

IS20/IS21 Series Camclosure® 2 Camera System

INDOOR MINI DOME, SURFACE AND FLUSH MOUNT

Product Features

- Fully Integrated Indoor Enclosure with Camera and Lens
- 3 Camera Options
 - Super Dynamic 5 (SD5)™ Day/Night Wide Dynamic Range (WDR)
 - Day/Night High Resolution
 - High Resolution Color
- Varifocal Lens
- Shipped Completely Assembled, Easy to Install
- 24 VAC or 12 VDC Operation, Autosensing
- Manual, 3-Axis (Pan/Tilt/Rotation) Positioning Allows Adjustment for Optimum Camera Rotation and Placement
- Service Connector for Video Output
- Available in Surface or Flush Mount Models with Smoked or Clear Domes



The **IS20/IS21 Series Camclosure® 2 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 **IS20/IS21 Series** features a three-axis camera and lens positioning system that is capable of a wide variety of pan and tilt angles.

The **IS20/IS21 Series** offers three high resolution camera options suitable for a variety of indoor environments:

- **Super Dynamic 5 (SD5)™ day/night wide dynamic range (WDR):** Features a high resolution (650 TVL) color camera with auto iris, varifocal lens, and auto back focus. Application examples include environments with difficult lighting that require extremely high sensitivity and dynamic range.
- **True day/night:** Features a high resolution (540 TVL) color camera with auto iris and varifocal lens. Application examples include environments that require color images during the day but use monochrome images at night with or without supplemental IR lighting.
- **Color:** Features a high resolution (540 TVL) color camera with auto iris, simple day/night functions, and varifocal lens. For use in all general-purpose environments.

All cameras in the **IS20/IS21 Series** offer adaptive black stretch (ABS) to provide optimal image quality in dark areas by increasing the visibility in those areas without sacrificing the image quality in brighter areas. In addition, in some cameras the **IS20/IS21 Series**

features Super Dynamic 5 (SD5) technology, ensuring the best picture quality even in challenging environments. The Super Dynamic 5 (SD5) day/night WDR camera is equipped with auto back focus (ABF) and intelligent motion detection (i-VMD). The ABF feature automatically adjusts the cameras CCD position when installing or changing from color to black-white mode, saving time during setup and optimizing focus. The i-VMD feature is an intelligent built-in video motion detector that provides more efficient and reliable surveillance, while eliminating the loss of notification in vital scenes. Using advanced motion analytics provides the ability to accurately detect motion within a targeted area. The i-VMD analytics include three behaviors: motion detection, object abandonment/removal, and scene change detection.

The **IS20/IS21 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, use the supplied mounting bracket to install the unit inside a ceiling or wall.

The **IS20/IS21 Series** also features a complete line of optional mounting accessories. Optional pendant and wall mounts are available for all models, which allow the cameras to be adapted for a variety of installations. In addition, the flush mount kits allow surface mount cameras to be installed in a ceiling if the installation type should change after the original deployment.



