



VC-620 and VC-621 Series of Environmental Housing Cameras

- True day/night color IR camera
- Super-high-resolution (550 TVL)
- Built-in DC-varifocal autoiris lens
- Weatherproof for outdoor use
- Adjustable camera position
- 12 VDC or 24 VAC operation
- Easy installation

The VC-620/VC-621 Series of Environmental Housing Cameras offers an outdoor aluminum weatherproof housing incorporating a fixed camera and lens combination. The housings include a super-high-resolution day/night color camera with an isolated power input and a 3.3-12 mm or 5-50 mm built-in DC-varifocal autoiris lens. Both models offer IR illumination; built in IR LEDs (18 or 30, model dependant) surround the front lens to light objects as far as 230 feet away. Models are available in NTSC and PAL formats. Refer to Table 1 for complete model descriptions.

The housings are designed for ease of installation and the mounting bracket provides 360° rotation and 90° vertical movement, for any angle of view required. The lens zoom and focus can be adjusted internally or externally (model dependant). The camera accepts 12 VDC/24 VAC input; BLC, AGC, and Iris settings are DIP switch selectable.

The VC-620/VC-621 Series of Environmental Housing Cameras meets FCC requirements for a Class A device.

Model	Product Code	Description
VC-620/VC-620C	8786-04/8786-03	Indoor/Outdoor; 1/3-in. day/night color camera and 3.3-12 mm autoiris varifocal lens; 550 TVL resolution, 12 VDC/24 VAC; isolated power input; IR illumination (18 IR LEDs); NTSC/PAL.
VC-621/VC-621C	8786-14/8786-13	Indoor/Outdoor; 1/3-in. day/night color camera and 5-50 mm autoiris varifocal lens; 550 TVL resolution, 12 VDC/24 VAC; isolated power input; IR illumination (30 IR LEDs), NTSC/PAL.
Power Supplies		
S24WPS-1	7028-10	Single-channel, indoor/outdoor, 120 VAC input, 24 VAC output, 2 A
S24PS-230	7027-01	Single-channel, indoor, 230 VAC input, 24 VAC output, 2.5 A
V248-3.5PS	7668	Eight-channel, indoor, 120 VAC input, 24 VAC output, 0.4 A/channel (3.5 A total)
V2416-8PS	7669	Sixteen-channel, indoor, 120 VAC input, 24 VAC output, 0.5 A/channel (8 A total)
V2448-175PS	6410-20	Four-channel, indoor, 120 VAC input, 24/28 VAC output (jumper selectable), 7/6.25 amps (total)

Caution: Be aware that some of these power supplies are for indoor use only. Also note that on multi-channel units, the amperage stated is the total for all channels. To assure sufficient current to individual cameras, connect only the number of cameras that use less than the maximum supply current.

Table 1: Models, Product Codes and Descriptions

Technical Information

ELECTRICAL

Input Voltage: 12 VDC (11-20 VDC) or 24 VAC (20-27 VAC) isolated.

Current: VC-620
 LEDs OFF: 208 mA @12 VDC;
 LEDs ON: 395 mA @12 VDC.
 LEDs OFF: 83 mA @24 VAC;
 LEDs ON: 187 mA @24 VAC.

VC-621
 LEDs OFF: 208 mA @12 VDC;
 LEDs ON: 625 mA @12 VDC.
 LEDs OFF: 87 mA @24 VAC;
 LEDs ON: 295 mA @24 VAC.

Power Consumption: VC620:
 2.5 W @ 12 VDC, LEDs OFF;
 4.75 W @ 12 VDC, LEDs ON.
 2.0 W @ 24 VAC, LEDs OFF;
 4.5 W @ 24 VAC, LEDs ON.

VC621:
 2.5 W @ 12 VDC, LEDs OFF;
 7.5 W @ 12 VDC, LEDs ON.
 2.1 W @ 24 VAC, LEDs OFF;
 7.1W @ 24 VAC, LEDs ON.

Heat Equivalent: VC620:
 0.14 btu/min
 (0.036 kg-cal/min) @ 12 VDC,
 LEDs OFF; 0.27 btu/min
 (0.07 kg-cal/min) @ 12 VDC,
 LEDs ON.
 0.11 btu/min
 (0.029 kg-cal/min) @ 24 VAC,
 LEDs OFF; 0.26 btu/min
 (0.06 kg-cal/min) @ 24 VAC,
 LEDs ON.

VC621:
 0.14 btu/min
 (0.036 kg-cal/min) @ 12 VDC,
 LEDs OFF; 0.43 btu/min
 (0.11 kg-cal/min) @ 12 VDC,
 LEDs ON.
 0.12 btu/min
 (0.03 kg-cal/min) @ 24 VAC,
 LEDs OFF; 0.4 btu/min
 (0.1 kg-cal/min) @ 24 VAC,
 LEDs ON.

Note: These figures represent the conversion of 100% of the electrical energy to heat. Actual percentage of the 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.

Connectors: Power: power leads.
 Video: BNC on pendant cable

Radio Frequency Emission Rating: FCC Class A.

VIDEO

Video Output: 1.0 V p-p/75 ohm composite.

Scanning System: NTSC: 525 lines, 60 fields/sec.
 PAL: 625 lines, 50 fields/sec.

Camera/Lens Specifications: Refer to Table 2.

