

HD-SDI Camera Line Up

	10x/20x/30x AF Lens	3x AF Lens	Varifocal Lens		Fixed Lens	HDMI
			30p	60p		
Image						
Model#	WTK-M302/202	MP-032	MP-120		BF-M11-24	MB-202
Features	HD IR Heavy Outdoor PTZ Camera	HD 3x AF Indoor Dome Camera	HD Indoor Dome Camera		HD Mini Bullet Camera	HDMI 20x AF Box Camera
Image						
Model#	WCA-M302/202	MP-032R	MP-120R	MP-130R	DF-M11-12	MB-302
Features	HD IR Outdoor PTZ Camera	HD 3x AF IR Indoor Dome Camera	HD IR Indoor Dome Camera		HD Indoor Dome Camera	HDMI 30x AF Box Camera
Image						
Model#	EXP-M302/202	MV-032	MV-120		FlatP-M12	MB-303
Features	HD Explosion Proof PTZ Camera	HD 3x AF Outdoor Dome Camera	HD Outdoor Dome Camera		HD Interior Flat Camera	HDMI 30x AF Box Camera
Image						
Model#	TSO-M302/202	MV-032R	MV-120R	MV-130R	FlatV-M12	MS-101
Features	HD Speed PTZ Dome Camera	HD 3x AF IR Outdoor Dome Camera	HD IR Outdoor Dome Camera		HD Exterior Flat Camera	HDMI Mini Box Camera
Image						
Model#	WMK-M302/202	MB-032T	IRV-M12-36	IRV-M13-36	MV-110	MS-103
Features	HD Twin Motorized Zoom IR PTZ Camera	HD 3x AF Box Camera	HD Varifocal IR Bullet camera		HD Mini Outdoor Camera	HDMI Mini Box Camera
Image						
Model#	EWSJ-M202	IRZ-M032-5	MB-12	MB-13		MS-300
Features	HD Integrated Outdoor Speed Dome Camera	HD 3x AF IR Bullet Camera	HD Box Camera			HDMI 3x AF Box Camera
Image						
Model#	PS/O-M102					
Features	HD 10x AF Mini Speed Dome Camera					

WTK-M302

2MP x30 Zoom HD-SDI IR Rugged PTZ Camera

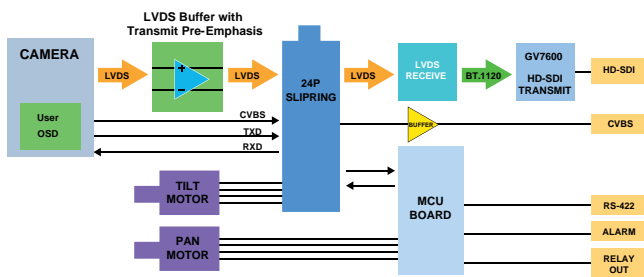
HD-SDI



FEATURES

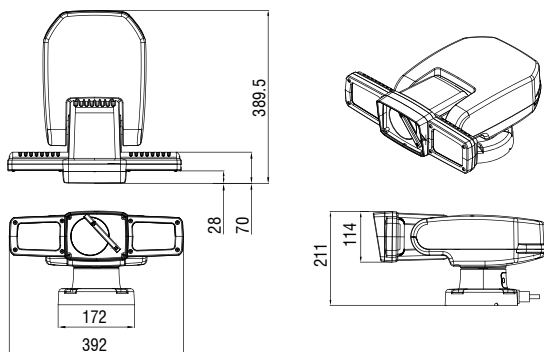
- 1/2.8" Panasonic New Generation CMOS
- Using progressive scan and Auto WDR
- x30 optical zoom and F1.6 aperture (optical zoom + digital zoom = x960).
- Good at low-light environments using the Noise Reduction function.
- Defog : Defogging Video Image
- Auto ICR
- Up to 255 preset positions.
- Variable speed control for all motorized functions.
- 360° unobstructed rotation using the heavy duty long life slip ring.
- All weather, lightweight, high impact aluminum die-cast enclosure(IP66).
- Built-in wiper system for constant load and reduced noise.
- Built-in Super IR LED 30pcs. (Light distance 200m / manual focusing)
- Smart IR response by Auto Light Control (100 steps)

Block diagram



DIMENSIONS

Unit : mm



- Auto pan with 16steps
- x30 Mega pixel zoom
- Light distance 200m
- HD-SDI(SMPTE 292M)
- Built in wiper system

SPECIFICATIONS

MECHANICAL		
Pan	Angle	360° Continuous pan
	Manual Speed	0.1° to 90°/sec (64 step proportional to zoom)
	Preset Speed	150°/sec, ±0.1° Accuracy
Tilt	Angle	180°(±90°)
	Manual Speed	0.1° to 90°/sec (64 step proportional to zoom)
	Preset Speed	150°/sec, ±0.1° Accuracy
Dimensions	392(W) x 211 (H) x 389.5 (D)	
Weight	Approximately 11.6Kg	
Motor	Holding Torque	13.5Kgf/cm, 1.35N.m
	Step Angle	1.8° Deg.
	Winding Type	Bipola

ENVIRONMENTAL		
Ingress Protection	IP66	
Construction	Aluminum	
Temperature	Operating	-20°C to 50°C
	Storage Temp	-20°C to 60°C
Temperature	Fan	-10°C to 40°C (4 step control)
	Heater	-10°C to 0°C (4 step control)
Operating Control	Humidity	50% to 90% (4 step control)

COMMUNICATION		
PTZ Control	Method	RS-422(4 wire), RS-485(2 wire)

ELECTRICAL		
Power	Voltage	DC11.5V ~ DC30V
	Current	DC15V,8A
	Heater / Fan	10W, 3.4W

VIDEO		
Video Output	HD-SDI - 1 channel	(1080i60, 1080p30, 720p60, 1080i50, 1080p25, 720p50)
	CVBS - 1 channel	

IR ILLUMINATION		
IR LED	Length	200m (Manual Focusing)
	Power	OSRAM 870n, 1W, 30EA

CAMERA		
Image	1/2.8" Panasonic New Generation CMOS	
Picture elements	1920 x 1080 pixels	
Lens	x30 zoom f = 4.3 mm (WIDE) ~ 129 mm (TELE), F1.6 to F5.0	
Digital zoom	x32 (x960 with Digital zoom)	
Angle of view (H)	Approx. 65.1° degrees (WIDE end), approx. 2.34° degrees (TELE end)	
Min. working distance	100 mm (WIDE end), 800 mm (TELE end)	
Sync system	Internal	
Min. illumination	Color : 0.5 lux , BW : 0.1lux / Color DSS : 0.002 lux , BW DSS : 0.001 lux	
Recommended illumination	100 to 100,000 lux	
S/N ratio	50 dB (Weight ON)	
Back light compensation	ON/OFF	
Electronic shutter speed	1/30(25) ~ 1/60,000 sec	
White balance	AUTO, ATW, Indoor, Outdoor, One Push WB,	
	Manual WB, Outdoor Auto, Sodium Vapor	
Gain	Auto/Manual (-3 dB to +28 dB, 16 steps)	
Wide dynamic range	ON/OFF/AUTO	
Noise reduction	ON/OFF (level 5 to 1 / OFF, 6 steps)	
Color Enhancement	ON/OFF	
Aperture control	16 steps	