TECHNICAL SPECIFICATIONS

CAMERA/OPTICS

	IS20/IS21-DWS Series Super Dynamic (SD5) Day/Night Wide Dynamic Range Models	IS20/IS21-DN Series True Day/Night Models	IS20/IS21-CH Series Color Models with Simple Day/Night
Image Sensor	1/3-inch interline transfer CCD	1/3-inch interline transfer CCD	1/3-inch interline transfer CCD
Effective Pixels NTSC PAL	976 (H) x 494 (V) 976 (H) x 582 (V)	768 (H) x 494 (V) 752 (H) x 582 (V)	768 (H) x 494 (V) 752 (H) x 582 (V)
Scanning Area	0.19-inch (H) x 0.14-inch (V) (4.8 x 3.6 mm)	0.19-inch (H) x 0.15-inch (V) (4.9 x 3.7 mm)	0.19-inch (H) x 0.15-inch (V) (4.9 x 3.7 mm)
Scanning System	2:1 interlace	2:1 interlace	2:1 interlace
Scanning Lines NTSC PAL	525 lines 625 lines	525 lines 625 lines	525 lines 625 lines
Scanning Frequency NTSC PAL	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz	Horizontal, 15.734 kHz Vertical, 59.94 Hz Horizontal, 15.625 kHz Vertical, 50.00 Hz
Synchronization	Internal LL (phase adjustable power supply synchronization)	Internal	Internal
Horizontal Resolution	650 TV lines, typical (color mode) 700 TV lines or more (B-W mode)	540 TV lines (color mode, at center) 570 TV lines (B-W mode)	540 TV lines (at center)
Minimum Illumination	0.1 lux (color mode) 0.003 lux (sensitivity up x32) 0.01 lux (B-W mode) 0.0003 lux (sensitivity up x32)	0.06 lux (color mode) 0.05 lux (B-W mode)	0.6 lux (color mode) 0.4 lux (B-W mode)
Dynamic Range	54 dB	Adaptive Black Stretch	Adaptive Black Stretch
Day/Night Type	IR filter removal	IR filter removal	Simple
Video Output	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector	1.0 Vp-p, NTSC/PAL composite, 75 ohms, BNC connector
White Balance	Auto Tracking White Balance/ Automatic White Balance Control	Auto Tracking White Balance/ Automatic White Balance Control	Auto Tracking White Balance/ Automatic White Balance Control
Signal-to-Noise Ratio	50 dB (equivalent to AGC Off, weight On)	50 dB (equivalent to AGC Off, weight On)	50 dB (equivalent to AGC Off, weight On)
Lens	2X varifocal lens	3.6X varifocal lens	3.6X varifocal lens
Focal Length	3.8 ~ 8.0 mm	2.8 ~ 10.0 mm	2.8 ~ 10.0 mm
F-Number	f/1.4 (WIDE) to f/1.8 (TELE)	f/1.3 (WIDE) to f/3.1 (TELE)	f/1.3 (WIDE) to f/3.1 (TELE)
Focus Range	∞ to 3.9 ft (1.2 m)	∞ to 3.9 ft (1.2 m)	∞ to 3.9 ft (1.2 m)
Angle of View Horizontal Vertical	73.6° wide zoom; 35.6° telephoto zoom 53.4° wide zoom; 26.6° telephoto zoom	100° at 50 ft wide zoom; 27° at 39 ft telephoto zoom 73° at 51 ft wide zoom; 20° at 45 ft telephoto zoom	100° at 18 ft wide zoom; 27° at 39 ft telephoto zoom 73° at 33 ft wide zoom; 20° at 45 ft telephoto zoom
Adjusting Angle Panning Range Tilting Range Rotation Range	±170° ±75° ±100°	+180° to -140° ±75° ±100°	+180° to -140° ±75° ±100°

TECHNICAL SPECIFICATIONS

GENERAL

Construction		
Enclosure	ABS plastic	
Bubble	Polycarbonate resin	
Finish	White	
Weight		
Super Dynamic 5 (SD5) WDR Models	Unit	Shipping
Surface Mount	1.98 lbs (0.9 kg)*	5 lb (1.85 kg)*
Flush Mount	3.53 lbs (1.6 kg)†	10 lb (4.39 kg)†
Color and Day/Night Models		
Surface Mount	0.95 lb (0.43 kg)	2 lb (0.69 kg)
Flush Mount	1.57 lb (0.71 kg)	4 lb (1.78 kg)
Multilingual On-Screen Display	English, French, Spanish, German, Portuguese, Russian, Japanese	

*The total surface mount weight includes 0.22 lbs (0.1 kg) for the camera attachment.

†The total flush mount weight includes 1.54 lbs (0.7 kg) for ceiling mount bracket assembly.

ELECTRICAL

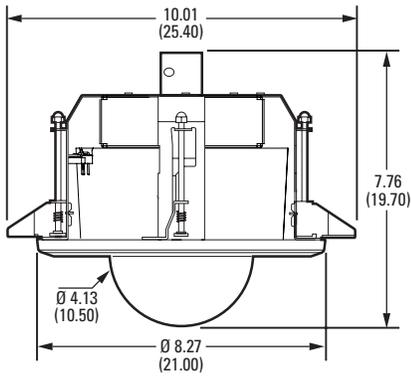
Power Source	Super Dynamic 5 (SD5) WDR Models	
	NTSC	PAL
	24 VAC, 60 Hz	24 VAC, 50 Hz
	12 VDC, 280 mA	12 VDC, 280 mA
Color and Day/Night Models		
	NTSC	PAL
	24 VAC, 60 Hz	24 VAC, 50 Hz
	12 VDC, 220 mA	12 VDC, 220 mA
Power Consumption	Super Dynamic 5 (SD5) WDR Models	
	NTSC	PAL
	3.4 W	3.4 W
Color and Day/Night Models		
	NTSC	PAL
	2.7 W	2.7 W

