

SONY®

NTSC/EIA

Fixed Mini Dome Camera

Mini Dome II



SSC-CD73V
SSC-CD73VT
SSC-CD43V
SSC-CD43VT
SSC-MD53V
SSC-MD33V

INTRODUCTION



The SSC-CD73V, SSC-CD73VT, SSC-CD43V and SSC-CD43VT are the latest additions to Sony's fixed mini dome color camera line up. Sony's extensive line up of mini domes offer a wide variety of options to choose from - offering choice and flexibility to fit user's requirements. More discreet than non-dome security cameras, these dome cameras are ideal for surveillance sites such as building entrances, retail stores and shopping malls, where less noticeable video cameras are preferred. In addition to their discreetness, Sony mini domes feature a sleek, triangular design that fits smartly and installs easily into any surveillance environment.

The new SSC-CD73V and SSC-CD73VT cameras incorporate a "Day/Night" function to capture high-quality, color images during the day and clear, black and white images at night. Ideal for outdoor applications, these ruggedized models are equipped with a heavy duty enclosure that features an Ingress Protection Rating of IP66. The SSC-CD43V and SSC-CD43VT cameras feature a non-ruggedized housing which is ideally suited for indoor use. In addition, the SSC-CD73VT and SSC-CD43VT cameras are Sony's first mini domes to feature a built-in Network Video Technologies (NVT™) transmitter that allows installation via an existing spare twisted pair telephone cabling infrastructure. Rounding out the line up are Sony's two B/W models - the SSC-MD53V featuring a ruggedized housing and the SSC-MD33V with its non-ruggedized housing.

All models incorporate a 1/4 type Super HAD CCD® offering high resolution and high sensitivity, and a built-in auto iris vari-focal lens that covers a wide range of viewing angles. As for their power source, all models accept both DC 12 V and AC 24 V for proper operation and flexible installation.

Sony's line up of feature-rich mini dome cameras provides an extensive selection of choices for a wide range of surveillance applications.

High Picture Quality

All Sony mini domes incorporate a 1/4 type Super HAD CCD for high horizontal resolution and excellent sensitivity. The SSC-CD73V and SSC-CD73VT color cameras provide a high resolution of 480 TV lines and operate under a minimum illumination of 0.9 lx (color mode)/ 0.2 lx (B/W mode)*¹. The SSC-CD43V and SSC-CD43VT color cameras also provide a high resolution of 480 TV lines and feature a minimum illumination of 0.8 lx*¹. The black and white SSC-MD53V and SSC-MD33V cameras offer a horizontal resolution of 570 TV lines and a minimum illumination of 0.4 lx*².

*1 AGC On, F1.0, 50 IRE

*2 AGC On, F1.4, 50 IRE

Day/Night Function (SSC-CD73V and SSC-CD73VT)

The SSC-CD73V and SSC-CD73VT cameras offer a “Day/Night” function to provide optimized sensitivity in both day and night shooting scenarios. As the scene illumination reduces and the acquired image darkens, the infrared cut filter is automatically removed and the camera switches to B/W mode, requiring only a minimum illumination of 0.2 lx. Incorporating an optimized lens for the “Day/Night” function, the camera can produce a clear and crisp image under normal illumination or when used with near IR illuminators. In addition, “Day/Night” modes can be automatically switched, or manually initiated on demand through an external control signal.

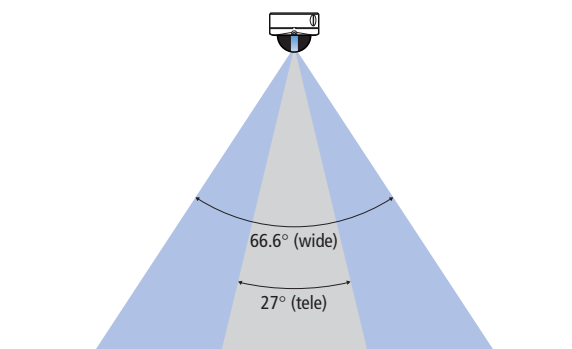


Fig. 1 Horizontal angle of view (SSC-CD73V/CD73VT)

Ruggedized Design (SSC-CD73V/CD73VT and SSC-MD53V)

The SSC-CD73V, SSC-CD73VT and SSC-MD53V mini domes are housed in a heavy duty aluminum diecast enclosure with a durable polycarbonate viewing window which complies with the IP66 standard. The extremely durable camera enclosure can withstand strong, external impacts and is equipped with anti-theft screws to further deter tampering and vandalism.