WTK-M202

2MP x20 Zoom HD-SDI IR Rugged PTZ Camera

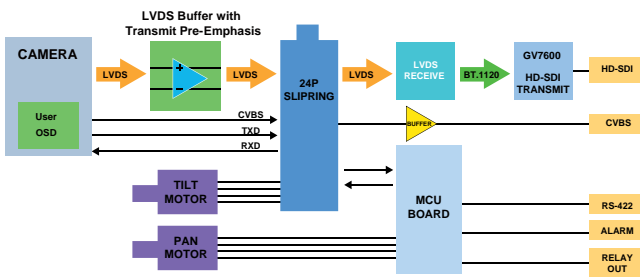
HD-SDI



FEATURES

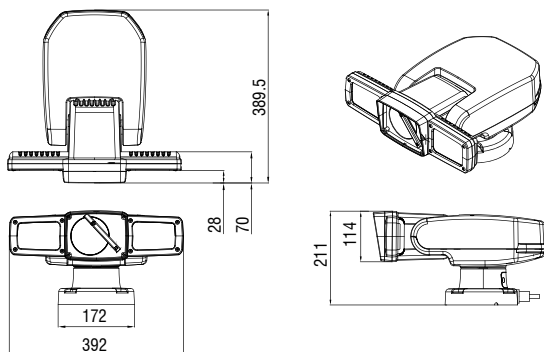
- 1/2.8" Panasonic New Generation CMOS
- Using progressive scan and Auto WDR
- x20 optical zoom and F1.6 aperture (optical zoom + digital zoom = x640).
- Good at low-light environments using the Noise Reduction function.
- Defog : Defogging Video Image
- Auto ICR
- Up to 255 preset positions.
- Variable speed control for all motorized functions.
- 360° unobstructed rotation using the heavy duty long life slip ring.
- All weather, lightweight, high impact aluminum die-cast enclosure(IP66).
- Built-in wiper system for constant load and reduced noise.
- Built-in Super IR LED 30pcs. (Light distance 200m / manual focusing)
- Smart IR response by Auto Light Control (100 steps)

Block diagram



DIMENSIONS

Unit : mm



- ❖ Auto pan with 16steps
- ❖ x20 Mega pixel zoom
- ❖ Light distance 200m
- ❖ HD-SDI(SMPTE 292M)
- ❖ Built in wiper system

SPECIFICATIONS

MECHANICAL		
Pan	Angle	360° Continuous pan
	Manual Speed	0.1° to 90°/sec (64 step proportional to zoom)
	Preset Speed	150°/sec, ±0.1° Accuracy
Tilt	Angle	180°(±90°)
	Manual Speed	0.1° to 90°/sec (64 step proportional to zoom)
	Preset Speed	150°/sec, ±0.1° Accuracy
Dimensions	392(W) x 211 (H) x 389.5 (D)	
Weight	Approximately 11.6Kg	
Motor	Holding Torque	13.5Kgf/cm, 1.35N.m
	Step Angle	1.8° Deg.
	Winding Type	Bipola
ENVIRONMENTAL		
Ingress Protection	IP66	
Construction	Aluminum	
Temperature	Operating	-20°C to 50°C
	Storage Temp	-20°C to 60°C
Temperature	Fan	-10°C to 40°C (4 step control)
	Heater	-10°C to 0°C (4 step control)
Operating Control	Humidity	50% to 90% (4 step control)
COMMUNICATION		
PTZ Control	Method	RS-422(4 wire), RS-485(2 wire)
ELECTRICAL		
Power	Voltage	DC11.5V ~ DC30V
	Current	DC15V,8A
	Heater / Fan	10W, 3.4W
VIDEO		
Video Output	HD-SDI - 1 channel (1080i60,1080p30,720p60,1080i50, 1080p25, 720p50) CVBS -1 channel	
IR ILLUMINATION		
IR LED	Length	200m (Manual Focusing)
	Power	OSRAM 870n, 1W, 30EA
CAMERA		
Image	1/2.8" Panasonic New Generation CMOS	
Picture elements	1920 x 1080 pixels	
Lens	x20 zoom f = 4.7 mm (WIDE) to 94.0 mm (TELE), F1.6 to F3.5	
Digital zoom	x32 (x640 with Digital zoom)	
Angle of view (H)	Approx. 59.9° degrees (WIDE end), approx. 3.1° degrees (TELE end)	
Min. working distance	100 mm (WIDE end), 800 mm(TELE end)	
Sync system	Internal	
Min. illumination	Color : 0.5 lux , BW : 0.1lux / Color DSS : 0.002 lux , BW DSS : 0.001 lux	
Recommended illumination	100 to 100,000 lux	
S/N ratio	50 dB (Weight ON)	
Back light compensation	ON/OFF	
Electronic shutter speed	1/30(25) ~ 1/60,000 sec	
White balance	AUTO, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor	
Gain	Auto/Manual (-3 dB to +28 dB, 16 steps)	
Wide dynamic range	ON/OFF/AUTO	
Noise reduction	ON/OFF (level 5 to 1 / OFF, 6 steps)	
Color Enhancement	ON/OFF	
Aperture control	16 steps	

WCA-M302

2MP x30 Zoom HD-SDI IR Outdoor PTZ Camera

HD-SDI

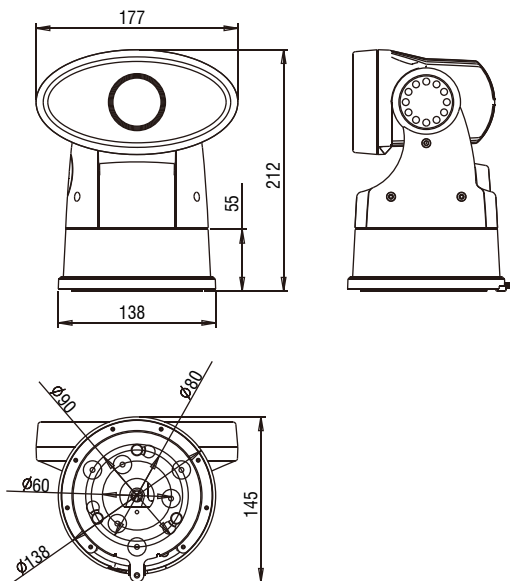


FEATURES

- 1/2.8" Panasonic New Generation CMOS
- Using progressive scan and Auto WDR
- x30 optical zoom and F1.6 aperture (optical zoom + digital zoom = x960).
- Good at low-light environments using the Noise Reduction function.
- Defog : Defogging Video Image
- Auto ICR
- 12pcs of 18ø IR LED(120m manual focusing)
- IP66 Outdoor Application
- Endless Pan rotation(TOP 15°~270°, BOTTOM 345°~90° tilt angle)
- Programmable Privacy Masking(2 Zones)
- Multiple protocol (WTX, PELCO-D V1, PELCO-P, PELCO-D V5)
- Mechanical Auto Flip
- Programmable Zoom Speed(Optional Update tool)
- The power ground and video ground in DC12V version is unified in common so that the power can be input from vehicle.