Maximum Power Distances (@24 VAC):

Wire Size (AWG) Annealed Copper Wire	Maximum Distance ft (m)	
	VC-620 LEDs OFF/ON	VC-621 LEDs OFF/ON
20	2410 (735)/1070 (326)	2450 (747)/680 (207)
18	3765 (1148)/1672 (510)	3594 (1095)/1063 (324)
16	6025 (1836)/2675 (815)	5750 (1753)/1700 (518)
14	9640 (2938)/4280 (1305)	9200 (2804)/2720 (829)
12	15,062 (4591)/6688 (2039)	14,375 (4382)/4250 (1295)

OPERATIONAL

Vertical and Horizontal Adjustment: Horizontal, 360°;
 vertical, 90°adjustment.

Lens Adjustment: VC620: Focus and zoom are internally adjustable.
 VC621: Focus and zoom are externally adjustable.

Technical Information

MECHANICAL

Application: Outdoor, weatherproof.

Mounting: Wall or ceiling surface mount.

Dimensions: VC620:
Height (H): 4.6 in. (117 mm) with
mount upright.
Width (W): 2.4 in. (60 mm).
Length (L): 8.25 in. (209.6 mm)
with mount extended.

VC621:
Height (H): 5.5 in. (139 mm) with
mount upright.
Width (W): 5.7 in. (144 mm).
Length (L): 11.5 in. (291.5 mm)
with mount extended.

Weight: VC620: 1.85 lb (0.85 kg).
VC621: 2.15 lb (0.98 kg).

Construction: Aluminum.

Finish: Metallic gray.

Shipping Dimensions: VC620:
Height: 3.2 in. (80 mm).
Width: 3.5 in. (90 mm).
Length: 8.7 in. (220 mm).
VC621:
Height: 5.5 in. (140 mm).
Width: 4.9 in. (125 mm).
Length: 12.2 in. (310 mm)

Shipping Weight: VC620: 2.2 lb (1.0 kg).
VC621: 2.75 lb (1.25 kg).

Shipping Volume: VC620: 0.056 ft³ (0.002 m³).
VC621: 0.19 ft³ (0.005 m³).

ENVIRONMENTAL

Operating Temperature Range: -4 to 131° F
(-20 to 55° C).

Operating Humidity Range: Up to 90% relative,
noncondensing.

Storage Temperature Range: -4 to 158° F (-20 to 70° C)
maximum.

Technical Information (cont'd)

Model	VC-620	VC-620C	VC-621	VC-621C
Camera				
Image Device	1/3-inch CCD 2:1 interface, NTSC	1/3-inch CCD 2:1 interface, PAL	1/3-inch 2:1 interface, NTSC	1/3-inch 2:1 interface, PAL
Color/Monochrome	Day/Night Color	Day/Night Color	Day/Night Color	Day/Night Color
Resolution (TV lines)	550	550	550	550
Sensitivity fc (lux)	Color: 0.028 (0.3) B/W: 0.009 (0.1)	Color: 0.028 (0.3) B/W: 0.009 (0.1)	Color: 0.028 (0.3) B/W: 0.009 (0.1)	Color: 0.028 (0.3) B/W: 0.009 (0.1)
Synchronization	Internal/Line Lock	Internal/Line Lock	Internal/Line Lock	Internal/Line Lock
Electronic Iris (sec)	NTSC: 1/60-1/100,000	PAL: 1/50-1/100,000	NTSC: 1/60-1/100,000	PAL: 1/50-1/100,000
BLC	ON/OFF DIP switch selectable	ON/OFF DIP switch selectable	ON/OFF DIP switch selectable	ON/OFF DIP switch selectable
AGC	ON/OFF DIP switch selectable	ON/OFF DIP switch selectable	ON/OFF DIP switch selectable	ON/OFF DIP switch selectable
IR Illumination	18 IR LEDs light up to 66 ft (20 m)	18 IR LEDs light up to 66 ft (20 m)	30 IR LEDs light up to 230 ft (70 m)	30 IR LEDs light up to 230 ft (70 m)
White Balance	ATW/AWB DIP switch selectable	ATW/AWB DIP switch selectable	ATW/AWB DIP switch selectable	ATW/AWB DIP switch selectable
Signal-to-Noise Ratio	>48 dB (AGC off)	>48 dB (AGC off)	>48 dB (AGC off)	>48 dB (AGC off)
Lens				
Focal Length (mm)	3.3-12 varifocal with autoiris	3.3-12 varifocal with autoiris	5-50 varifocal with autoiris	5-50 varifocal with autoiris
Angle of View	Horiz: 83.9° - 23.91° Vert: 61.9° - 17.93°	Horiz: 83.9° - 23.91° Vert: 61.9° - 17.93°	Horiz: 48.1° - 5.51° Vert: 35.0° - 4.1°	Horiz: 48.1° - 5.51° Vert: 35.0° - 4.1°
Iris Setting	Mechanical Iris (ME)/ Electronic Iris (AE) DIP switch selectable	Mechanical Iris (ME)/ Electronic Iris (AE) DIP switch selectable	Mechanical Iris (ME)/ Electronic Iris (AE) DIP switch selectable	Mechanical Iris (ME)/ Electronic Iris (AE) DIP switch selectable

Table 2: Camera/Lens Specifications

