



# ICS090 Series Camclosure® Camera System

INDOOR, MINI DOME, SURFACE MOUNT/IN-CEILING, WDR, HIGH RES, STD RES

## Product Features

- Fully-Integrated Indoor Enclosure with Camera and Lens
- Single Model for Surface Mount and Recessed Ceiling Applications with 4S Adapter Plate
- Available with Wide Dynamic Range (WDR) Technology (102 dB Typical/120 dB Maximum)
- Camera Module Options: Color WDR, Color High Resolution, Color or Monochrome Standard Resolution
- Six Lens Options: 2.9 mm, 3.6 mm, 6 mm, 8 mm, 12 mm, 3-9 mm Varifocal
- UTP Output (Twisted Pair) Models Available; WDR Models Include Both Composite and Unshielded Twisted Pair (UTP) Outputs
- Video Service Connector for On-Site Setup
- All Models Include One Smoked Dome Bubble, One Clear Dome Bubble, and One Discreet Liner
- Shipped Completely Assembled, Easy to Install
- 12 VDC or 24 VAC Operation, Autosensing
- Manual, 3-Axis (Pan/Tilt/Rotation) Positioning Allows Adjustment for Optimum Camera Rotation and Placement
- Housing Available in White or Black

## Camera Modules

The **ICS090 Series Camclosure® Integrated Camera System** has a large selection of camera and lens options, including the following:

- Wide dynamic range color camera with auto iris, 3-9 mm varifocal lens  
WDR cameras are designed to meet your extreme back lighting conditions, including glare, direct sunlight, and shadows. They capture clear, discernable images in a variety of challenging environments – from lobbies to loading docks to warehouses.
- High-resolution color camera with auto iris, 3-9 mm varifocal lens
- High and standard resolution color cameras with fixed focal length lenses
- Standard resolution black-white cameras with fixed focal length lenses

All cameras with fixed focal length lenses are available in 2.9 mm, 3.6 mm, 6 mm, 8 mm, or 12 mm lengths.

An optional 4-foot service/monitor cable (**ICS090-SC**) is available for on-site setup and adjustments. To use the cable, simply plug one end of the cable directly into the service connector of the **ICS090** and connect the other end to any standard BNC (VIDEO IN) connector on a monitor.



SHOWN WITH PENDANT MOUNT ADAPTER (ICS090-PWI)



SHOWN IN WHITE

NOTE: THE SURFACE MOUNT RING IS REMOVED FOR RECESSED INSTALLATIONS.

## Enclosure Modules

The **ICS090 Series Camclosure® Integrated Camera System** integrates a camera and lens package into a small, versatile indoor enclosure that can be mounted directly to, or recessed into, a ceiling or wall.

The **ICS090 Series** is shipped completely assembled, making installation fast and easy. To surface-mount the unit, remove it from the box, attach it to the mounting surface, and connect video and power. For recessed installations, simply remove the surface mount ring (no tools required) and then install the unit inside a ceiling or wall. A 4S adapter plate is supplied with the unit for electrical box installations.

The **ICS090 Series** features a 3-axis camera and lens positioning system that is capable of 360 degrees of pan, 140 degrees of tilt and 360 degrees of rotation. It is designed for continuous operation. The system also has an internal sensing system for input voltage (12 VDC or 24 VAC), easy access to V-phase adjustment (color only), and a built-in service connector for on-site camera setup.



# TECHNICAL SPECIFICATIONS

## GENERAL

Pan/Tilt Adjustment	Manual
Pan	360°
Tilt	140° (20° to 160° range)
Rotation	360°
Construction	
Back Box and	ABS plastic
Surface Mount Ring	Polycarbonate
Bubble	White or black
Finish	White or black
Light Attenuation	
Smoked	1.5 F-stops light loss
Clear	Zero light loss
Environment	Indoor
Operating Temperature	32°F to 120°F (0° to 49°C)
Unit Weight	0.52 lb (0.24 kg)
Shipping Weight	2 lb (0.91 kg)

## ELECTRICAL

Input Voltage*	12 VDC or 24 VAC (±10%), autosensing
Power Consumption	3 watts or less

\*24 VAC power is recommended when installing any Camclosure Integrated Camera System under fluorescent lighting conditions.