Built-in CS Mount, Auto Iris Vari-Focal Lens (SSC-CD73V/CD73VT and SSC-CD43V/CD43VT)

The SSC-CD73V, SSC-CD73VT, SSC-CD43V and SSC-CD43VT mini domes come with a built-in CS mount, auto iris vari-focal lens with a focal length of 3.0 to 8.0 mm to cover a broad range of viewing choices (see Fig. 1) and feature a new masked dome cover with a clear viewing slit. This versatile and powerful lens compensates the focal length difference between visible light and infrared light. The result is clear, crisp images (subject remains in focus) when going from visible to infrared light and vice versa.

a (Panning): ±150°

b (Tilting): ±75°

c (Rotating): ±150°

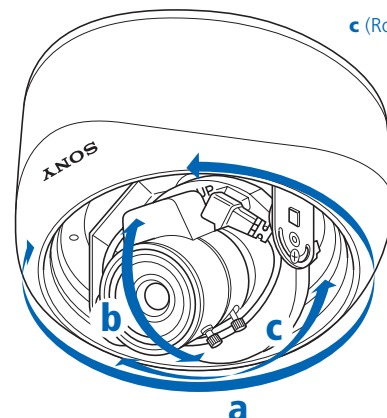


Fig. 2 Adjustment range of lens angle



Ceiling Flush Mount (SSC-CD43VT)
*Optional YT-ICB43V in-ceiling bracket is required.



Ceiling Surface Mount (SSC-CD43VT)

Built-in Twisted Pair Video (NVT) Transmitter

(SSC-CD73VT and SSC-CD43VT)

Incorporating an NVT twisted pair video transmitter, the SSC-CD73VT and SSC-CD43VT mini domes allow for easy cabling using unshielded twisted pair (UTP) cables.

Easy Mounting and Installation

Picture adjustment after installation is easy thanks to the incorporated lens. The position of the mini dome's vari-focal lens can be freely rotated to allow for quick and easy changes in the viewing area after installation. (see Fig. 2)

External Sync Line Lock (for AC only)

All of these mini dome cameras feature AC line lock for external synchronization. Using the AC power frequency (60 Hz) as the vertical sync reference, roll-free switching for multi-camera installations can be achieved. These cameras also have an externally adjustable Vertical Phase ($\pm 90^\circ$) control so that accurate synchronization can be attained.

AC 24 V/DC 12 V Operation

Either AC 24 V or DC 12 V is selected automatically for proper operation.

AGC/Turbo AGC™

The AGC (Automatic Gain Control) function boosts the camera's video gain so that subjects under low illumination can be distinguished clearly. The AGC mode for the SSC-MD53V and SSC-MD33V mini domes is switchable from Turbo AGC (up to 24 dB)/Normal AGC (up to 18 dB) or Off. The SSC-CD73V/CD73VT and SSC-CD43V/CD43VT mini domes are switchable from Turbo AGC (up to 24 dB) or Off.

BLC ON/OFF

Center weighted backlight compensation is incorporated to make the subject more visible under backlight conditions.

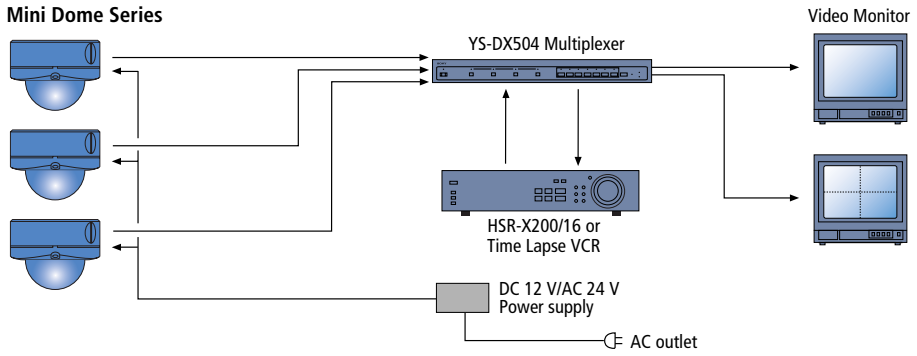
Wide Range ATW

The Automatic Tracing White (ATW) feature automatically adjusts the camera's white balance in accordance with any changes in lighting conditions and different illuminants. This provides the appropriate color balance for an image. These cameras provide an extremely wide ATW range allowing adjustment-free operation under a variety of lighting conditions:
SSC-CD73V/CD73VT – 2,000°K to 10,000°K
SSC-CD43V/CD43VT – 2,200°K to 10,000°K.