DIMENSIONS

Unit : mm



SPECIFICATIONS

MECHANICAL	
Pan	360° Endless Pan 0.1° to 45°/sec.
Pan Preset Speed	70°/sec, 0.5° Accuracy
Tilt	TOP 15°~270° , BOTTOM 345°~90° tilt angle, Proportional to zoom
Tilt Preset Speed	30°/sec, 0.5° Accuracy
Weight	Approximately 2.86kg
Dimensions	138(Ø) x 212(H) mm
ENVIRONMENTAL	
Construction	Aluminum
Ingress Protection	IP66
Operating Temp	-20°C to 50°C (Fan&Heater power ON)
Humidity	0% to 90%
FUNCTIONS	
Preset	63 points
Tour	8 programmable
Pattern	2 patterns
Flip	Mechanical / Auto / Off (Rotate 90° at bottom of tilt)
Auto Scan	4 (programmable speed and diagonal scan)
Privacy Zone	2 blocks with title (Masking / Video off)
Address	Up to 255 selectable ID (Rotary switch)
Data Communication	RS-485 / RS-422
Protocol	Multiple protocol(WTX, PELCO-D V1, PELCO-P, PELCO-D V5)
Baud rate	2400, 4800, 9600, 19200, 38400 ,57600, 115200 bps
Alarm In /Alarm Out	2 alarm (NO/NC, Priority) / 2 relay out (Hold, Latch)
Display	Zone title on/off (start / end zone)
ELECTRICAL	
Power	24V AC / 12V DC Dual power. (Power adaptor not included) IR : 1.9A (23W) (Fan &Heater ON) @ 12V DC, 0.9A @ 24V AC
Light	12pcs of 18ø IR LED
Light distance	120m (manual focusing)
VIDEO	
Video Output	HD-SDI - 1 channel (1080i60,1080p30,720p60,1080i50, 1080p25, 720p50) CVBS -1 channel
CAMERA	
Image	1/2.8" Panasonic New Generation CMOS
Picture elements	1920 x 1080 pixels
Lens	x20 zoom f= 4.7 mm (WIDE) to 94.0 mm (TELE), F1.6 to F3.5
Digital zoom	x32 (x640 with Digital zoom)
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Sync system	Internal
Min. illumination	Color : 0.5 lux , BW : 0.1lux / Color DSS : 0.002 lux , BW DSS : 0.001 lux
Recommended illumination	100 to 100,000 lux
S/N ratio	50 dB (Weight ON)
Back light compensation	ON/OFF
Electronic shutter speed	1/30(25) ~ 1/60,000 sec
White balance	AUTO, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor
Gain	Auto/Manual (-3 dB to +28 dB, 16 steps)
Wide dynamic range	ON/OFF/AUTO
Noise reduction	ON/OFF (level 5 to 1 / OFF, 6 steps)
Color Enhancement	ON/OFF
Aperture control	16 steps

WCA-M202

2MP x20 Zoom HD-SDI IR Outdoor PTZ Camera

HD-SDI

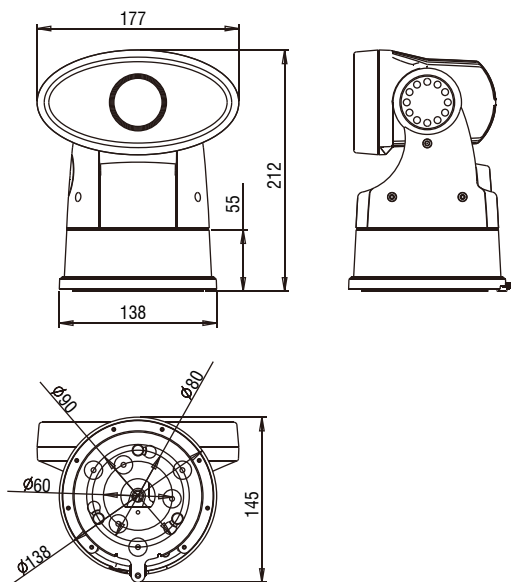


FEATURES

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DIMENSIONS

Unit : mm



SPECIFICATIONS

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Tilt Preset Speed	30°/sec, 0.5° Accuracy
Weight	Approximately 2.86kg
Dimensions	138(Ø) x 212(H) mm
ENVIRONMENTAL	
Construction	Aluminum
Ingress Protection	IP66
Operating Temp	-20°C to 50°C (Fan&Heater power ON)
Humidity	0% to 90%
FUNCTIONS	
Preset	63 points
Tour	8 programmable
Pattern	2 patterns
Flip	Mechanical / Auto / Off (Rotate 90° at bottom of tilt)
Auto Scan	4 (programmable speed and diagonal scan)
Privacy Zone	2 blocks with title (Masking / Video off)
Address	Up to 255 selectable ID (Rotary switch)
Data Communication	RS-485 / RS-422
Protocol	Multiple protocol(WTX, PELCO-D V1, PELCO-P, PELCO-D V5)
Baud rate	2400, 4800, 9600, 19200, 38400, 57600, 115200 bps
Alarm In /Alarm Out	2 alarm (NO/NC, Priority) / 2 relay out (Hold, Latch)
Display	Zone title on/off (start / end zone)
ELECTRICAL	
Power	24V AC / 12V DC Dual power (Power adaptor not included) IR : 1.9A (23W) (Fan & Heater ON) @ 12V DC, 0.9A @ 24V AC
Light	12pcs of 18ø IR LED
Light distance	120m (manual focusing)
VIDEO	
Video Output	HD-SDI - 1 channel (1080i60, 1080p30, 720p60, 1080i50, 1080p25, 720p50) CVBS -1 channel
CAMERA	
Image	1/2.8" Panasonic New Generation CMOS
Picture elements	1920 x 1080 pixels
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Digital zoom	x32 (x640 with Digital zoom)
Angle of view (H)	Approx. 59.9° degrees (WIDE end), approx. 3.1° degrees (TELE end)
Min. working distance	100 mm (WIDE end), 800 mm(TELE end)
Sync system	Internal
Min. illumination	Color : 0.5 lux , BW : 0.1lux / Color DSS : 0.002 lux , BW DSS : 0.001 lux
Recommended illumination	100 to 100,000 lux
S/N ratio	50 dB (Weight ON)
Back light compensation	ON/OFF
Electronic shutter speed	1/30(25) ~ 1/60,000 sec
White balance	AUTO, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor
Gain	Auto/Manual (-3 dB to +28 dB, 16 steps)
Wide dynamic range	ON/OFF/AUTO
Noise reduction	ON/OFF (level 5 to 1 / OFF, 6 steps)
Color Enhancement	ON/OFF
Aperture control	16 steps

EXP-M302

2MP x30 Zoom HD-SDI Explosion Proof PTZ Camera

HD-SDI



- Explosion Proof Camera
- SUS 316 Stainless

SPECIFICATIONS

MECHANICAL / ENVIRONMENTAL	
Pan	360° Continuous Pan 0.1° to 90°/sec (64 steps proportional to zoom)
Pan Preset Speed	380°/sec, ± 0.1° Accuracy
Tilt	0.1° to 90°/sec. (64 steps proportional to zoom)
Tilt Preset Speed	150°/sec, ± 0.01° Accuracy
Dimensions	236(Ø) x 325.9(H) mm – 166(Ø) dome
Construction	SUS 316
Ingress Protection	IP66 (Outdoor Housing)
Weight	Approximately 33Kg
Operating Temp	-40°C to 50°C (Fan&Heater power ON)
Storage Temp	-10°C to 50°C (14° F to 122° F)
Humidity	0% to 90% (non-condensing)

VIDEO	
Video Output	HD-SDI - 1 channel (1080i60, 1080p30, 720p60, 1080i50, 1080p25, 720p50) CVBS - 1 channel, IP Webserver (Option)

FUNCTIONS	
Preset	255 points less than 0.1° accuracy
Tour	8 programmable
Pattern	4 patterns for 240 second.
Flip	Digital ON/OFF
Scan	8 (programmable speed and diagonal scan)
Privacy Zone	Programmable up to 16
ID Address	Up to 255 selectable ID (Rotary switch)
Data Communication	RS-485 / RS-422
Protocol	Multiple protocol (PELCO-D/P, WONWOO)
Baud rate	2400, 4800, 9600, 19200, 38400, 57600 bps selectable
Alarm In	8 alarm
Alarm Out	2 relay out
Display	16 Area title

