PRODUCT SPECIFICATION

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IP66

100/150 Series Camclosure™ Camera System
INTEGRATED CAMERA SYSTEM, MINI DOME, SURFACE AND IN-CEILING

Product Features

- Fully-Integrated Enclosure with Camera and Lens
- Rugged, High-Impact and Vandal Resistant, Puncture Proof Domes
- Easy to Install; Camera Module Easy to Remove
- Versatile Models for Surface or In-Ceiling Mounting
- Tamper-Resistant Hardware
- 12 VDC or 24 VAC Operation
- Circuitry Protected Against Incorrect Jumper Placement
- Low-Temperature Operation to -50°F (-46°C); De-ices to -10°F (-23°C)
- Manual Pan and Tilt Adjustments
- Available with Smoked or Clear Dome (1.5 f-stop Light Loss with Smoked Dome)
- Models with Clear Dome Include Black Dome Liner for Discreet Viewing
- NTSC/PAL or EIA/CCIR Camera Formats
- All Color Cameras Feature Digital Signal Processing
- Fixed Focal Length Lens of 2.9 mm, 6 mm, 8 mm, or 12 mm
- Varifocal Lens of 3 mm to 6 mm with Auto Iris Available with High Resolution Color Camera
- AC Line Lock with All Color Cameras in 24 VAC Operation
- All Lenses, Except Varifocals, are Pre-focused at the Factory
- Meets NEMA 4X and IP66 Standards (when installed)
- Plenum Rated (ICS150 Series)

ICS100 SERIES DOME

ICS150 SERIES DOME

The **100/150 Series Camclosure™ Integrated Camera** System incorporates a camera and lens package into a small, high-security enclosure. All models are quick and easy to install in a variety of indoor or outdoor applications. They are ideal for residential, office, mall, hospital, school, parking garage, correction and detention, and other medium/high-security installations subject to vandalism.

The **100 Series System** (surface-mount dome) is designed to install directly to a hard surface (such as a ceiling or wall) or 4-square electrical box using the adapter plate or standard mud rings. The base of the unit has an opening for a conduit fitting in the back and a threaded 3/4-inch conduit opening in the side.

The **150 Series System** (in-ceiling dome) is plenum rated and can be installed in a suspended ceiling or recessed in a ceiling or wall. The in-ceiling dome ships with a 4S adapter plate to mount the unit to a 4-square electrical box. If you are mounting the unit from a suspended ceiling, the adapter plate provides additional support to the suspended ceiling.

The **100/150 Series Camclosure Integrated Camera System** features plug-in camera modules that allow the enclosure to be installed and wired for power and video prior to installation of the camera. This unique feature means camera and lens are out of the way – and protected – during installation. In addition, domes with smoked bubble may be purchased without the camera module for "dummy" applications. (See component model numbers.)

All models are designed for either 12 VDC or 24 VAC operation. They are factory set for 24 VAC operation; a simple jumper change before connecting power configures the camera for 12 VDC operation.

Camera options include 1/3-inch format CCD color imager (standard or high resolution) and monochrome imager (standard resolution) with fixed focal length lenses of 2.9 mm, 6 mm, 8 mm, and 12 mm. Cameras with a varifocal lens have a 1/4-inch format high resolution CCD color imager.

ISO 9001 CERTIFIED

TECHNICAL SPECIFICATIONS

ELECTRICAL

Input Voltage	12 VDC or 24 VAC (±10%)
Power Consumption	
Camera	<3 watts
Heaters	10 watts when active; thermostatically controlled
Video Connector	BNC

GENERAL

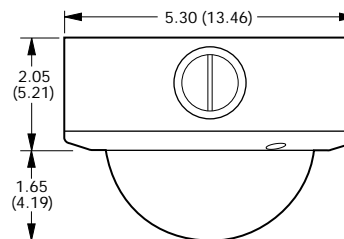|	
Cable Entry	
ICS100 Series	One 3/4-inch (1.91 cm) NPT threaded opening on side; one 3/4-inch (1.91 cm) opening on base
Pan/Tilt Adjustment	Manual 360° pan; 180° tilt

