

2.8-12mm, 90' IR Range

## PRODUCT FEATURES

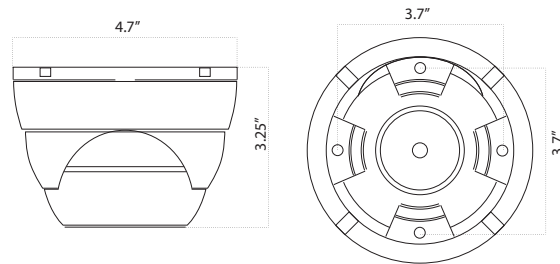
- 1/3" Sony CMOS Sensor
- Multi Format (TVI, CVI, AHD, 960H)
- 2.8 ~ 12mm Varifocal Lens
- Mechanical IR Cut Filter
- Cable & UTC OSD Control
- Digital Wide Dynamic Range - 3D DNR
- 90' IR Range / 18 IR LED's
- Sense-up / Northern Lights Technology
- 12 Volt DC Power / IP66 Weatherproof

## SPECIFICATIONS

Model No.	HDDWMVFIR	HDDWMVFIRW
Image Sensor	1/3" Sony CMOS Sensor	
Total Pixels	1984 x 1225	
Active Pixels	1920 x 1080	
Resolution	1920 x 1080 (1080p)	
Scanning System	Progressive Scan	
OSD (On Screen Display)	Dual OSD Access: Cable Mounted Joystick Controlled / UTC Controlled (coaxial control)	
Digital WDR (Wide Dynamic Range)	Auto / Off / On - 0 ~ 8 Adjustable	
DNR (Digital Noise Reduction)	2D & 3D, Low, Middle, High, Off	
Video Output	Dual Pigtail HD-TVI Main Output (yellow) / 960H Secondary Output (black)	
Lens Type - True Day Night	2.8 12mm Varifocal Lens	
Sense-up	Off / x2 ~ x30	
Shutter Speed	Auto, FLK, 1/30 ~ 1/50,000, x2 ~ x30	
IR Cut Filter	Built in Mechanical	
Minimum Illumination	0.0 Lux IR LED On	
IR LED Count / Range	18 IR LED's / 90' Range / 850nM	
S/N Ratio	More than 50dB	
Automatic Gain Control	0 ~100 Adjustable	
Sync System	Internal	
Gamma Characteristics	y = 0.45 typ.	
White Balance	ATW / AWC->Set / Indoor / Outdoor / Manual	
Back Light Compensation	Off / BLC / HSBLC	
HBLC (High Back Light Compensation)	On / Off	
Day/Night	EXT / Auto / Color / B/W	
Mirror	Mirror / V-Flip / Rotate / Off	
Languages	English, French, Spanish, German, Italian (see OSD Menu for more)	
Brightness	0 ~100 Adjustable	
Motion Detection	On/Off (4 Zone Selectable)	
Privacy Mask	On/Off (4 Zone Selectable)	
Power Input	12VDC Only	
Power Requirement	180mA / 550mA IR LED ON	
Overall Camera Dimensions	4.7" x 3.4" (120mm x 88mm)	
Housing / Color	Aluminum - Gray	Aluminum - White
Weight	1.6 Lb.	
Operating Temperature	-14°F ~ 122°F	
Weatherproof Rating	IP66	

\* All specifications subject to change without notice for quality improvement.

## CAMERA DIMENSIONS / LINE ART



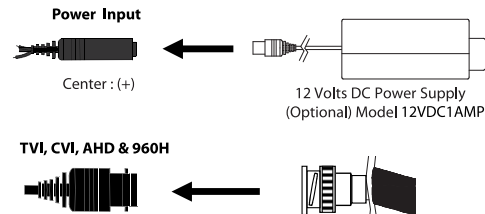
## CAMERA COMPONENT DESCRIPTIONS



## CAMERA CABLE CONNECTION

Insert power lead into power connector (insure proper voltage is supplied and observe polarity).

Insert video lead into BNC connector (push, then twist to lock BNC connector in place).



Use In-Line OSD control to select format:

- 960H Mode** : Push OSD LEFT for 5 seconds
- AHD Mode** : Push OSD RIGHT for 5 seconds
- CVI Mode** : Push OSD UP for 5 seconds
- TVI Mode** : Push OSD DOWN for 5 seconds

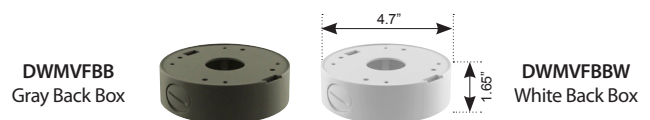
## OSD CONTROL

Press the Joystick button on the cable mounted OSD control to access the OSD menu.

**In-Line Cable Mounted OSD Control**



## AVAILABLE ACCESSORIES



## PACKAGE CONTENTS

- (1) Camera
- (1) Mounting Hardware Packet
- (1) User Manual

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## OSD MENU TREE

OSD Menu	Lens	Manual		
	Exposure	Shutter	Auto, FLK, 1/30 ~ 1/50,000, x2 ~ x30	
		AGC	0 ~ 15 Adjustable	
		Sens-up	Off / Auto (x2, x4, x6, x8, x10, x15, x20, x25, x30)	
		Brightness	0 ~ 100 Adjustable	
		D-WDR	Auto / Off / On - 0 ~ 8 Adjustable	
		Defog	Off / Auto - Position/Size, Gradation (1 ~ 2)	
	Backlight	Off		
		BLC	High, Middle, Low - Area Adjustable	
		HSBLC	Display	On/Off 4-Area Position & Size Adjustable
			Blk. Mask	On/Off
			Level	0 ~ 100 Adjustable
	Mode		All Day / Night, 0 ~ 255 Adjustable	
	White Bal	ATW	ATW	
		AWC ->Set	AWC ->Set	
		Indoor	Indoor	
		Outdoor	Outdoor	
		Manual	Red & Blue, 0 ~ 100 Adjustable	
	Day & Night	Color		
		EXT	D->N	3 ~ 60 Adjustable
			N->D	3 ~ 60 Adjustable
		Auto	D->N	AGC - 1 ~ 240 Adjustable
			D->N	Delay - 1 ~ 60 Adjustable
			N->D	AGC - 1 ~ 240 Adjustable
			N->D	Delay - 1 ~ 60 Adjustable
		B&W	Burst,	Off-On
	IR Smart		Off-On Level & Size Adjustable	
	NR	2DNR	Low, Middle, High, Off	
		3DNR	Low, Middle, High, Off	
	Special	Cam Title	Off / On 15 Characters Available	
		D-Effect	Freeze	On/Off
			Mirror	Mirror / V-Flip / Rotate / Off
			Neg. Img	On / Off
		Motion	Off	
			On	4 Area - Sensitivity, Size, Position Color & Transparency Adjustable
		Privacy	Off	
			On	4 Area - Sensitivity, Size, Position Color & Transparency Adjustable
		Language	English, French, Spanish, German, Italian, Polish, Russian, Portugese, Netherlands, Turkish, Korea, Japan, Hebrew, Arabic, Chinese 1 & 2	
		Defect	Live DPC	
	White DPC			
	Black DPC			
	Sharpness	Off / Auto (Level 1 ~ 10 Adjustable, Start AGC & End AGC Adjustable)		
	Adjust	Monitor	CRT	Blue & Red Gain 0 ~ 100 Adjustable
			LCD	Gamma (User, .45 ~ 1.0 Adjustable) / Blue & Red Gain 0 ~ 100 Adjustable
	LSC	Off / On		
	Video Out	NTSC / PAL		