provides coordinates to the Command/Control Center. Multi-manufacturer protocol is available.

The Cohu Model 3920 is a high performance video solution combining a high-resolution CCTV camera, fast positioner, and a sealed and pressurized dome enclosure. It offers exceptional value, image clarity, specifications, and reliability, making it ideally suited to general purpose surveillance installations.

### Camera

**Imager** 1/4" interline transfer, progressive scan CCD  
**Resolution** 470 Horizontal TV lines 0.3 lux @ 1/60 sec. (mono night)  
**Lens** Integral 23X optical, 3.6 to 82.8 mm with 10X digital, auto/manual focus  
**Sync** Phase adjust line lock  
**Day/Night Switchover** Day (color) / Night (mono), manual or auto  
**Sensitivity** 3.0 lux @ 1/60 sec. (color day) 0.3 lux @ 1/60 sec. (mono night)  
**Manual Focus Speed** Three adjustable speeds, approximately 2.5 seconds (fastest) to 8.5 seconds (slowest)  
**Digital Zoom Range** 1X (Off) through 8X  
**Zoom & Focus Presets** 64 positions  
**Color Balance** Auto/Manual <10 IRE unbalanced from 2850 to 5100K. Auto Tracking; Set (Auto Offset); Lock; Preset

### Electrical

**Power Input** 89 VAC to 135 VAC, 120 VAC nominal 60Hz, per NEMA 2.1.2 Std TS2 for traffic control systems  
**Power Interruption** Conforms to NEMA 2.1.6 Std TS2  
**Power Transients/Interruptions** Conforms to NEMA 2.1.4 TS2  
**Communications** Opto-isolated serial port RS232 and RS422 with digital position feedback; RS485 available

**Protocol** Non-proprietary Cohu standard, others optional  
**Firmware** Stored in flash memory; upgrade via serial port

### Positioner

**Pan/Tilt** 360° continuous pan, 0-90° down. Auto Flip at 90°  
**Preset Speed** >250°/second preset, at 0.1° accuracy  
**Presets** 64  
**Title Generation** 8 lines  
**Tours** 8, each of 32 presets with dwell time per preset per tour.  
**Sectors** 16 in the horizontal plane  
**Privacy Zones** 8 programmable zones can be set for video blanking.  
**Alarm Inputs** 2 available  
**On-Screen ID** Presets, Sectors, and two alarms can be programmed (enable/disable) with one line of 24 characters

### Environmental

**Ambient Temperature Limits** -34° to 74°C. Conforms to NEMA 2.1.5.1 Std TS2 for traffic control systems.  
**Humidity** 100% relative humidity  
**Pressurization** 3 psi/21 kPa dry nitrogen, low pressure indicator via title generator

# 5410-LD-HEM Specifications

**Head Frame Assembly:** The headframe consists of a platform plate, pulley support plates, aluminum pulleys, bronze bushings, stainless steel clevis pins, cable keepers, aluminum guides, spun aluminum cover, and stainless steel attaching hardware.

The head frame assembly bolts directly to the top plate welded to the highmast pole.

**Luminaire Ring Assembly:** The ring is fabricated to 6" x 2" x #10 gauge rolled steel which is hot-dipped galvanized. The 2" I.D. galvanized steel tenons are movable. The ring assembly is capable of mounting twelve luminaires. The inside of the ring is protected with a 1.5" deep extruded EPDM bumper. Or centering springs can be added as an option in place of the rubber bumper.

Each fixture is pre-wired around the ring with a power cord, type SOW-3 conductor, 16AWG, 90° C.

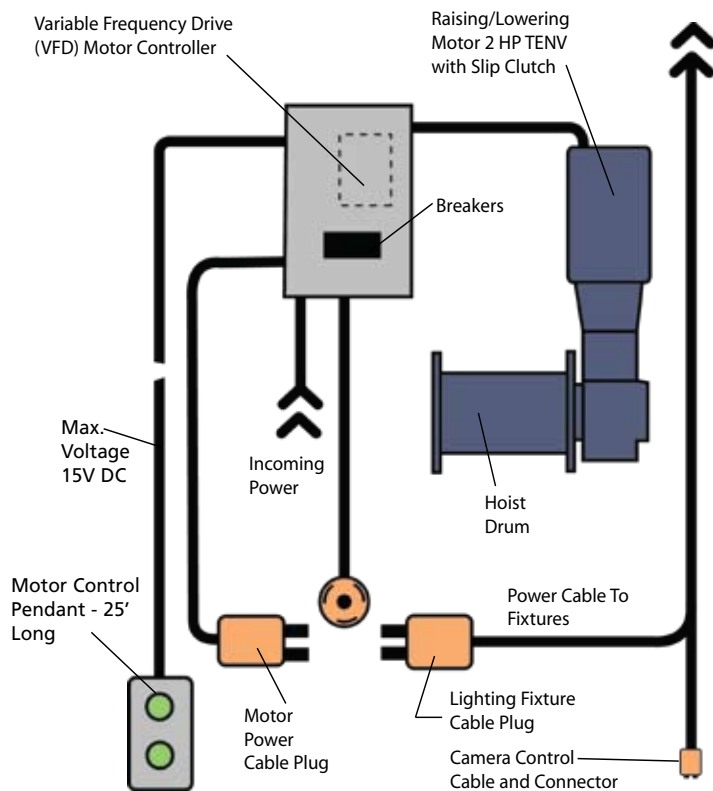
**Ring Hoist Cables:** The luminaire ring is supported by three stainless steel 19 x 7 non-rotating aircraft cables of 3/16" diameter. The fittings are swaged on one end for connection the terminator plate.

