



ICS210 Series Camclosure® Camera System

INDOOR/OUTDOOR, WALL/CEILING

Product Features

- Fully-Integrated Enclosure with Camera and Lens Package
- Microporous Membrane Vent for Enhanced Ingress Protection
- Meets NEMA Type 4X and IP66 Standards
- Rugged, High-Impact and Vandal-Resistant
- Easy to Install; Camera Module Easy to Remove
- Mounts to Ceiling, Wall or Corner
- Tamper-Resistant Hardware
- Circuitry Protected Against Incorrect Jumper Placement
- Concealed Cabling
- 12 VDC or 24 VAC Operation
- Low-Temperature Operation to -50°F (-46°C); De-ices to -10°F (-23°C)
- Clear Window
- NTSC/PAL or EIA/CCIR Camera Formats
- All Color Cameras Feature Digital Signal Processing
- Color and Black-White Cameras Available with 2.9 mm, 3.6 mm, 6 mm, 8 mm, or 12 mm Fixed Focal Lenses
- Standard and High Resolution Color Cameras Available with Fixed Focal Length Auto Iris Lenses
- 3-9 mm Varifocal Lens with Auto Iris, Available with High Resolution Color Camera
- AC Line Lock with All Color Cameras in 24 VAC Operation



CORNER MOUNTED WITH
ICS210-CM CORNER MOUNT

CEILING MOUNTED

- All Lenses, Except Varifocals, are Pre-focused at the Factory
- Conduit Ready (3/4-inch NPT)

The **ICS210 Series Camclosure®** integrated camera system incorporates a camera and lens package into a small, "wedge" style enclosure. The system is quick and easy to install in a variety of indoor or outdoor applications. It is ideal for residential, office, mall, hospital, school, parking garage, correction and detention, and other medium-security installations subject to vandalism.

The **ICS210 Series** is designed with a microporous membrane vent that equalizes the internal and external pressure differential of the enclosure. The vent offers enhanced ingress protection by repelling water and dust but still allowing for the free passage of vapors to prevent condensation within the enclosure.

The **ICS210 Series System** can be mounted directly to a wall, ceiling, or corner using the optional ICS210-CM Corner Mount. Installation

options include using a fixed or adjustable mounting pattern. An adjustable pattern increases the pan adjustment 24 degrees.

The **ICS210 Series** integrated camera system has a manual pan adjustment of ± 10 degrees and manual tilt adjustment of 5 degrees above horizontal to 20 degrees below horizontal. The unit is factory set for 24 VAC operation, but can be configured for 12 VDC with just a simple jumper adjustment.

Camera options include 1/3-inch format CCD color imager (standard or high resolution) and black-white imager (standard resolution) with fixed focal length lenses of 2.9 mm, 3.6 mm, 6 mm, 8 mm, and 12 mm. Color camera lens options include fixed focal length without iris, fixed focal length with auto iris, or varifocal length with auto iris. Cameras with a varifocal lens have a 1/4-inch format high resolution CCD color imager.



C2491 / NEW 8-05



U.S. Patents D476,025; 6,715,939 B2; 6,805,498 B2

International Standards
Organization Registered Firm;
ISO 9001 Quality System



TECHNICAL SPECIFICATIONS

ELECTRICAL

Input Voltage	12 VDC or 24 VAC ($\pm 10\%$)
Power Consumption	Less than 3 watts
Camera	10 watts when active; thermostatically controlled
Heaters	BNC
Video Connector	BNC

GENERAL

Cable Entry	One 3/4-inch (1.9 cm) threaded conduit opening on rear; One 5/8-inch (1.58 cm) opening through gasket on base
Pan/Tilt Adjustment	Manual $\pm 10^\circ$ pan; 5° above horizontal to 20° below horizontal tilt; additional 24° pan adjustment when installing using the adjustable mounting pattern in base