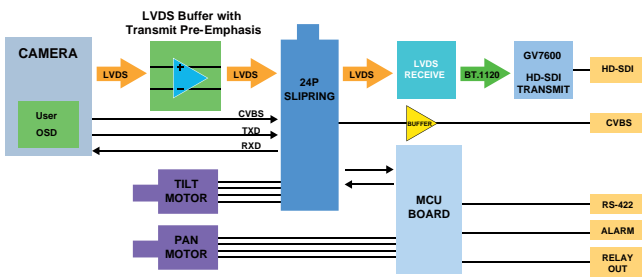
ELECTRICAL / USER CONNECTIONS	
Power	21 – 28VAC 60Hz / 50Hz (Power adaptor not included)
Camera	18.0W
Heater	33W or 62.7W, Fan Power Consumption: 3.4W
RS-422, 485	Dip Switch setting
RS-485, 422	RS-422, 485 + / - Optional Control Data
Alarm Inputs	8 Programmable
Relay Out	2 Dry Contact Output Rating: 2A @30VAC

CAMERA	
Image	1/2.8" Panasonic New Generation CMOS
Picture elements	1920 x 1080 pixels
Lens	x30 zoom f= 4.3 mm (WIDE) ~ 129 mm (TELE), F1.6 to F5.0
Digital zoom	x32 (x960 with Digital zoom)
Angle of view (H)	Approx. 65.1° degrees (WIDE end), approx. 2.34° degrees (TELE end)
Min. working distance	100 mm (WIDE end), 800 mm (TELE end)
Sync system	Internal
Min. illumination	Color : 0.5 lux, BW : 0.1lux / Color DSS : 0.002 lux, BW DSS : 0.001 lux
Recommended illumination	100 to 100,000 lux
S/N ratio	50 dB (Weight ON)
Back light compensation	ON/OFF
Electronic shutter speed	1/30(25) ~ 1/60,000 sec
White balance	AUTO, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor
Gain	Auto/Manual (-3 dB to +28 dB, 16 steps)
Wide dynamic range	ON/OFF/AUTO
Noise reduction	ON/OFF (level 5 to 1 / OFF, 6 steps)
Color Enhancement	ON/OFF
Aperture control	16 steps

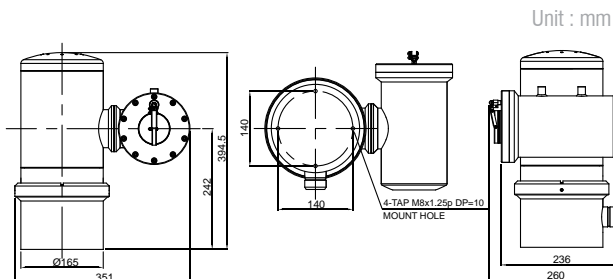
FEATURES

- 1/2.8" Panasonic New Generation CMOS
- Using progressive scan and Auto WDR
- x30 optical zoom and F1.6 aperture (optical zoom + digital zoom = x960).
- Defog : Defogging Video Image
- Auto ICR
- Up to 255 preset positions.
- Variable speed control for all motorized functions.
- Stainless Steel Construction
- Upright or Inverted Installation
- For Use in a Variety of Harsh and Hazardous Environments including Marine Environments
- Intergtrted Wiper
- 360° Continuous pan
- IP 66 SUS 316 housing

Block diagram



DIMENSIONS



EXP-M202

2MP x20 Zoom HD-SDI Explosion Proof PTZ Camera

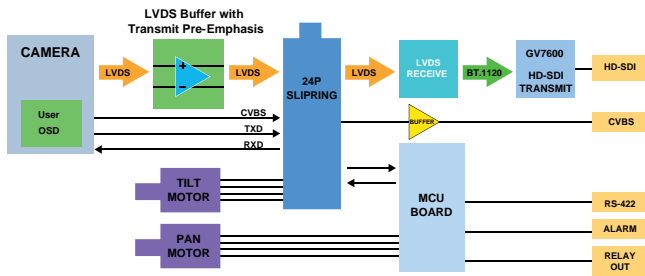
HD-SDI



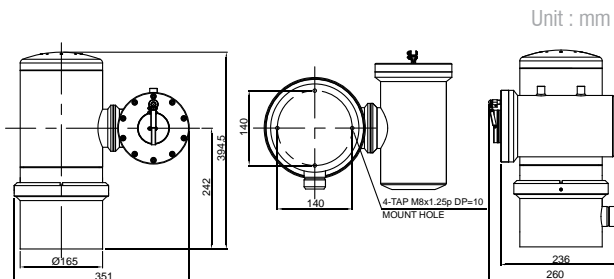
FEATURES

- 1/2.8" Panasonic New Generation CMOS
- Using progressive scan and Auto WDR
- x20 optical zoom and F1.6 aperture (optical zoom + digital zoom = x640).
- Defog : Defogging Video Image
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- Up to 255 preset positions.
- Variable speed control for all motorized functions.
- Stainless Steel Construction
- Upright or Inverted Installation
- For Use in a Variety of Harsh and Hazardous Environments including Marine Environments
- Intergrted Wiper
- 360° Continuous pan
- IP 66 SUS 316 housing

Block diagram



DIMENSIONS



- ❖ Explosion Proof Camera
- ❖ SUS 316 Stainless

SPECIFICATIONS

MECHANICAL / ENVIRONMENTAL	
Pan	360° Continuous Pan 0.1° to 90°/sec (64 steps proportional to zoom)
Pan Preset Speed	380°/sec, ± 0.1° Accuracy
Tilt	0.1° to 90°/sec. (64 steps proportional to zoom)
Tilt Preset Speed	150°/sec, ± 0.01° Accuracy
Dimensions	236(Ø) x 325.9(H) mm – 166(Ø) dome
Construction	SUS 316
Ingress Protection	IP66 (Outdoor Housing)
Weight	Approximately 33Kg
Operating Temp	-40°C to 50°C (Fan&Heater power ON)
Storage Temp	-10°C to 50°C (14° F to 122° F)
Humidity	0% to 90% (non-condensing)

VIDEO	
Video Output	HD-SDI - 1 channel (1080i60,1080p30,720p60,1080i50, 1080p25, 720p50) CVBS -1 channel , IP Webserver (Option)

FUNCTIONS	
Preset	255 points less than 0.1° accuracy
Tour	8 programmable
Pattern	4 patterns for 240 second.
Flip	Digital ON/OFF
Scan	8 (programmable speed and diagonal scan)
Privacy Zone	Programmable up to 16
ID Address	Up to 255 selectable ID (Rotary switch)
Data Communication	RS-485 / RS-422
Protocol	Multiple protocol (PELCO-D/R, WONWOO)
Baud rate	2400, 4800, 9600, 19200, 38400, 57600 bps selectable
Alarm In	8 alarm
Alarm Out	2 relay out
Display	16 Area title

ELECTRICAL / USER CONNECTIONS	
Power	21–28VAC 60Hz / 50Hz(Power adaptor not included)
Camera	18.0W
Heater	33W or 62.7W, Fan Power Consumption: 3.4W
RS-422, 485	Dip Switch setting
RS-485, 422	RS-422, 485 +/- Optional Control Data
Alarm Inputs	8 Programmable
Relay Out	2 Dry Contact Output Rating: 2A @30VAC