ENVIRONMENTAL

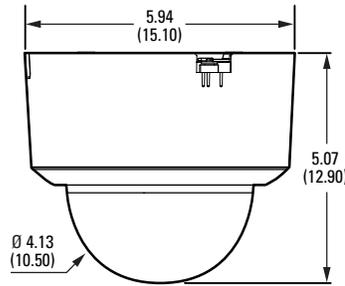
Environment	Indoor
Ambient Temperature	14° to 122°F (-10° to 50°C)
Ambient Humidity	Less than 90%

CERTIFICATIONS/RATINGS/PATENTS

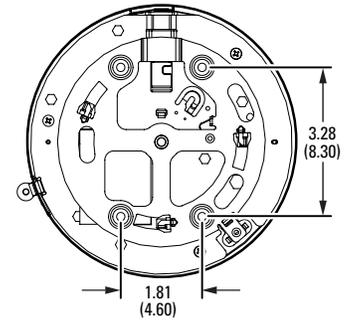
- CE, Class A
- FCC, Class A
- UL/cUL Listed
- C-Tick



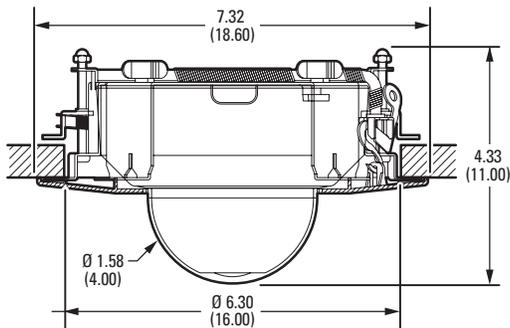
FLUSH MOUNT (SD5 MODELS)



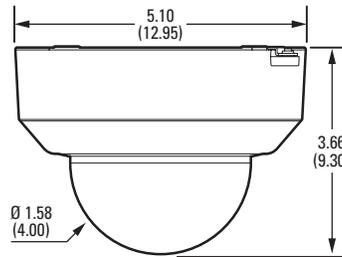
SURFACE MOUNT (SD5 MODELS)



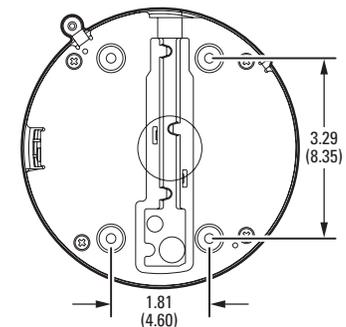
SURFACE MOUNT TOP VIEW (SD5 MODELS)



FLUSH MOUNT (COLOR AND DAY/NIGHT MODELS)



SURFACE MOUNT (COLOR AND DAY/NIGHT MODELS)



SURFACE MOUNT TOP VIEW (COLOR AND DAY/NIGHT MODELS)

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

TECHNICAL SPECIFICATIONS

MODELS

Camera Type	Mount Type	Bubble	NTSC	PAL
Super Dynamic 5 (SD5) Day/Night WDR	Surface	Clear	IS21-DWSV8S	IS21-DWSV8SX
		Smoke	IS20-DWSV8S	IS20-DWSV8SX
	Flush	Clear	IS21-DWSV8F	IS21-DWSV8FX
		Smoke	IS20-DWSV8F	IS20-DWSV8FX
Day/Night	Surface	Clear	IS21-DNV10S	IS21-DNV10SX
		Smoke	IS20-DNV10S	IS20-DNV10SX
	Flush	Clear	IS21-DNV10F	IS21-DNV10FX
		Smoke	IS20-DNV10F	IS20-DNV10FX
Color	Surface	Clear	IS21-CHV10S	IS21-CHV10SX
		Smoke	IS20-CHV10S	IS20-CHV10SX
	Flush	Clear	IS21-CHV10F	IS21-CHV10FX
		Smoke	IS20-CHV10F	IS20-CHV10FX

RECOMMENDED MOUNTS

IS20-P	Pendant mount, indoor. Is compatible with Color and Day/Night models.
IS20-WM	Wall mount, indoor. Is compatible with Color and Day/Night models.
IS20DWS-P	Pendant mount, indoor. Is compatible with Super Dynamic 5 (SD5) day/night WDR models.
IS20DWS-WM	Wall mount, indoor. Is compatible with Super Dynamic 5 (SD5) day/night WDR models.
IS20-FK	Flush mount kit. Is compatible with surface mount color and day/night models.
IS20DWS-FK	Flush mount, indoor. Is compatible with Super Dynamic 5 (SD5) day/night WDR models.

RECOMMENDED POWER SUPPLIES

TF2000	Power supply for one 24 VAC camera, 20 VA
MCS Series	Multiple 24 VAC camera power supply, indoor

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