## VIDEO

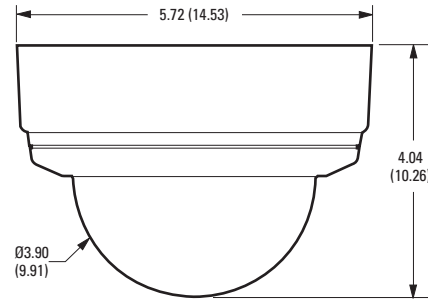
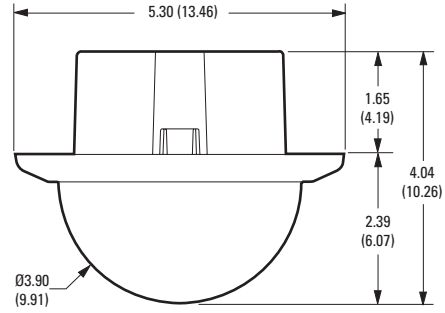
Signal System	
Monochrome	EIA or CCIR
Color	NTSC or PAL
Video Connectors	One composite BNC or one UTP
	WDR models include both

## CERTIFICATIONS/PATENTS

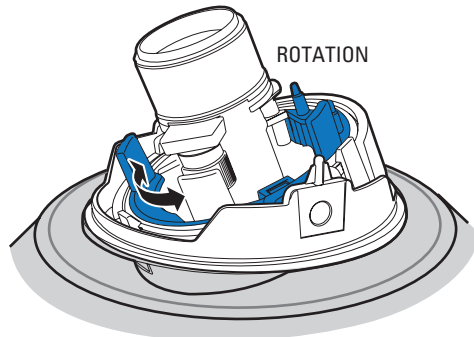
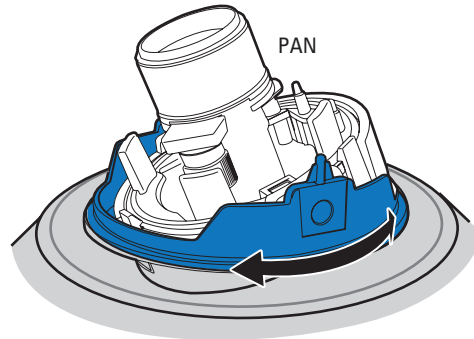
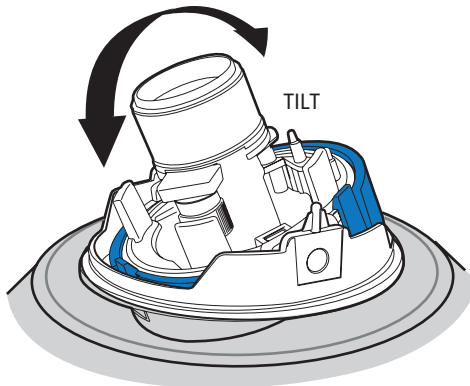
- CE, Class B
- UL Listed
- UL Listed to Canadian safety standards
- FCC, Class B
- U.S. Patents D497,927 S; 6,715,939 B2; 6,805,498 B2

## 3-AXIS POSITIONING SYSTEM

The ICS090 Series features a 3-axis camera and lens configuration for optimal camera rotation and placement. The camera and lens positioning system is capable of 360° of pan, 140° of tilt, and 360° of rotation.