CAMERA	
Image	1/2.8" Panasonic New Generation CMOS
Picture elements	1920 x 1080 pixels
Lens	x20 zoom f= 4.7 mm (WIDE) to 94.0 mm (TELE), F1.6 to F3.5
Digital zoom	x32 (x640 with Digital zoom)
Angle of view (H)	Approx. 59.9° degrees (WIDE end), approx. 3.1° degrees (TELE end)
Min. working distance	100 mm (WIDE end), 800 mm(TELE end)
Sync system	Internal
Min. illumination	Color : 0.5 lux , BW : 0.1lux / Color DSS : 0.002 lux , BW DSS : 0.001 lux
Recommended illumination	100 to 100,000 lux
S/N ratio	50 dB (Weight ON)
Back light compensation	ON/OFF
Electronic shutter speed	1/30(25) ~ 1/60,000 sec
White balance	AUTO, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor
Gain	Auto/Manual (-3 dB to +28 dB, 16 steps)
Wide dynamic range	ON/OFF/AUTO
Noise reduction	ON/OFF (level 5 to 1 / OFF, 6 steps)
Color Enhancement	ON/OFF
Aperture control	16 steps

TSO-M302

2MP x30 Zoom HD-SDI Speed PTZ Dome Camera

HD-SDI

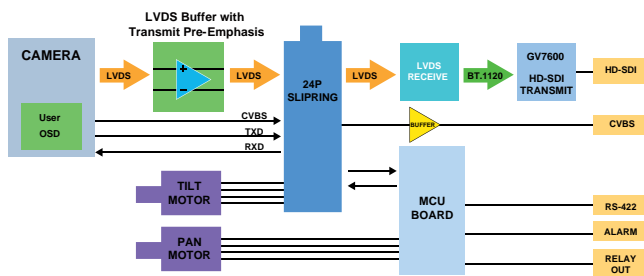
DC K



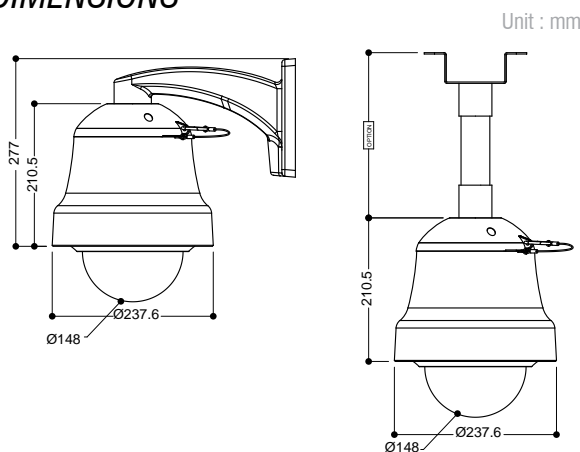
FEATURES

- 1/2.8" Panasonic New Generation CMOS
- Highest ratio of x30 optical zoom (4.3~129mm, F1.6)
- True D&N ICR
- 0.5Lux(F1.6) minimum illumination in color and 0.1Lux in b/w mode
- Programmable 16Privacy zones
- Preset up to 255points, 8Programmable tours, 4Patterns for 60secodns
- 8Alarm-in, 2dry contact relay-out rating 2A@30VAC
- HD-SDI and composite output
- Weather-proof IP66 outdoor housing
- High-speed 360°/sec
- Bi-fold cabinet structure with external corrosion-resistant ABS housing and internal shock-resistant Aluminum die-cast housing
- Resistant to arctic temperature of -50°C
- Indiscrete structure to prevent from blooming and smear
- Ease of installation and maintenance from PTZ docking cradle

Block diagram



DIMENSIONS



- ❖ x30 2Mega pixel zoom
- ❖ 1080p Full HD
- ❖ High-speed 360°/sec
- ❖ -50°C resistant

SPECIFICATIONS

MECHANICAL	
Dimension	237(Ø) x 310mm(H),
Weight	Approximately 3.8Kg
Dome bubble	148(Ø) polycarbonate clear dome cover
Body	Aluminum / ABS, IP66
Housing	Pendant mount (Wall/Ceiling)
Pan	0.1°~120°/sec , Preset Speed 360°/sec, ± 0.1° Accuracy
Tilt	0.1°~120°/sec , Preset Speed 250°/sec, ± 0.05° Accuracy
Heater & Cooling Fan	30W / 10000RPM Cooling Fan

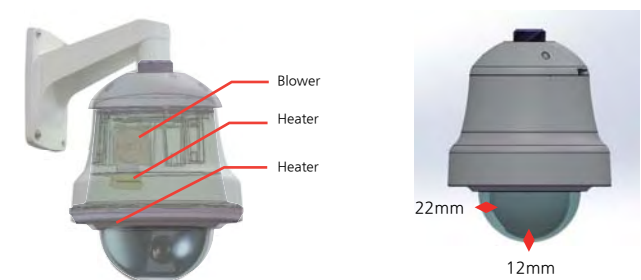
ELECTRICAL	
Power Source	AC21~26V 60Hz / 50Hz(Power adaptor not included)
Operating Temperature	Outdoor : -50°C to 70°C (-58° F to 158° F) / with 35W Heater
Humidity	0 ~ 90% relative humidity (non-condensing)

COMMUNICATION		
PTZ Control	Method	RS-485 / RS-422

VIDEO	
Video Output	HD-SDI - 1 channel (1080i60,1080p30,720p60,1080i50, 1080p25, 720p50) CVBS -1 channel

CAMERA	
Image	1/2.8" Panasonic New Generation CMOS
Picture elements	1920 x 1080 pixels
Lens	x30 zoom f= 4.3 mm (WIDE)~129 mm (TELE), F1.6 to F5.0
Digital zoom	x32 (x960 with Digital zoom)
Angle of view (H)	Approx. 65.1° degrees (WIDE end), approx. 2.34° degrees (TELE end)
Min. working distance	100 mm (WIDE end), 800 mm(TELE end)
Sync system	Internal
Min. illumination	Color : 0.5 lux , BW : 0.1lux / Color DSS : 0.002 lux , BW DSS : 0.001 lux
Recommended illumination	100 to 100,000 lux
S/N ratio	50 dB (Weight ON)
Back light compensation	ON/OFF
Electronic shutter speed	1/30(25) ~ 1/60,000 sec
White balance	AUTO, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor
Gain	Auto/Manual (-3 dB to +28 dB, 16 steps)
Wide dynamic range	ON/OFF/AUTO
Noise reduction	ON/OFF (level 5 to 1 / OFF, 6 steps)
Color Enhancement	ON/OFF
Aperture control	16 steps

Structural design for increased durability



Resistant to arctic temperature of -40°C
Outdoor Pendant housings are rated to provide IP66 protection and are offering an operating temperature range down to -50°C.

Prevent blooming, smear and focus shift
Engineered with compact and indiscrete structural design for increased camera performance, it prevents from blooming or smear of light and focus shift from the different distance in flat and center spot between lens and dome cover.