ENVIRONMENTAL

Environment	Low temperature, indoor/outdoor
Operating Temperature	-50° to 122°F (-46° to 50°C); de-ices to -10°F (-23°C)
Thermostat Operation	Heater is thermostatically controlled to activate on at 50°F (10°C) and off at 80°F (27°C)

PHYSICAL

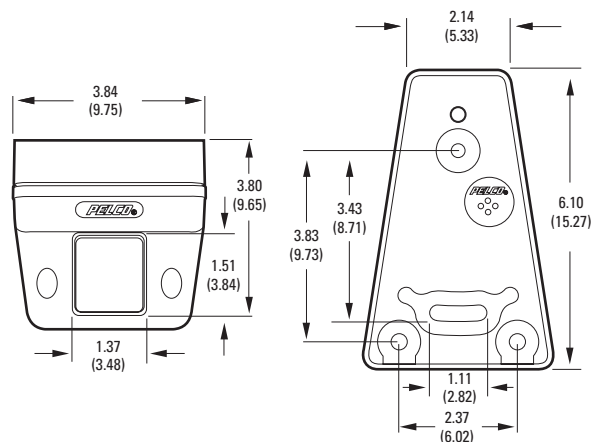
Construction	Aluminum base and cover, steel camera mounting bracket
Finish	Gray polyester powder coat
Unit Weight	1.25 lb (0.57 kg)
Shipping Weight	2.0 lb (0.90 kg)

CERTIFICATIONS/RATINGS/PATENTS

- CE and FCC, Class A (models with black-white cameras)
- CE and FCC, Class B (models with color cameras)
- UL Listed
- UL Listed to Canadian safety standards
- Meets NEMA Type 4X and IP66 standards
- Tested in accordance with MIL-STD 810E as follows:
 - Shock test; Section 516.4 (exceeds IEC 68-2-27)
 - Humidity test; Sections 520.1 and 507.3 (exceeds IEC 68-2-30)
 - Vibration test; Section 514.4 (exceeds IEC 68-2-6)
- ASTM Shipping Standard
- ISTA Shipping Standard

All tests are performed in accordance with ISO Guide 25 and ANSI/NC SL Z540-1.

- U.S. Patents D475,025; 6,715,939 B2; 6,805,498 B2



NOTE: VALUES IN PARENTHESES ARE CENTIMETERS; ALL OTHERS ARE INCHES.

OPTIONAL MOUNT

ICS210-CM

Corner mount specifically designed for the 210 Series system. Perfect for installing the ICS210 in a tight area such as a stairwell, hallway, or elevator.

RECOMMENDED POWER SUPPLIES

(For use with 24 VAC models only)

