

VDA110 Series

VDA110 Series SUPER DOME cameras open a new concept of international standard taking care of user friendly mechanisms required for professional installations and up-to-the minute camera performances. Having this one type dome design, users can have a suitable choice from its wide range of applications enjoying the best quality at any situation. See the details of applications and points of advantages below.

Common Features

- I. For All VDA110 Series
- II. For VDA110WD (Wide Dynamic Range) series
- III. For VDA110xx-xxDN (True Day/Night) series
- IV. For VDA110xx-xxIR (True Day/Night) series

I. For All VDA110 Series

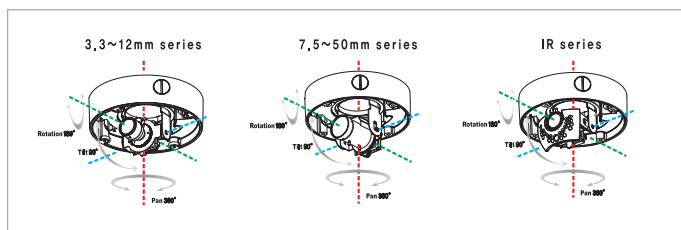
1. Advantageous ways of installation

A. Tool-free 3-Axis mounting mechanism

One-stop quick & easy installation to any location and to any application you want!

- Perfect Tri-axis!
- Panning axis up to 360 degree
 - Tilting axis up to 90 degree
 - Rotation axis up to 180 degree

No need to use a tool for adjustment!
All adjustments are done quick and easy with hand!

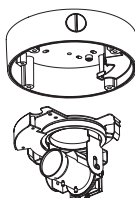


Note: Angle adjustment from each of 3 different axes can be positioned to its maximum angle of view so that the camera gets the full central picture at any location.

B. Separatable camera set

Pre-installation of the Dome base!
Dome base can be installed in advance where Construction is not completed or for customized system integration

Interchangeable camera set for the change!
If it is necessary to change or renew the camera after the installation, there is no need to take off the whole product and cabling. Just change the camera set with two locking screws on and off within a minute.



C. Save cost and time for the maintenance of dome

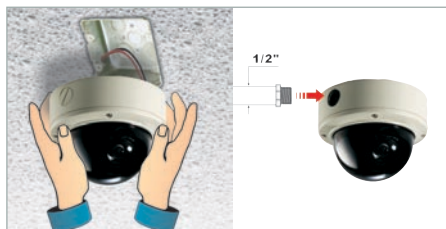
The dome cover is rotated by hand!
When the dome clear part in front of the lens has a scratch or contamination, the whole part of the dome cover set had to be disassembled for a renewal of the clear part in conventional dome cameras. VDA110's dome cover is rotated by hand to eliminate the complicated procedures. Just turn the cover to a clear position when the window part is damaged. No professional workmanship is required. IP66 weatherproof is valid after rotation!



D. Industrial standard mounting arrangement

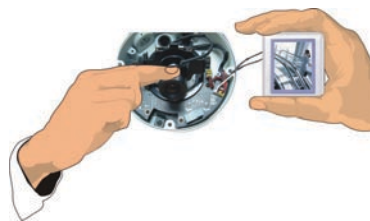
Compatible to the industrial standard 2-gangs junction box
The mounting hole is compatible to the standard electric junction box for a quick and easy installation.

1/2" standard conduit hole
Pipe insertion from the side or from the back of the dome is provided.



E. Additional service monitoring output

Additional Video Output terminal is provided so that the installer can adjust the zoom/focus and functioning control on the spot.



2. Perfect protection from all kinds of conceivable dangers



A. Vandal-proof

The body is made of 4.0mm thick die-cast and the dome made of 2.2mm thick polycarbonate to be protective from a high impact of vandalism on the dome.

B. Tamper resistant

The dome is secured with a tailor-made stainless steel safety screws. (Option)

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C. Free from Shock and Vibration

The tool-free internal 3-axis mounting mechanism is strong enough to hold the camera set against severe vibration or shock on the dome.

D. Rust free against salty environment

The VDA110 is fully protected from a salt mist environment with hard salty-water resistant coating.

E. Dust and Moisture free (IP66 Weatherproof)

The unit is duly passed IP66 international weatherproof standard, allowing the camera free from moisture and dust.

F. Fire resistant

Hard die-cast body and fully metallic internal camera mount mechanism is designed to be totally protective from fire breaks or fire interception.
1/2" Conduit-holes are provided for fire resistant cable management.