TSO-M202

2MP x20 Zoom HD-SDI Speed PTZ Dome Camera

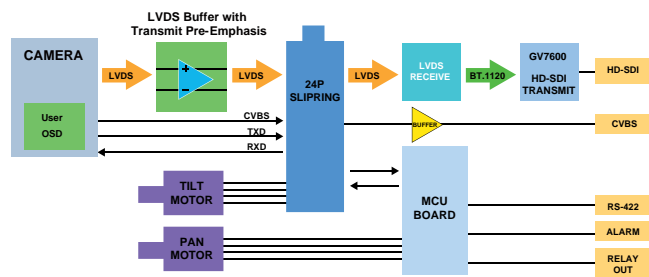
HD-SDI
DC K



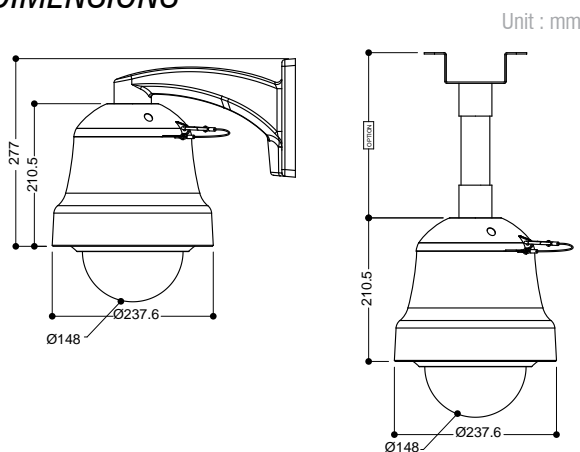
FEATURES

- 1/2.8" Panasonic New Generation CMOS
- Highest ratio of x20 optical zoom (4.7~94mm, F1.6)
- True D&N ICR
- 0.5Lux(F1.6) minimum illumination in color and 0.1Lux in b/w mode
- Programmable 16Privacy zones
- Preset up to 255points, 8Programmable tours, 4Patterns for 60secodns
- 8Alarm-in, 2dry contact relay-out rating 2A@30VAC
- HD-SDI and composite output
- Weather-proof IP66 outdoor housing
- High-speed 360°/sec
- Bi-fold cabinet structure with external corrosion-resistant ABS housing and internal shock-resistant Aluminum die-cast housing
- Resistant to arctic temperature of -50°C
- Indiscrete structure to prevent from blooming and smear
- Ease of installation and maintenance from PTZ docking cradle

Block diagram



DIMENSIONS



- ❖ x20 2Mega pixel zoom
- ❖ 1080p Full HD
- ❖ High-speed 360°/sec
- ❖ -50°C resistant

SPECIFICATIONS

MECHANICAL	
Dimension	237(Ø) x 310mm(H),
Weight	Approximately 3.8Kg
Dome bubble	148(Ø) polycarbonate clear dome cover
Body	Aluminum / ABS, IP66
Housing	Pendant mount (Wall/Ceiling)
Pan	0.1°~120°/sec , Preset Speed 360°/sec, ± 0.1° Accuracy
Tilt	0.1°~120°/sec , Preset Speed 250°/sec, ± 0.05° Accuracy
Heater & Cooling Fan	30W / 10000RPM Cooling Fan

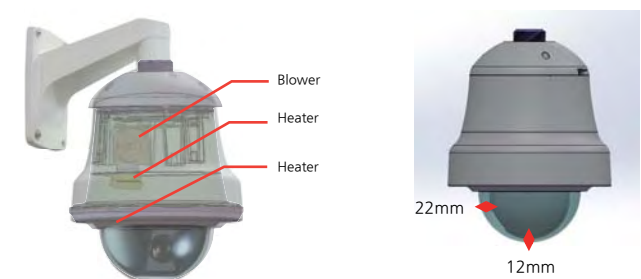
ELECTRICAL	
Power Source	AC21~26V 60Hz / 50Hz(Power adaptor not included)
Operating Temperature	Outdoor : -50°C to 70°C (-58° F to 158° F) / with 35W Heater
Humidity	0 ~ 90% relative humidity (non-condensing)

COMMUNICATION		
PTZ Control	Method	RS-485 / RS-422

VIDEO	
Video Output	HD-SDI - 1 channel (1080i60,1080p30,720p60,1080i50, 1080p25, 720p50) CVBS -1 channel

CAMERA	
Image	1/2.8" Panasonic New Generation CMOS
Picture elements	1920 x 1080 pixels
Lens	x20 zoom f= 4.7 mm (WIDE) to 94.0 mm (TELE), F1.6 to F3.5
Digital zoom	x32 (x640 with Digital zoom)
Angle of view (H)	Approx. 59.9° degrees (WIDE end), approx. 3.1° degrees (TELE end)
Min. working distance	100 mm (WIDE end), 800 mm(TELE end)
Sync system	Internal
Min. illumination	Color : 0.5 lux , BW : 0.1lux / Color DSS : 0.002 lux , BW DSS : 0.001 lux
Recommended illumination	100 to 100,000 lux
S/N ratio	50 dB (Weight ON)
Back light compensation	ON/OFF
Electronic shutter speed	1/30(25) ~ 1/60,000 sec
White balance	AUTO, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor
Gain	Auto/Manual (-3 dB to +28 dB, 16 steps)
Wide dynamic range	ON/OFF/AUTO
Noise reduction	ON/OFF (level 5 to 1 / OFF, 6 steps)
Color Enhancement	ON/OFF
Aperture control	16 steps

Structural design for increased durability



Resistant to arctic temperature of -40°C
Outdoor Pendant housings are rated to provide IP66 protection and are offering an operating temperature range down to -50°C.

Prevent blooming, smear and focus shift
Engineered with compact and indiscrete structural design for increased camera performance, it prevents from blooming or smear of light and focus shift from the different distance in flat and center spot between lens and dome cover.

WMK-M302

2MP x30 Zoom HD-SDI
Twin Motorized Zoom IR PTZ Camera

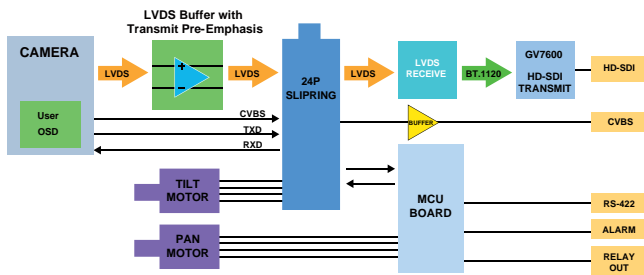
HD-SDI



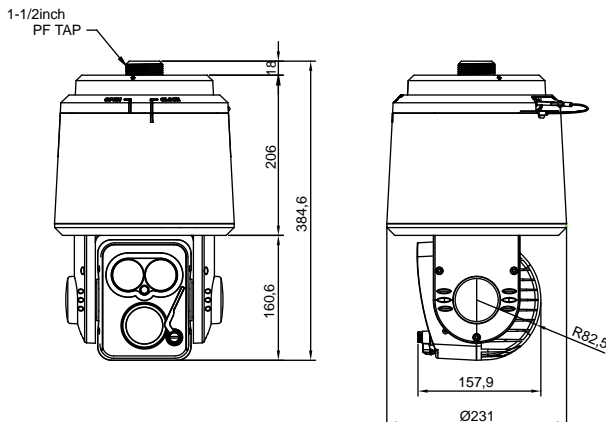
FEATURES

- 1/2.8" Panasonic New Generation CMOS
- Industry-highest ratio of x30 optical zoom (f=4.3~129mm)
- True D&N ICR
- Programmable 8 Privacy zones
- Preset up to 255points, 8 Programmable tours, 4 Patterns for 60 seconds
- 8 Alarm-in, 2dry contact relay-out rating 2A@30VAC
- HD-SDI and composite output
- Weather-proof IP66 outdoor housing
- Twin motorized IR Zoom lens for IR intensity and distance adjustment
- Optically perfect flat viewing window preventing from blooming and smear
- Resistant to arctic temperature of -50°C
- Corrosion-resistant external ABS housing
- Ease of installation and maintenance from PTZ docking cradle

Block diagram



DIMENSIONS



- ✦ x30 2Mega pixel zoom
- ✦ 1080p Full HD
- ✦ Twin motorized zoom IR
- ✦ -50°C~+70°C All weather High Tolerance

Providing brighter and clearer image

WMK-M302's toughened glass viewing window is optically correct and distortion free providing brighter, clearer images, even at full telephoto zoom ratio. WMK-M302 and its IR motorized zoom lens offers a rich viewing experience even in total darkness, though smoke, light fog and in the most adverse weather conditions which make the camera in hard-to-focusing.