TF2000

Power supply for one 24 VAC camera, 20 VA

MCS Series

Multiple 24 VAC camera power supply, indoor

MCS*E Series

Multiple 24 VAC camera power supply, indoor

WCS Series

Single/multiple 24 VAC camera power supply, outdoor

TECHNICAL SPECIFICATIONS

CAMERA SPECIFICATIONS

	Black-White Standard Resolution Fixed, Without Iris (Models ICSxxx- MA x/ ICSxxx- MC x)	Color Standard Resolution Fixed, Without Iris (Models ICSxxx- CA x/ ICSxxx- CC x)	Color Standard Resolution Fixed, Auto Iris (Models ICSxxx- CA x/ ICSxxx- CC x)	Color High Resolution Fixed, Without Iris (Models ICSxxx- CR x/ ICSxxx- CS x)	Color High Resolution Fixed, Auto Iris (Models ICSxxx- CR x/ ICSxxx- CS x)	Color High Resolution Varifocal, Auto Iris (Models ICSxxx- CRV x/ ICSxxx- CSV x)
Signal System Imaging Device	EIA or CCIR 1/3-inch CCD	NTSC or PAL 1/3-inch interline color CCD	NTSC or PAL 1/3-inch interline color CCD (Hyper HAD™)	NTSC or PAL 1/3-inch interline color CCD	NTSC or PAL 1/3-inch interline color CCD (Hyper HAD™)	NTSC or PAL 1/4-inch interline color CCD (Hyper HAD™)
Scanning System	2:1 interlace	2:1 interlace	2:1 interlace	2:1 interlace	2:1 interlace	2:1 interlace
Sync System	Internal	12 VDC: Internal 24 VAC: External (VD lock)	12 VDC: Internal 24 VAC: External (VD lock)	12 VDC: Internal 24 VAC: External (VD lock)	12 VDC: Internal 24 VAC: External (VD lock)	12 VDC: Internal 24 VAC: External (VD lock)
Horizontal Resolution	EIA: 420 TV lines CCIR: 420 TV lines	NTSC: 350 TV lines PAL: 350 TV lines	NTSC: 330 TV lines PAL: 320 TV lines	NTSC: 470 TV lines PAL: 460 TV lines	NTSC: 450 TV lines PAL: 440 TV lines	NTSC: 480 TV lines PAL: 480 TV lines
Signal-to-Noise Ratio	50 dB	48 dB	48 dB	48 dB	48 dB	48 dB (AGC off)
Min. Illumination Sensitivity	0.1 lux (F2.0)	1 lux (F2.0)	1 lux (F2.0)	1 lux (F2.0)	1 lux (F2.0)	Less than 1.2 lux (F1.2)
Video Out	1 Vp-p composite (75 ohms)	1 Vp-p composite (75 ohms)	1 Vp-p composite (75 ohms)	1 Vp-p composite (75 ohms)	1 Vp-p composite (75 ohms)	1 Vp-p composite (75 ohms)
Gain Control	Auto	Auto	Auto	NTSC: Auto PAL: Manual	Auto	On/off by DIP switch (0-20 dB)
Exposure	Electronic shutter (1/60 - 1/100,000)	Electronic shutter (1/60 - 1/100,000)	Automatic control w/DC iris meter (1/60 - 1/100,000)	Electronic shutter (1/60 - 1/100,000)	Automatic control w/DC iris meter (1/60 - 1/100,000)	Electronic shutter (1/60 - 1/100,000)
White Balance	Not applicable	Auto	Auto	Auto	Auto	Auto or manual (switch selectable)
Backlight Compensation	Auto	Auto or manual (switch selectable)	Auto or manual (switch selectable)	Auto or manual (switch selectable)	Auto or manual (switch selectable)	Auto; adjusts AGC and AES
Power Source*	12 VDC, 24 VAC	12 VDC, 24 VAC	12 VDC, 24 VAC	12 VDC, 24 VAC	12 VDC, 24 VAC	12 VDC, 24 VAC

*24 VAC power is recommended when installing any Camclosure® integrated camera system under fluorescent lighting conditions.

LENS SPECIFICATIONS

Camera	Fixed Focal Length Without Iris										Varifocal Length With Auto Iris
	Color	B-W	Color	B-W	Color	B-W	Color	B-W	Color	B-W	Color, high resolution only
Focal Length	2.9 mm	3.0 mm	3.6 mm		6.0 mm		8.0 mm		12.0 mm		3-9 mm
Format Size	1/3-inch		1/3-inch		1/3-inch		1/3-inch		1/3-inch		1/4-inch
Relative Aperture (F)	2.0		2.0		1.8	2.5	1.8	2.5	2.0		1.2 to 2.1
Operation Iris	N/A		N/A		N/A		N/A		N/A		Auto iris
Focus	Manual		Manual		Manual		Manual		Manual		Manual
Zoom	N/A		N/A		N/A		N/A		N/A		Manual
Angle of View**											
Horizontal	90°	87°	74°		42°	38°	32°	29°	21°		66.2° to 23.9°
Diagonal	—	—	—	—	—	—	—	—	—	—	83.9° to 29.9°
Vertical	69°	67°	55°		33°	30°	25°	23°	17°		49.1° to 18°