G. Perfect Surge voltage protection

Extra fuse for surge protection

The VDA110 builds-in a highly reliable surge absorptive circuit so as to protect the camera from an excessive voltage input. Moreover, it has an extra interchangeable fuse at the entrance of the power circuit to cut off any voltage shock before the power gets into the camera's power circuit.



H. Protection from extreme temperature range of 40°F~122°F (-40°C ~ + 50°C)

Plug and Play Heater option (Model : VDA110-Heater)

The VDA110 provides a highly reliable heater option for an application of area where the temperature comes down to -40°C cold.



3. Dual switching power (w/Auto Line-lock)

The unit builds in highly efficient switching power control that self configures 12VDC or 24VAC input and 24VAC line pulse automatically (Automatic line-lock). Double insulated power design guarantees no ground loop when used with multiple cameras and system equipments together through one power source.

II . For VDA110WD (Wide Dynamic Range) series

State-of-the-art image enhance technologies

A. Color to B/W image conversion for 24 hours clear view Day/Night image switching

The image is converted to a real B/W mode from Color at 5 lux darkness. This function effectively enhances the resolution up to 540TVL (Night) from 480TVL (Day), removes color signal noises and increases the sensitivity like in the real B/W camera.



True color at Day



Real B/W at Night

B. Powerful Wide Daynamic range

Light level is controllable with provided easy-to-use OSD menu that enables the camera can ideally be set up for the most of different levels of backlit or contrast lighting situations.



C. The Maximum sensitivity with the best sensor and the latest technology

Used with the latest Sony Double scan CCD sensor, the VDA110WD provides the highest light sensitivity of 0.2 Lux/F1.6. In addition the built-in Day/Night function completely removes the color signal noises for an ultra clear night time image quality.



Normal



VDA110WD

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D. Wide range of Automatic White Balance (1,800°K~ 10,500°K)

The VDA110WD's Automatic White Balance provides an extensive range of color temperature control that covers from 1,800°K to 10,500°K, generating a natural color image without being red or blue in varying light conditions.



Bad WB

Good WB

E. Digital Slow Shutter (DSS)

The DSS function allows the camera can display the bright image even in extreme darkness.



2X

60X

128X

Important Tips:

IR Distance can be extended twice longer when <DSS> is set 2x ~ 6 xs.

Caution: When DSS is adjusted for more than 8 times(8x), the picture become more bright but the frame rate is relatively become slower resulting in the picture become slow motioned.

F. Camera ID setting

Users can use the camera identification (Camera ID) to assign a name of the camera.

The camera ID consists of up to 15 alphanumeric characters.

G. Digital Zoom (1.5x, 2x, 3x)

The screen can be digitally zoomed with provided OSD control.



1.5x

2x

3x

H. Privacy zone masking

When the unit is observing a wide area the captured image can be masked for privacy purposes.

Users can easily configure the size and position of the required privacy zones.



III . For VDA110xx-xxDN (True Day/Night) series

A. True Day & Night image conversion for 24 hours clear view



True Day/Night switching

The image is converted to B/W mode from Color and the IR cut filter is automatically removed at 5 lux darkness.



True Color with a Blue filter/Precise focus with IR filter

This dual filter mechanism is uniquely designed to have a blue filter in daytime for a precise color reproduction and to have an IR focus corrective filter at nighttime so that there is no focus shift when the IR lights are activated.

B. Greatly improved Day & Night response

Does the picture converts itself between color and b/w at the right time exactly and is the IR illumination on and off at the same time as well?

A new technology of Day and Night control is added to this device. An accurate control of image conversion and a precise operation of day & night filter movement at the right moment, gives a reliable image capturing capability in Color mode at daytime and in B/W mode at nighttime.



C. Clear image quality under IR illumination

Does IR responded image clear?

When IR illumination is combined, the IR responded image becomes defocused. This unit incorporates a clear solution for this conventional problem. The image quality of this unit is absolutely sharp and clear under IR lights in operation.



Defocused image
under IR illumination

Clearly focused
from VDA110 cameras

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IV. For VDA110xx-xxIR (True Day/Night) series

*Note
IR Series basically incorporate the functions of DN Series cameras and have the following important features in addition.

A. Intelligent image compensation against IR saturation

Can you recognize the picture when the object is getting closer to a strong IR illumination?

A new image processing technology is adapted to eliminate the 'WHITE OUT' problem. Now the picture is automatically processed so that the camera can observe recognizable objects instead of seeing all white saturation.



Image from Conventional IR cameras

Self-compensated IR image from VDA110 IR cameras

B. Non-IR reflection

Does IR lightings are reflecting?

