C20-DW Series Analog Day/Night WDR Camera
1/3-INCH CCD, 650 TVL WITH HIGH SENSITIVITY, TRUE DAY/NIGHT (ICR), WDR

Product Features

- Wide Dynamic Range
- 650 TV Lines
- High Sensitivity
- Day/Night with Automatic or Manual Control
- 1/3-Inch Format CCD Imager
- Digital Signal Processing
- CS Lens Mount
- Autosensing DC Drive Auto Iris
- Automatic/Manual White Balance Settings for Difficult Lighting Situations
- Selectable Automatic Gain Control
- Advanced Backlight Compensation
- Autosensing Power (24 VAC/12 VDC with Selectable AC Line Lock/Internal Synchronization)
- 3D Digital Noise Reduction (DNR)
- Privacy Zones
- Built-in Unshielded Twisted Pair (UTP) Output
- Motion Detection
- Camera Titles
- Built-in Coaxitron®, RS-485 Pelco D Protocol

The C20-DW Series is Pelco’s full-featured digital day/night wide dynamic range (WDR) CCD camera. Its WDR technology provides 120 dB dynamic range and produces superior images over a range of lighting conditions, including extreme backlight conditions. Its day/night technology provides outstanding performance in low lighting conditions. The camera uses a removable infrared (IR) cut filter to switch between color and black-white (B-W) modes as environmental lighting conditions change and as the need for infrared sensitivity is realized.

The C20-DW Series is an ultra high resolution digital camera with 650 TVL of resolution and 0.13 lux minimum illumination. Camera features include autosensing power (24 VAC or 12 VDC with AC line lock or internal synchronization) and automatic gain control (AGC). The C20-DW Series includes automatic white balance (AWB) for difficult lighting situations, digital noise reduction, and backlight compensation (BLC) that adjusts the picture to prevent objects from appearing dark due to a strong backlight. The C20-DW Series also uses slow electronic shutter technology to improve the illumination performance for low-light environments.

The C20-DW Series has built-in analytical capabilities including privacy zones, motion detection, and camera titles that add to its functionality. These fine-tuning features are easily set using the on-screen menus.

The C20-DW Series is quick and easy to install. The camera is also featured in Pelco’s DomePak® and ImagePak® fixed camera dome/enclosure packages. The optional C10-UM wall/ceiling/rail mount kit offers easy installation in many nonenclosure applications, for all models.

The C20-DW Series has a standard CS lens mount and can be used with fixed, manual, or auto iris (DC drive) lenses. The iris is controlled through a standard 4-pin square connector that is included on all Pelco auto iris lenses.

On-screen configurable menus can be accessed locally using the rear panel button or remotely using any Pelco controller with Pelco D or Coaxitron® protocol. Use these menus to select a specific profile, to customize and save camera settings for the specific application, and trigger alarm out functions.

The C20-DW Series is equipped with configurable alarm in and alarm out functions for external devices such as IR lighting control, wiper operation, and local alerting upon alarm of an external device.

The C20-DW Series from Pelco is ideal for critical security applications requiring the best analog images in all types of lighting and system configurations.
## TECHNICAL SPECIFICATIONS

### MODELS

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<td>C20-DW-6</td>
<td>1/3-inch CCD high resolution day/night WDR camera, 24 VAC or 12 VDC, NTSC format</td>
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<td>C20-DW-6X</td>
<td>1/3-inch CCD high resolution day/night WDR camera, 24 VAC or 12 VDC, PAL format</td>
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<td>C20-DW-7X</td>
<td>1/3-inch CCD high resolution day/night WDR camera, 220 VAC, PAL format</td>
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### GENERAL

**Imaging Device**
- Sony® 1/3-inch Super HAD CCD II™ 960H

**Signal Processing**
- Sony new digital signal processor, Effio-P™

**Dynamic Range**
- 120 dB

**Day/Night Operation**
- Day: Infrared (IR) cut filter
- Night: BK-7 glass, same optical displacement as day mode

**Picture Elements**
- NTSC: 976 (H) x 494 (V), approx. 480k
- PAL: 976 (H) x 582 (V), approx. 570k

**Sensing Area**
- 4.7 x 3.5 mm (3/16 x 1/8-inch)

**Scanning System**
- NTSC: 525 lines, 2:1 interlace
- PAL: 625 lines, 2:1 interlace

**Synchronization System**
- AC line lock/Internal

**Horizontal Resolution**
- 650TV lines

**Auto Iris Lens Type**
- DC drive

**Electronic Shutter Range**
- NTSC: Auto, 1/60 to 1/100,000 sec; Manual, 1/60 to 1/10,000 sec
- PAL: Auto, 1/50 to 1/100,000 sec; Manual, 1/50 to 1/10,000 sec