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



# TECHNICAL SPECIFICATIONS

## CAMERA SPECIFICATIONS

	<b>Color Wide Dynamic Range Varifocal, Auto Iris</b> (Models ICS090- <b>CW-V39</b> )	<b>Color High Resolution Varifocal, Auto Iris</b> (Models ICS090- <b>CRVxA</b> / ICS090- <b>CSVxA</b> )	<b>Color High Resolution Fixed, Without Iris</b> (Models ICS090- <b>CRx</b> / ICS090- <b>CSx</b> )	<b>Color Standard Resolution Fixed, Without Iris</b> (Models ICS090- <b>CAx</b> / ICS090- <b>CCx</b> )	<b>Black-White Standard Resolution Fixed, Without Iris</b> (Models ICS090- <b>MAx</b> / ICS090- <b>MCx</b> )
Imaging Device	1/3-inch Imager	1/4-inch Interline Color CCD (Hyper HAD™)	1/3-inch Interline Color CCD (Hyper HAD)	1/3-inch Interline Color CCD	1/3-inch CCD
Dynamic Range (WDR only)	102 dB typical/ 120 dB maximum				
Scanning System	2:1 Interlace Progressive	2:1 Interlace	2:1 Interlace	2:1 Interlace	2:1 Interlace
Sync System	Internal AC line 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)	Internal
Horizontal Resolution	NTSC: 504 TV lines PAL: 504 TV Ines	NTSC: 480 TV lines PAL: 480 TV Ines	NTSC: 470 TV lines PAL: 460 TV lines	NTSC: 350 TV lines PAL: 350 TV lines	EIA: 420 TV lines CCIR: 420 TV lines
Signal-to-Noise Ratio	53 dB	48 dB (AGC Off)	48 dB	48 dB	50 dB
Min. Illumination	0.5 lux (F1.2), 40 IRE, AGC on, 75% scene reflectance (extended shutter mode, 15 fps)	Less than 1.2 lux (F1.2)	1 lux (F2.0)	1 lux (F2.0)	0.1 lux (F2.0)
Video Out	Composite: 1 Vp-p (75 ohms) UTP: Active 1Vp-p (100 ohms)	Composite: 1 Vp-p (75 ohms) UTP: Passive 1Vp-p (100 ohms)	Composite: 1 Vp-p (75 ohms) UTP: Passive 1Vp-p (100 ohms)	Composite: 1 Vp-p (75 ohms) UTP: Passive 1Vp-p (100 ohms)	Composite: 1 Vp-p (75 ohms) UTP: Passive 1Vp-p (100 ohms)
Gain Control	Auto (36 dB maximum)	On/Off by DIP switch (0-20 dB)	NTSC: Auto PAL: Manual	Auto	Auto
Exposure	Auto (1/15 - 1/22,000)	Electronic Shutter (1/60 - 1/100,000)	Electronic Shutter (1/60 - 1/100,000)	Electronic Shutter (1/60 - 1/100,000)	Electronic Shutter (1/60 - 1/100,000)
White Balance	Auto or manual (switch selectable), 2700°K - 7500°K	Auto or manual (switch selectable)	Auto	Auto	Not applicable
Backlight Compensation	Auto	Auto; adjusts AGC and AES	Auto or manual (switch selectable)	Auto or manual (switch selectable)	Auto

## LENS SPECIFICATIONS

Camera	Varifocal With Auto Iris		Fixed Focal Length Without Iris									
	Color, Wide Dynamic Range	Color, High Resolution	Color	B-W	Color	B-W	Color	B-W	Color	B-W	Color	B-W
Focal Length	3.0 mm - 9.0 mm	3.0 mm - 9.0 mm	2.9 mm	3.0 mm	3.6 mm	6.0 mm	8.0 mm	12.0 mm				
Format Size	1/3-inch	1/4-inch	1/3-inch	1/3-inch	1/3-inch	1/3-inch	1/3-inch	1/3-inch				
Relative Aperture (F)	1.2 to 2.1	1.2 to 2.1	2.0	2.0	1.8	2.5	1.8	2.5	2.0			
Operation												
Iris	Auto	Auto	N/A	N/A	N/A	N/A	N/A	N/A				
Focus	Manual	Manual	Manual	Manual	Manual	Manual	Manual	Manual				
Zoom	Manual	Manual	N/A	N/A	N/A	N/A	N/A	N/A				
Angle of View*												
Horizontal	92.8° to 33.3°	66.2° to 23.9°	90°	87°	74°	42°	38°	32°	29°	21°		
Diagonal	118.7° to 41.5°	83.9° to 29.9°	—	—	—	—	—	—	—	—		
Vertical	68.8° to 25°	49.1° to 18°	69°	67°	55°	33°	30°	25°	23°	17°		

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

# SYSTEM MODELS

## ICS090 SERIES HOUSING MODELS (No Camera/Lens)

The following models are not compatible with camera and lens packages and are not upgradable. All models include one smoked dome bubble and one clear dome bubble.