Unlike conventional IR LEDS integrated dome cameras; this unit provides a smart mechanism that eliminates IR reflections. Users can easily set up the camera's position without having a big hassle for eliminating IR reflection.



IR reflection

No reflection

>> Models optionable

Series	CCD	H. Resolution(TVL)	Lens	M. illumination	DN/IR	Power
VDA100DZ-10	1/4" Sony Super HAD	500(D) / 570(N)	A / F, Optical 10x (f3.8-38mm) / Digital 10x	0.0007Lux / F1.8(Sens-up)	DN - TDN w / ICR	12VDC / 24VAC
VDA100DZ-30	1/4" Dual Scan CCD / WDR	520(D) / 570(N)	A / F, Optical 30x (f3.3-99mm) / Digital 8x	0.0006Lux / F1.6(Sens-up)	DN - TDN w/ICR	12VDC / 24VAC
VDA110WD	1/3" Dual Scan CCD / WDR	500(D) / 550(N)	3.3-12mm DC Iris	0.0001Lux / F1.3(DSS On)	1. DN - TDN w / ICR 2. IR - IR x 21ea1	1. 12VDC 2. 12VDC / 24VAC
			7.5-50mm DC Iris		DN - TDN w / ICR	
VDA110HQ	1/3" Sony Super HAD II / SS-HQ1	560(D) / 600(N)	3.3-12mm DC Iris	0.1Lux / F1.3	1. STD - DN, No ICR 2. DN - TDN w / ICR 3. IR - IR x 21ea	1. 12VDC 2. 12VDC / 24VAC
			7.5-50mm DC Iris		1. STD - DN, No ICR 2. DN - TDN w / ICR	
VDA110CSHR	1/3" Sony Super HAD II / SS-11X	500(D) / 560(N)	4-9mm DC Iris	0.1Lux / F1.3	1. STD - DN, No ICR 2. DN - TDN w / ICR 3. IR - IR x 21ea	1. 12VDC 2. 12VDC / 24VAC
			3.3-12mm DC Iris		STD - DN, No ICR	
			7.5-50mm DC Iris		STD - DN, No ICR	
VDA110TH	1/3" Sony Super HAD / DNR	530(D) / 570(N)	4-9mm DC Iris	0.0002Lux / F1.3(Sens-up)	STD - DN, No ICR	1. 12VDC 2. 12VDC / 24VAC
			3.3-12mm DC Iris			
			7.5-50mm DC Iris			

Product Information

VDA110WD is a WDR day/night camera specially designed for the professional Day/Night surveillance. At daytime, the camera features a 500TVL Color image and at nighttime, the image is converted into real B/W mode (Color signal removed) resulting in the resolution and sensitivity greatly enhanced. The unique wide dynamic technology with smart & easy-to-use OSD settings provide users with always the optimum solution for the best image quality at various situations. The camera incorporates an Intelligent CDS sensor and mechanical day/night dual filter system so that the filter accurately switched on and off with the image changed from Color to B/W or B/W to Color mode at a designated lux level by OSD. Specially designed power circuit enables the camera operates from DC11V to DC40V and from AC15V to AC30V maximizing the reliability of the unit from power fluctuations. This wide tolerance accepts most of unstable power supplies without failure before or after installation. It accepts either DC12V power supply or AC24V unit and with non polarity input.

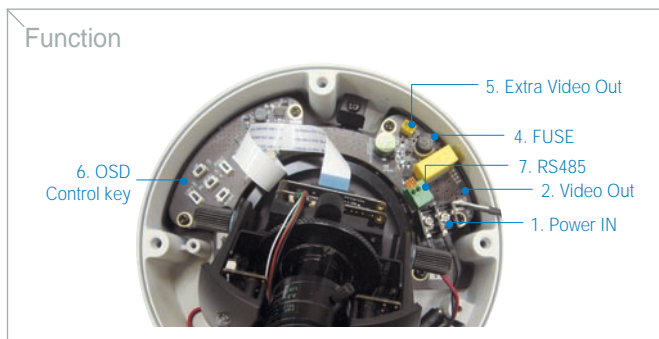


Special features for the model

- Super Wide Dynamic (sWDR)
- IR Sensitive mechanical Day/Night filter system built-in (ICR)