WMK-M302 is well protected with internal aluminum die-casting for shock-resistance, and the external ABS housing for corrosion-resistant for longer life, which is IP66 certified.

WMK-M302's camera housing is factory-sealed and never has to be opened. The power supply and all terminals for video, telemetry data, alarm and network interface for the camera are reliably protected in the weatherproof and tamperproof housing. And an external cable with an included pre-fitted 1m HD-SDI coaxial cable, telemetry data and alarm cable, and power cable, simply links to the installation base unit and the base board. This advanced PTZ mechanism docking structure is extremely installation-friendly designed as well.

WMK-M302's precise pan/tilt mechanism gives operators accurate pointing control while providing fully programmable scan patterns and slew-to-alarm functionality and delivers variable pan/tilt speeds from a speed of only 0.1° per second up to 120°/80° per second. The camera is capable of pan speeds of 250° per second between presets.

SPECIFICATIONS

MECHANICAL	
Dimension	231(Ø) x 385mm(H)
Weight	Approximately 6.3Kg
Body	IP66, External ABS / Internal Aluminum
IR LED	IR motorized Zoom
Pan	360°Continuous Pan, 0.1° to 120°/sec (proportional to zoom)
Pan Preset Speed	250°/sec, ± 0.1° Accuracy
Tilt	-8°(352°) to 188° movement, 0.8°~80°/sec (proportional to zoom)
Tilt Preset Speed	250°/sec, ± 0.05° Accuracy
ELECTRICAL	
Power Source	AC21~26V 60Hz / 50Hz(Power adaptor not included)
Heater & Cooling Fan	30W / 10000RPM Cooling Fan
Operating Temperature	-50°C to 70°C
Humidity	0% to 90% (non-condensing)
COMMUNICATION	
PTZ Control	Method RS-485(2wire)
VIDEO	
Video Output	HD-SDI -1 channel (1080i60, 1080p30, 720p60, 1080i50, 1080p25, 720p50) CVBS -1 channel
CAMERA	
Image	1/2.8" Panasonic New Generation CMOS
Picture elements	1920 x 1080 pixels
Lens	x30 zoom f= 4.3 mm (WIDE)~129 mm (TELE), F1.6 to F5.0
Digital zoom	x32 (x960 with Digital zoom)
Angle of view (H)	Approx. 65.1° degrees (WIDE end), approx. 2.34° degrees (TELE end)
Min. working distance	100 mm (WIDE end), 800 mm(TELE end)
Sync system	Internal
Min. illumination	Color : 0.5 lux , BW : 0.1lux/ Color DSS : 0.002 lux , BW DSS : 0.001 lux
Recommended illumination	100 to 100,000 lux
S/N ratio	50 dB (Weight ON)
Back light compensation	ON/OFF
Electronic shutter speed	1/30(25) ~ 1/60,000 sec
White balance	AUTO, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor
Gain	Auto/Manual (-3 dB to +28 dB, 16 steps)
Wide dynamic range	ON/OFF/AUTO
Noise reduction	ON/OFF (level 5 to 1 / OFF, 6 steps)
Color Enhancement	ON/OFF
Aperture control	16 steps

WMK-M202

2MP x20 Zoom HD-SDI
Twin Motorized Zoom IR PTZ Camera

HD-SDI



- ✦ x20 2Mega pixel zoom
- ✦ 1080p Full HD
- ✦ Twin motorized zoom IR
- ✦ -50°C~+70°C All weather High Tolerance

Providing brighter and clearer image

WMK-M202's toughened glass viewing window is optically correct and distortion free providing brighter, clearer images, even at full telephoto zoom ratio. WMK-M202 and its IR motorized zoom lens offers a rich viewing experience even in total darkness, though smoke, light fog and in the most adverse weather conditions which make the camera in hard-to-focusing.

WMK-M202 is well protected with internal aluminum die-casting for shock-resistance, and the external ABS housing for corrosion-resistant for longer life, which is IP66 certified.

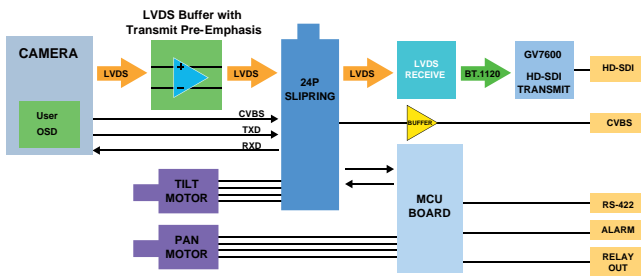
WMK-M202's camera housing is factory-sealed and never has to be opened. The power supply and all terminals for video, telemetry data, alarm and network interface for the camera are reliably protected in the weatherproof and tamperproof housing. An external cable with an included pre-fitted 1m HD-SDI coaxial cable, telemetry data and alarm cable, and power cable, simply links to the installation base unit and the base board. This advanced PTZ mechanism docking structure is extremely installation-friendly designed as well.

WMK-M202's precise pan/tilt mechanism gives operators accurate pointing control while providing fully programmable scan patterns and slew-to-alarm functionality and delivers variable pan/tilt speeds from a speed of only 0.1° per second up to 120°/80° per second. The camera is capable of pan speeds of 250° per second between presets.

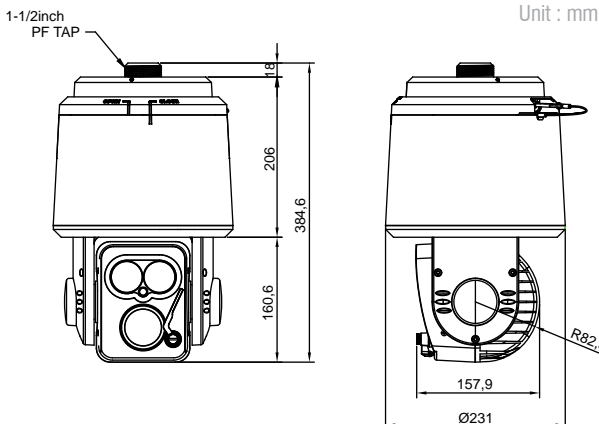
FEATURES

- 1/2.8" Panasonic New Generation CMOS
- Industry-highest ratio of x20 optical zoom (4.7~94mm, F1.6)
- True D&N ICR
- Programmable 8 Privacy zones
- Preset up to 255points, 8 Programmable tours, 4 Patterns for 60 seconds
- 8 Alarm-in, 2dry contact relay-out rating 2A@30VAC
- HD-SDI and composite output
- Weather-proof IP66 outdoor housing
- Twin motorized IR Zoom lens for IR intensity and distance adjustment
- Optically perfect flat viewing window preventing from blooming and smear
- Resistant to arctic temperature of -50 °C
- Corrosion-resistant external ABS housing
- Ease of installation and maintenance from PTZ docking cradle