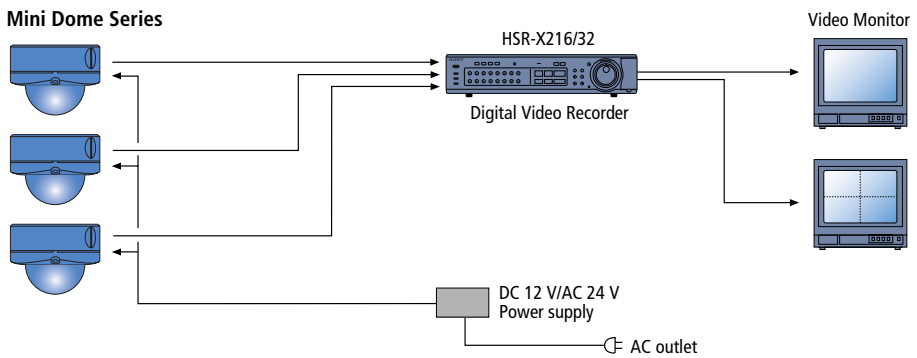
TYPICAL SYSTEMS

Multiple Camera Operation

Fixed Mini Dome Series

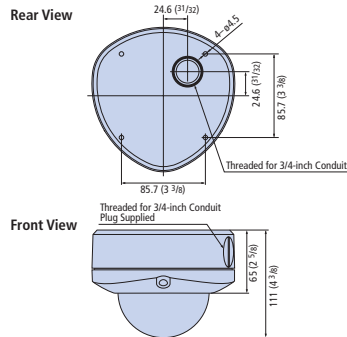
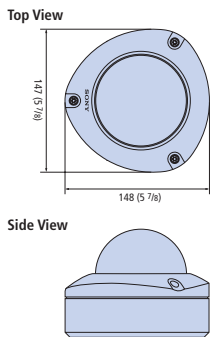


Fixed Mini Dome Series

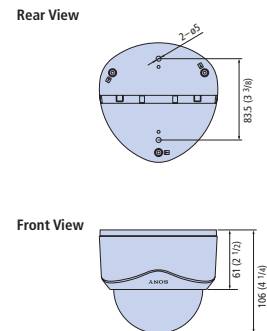
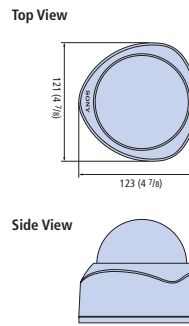


DIMENSIONS

SSC-CD73V/CD73VT

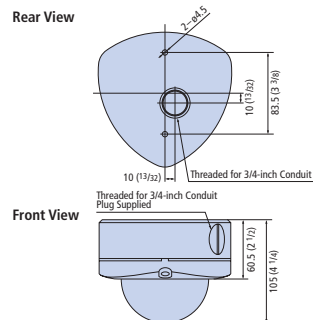
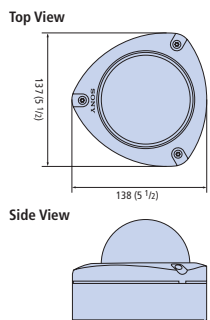


SSC-CD43V/CD43VT

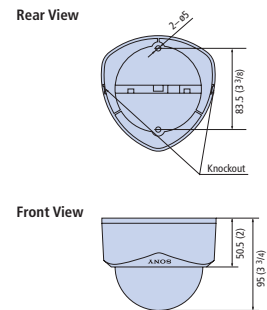
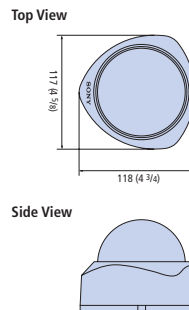


Unit: mm (inches)

SSC-MD53V



SSC-MD33V



Unit: mm (inches)