ENVIRONMENTAL

Environment	Low temperature, indoor/outdoor
Operating Temperature	-50°F to 122°F (-46°C to 50.00°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

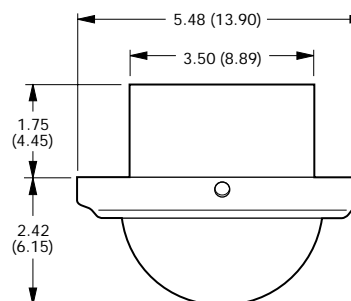|	
Construction	Aluminum with steel camera mounting bracket and polycarbonate dome
Finish	
ICS100 Series	Light gray polyester powder coat
ICS150 Series	White polyester powder coat trim ring with charcoal gray back box
Dimensions	
ICS100 Series	
Base	3.70 (H) x 5.30 (W) inches (9.40 x 13.46 cm)
Bubble	3.75 in. Diameter
ICS150 Series	
Above Ceiling	1.75 (H) x 3.50 (W) inches (4.45 x 8.89 cm)
Below Ceiling	2.42 (H) x 5.48 (W) inches (6.15 x 13.90 cm)
Bubble	3.75 inch Diameter
Unit Weight	
ICS100 Series	2.20 lb (1.00 kg)
ICS150 Series	1.70 lb (0.77 kg)
Shipping Weight	
ICS100 Series	4.0 lb (1.81 kg)
ICS150 Series	3.0 lb (1.36 kg)

CERTIFICATIONS/RATINGS

- ◆ CE and FCC, Class A (models with monochrome cameras only, excluding auto iris models)
- ◆ CE and FCC, Class B (models with color cameras only, excluding auto iris models)
- ◆ UL listed to Standard 2044
- ◆ cUL to CSA C22.2 No.1
- ◆ Meets IP66 when installed properly
- ◆ Plenum rated (ICS150 Series)
- ◆ Meets NEMA 4X when installed properly, includes:
  - – Corrosion protection test; NEMA 250, Section 6.9 (exceeds IEC 68-2-11)
  - – Rust resistance test; NEMA 250, Section 6.8
  - – Hose down test; NEMA 250, Section 6.7
  - – Exceeds SAE J1211 dust test
- ◆ 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/NCSL Z540-1

5.30 (13.46)

2.05 (5.21)

1.65 (4.19)

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

ICS100 SERIES DOME

5.48 (13.90)

3.50 (8.89)

1.75 (4.45)

2.42 (6.15)

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

ICS150 SERIES DOME

TECHNICAL SPECIFICATIONS

CAMERA SPECIFICATIONS

	Black & White Standard Resolution (Models ICSxxx-**MA**x/ ICSxxx-**MC**x)	Color Standard Resolution (Models ICSxxx-**CA**x/ ICSxxx-**CC**x)	Color High Resolution, Fixed Focal Lens (Models ICSxxx-**CR**x/ ICSxxx-**CS**x)	Color High Resolution, Varifocal Lens (Models ICSxxx-**CRV**x/ ICSxxx-**CSV**x)
Signal System	EIA or CCIR	NTSC or PAL	NTSC or PAL	NTSC or PAL
Imaging Device	1/3-inch CCD	1/3-inch Interline Color CCD	1/3-inch Interline Color CCD (Super HAD)	1/4-inch Interline Color CCD
Scanning System	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)
Horizontal Resolution	EIA: 420 TV lines CCIR: 420 TV lines	NTSC: 350 TV lines PAL: 350 TV lines	NTSC: 470 TV lines PAL: 460 TV lines	NTSC: 480 TV lines PAL: 480 TV lines
Signal-to-Noise Ratio	50 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)	Less than 1.2 lux (f1.2)
Video Out	1 Vp-p Composite (75 ohm)	1 Vp-p Composite (75 ohm)	1 Vp-p Composite (75 ohm)	1 Vp-p Composite (75 ohm)
Gain Control	Auto	Auto	NTSC: Auto PAL: Manual	On/Off by DIP switch (0-20dB)
Exposure	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	(not applicable)	Auto	NTSC: Auto PAL: Manual	Auto
Backlight Compensation	Auto	ON, OFF (switchable)	NTSC: Auto PAL: Manual On/Off	Auto; adjusts AGC and AES
Power Source*	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 flourescent lighting conditions.