ICS-090HNU White housing  
ICS-090BHNU Black housing

## ICS090 SERIES SYSTEM MODELS (White Finish)

All models include one smoked dome bubble, one clear dome bubble, and one discreet liner.

Camera Type	Lens/Iris	BNC Connector (NTSC)	UTP-Unshielded Twisted Pair* (NTSC)	BNC Connector (PAL)	UTP-Unshielded Twisted Pair* (PAL)
Color, Wide Dynamic Range	3-9 mm, Varifocal, Auto Iris	ICS090-CW-V39			
Color, High Resolution	3-9 mm, Varifocal, Auto Iris	ICS090-CRV39A	ICS090-CRV39AT	ICS090-CSV39A	ICS090-CSV39AT
	2.9 mm	ICS090-CR3	ICS090-CR3T	ICS090-CS3	ICS090-CS3T
	3.6 mm	ICS090-CR3.6	ICS090-CR3.6T	ICS090-CS3.6	ICS090-CS3.6T
	6 mm	ICS090-CR6	ICS090-CR6T	ICS090-CS6	ICS090-CS6T
	8 mm	ICS090-CR8	ICS090-CR8T	ICS090-CS8	ICS090-CS8T
	12 mm	ICS090-CR12	ICS090-CR12T	ICS090-CS12	ICS090-CS12T
Color, Standard Resolution	2.9 mm	ICS090-CA3	ICS090-CA3T	ICS090-CC3	ICS090-CC3T
	3.6 mm	ICS090-CA3.6	ICS090-CA3.6T	ICS090-CC3.6	ICS090-CC3.6T
	6 mm	ICS090-CA6	ICS090-CA6T	ICS090-CC6	ICS090-CC6T
	8 mm	ICS090-CA8	ICS090-CA8T	ICS090-CC8	ICS090-CC8T
	12 mm	ICS090-CA12	ICS090-CA12T	ICS090-CC12	ICS090-CC12T
B-W Standard Resolution	2.9 mm	ICS090-MA3	ICS090-MA3T	ICS090-MC3	ICS090-MC3T
	3.6 mm	ICS090-MA3.6	ICS090-MA3.6T	ICS090-MC3.6	ICS090-MC3.6T
	6 mm	ICS090-MA6	ICS090-MA6T	ICS090-MC6	ICS090-MC6T
	8 mm	ICS090-MA8	ICS090-MA8T	ICS090-MC8	ICS090-MC8T
	12 mm	ICS090-MA12	ICS090-MA12T	ICS090-MC12	ICS090-MC12T

\*Compatible with Pelco TW3000 passive/active UTP series, NVT, and NITEK. Call your customer service representative for part numbers. A separate receiver is needed.

# SYSTEM MODELS

## ICS090 SERIES SYSTEM MODELS (Black Finish)

All models include one smoked dome bubble, one clear dome bubble, and one discreet liner.