Camera	Fixed Focal Length With Auto Iris		
	Color	Color	Color
Focal Length	6.0 mm	8.0 mm	12.0 mm
Format Size	1/3-inch	1/3-inch	1/3-inch
Relative Aperture (F)	1.8	1.8	1.8
Operation Iris	Auto	Auto	Auto
Focus	Manual	Manual	Manual
Zoom	N/A	N/A	N/A
Angle of View**			
Horizontal	42°	32°	21°
Diagonal	—	—	—
Vertical	33°	25°	17°

**Focal length specifications presume a 10% horizontal and 4% vertical monitor overscan.

SYSTEM MODELS AND RELATED PRODUCTS

ICS200 SERIES SYSTEM MODELS

Camera Type	Lens	Lens Type	NTSC	PAL	EIA	CCIR
Color, High Resolution	2.9 mm	Fixed, without iris	ICS210-CR3	ICS210-CS3	—	—
	3.6 mm	Fixed, without iris	ICS210-CR3.6	ICS210-CS3.6	—	—
	6 mm	Fixed, without iris	ICS210-CR6	ICS210-CS6	—	—
		Fixed, auto iris	ICS210-CR6A	ICS210-CS6A	—	—
	8 mm	Fixed, without iris	ICS210-CR8	ICS210-CS8	—	—
		Fixed, auto iris	ICS210-CR8A	ICS210-CS8A	—	—
	12 mm	Fixed, without iris	ICS210-CR12	ICS210-CS12	—	—
		Fixed, auto iris	ICS210-CR12A	ICS210-CS12A	—	—
	3-9 mm	Varifocal, auto iris	ICS210-CRV39A	ICS210-CSV39A	—	—
Color, Standard Resolution	2.9 mm	Fixed, without iris	ICS210-CA3	ICS210-CC3	—	—
	3.6 mm	Fixed, without iris	ICS210-CA3.6	ICS210-CC3.6	—	—
	6 mm	Fixed, without iris	ICS210-CA6	ICS210-CC6	—	—
		Fixed, auto iris	ICS210-CA6A	ICS210-CC6A	—	—
	8 mm	Fixed, without iris	ICS210-CA8	ICS210-CC8	—	—
		Fixed, auto iris	ICS210-CA8A	ICS210-CC8A	—	—
	12 mm	Fixed, without iris	ICS210-CA12	ICS210-CC12	—	—
		Fixed, auto iris	ICS210-CA12A	ICS210-CC12A	—	—
B-W, Standard Resolution	3.0 mm	Fixed, without iris	—	—	ICS210-MA3	ICS210-MC3
	3.6 mm	Fixed, without iris	—	—	ICS210-MA3.6	ICS210-MC3.6
	6 mm	Fixed, without iris	—	—	ICS210-MA6	ICS210-MC6
	8 mm	Fixed, without iris	—	—	ICS210-MA8	ICS210-MC8
	12 mm	Fixed, without iris	—	—	ICS210-MA12	ICS210-MC12

LENS PACK OPTIONS

Lens packs offer the added convenience of easily changing a camera's field of view by simply changing the lens.

All fixed focal lenses without iris (2.9 mm to 12 mm) are interchangeable with any camera module. Fixed focal length auto iris and varifocal length lenses are not interchangeable.

Variety Pack*

13FFD-V5PAK

Variety package of five lenses, one each
2.9 mm, 3.6 mm, 6 mm, 8 mm, and 12 mm

Single Lens Pack*

13FF3D
13FF3.6D
13FF6D
13FF8D
13FF12D

2.9 mm lens and mount
3.6 mm lens and mount
6 mm lens and mount
8 mm lens and mount
12 mm lens and mount

Four Lens Pack*

13FF3D-4PAK
13FF3.6D-4PAK
13FF6D-4PAK

Package of four 2.9 mm lenses and mounts
Package of four 3.6 mm lenses and mounts
Package of four 6 mm lenses and mounts

*Fixed focal length lenses, without iris.



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