General features

- Greatly enhanced Sensitivity of 0.0001 Lux at F1.3
- High resolution of 500 TVL at Day/550 TVL at Night
- True Color at Day and Real B/W at Night image conversion
- Privacy image masking with free position : 4 Zones
- Easy-to-use OSD functions
- RS-485 (Pelco-D Protocol)
- Digital zoom(1.5X, 2X, 3X)
- Digital Slow Shutter (DSS)
- Protection from all kinds of conceivable dangers
 - Vandal-proof
 - Fire resistant
 - Dust and Moisture free (IP66 Weatherproof)
 - Tamper resistant
 - Free from Shock and Vibration
 - Rust free against salty environment
 - Perfect Surge voltage protection
 - Protection from extreme temperature range of 40°F ~ 122°F (-40°C ~ +50°C) – W/Additional heater
- Advantageous ways of installation
 - Tool-free 3-Axis mounting mechanism
 - Detachable camera set
 - Dome bubble rotation
 - Industrial standard mounting arrangement
 - Additional service monitoring output

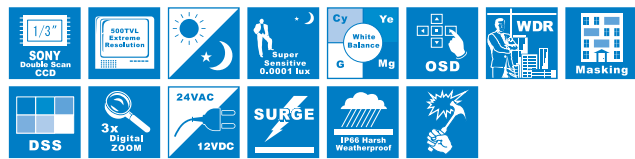


MODEL	VDA110WD-VFAL12DN / VDA110WD-VFAL50DN
Image sensor	1/3" Sony double scan CCD
Effective Pixels	NTSC : 768(H) x 494(V) PAL : 752(H) x 582(V)
H.Resolution	NTSC : 500 TV Lines (at Day) / 550 TV Lines (at Night) PAL : 490 TV Lines (at Day) / 540 TV Lines (at Night)
Synchronizing system	Internal / Line Lock
Scanning system	NTSC 525 Lines PAL 625 Lines 2:1 Interlaced
Video output	1.0Vp-p Composite 75 Ohms
S/N ratio	More than 48 dB (AGC Off)
Min. illumination	0.2 Lux at F1.3 (DSS off) / 0.0001 Lux at F1.3 (DSS on)
Back Light Compensation	ON/OFF by OSD
Shutter Speed	NTSC:1/60~1/100,000 sec PAL: 1/50 ~ 1/100,000 sec
Gamma correction	Standard $\gamma=0.45$
White Balance	2100°K ~ 9100°K Auto
Gain Control	ATW/Push Lock selectable by OSD Standard: -6dB ~ 42dB Auto / Maximum by OSD
Smear Effect	0.005%
Power source	DC12V / AC24V Dual power
Operating current	At 12VDC 240mA Max.- (Tol. 11VDC~40VDC) At 24VAC 120mA Max. - (Tol. 15VAC~30VAC)
Lens	3.3~12mm Varifocal lens / 7.5~50mm Varifocal lens
Iris Control	ESC / Auto by slide switch
Operating Temperature	14°F ~ 122°F (-10°C ~ +50°C)
Humidity	Within 90% RH
Measurement (mm)	164(D) x 121.5(L)
Weight (Approx.g)	1800
Mechanical	
IR sensitivity	Yes (IR Cut filter removable)
True Day/Night	Automatic change from Color (Day) to B/W (Night)
Filter change	With mechanical Filter change (a Blue filter built-in)
OSD Menu	
WDR	Auto/On/Off
White balance	Auto (ATW)/Push Lock/User selectable (Push: 1800°K~10,500°K)
Gain Control	Low, Middle, High, Off
Shutter speed	1/60 - 1/100,000 sec (NTSC), 1/50 - 1/100,000 sec (PAL)
Digital Slow Shutter	Off/2 x ~160 x (DSS)
Privacy Masking	On/Off (4 programmable zones)
Digital zoom	OFF, 1.5 x, 2 x, 3 x.

VDA110WD-VFAL12IR Wide Dynamic IR SuperDome camera

Product Information

VDA110WD is a WDR day/night camera specially designed for the professional Day/Night surveillance. At daytime, the camera features a 500TVL Color image and at nighttime, the image is converted into real B/W mode (Color signal removed) resulting in the resolution and sensitivity greatly enhanced. The unique wide dynamic technology with smart & easy-to-use OSD settings provide users with always the optimum solution for the best image quality at various situations. The camera incorporates an Intelligent CDS sensor and mechanical day/night dual filter system so that the filter accurately switched on and off with the image changed from Color to B/W or B/W to Color mode at a designated Lux level by OSD. Incorporated 21ea IR LEDs enable this unit to be watched out up to 30M at total darkness. Specially designed power circuit enables the camera operates from DC11V to DC40V and from AC15V to AC30V maximizing the reliability of the unit from power fluctuations. This wide tolerance accepts most of unstable power supplies without failure before or after installation. It accepts either DC12V power supply or AC24V unit and with non polarity input.