**Winch Hoist Cable:** The lifting cable is stainless steel 7X19 aircraft cable with a 1/4" diameter with a swaged end mounting to the terminator plate.

**Electric Power Cord Support:** The power cord is supported by seven rollers which are curved to accept the diameter of the power cord.

**Hoist Winch:** The drum hoist has a load rating of 1,200 pounds and has a design factor of 3:1. The drum hoist is equipped with a fail safe load brake which is internal to the gearbox.

## Wiring Schematic - Optional Internal Motor



Optional Internal Motorized Hoist with CLD



### Optional Internal Motor (HIM)

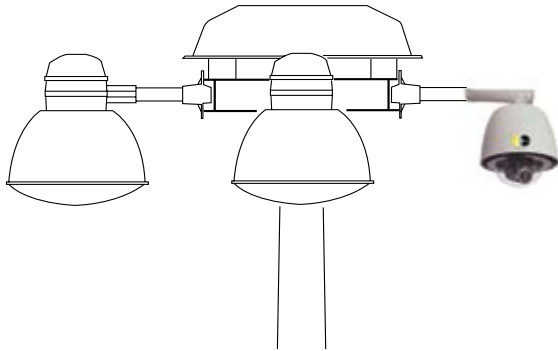
The motor can be serviced or replaced through the handhole of the pole without removing the winch/gearbox by simply removing four bolts.



### VFD Motor Controller

The solid state variable frequency drive (VFD) controls the motor speed and torque, improving winch performance and extending mechanical life.

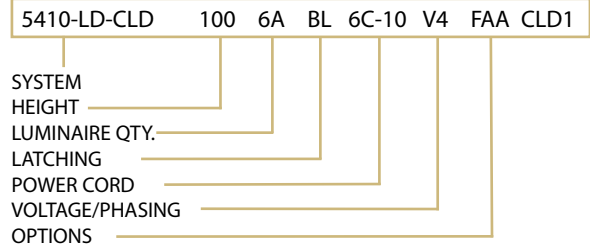
# Ordering Information



## ORDERING EXAMPLE

5410-LD-CLD-100-6A-BL-6C-10-V4-FAA-CLD1

(Diagram below describes sequence in this example)



### Notes:

1. All systems require drive motor - LD or HIM (see below)
2. Lighting fixtures are not included.

### 1. System

- 5410-LD-CLD - Note: Add camera(s) from #7 below

### 2. System Height

- Up to 100'  110' up to 120'  130' up to 150'

### 3. Luminaires Per Ring

- Using VA-25 luminaires  Using other luminaires (advise type and configuration for factory approval)

- 2A\*  3A\*  4A  5A  6A  
 7A  8A  9A  10A  11A  12A

\*Requires counter weight - CWT

### 4. Latching

- TL Top Latching  NL Non Latching  
 BL Bottom Latching (with chains)  2BL 2-Bottom Latching (with chains)

### 5. Power Cord with Camera Control Wires

- 6C-10/2 Coax 6 Conductor #10 with 2 coax & camera cable wiring. (Standard)

### 6. Electrical

- V1 120V single phase  V7 480V single phase  
 V2 120/240V single phase  V8 480V three phase  
 V3 208V three phase  V9 347V single phase  
 V4 240/480V single phase  V10 347/600V three phase  
 V5 277V single phase  V11 Special wiring  
 V6 277/480V three phase

### 7. Options

- FAA Single aircraft warning light  FAA-2 Twin aircraft warning lights  
 FAA-2TR Twin aircraft warning lights with transfer relay  
 TB Fused terminal blocks  
 LA Lightning arrester  LA2 2 Lightning arrestors (2 circuits)  
 LR Lightning rod (36")  
 CS Centering springs (Standard bumper not supplied with CS option)  
 CWT Counter Weight  CLD1 Camera (single camera)  
 5/16" 5/16" S.S. Hoist Cable  CLD2 Camera (two cameras)  
 LD Portable drive motor (1 per job site required)  
 HIM Internal drive motor system (1 per pole required)

### Standard Features

Stainless Steel Hoist Cables  
 Rubber bumper  
 Anodized Aluminum Dome Cover  
 Circuit Breaker Box  
 30 Amp. Circuit Breakers as Required  
 30 Amp. Twist-lock Plug and Receptacle  
 Luminaires Pre-wired with 3 Conductor  
 #16 AWG SO Cord  
 Hoist Winch  
 1/4" Main Hoist Cable  
 Winch for portable motor (LD)

### System Weight (excluding luminaires)

200 Lbs. (90.90 kgs)  
 Includes - Top Platform, Ring and Pipe Arms.

### System E.P.A. (excluding luminaires)

4 Sq. Ft. (.38 M2)  
 Includes - Top Platform and Ring



Highest system shown with (5) VA-25 Luminaires and Camera

*Quality Lighting*™

Quality Lighting is a Philips group brand

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