



VC565DN 1/3-Inch High-Resolution Day/Night Color Camera

- **DSP (Digital Signal Processing) for clear crisp images**
- **Dual mode color and monochrome**
- **Automatically switches from color to monochrome in low-light conditions**
- **Electronic iris**
- **Intelligent backlight compensation**
- **Accepts video- or DC-drive autoiris lenses**
- **Line-locking with V-phase or internal synchronization**

The VC565DN 1/3-Inch High-Resolution Digital Day/Night Camera combines excellent picture quality with advanced features. It is a dual mode color and monochrome camera with digital signal processing (DSP). DSP control offers crisp lines and detail reproduction. The CCD device has over 379,000 pixels (437,000 PAL), providing a sharp color image with accurate color rendition.

The VC565DN provides video images at any light level. The camera can be set to switch from color mode to monochrome mode. As the camera senses the amount of light in the viewing area, it automatically turns the IR cut filter on and off as required. The user can also manually switch modes for specific applications. An intelligent backlight compensation control determines the lighting conditions of all objects in the scene.

A minimum scene illumination of 0.0009 footcandles (0.01 lux) in night mode or 0.05 footcandles (0.5 lux) in day mode provides usable video output at f/1.2, 25 IRE, incandescent lighting. Horizontal resolution is 580 TV lines in night mode and 480 TV lines in day mode.

The VC565DN has dual autoiris modes, video-drive lenses (ES and AC models) and DC-drive (CS-G) lenses. A connector is provided on the side of the camera. All controls and connectors are conveniently located either on the rear panel or side. Synchronization is selectable, internal or line locking; multiple cameras can be synchronized using the line-lock function.

The VC565DN accepts CS-mount or C-mount lenses. A fully isolated power supply provides stable images when the VC565DN is used on a common power supply with other cameras.

The VC565DN meets UL 2044 standards and complies with radiation requirements for an FCC Class A device.

ASSOCIATED EQUIPMENT AND ACCESSORIES

Model VC24PS-1 Power Supply, Product Code 4297:
Converts 120 VAC line power to 24 VAC.
Product Specification 564.

Model VC24PS-1-230 Power Supply, Product Code 4297-01:
Converts 220- 240 VAC line power to 24 VAC.
Product Specification 564.

**TECHNICAL SPECIFICATIONS
DIVISION 13 - SPECIAL CONSTRUCTION
SECTION 137__ - SECURITY CCTV SYSTEM**

SECURITY SYSTEM

PART 2 - PRODUCTS

2.01 GENERAL

- A. All equipment and materials used shall be standard components, regularly manufactured, regularly utilized in the manufacturer's system.
- B. All systems and components shall have been thoroughly tested and proven in actual use.
- C. All systems and components shall be provided with the availability of a toll free 24-hour technical support phone number from the manufacturer. The phone number shall allow for immediate technical assistance for either the dealer/installer or the end user at no charge.
- D. All systems and components shall be provided with an explicit manufacturer warranty.

2.02 1/3-Inch High-Resolution Day/Night Color Camera

- A. The camera shall be a 1/3-inch solid-state high-resolution color video camera using an interline transfer charge coupled device (CCD) image sensor with DSP (Digital Signal Processing). The television operating systems available shall be NTSC; a PAL model shall be available. The pickup device shall have over 379,000 (NTSC) pixel array (768 horizontal x 494 vertical); the PAL version shall have a 473,000 pixel array (752 horizontal x 582 vertical). Composite video output shall be 1.0 V p-p with 75-ohms impedance and output shall be through a BNC-type connector.
- B. It shall be compatible with both autoiris lenses with self-contained autoiris control circuits (video drive) and an internal autoiris control circuit for use with DC-drive autoiris lenses and shall provide a built-in connector for the lens.
- C. The camera weight shall not exceed 0.84 lb (0.38 kg). It shall accept lenses having both CS-type mounts and C-mounts. Camera mounting provisions shall include a 1/4-20 threaded hole. Top and bottom mounting shall be provided. Dimensions shall not exceed 5.0 x 2.0 x 2.4 inches or 126.5 x 50 x 60 mm (L x H x W).
- D. Horizontal resolution shall be 580 TV lines (night) and 480 TV lines (day). Signal-to-noise ratio shall be greater than 48 dB. The camera shall have the ability to switch from color mode to monochrome mode automatically in low light conditions.
- E. At an output level of 25 IRE, the camera shall have a sensitivity of 0.0009 fc (0.01 lux) in night mode and 0.05 fc (0.5 lux) in day mode. (Conditions: incandescent lighting, f/1.2 lens.) Backlight compensation shall be selectable on or off. Synchronization shall be power lines phase locking (line-locking) with vertical phase adjustment or internal crystal.
- F. The camera shall be UL listed and conform to the radiation standards of FCC Class A. Input power for the camera shall be 24 V, 60 Hz with entry through a screw terminal block. Power consumption shall not exceed 9.6 W.