**NOTE:** Slow shutter support is 2X to 128X.

**Sensitivity**

- **Color**
  - 20ms, PAL: 17ms, NTSC: 0.13 lux, f/1.2, 30 IRE
  - 500ms: 0.03 lux, f/1.2, 30 IRE
- **Mono**
  - 20ms, PAL: 17ms, NTSC: 0.05 lux, f/1.2, 30 IRE
  - 500ms: 0.0004 lux, f/1.2, 30 IRE

**Signal-to-Noise Ratio**
- 48 dB (>52 dB by parameter adjustment)

**Automatic Gain Control**
- Off/on up to 36 dB, 16 levels configurable

**Backlight Compensation**
- Yes

**White Balance**
- ATW/push lock/manual/anti-CR/user2/user/push

**Color Correction**
- With white balance

**Video Output**
- 1 Vp-p, 75 ohms

**Auto White Balance Range**
- 2,500° to 9,500°K

**Noise Reduction (DNR)**
- 3D

**Color Correction**
- Adaptive

**Privacy Zones**
- Yes, 15 sizable windows

**Motion Detection**
- Yes, four areas sensitivity selectable

**Camera Titles**
- Yes, up to 20 characters

**Digital Zoom**
- 255X

**Image Stabilization**
- Yes, linder 10Hz

**Scene Learning/Analytics**
- Yes (defocusing, camera tamper)

**Remote Access**
- RS-485 and Coaxitron

**Alarm Input**
- 1

**Alarm Output**
- 1

### ELECTRICAL

**Power Requirement**
- C20-DW-6: 12 VDC/24 VAC +10% to –15%, 60 Hz
- C20-DW-6X: 12 VDC/24 VAC +10% to –15%, 50 Hz
- C20-DW-7X: 220 VAC +10% to –15%, 50 Hz

**Power Consumption**
- C20-DW-6/C20-DW-6X: 4.5 W
- C20-DW-7X: 5.5 W

**Power Connector**
- 2-pin terminal block with push lock, or line cord on 220 VAC models

**Video Connector**
- BNC

**Auto Iris Connector**
- 4-pin connector (miniature square)

### MECHANICAL

**Lens Mount**
- CS mount

**Camera Mount**
- 1/4-inch UNC-20 screw, top or bottom of camera housing

### ENVIRONMENTAL

**Operating Temperature**
- –10°C to 55°C (14° to 131°F)

**Storage Temperature**
- –20°C to 60°C (–4° to 140°F)

**Operating Humidity**
- 20% to 80%, noncondensing

**Storage Humidity**
- 20% to 80%, noncondensing

### PHYSICAL

**Dimensions (includes BNC)**
- 108 x 60 x 55 mm (4.25” L x 2.36” W x 2.17” H)

**Weight (without lens)**
- C20-DW-6/C20-DW-6X: 0.30 kg (0.66 lb)
- C20-DW-7X: 0.45 kg (0.99 lb)

**Shipping Weight**
- C20-DW-6/C20-DW-6X: 0.55 kg (1.21 lb)
- C20-DW-7X: 0.60 kg (1.32 lb)

### CERTIFICATIONS

- CE, Class B
- FCC, Class B
- UL/cUL Listed

### RECOMMENDED MOUNTS

- C10-UM: C10 series universal wall/ceiling/rail mount kit

### RECOMMENDED POWER SUPPLIES

- TF200D: Power supply for one 24 VAC camera, 20 VA
- MCS Series: Multiple 24 VAC camera power supply, indoor
- WCS Series: Single/multiple 24 VAC camera power supply, outdoor

### RECOMMENDED LENSES

- 13VA/13VD Series: Varifocal lenses, 1/3-inch format; 13VA (manual iris); 13VD (auto iris, DD)
- 13ZD Series: Motorized zoom lenses, 1/3-inch format (auto iris, DD)