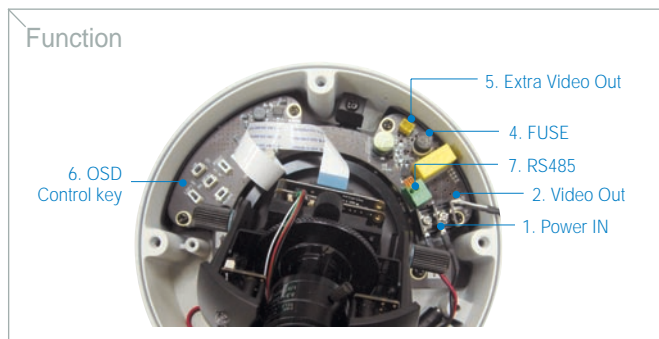


Special features for the model

- 3.3~12mm Varifocal Lens
- Super Wide Dynamic (sWDR)
- IR Sensitive mechanical Day/Night filter system built-in (ICR)
- Long IR Beam Distance : up to 30M View at "0" Lux
- IR spectrum 850nm-30° x 21ea

General features

- Greatly enhanced Sensitivity of 0.0001 Lux at F1.3(Without LED)
- High resolution of 500 TVL at Day/550 TVL at Night
- True Color at Day and Real B/W at Night image conversion
- Privacy image masking with free position : 4 Zones
- Easy-to-use OSD functions
- RS-485 (Pelco-D Protocol)
- Digital zoom(1.5X, 2X, 3X)
- Digital Slow Shutter (DSS)
- Protection from all kinds of conceivable dangers
 - Vandal-proof - Fire resistant
 - Tamper resistant
 - Dust and Moisture free (IP66 Weatherproof)
 - Free from Shock and Vibration
 - Rust free against salty environment
 - Perfect Surge voltage protection
 - Protection from extreme temperature range of 40F ~ 122F (-40°C ~ +50°C) - W/Additional heater
- Advantageous ways of installation
 - Tool-free 3-Axis mounting mechanism
 - Detachable camera set - Dome bubble rotation
 - Industrial standard mounting arrangement
 - Additional service monitoring output



MODEL	VDA110WD-VFAL12IR
Image sensor	1/3" Sony double scan CCD
Effective Pixels	NTSC : 768(H) x 494(V) PAL : 752(H) x 582(V)
H.Resolution	NTSC : 500 TV Lines (at Day) / 550 TV Lines (at Night) PAL : 490 TV Lines (at Day) / 540 TV Lines (at Night)
Synchronizing system	Internal / Line Lock
Scanning system	NTSC 525 Lines PAL 625 Lines 2:1 Interlaced
Video output	1.0Vp-p Composite. 75 Ohms
S/N ratio	More than 48 dB (AGC Off)
Min. illumination	0.2 Lux at F1.3 (DSS off) / 0.0001 Lux at F1.3 (DSS on)
Back Light Compensation	ON/OFF by OSD
Shutter Speed	NTSC : 1/60~1/100,000 sec PAL : 1/50 ~ 1/100,000 sec
Gamma correction	Standard $\gamma=0.45$
White Balance	2100°K ~ 9100°K Auto
Gain Control	ATW/Push Lock selectable by OSD Standard: -6dB ~ 42dB Auto / Maximum by OSD
Smear Effect	0.005%
Power source	DC12V / AC24V Dual power
Operating current	At 12VDC 280mA(IR off-Day)/550mA(IR on Night) At 24VAC 200mA(IR off-Day)/350mA(IR on Night)
Lens	3.3~12mm Varifocal lens
Iris Control	ESC / Auto by slide switch
Operating Temperature	14°F ~ 122°F (-10°C ~ +50°C)
Humidity	Within 90% RH
Measurement (mm)	164(D) x 121.5(L)
Weight (Approx.g)	2000
Mechanical	
IR spectrum	850nm-30° x 21ea
True Day/Night	Color (Day)/B/W (Night)
Filter change	With mechanical Filter change (a Blue filter built-in)
OSD Menu	
WDR	Auto/On/Off
White balance	Auto (ATW)/Push Lock/User selectable (Push: 1800°K~10,500°K)
Gain Control	Low, Middle, High, Off
Shutter speed	1/60 - 1/100,000 sec (NTSC), 1/50 - 1/100,000 sec (PAL)
Digital Slow Shutter	Off/2 x ~ 160 x (DSS)
Privacy Masking	On/Off (4 programmable zones)
Digital zoom	OFF, 1.5 x, 2 x, 3 x.