Camera Type	Lens/Iris	BNC Connector (NTSC)	UTP-Unshielded Twisted Pair* (NTSC)	BNC Connector (PAL)	UTP-Unshielded Twisted Pair* (PAL)
Color, Wide Dynamic Range	3-9 mm, Varifocal, Auto Iris	ICS09B-CW-V39			
Color, High Resolution	3-9 mm, Varifocal, Auto Iris	ICS090B-CRV39A	ICS090B-CRV39AT	ICS090B-CSV39A	ICS090B-CSV39T
	2.9 mm	ICS090B-CR3	ICS090B-CR3T	ICS090B-CS3	ICS090B-CS3T
	3.6 mm	ICS090B-CR3.6	ICS090B-CR3.6T	ICS090B-CS3.6	ICS090B-CS3.6T
	6 mm	ICS090B-CR6	ICS090B-CR6T	ICS090B-CS6	ICS090B-CS6T
	8 mm	ICS090B-CR8	ICS090B-CR8T	ICS090B-CS8	ICS090B-CS8T
Color, Standard Resolution	12 mm	ICS090B-CR12	ICS090B-CR12T	ICS090B-CS12	ICS090B-CS12T
	2.9 mm	ICS090B-CA3	ICS090B-CA3T	ICS090B-CC3	ICS090B-CC3T
	3.6 mm	ICS090B-CA3.6	ICS090B-CA3.6T	ICS090B-CC3.6	ICS090B-CC3.6T
	6 mm	ICS090B-CA6	ICS090B-CA6T	ICS090B-CC6	ICS090B-CC6T
	8 mm	ICS090B-CA8	ICS090B-CA8T	ICS090B-CC8	ICS090B-CC8T
B-W Standard Resolution	12 mm	ICS090B-CA12	ICS090B-CA12T	ICS090B-CC12	ICS090B-CC12T
	2.9 mm	ICS090B-MA3	ICS090B-MA3T	ICS090B-MC3	ICS090B-MC3T
	3.6 mm	ICS090B-MA3.6	ICS090B-MA3.6T	ICS090B-MC3.6	ICS090B-MC3.6T
	6 mm	ICS090B-MA6	ICS090B-MA6T	ICS090B-MC6	ICS090B-MC6T
	8 mm	ICS090B-MA8	ICS090B-MA8T	ICS090B-MC8	ICS090B-MC8T
12 mm	ICS090B-MA12	ICS090B-MA12T	ICS090B-MC12	ICS090B-MC12T	

\*Compatible with Pelco TW3000 passive/active UTP series, NVT, and NITEK. Call your customer service representative for part numbers. A separate receiver is needed.

# OPTIONAL ACCESSORIES

## 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

## OPTIONAL ACCESSORIES

ICS090-SC	4-foot service/monitor cable; compatible with any standard monitor BNC connector
ICS090-PWI	White pendant mount adapter
ICS090-PBI	Black pendant mount adapter

## LENS PACK OPTIONS

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

The following lens packs are available for all Camclosures. All fixed focal length lenses ranging from 2.9 mm to 12 mm are interchangeable with any camera module. Varifocal 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
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### Single Lens Pack\*

13FF3D	2.9 mm lens and mount
13FF3.6D	3.6 mm lens and mount
13FF6D	6 mm lens and mount
13FF8D	8 mm lens and mount
13FF12D	12 mm lens and mount

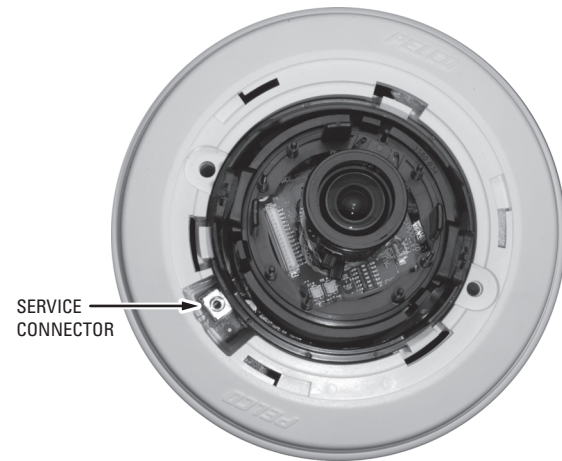
### Four Lens Pack\*

13FF3D-4PAK	Package of four 2.9 mm lenses and mounts
13FF3.6D-4PAK	Package of four 3.6 mm lenses and mounts
13FF6D-4PAK	Package of four 6 mm lenses and mounts

\*Fixed focal length lenses, without auto iris.



ICS090-SC 4-FOOT SERVICE/MONITOR CABLE



ICS090-CW SERIES CAMCLOSURE FEATURES EASY ACCESS AND BUILT-IN SERVICE CONNECTOR FOR ON-SITE CAMERA SET-UP



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