LENS SPECIFICATIONS

	Fixed Focal Length Lenses								Varifocal Lens
	Color	B/W	Color	B/W	Color	B/W	Color	B/W	
Focal Length	2.9 mm	3.0 mm	6.0 mm		8.0 mm		12.0 mm		3.0 to 6.0 mm
Format Size	1/3-inch		1/3-inch		1/3-inch		1/3-inch		1/4-inch
Relative Aperture (F)	2.0		1.8		2.5	1.8	2.5	2.0	1.2 to 1.5
Operation Iris Focus Zoom	Fixed N/A N/A		Fixed N/A N/A		Fixed N/A N/A		Fixed N/A N/A		Auto (f1.2 to f300) Manual (minimum 50 cm) Manual
Angle of View** Horizontal	90°	87°	42°	38°	32°	29°	21°		72° to 36°
Diagonal	—	—	—	—	—	—	—	—	96° to 46°
Vertical	69°	67°	33°	30°	25°	23°	17°		52° to 26°

**Focal length specifications presume a 10% Horizontal and 4% Vertical monitor overscan.

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 the 100, 150 and 200 Series only. All fixed focal length lenses ranging from 2.9 mm to 12 mm are interchangeable with any camera module.

Variety Pak
13FFD-V4PAK — Variety package of four lenses, one each 2.9 mm, 6 mm, 8 mm, and 12 mm.

Single Lens
13FF3D — 2.9 mm lens and mount
13FF6D — 6 mm lens and mount
13FF8D — 8 mm lens and mount
13FF12D — 12 mm lens and mount

Four Pak
13FF3D-4PAK — Package of four 2.9 mm lenses and mounts
13FF6D-4PAK — Package of four 6 mm lenses and mounts
13FF8D-4PAK — Package of four 8 mm lenses and mounts
13FF12D-4PAK — Package of four 12 mm lenses and mounts

MODEL NUMBERS

SYSTEMS MODELS WITH COLOR CAMERA

Camera Type	Lower Dome	Lens/Iris	Surface Mount (ICS100 Series)		In-Ceiling (ICS150 Series)	
			NTSC	PAL	NTSC	PAL
Color, High Resolution	Smoked	2.9 mm 6 mm 8 mm 12 mm 3-6 mm with Auto Iris	ICS100-CR3 ICS100-CR6 ICS100-CR8 ICS100-CR12 ICS100-CRV3A	ICS100-CS3 ICS100-CS6 ICS100-CS8 ICS100-CS12 ICS100-CSV3A	ICS150-CR3 ICS150-CR6 ICS150-CR8 ICS150-CR12 ICS150-CRV3A	ICS150-CS3 ICS150-CS6 ICS150-CS8 ICS150-CS12 ICS150-CSV3A
	Clear	2.9 mm 6 mm 8 mm 12 mm 3-6 mm with Auto Iris	ICS101-CR3 ICS101-CR6 ICS101-CR8 ICS101-CR12 ICS101-CRV3A	ICS101-CS3 ICS101-CS6 ICS101-CS8 ICS101-CS12 ICS101-CSV3A	ICS151-CR3 ICS151-CR6 ICS151-CR8 ICS151-CR12 ICS151-CRV3A	ICS151-CS3 ICS151-CS6 ICS151-CS8 ICS151-CS12 ICS151-CSV3A
Color, Standard Resolution	Smoked	2.9 mm 6 mm 8 mm 12 mm	ICS100-CA3 ICS100-CA6 ICS100-CA8 ICS100-CA12	ICS100-CC3 ICS100-CC6 ICS100-CC8 ICS100-CC12	ICS150-CA3 ICS150-CA6 ICS150-CA8 ICS150-CA12	ICS150-CC3 ICS150-CC6 ICS150-CC8 ICS150-CC12
	Clear	2.9 mm 6 mm 8 mm 12 mm	ICS101-CA3 ICS101-CA6 ICS101-CA8 ICS101-CA12	ICS101-CC3 ICS101-CC6 ICS101-CC8 ICS101-CC12	ICS151-CA3 ICS151-CA6 ICS151-CA8 ICS151-CA12	ICS151-CC3 ICS151-CC6 ICS151-CC ICS151-CC12