SPECIFICATIONS

	SSC-CD73V/CD73VT	SSC-CD43V/CD43VT	SSC-MD53V	SSC-MD33V
Type	Ruggedized	Non-ruggedized	Ruggedized	Non-ruggedized
Signal system	NTSC	NTSC	EIA	EIA
Image device	1/4 type Super HAD CCD			
Effective picture elements	768 (H) x 494 (V)			
Horizontal resolution	480 TV lines (SSC-CD73V only)	480 TV lines (SSC-CD43V only)	570 TV lines	570 TV lines
Minimum illumination	Color: 0.4 lx at F1.0 (30 IRE, AGC ON)	0.4 lx at F1.0 (30 IRE, AGC ON)	–	–
	0.9 lx at F1.0 (50 IRE, AGC ON)	0.8 lx at F1.0 (50 IRE, AGC ON)	–	–
	B&W: 0.1 lx at F1.0 (30 IRE, AGC ON)	–	0.2 lx at F1.4 (30 IRE, AGC ON, clear cover)	
	0.2 lx at F1.0 (50 IRE, AGC ON)	–	0.4 lx at F1.4 (50 IRE, AGC ON, clear cover)	
S/N ratio	More than 50 dB (AGC OFF, Weight ON)			
Built-in lens	Vari-focal auto iris lens, CS-mount	Vari-focal auto iris lens, CS-mount	Vari-focal auto iris lens	Vari-focal auto iris lens
Focal length	f=3.0 to 8.0 mm	f=3.0 to 8.0 mm	f=2.8 to 5.8 mm	f=2.8 to 5.8 mm
Maximum relative aperture	F1.0	F1.0	F1.4	F1.4
Minimum object distance	0.2 m			
View angle	W=84.6° (D), 66.6° (H), 49.3° (V) T=33.8° (D), 27° (H), 20.2° (V)	W=84.7° (D), 66.6° (H), 49.3° (V) T=33.6° (D), 26.9° (H), 20.1° (V)	W=95.7° (D), 75.9° (H), 56.4° (V) T=47.3° (D), 37.8° (H), 28.4° (V)	
White Balance (WB)	ATW	ATW	–	–
AGC	Turbo AGC (up to 24 dB)/OFF switchable		Turbo AGC (up to 24 dB)/Normal AGC (up to 18 dB)/OFF switchable	
Back-Light Compensation (BLC)	ON (Center measured)/OFF switchable			
CCD IRIS	1/60 to 1/100000 s		–	–
Sync system	Internal or AC line lock (for AC 24 V)			
Video out	BNC, 1.0 Vp-p, 75 Ω, sync negative (SSC-CD73V)	BNC, 1.0 Vp-p, 75 Ω, sync negative (SSC-CD43V)	BNC, 1.0 Vp-p, 75 Ω, sync negative	
	UTP, 1.0 Vp-p, 100 Ω, sync negative (SSC-CD73VT)	UTP, 1.0 Vp-p, 100 Ω, sync negative (SSC-CD43VT)	–	
Operating temperature	-20 °C to +50 °C (-4 °F to +122 °F)			
Storage temperature	-40 °C to +60 °C (-40 °F to +140 °F)			
Operating humidity	20% to 80% (non condensing)			
Storage humidity	20% to 95% (non condensing)			
Power requirements	AC 24 V ±10%, 60 Hz or DC 12 V ±10% (Automatically switched)			
Power consumption	3.6 W	3.3 W	2.3 W	
Weight	Approx. 2 lb 10 oz (1,150 g)	Approx. 16 oz (440 g)	Approx. 1 lb 14 oz (870 g)	Approx. 11 oz (320 g)
Dimensions (W x H x D)	5 7/8 x 4 3/8 x 5 7/8 inches (147 x 111 x 148 mm)	4 7/8 x 4 1/4 x 4 7/8 inches (121.3 x 106.8 x 122.5 mm)	5 1/2 x 4 1/4 x 5 1/2 inches (137 x 105 x 138 mm)	4 5/8 x 3 3/4 x 4 3/4 inches (117 x 95 x 118 mm)
Supplied accessories	Screw TP4 x 30 (4), Monitor cable (1), Screwdriver (1), External control terminal connector (1), Operating Instructions (1)	Screw TP4 x 30 (2), Dome cover screw (1), Monitor cable (1), Operating Instructions (1)	Screw TP4 x 32 (2), Monitor cable (1), Screwdriver (1), Operating Instructions (1)	Screw TP4 x 20 (2), Monitor cable (1), Operating Instructions (1)

OPTIONAL ACCESSORIES



YT-ICB73V

In-ceiling bracket for SSC-CD73V/CD73VT

YT-ICB43V

In-ceiling bracket for SSC-CD43V/CD43VT

YT-ICB53V

In-ceiling bracket for SSC-MD53V

YT-ICB33V

In-ceiling bracket for SSC-MD33V



YT-LDC53V

Clear dome cover for SSC-MD53V

YT-LDC33V

Clear dome cover for SSC-MD33V

SONY

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