The camera shall be Vicon Industries model VC565DN; the PAL version shall be VC565DN-C.

VIDEO CHARACTERISTICS

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| Image Device: | 1/3-inch interline transfer CCD. |
| Active Picture Elements: | NTSC: 768 (H) x 494 (V). PAL: 752 (H) x 582 (V). |
| Sensitivity: | 0.0009 fc (0.01 lux) in night mode. 0.05 fc (0.5 lux) in day mode. Conditions: incandescent lighting, lens at f/1.2 and 25 IRE video output. |
| Horizontal Resolution: | 580 lines (night mode). 480 lines (day mode). |
| Electronic Iris: | NTSC: 1/60-1/100,000. PAL: 1/50-1/100,000. |
| Scanning System: | NTSC standard: 2:1 interlace, 525 lines, 30 frames/sec. PAL standard: 2:1 interlace, 625 lines, 25 frames/sec |
| Backlight Compensation: | ON/OFF select, center weighted zone. |
| Signal-to-Noise Ratio: | Better than 48 dB. |
| White Balance: | Automatic/manual selectable. |
| Video Signal Output: | 1.0 V p-p VBS @ 75 ohms composite video. |
| Synchronization In: | Line-locking with vertical phase adjustment or internal crystal control. |
| Gain Control: | Automatic (AGC), ON/OFF select. |
| Gamma Correction: | ON/OFF select. |
| Output for Autoiris: | Two types of autoiris operation: 1. For video-drive lenses (ES and AC lenses): Power: 50 mA at 12 VDC; Video output: high impedance. 2. DC-drive coil (CS-G) autoiris lenses. |
| ELECTRICAL | |
| Input Power Source: | 24 VAC, ±20%. |
| Input Power Isolation: | Internal fully isolated power supply. |
| Current: | 0.4 A. |
| Power Consumption: | 9.6 W. |
| Heat Equivalent: | 0.55 btu/min (0.14 kg-cal/min). Note: These figures represent the conversion of 100% of the electrical energy to heat. Actual percentage of heat generated will be less and will vary from product to product. These figures are provided as an aid in determining the extent of cooling required for an installation. |
| Radio-Frequency Emission Standard: | FCC Class A. |
| Safety Standard: | UL 2044. |

CONTROLS AND CONNECTORS

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|---------------------------|---|
| External Controls: | Power Indicator: LED. ALC level: potentiometer. AWB Hold: push button. Mode Select DIP Switch: INT/LL. BLC ON/OFF. ALC/ELC (AI/EE). AWB/ATW. AGC ON/OFF. DAY & NIGHT ON/OFF. GAMMA ON/OFF. V-Phase Adjustment push button. |
| Connectors: | Power: 2-pin terminal (side). Autoiris lenses (DC drive): 4-pin molded connector (rear). Autoiris lenses (video drive): 3-pin terminal block. Video out: BNC (rear). |

MECHANICAL

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| Dimensions: | Height (H): 2.0 in. (50 mm). Width (W): 2.4 in. (60 mm). Length (L): 5.0 in. (126.5 mm). |
| Distance from Base to Optical Center of Lens (X): | 1.0 in. (25 mm). |
| Weight: | 0.84 lb (0.38 kg). |
| Flange Back Adjustment: | 12.5 mm ± 0.5 mm. |
| Lens Mount: | C or CS mount. |
| Camera Mounting: | 1/4-20 threaded hole in camera bottom and camera top. |
| Shipping Dimensions: | Height: 3.2 in. (80 mm). Width: 3.9 in. (98 mm). Length: 7.3 in. (185 mm). |
| Shipping Weight: | 1.5 lb (0.52 kg). |
| Shipping Volume: | 0.053 ft ³ (0.0015 m ³). |
| ENVIRONMENTAL | |
| Operating Temperature Range: | 14 to 122° F (-10 to +50° C). |
| Humidity: | Up to 90% relative, noncondensing. |