SYSTEM MODELS WITH B&W CAMERA

Camera Type	Lower Dome	Lens/Iris	Surface Mount (ICS100 Series)		In-Ceiling (ICS150 Series)	
			EIA	CCIR	EIA	CCIR
B&W, Standard Resolution	Smoked	3.0 mm 6 mm 8 mm 12 mm	ICS100-MA3 ICS100-MA6 ICS100-MA8 ICS100-MA12	ICS100-MC3 ICS100-MC6 ICS100-MC8 ICS100-MC12	ICS150-MA3 ICS150-MA6 ICS150-MA8 ICS150-MA12	ICS150-MC3 ICS150-MC6 ICS150-MC8 ICS150-MC12
	Clear	3.0 mm 6 mm 8 mm 12 mm	ICS101-MA3 ICS101-MA6 ICS101-MA8 ICS101-MA12	ICS101-MC3 ICS101-MC6 ICS101-MC8 ICS101-MC12	ICS151-MA3 ICS151-MA6 ICS151-MA8 ICS151-MA12	ICS151-MC3 ICS151-MC6 ICS151-MC8 ICS151-MC12

COMPONENT MODEL NUMBERS

Dome
All domes are completely assembled and ready for any camera and lens module. Domes with clear bubble are not recommended for "dummy" applications.

ICS100 Series (Surface Mount)	Smoked Clear	ICS-DO100 ICS-DO101
ICS150 Series (In-ceiling)	Smoked Clear	ICS-DO150 ICS-DO151

Camera & Lens Module
Select from the components below to create the part number for the desired camera and lens module.

Example: ICS-1CRV3A is a Hi-Res, Color Camera, NTSC format, with 3-6 mm auto iris lens.

Base No.	Imager and Format	Lens
ICS-1	CR = Hi-Res Color, NTSC CS = Hi-Res Color, PAL CA = Std Res Color, NTSC CC = Std Res Color, PAL MA = Std Res B&W, EIA MC = Std Res B&W, CCIR	3 = 2.9/3.0 mm 6 = 6 mm 8 = 8 mm 12 = 12 mm V3A = 3-6 mm with auto iris*

*Available only with Hi-Res Color Camera (CR and CS types).

OPTIONAL MOUNTS

ICS100-PG	Pendant mount adapter for ICS100 Series dome.
ICS150-P	2 x 2 ft (61 x 61 cm) metal ceiling panel for ICS150 Series in-ceiling dome.

RECOMMENDED POWER SUPPLIES
(For use with 24 VAC models only)

TF2000	Power supply for 24 VAC cameras, 20 vA. (For single camera application.)
MCS Series	Multiple 24 VAC camera power supply, indoor. (For multiple camera application.) *(See C653 spec)*
MCS*E Series	Multiple 24 VAC camera power supply, indoor. (For multiple camera application.) *(See C655 spec)*
WCS Series	Multiple 24 VAC camera power supply, outdoor. (For multiple camera application.) *(See C654 spec)*

Indicates change or addition since last revision.