Block diagram



DIMENSIONS



SPECIFICATIONS

MECHANICAL	
Dimension	231(Ø) x 385mm(H)
Weight	Approximately 6.3Kg
Body	IP66, External ABS / Internal Aluminum
IR LED	IR motorized Zoom
Pan	360°Continuous Pan, 0.1° to 120°/sec (proportional to zoom)
Pan Preset Speed	250°/sec, ± 0.1° Accuracy
Tilt	-8°(352°) to 188° movement, 0.8°~80°/sec (proportional to zoom)
Tilt Preset Speed	250°/sec, ± 0.05° Accuracy

ELECTRICAL	
Power Source	AC21~26V 60Hz / 50Hz(Power adaptor not included)
Heater & Cooling Fan	30W / 10000RPM Cooling Fan
Operating Temperature	-50°C to 70°C
Humidity	0% to 90% (non-condensing)

COMMUNICATION		
PTZ Control	Method	RS-485(2wire)

VIDEO	
Video Output	HD-SDI - 1 channel (1080i60, 1080p30, 720p60, 1080i50, 1080p25, 720p50)
	CVBS -1 channel

CAMERA	
Image	1/2.8" Panasonic New Generation CMOS
Picture elements	1920 x 1080 pixels
Lens	x20 zoom f= 4.7 mm (WIDE) to 94.0 mm (TELE), F1.6 to F3.5
Digital zoom	x32 (x640 with Digital zoom)
Angle of view (H)	Approx. 59.9° degrees (WIDE end), approx. 3.1° degrees (TELE end)
Min. working distance	100 mm (WIDE end), 800 mm(TELE end)
Sync system	Internal
Min. illumination	Color : 0.5 lux , BW : 0.1lux / Color DSS : 0.002 lux , BW DSS : 0.001 lux
Recommended illumination	100 to 100,000 lux
S/N ratio	50 dB (Weight ON)
Back light compensation	ON/OFF
Electronic shutter speed	1/30(25) ~ 1/60,000 sec
White balance	AUTO, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor
Gain	Auto/Manual (-3 dB to +28 dB, 16 steps)
Wide dynamic range	ON/OFF/AUTO
Noise reduction	ON/OFF (level 5 to 1 / OFF, 6 steps)
Color Enhancement	ON/OFF
Aperture control	16 steps

EWSJ-M202

2MP x20 Zoom HD-SDI

Integrated Outdoor Speed Dome Camera

HD-SDI

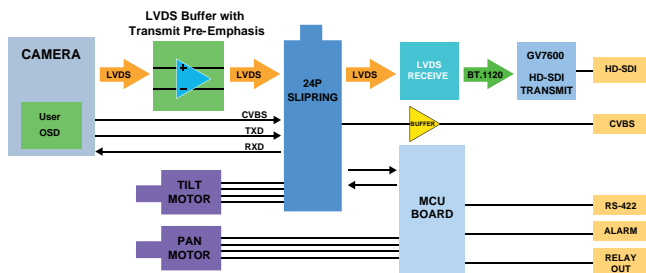
DC K



FEATURES

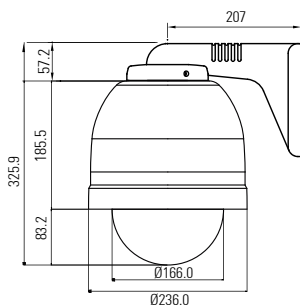
- 1/2.8" Panasonic New Generation CMOS
- Using progressive scan and Auto WDR
- x20 optical zoom and F1.6 aperture (optical zoom + digital zoom = x640)
- Good at low-light environments using the Noise Reduction function.
- Defog : Defogging Video Image
- Auto ICR
- Motion Detection
- IP66 Outdoor Application
- Digital Auto Flip
- 8 Alarm Inputs(Normal Open or Normal Close), 2 relay out puts
- 8 Auto Scan(Programmable speed and diagonal scan)
- Pan Motion Allows 0.1-90°/sec Pan Speed
- Programmable Privacy Masking(8 Zones)
- RS-422, RS-485 communication support and remote program update
- Programmable Zoom Speeds

Block diagram

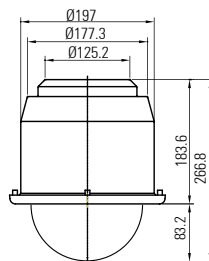


DIMENSIONS

Unit : mm



EWSJ-M202



EWSJ-M202F

- ❖ IP 66 Outdoor PTZ Camera
- ❖ x20 Mega pixel zoom
- ❖ HD-SDI(SMPTE 292M)

SPECIFICATIONS

MECHANICAL / ENVIRONMENTAL	
Pan	360° Continuous Pan 0.1° to 90°/sec (64 steps proportional to zoom)
Pan Preset Speed	380°/sec, ± 0.1° Accuracy
Tilt	0.1° to 90°/sec. (64 steps proportional to zoom)
Tilt Preset Speed	150°/sec, ± 0.01° Accuracy
Weight	Approximately 3.16Kg
Dimensions	236(Ø) x 325.9(H) mm – 166(Ø) dome
Construction	Aluminum
Ingress Protection	IP66 (Outdoor Housing)
Color	Cool gray
Operating Temp	-20°C to 50°C (Fan&Heater power ON)
Storage Temp	-10°C to 50°C (14° F to 122° F)
Humidity	0% to 90% (non-condensing)
VIDEO	
Video Output	HD-SDI - 1 channel (1080i60,1080p30,720p60,1080i50, 1080p25, 720p50) CVBS -1 channel , IP Webserver (Option)
FUNCTIONS	
Preset	255 points less than 0.1° accuracy
Tour	8 programmable
Pattern	4 patterns for 240 second.
Flip	Digital ON/OFF
Scan	8 (programmable speed and diagonal scan)
Privacy Zone	Programmable up to 16
ID Address	Up to 255 selectable ID (Rotary switch)
Data Communication	RS-485 / RS-422
Protocol	Multiple protocol (PELCO-D/P, WONWOO)
Baud rate	2400, 4800, 9600, 19200, 38400, 57600 bps selectable
Alarm In	8 alarm
Alarm Out	2 relay out
Display	16 Area title
ELECTRICAL / USER CONNECTIONS	
Power	21~28VAC 60Hz / 50Hz(Power adaptor not included)
Camera	18.0W
Heater	33W or 62.7W, Fan Power Consumption: 3.4W
RS-422, 485	Dip Switch setting
RS-485, 422	RS-422, 485 + / - Optional Control Data
Alarm Inputs	8 Programmable
Relay Out	2 Dry Contact Output Rating: 2A @30VAC
CAMERA	
Image	1/2.8" Panasonic New Generation CMOS
Picture elements	1920 x 1080 pixels
Lens	x20 zoom f= 4.7 mm (WIDE) to 94.0 mm (TELE), F1.6 to F3.5
Digital zoom	x32 (x640 with Digital zoom)
Angle of view (H)	Approx. 59.9° degrees (WIDE end), approx. 3.1° degrees (TELE end)
Min. working distance	100 mm (WIDE end), 800 mm(TELE end)
Sync system	Internal
Min. illumination	Color : 0.5 lux , BW : 0.1lux / Color DSS : 0.002 lux , BW DSS : 0.001 lux
Recommended illumination	100 to 100,000 lux
S/N ratio	50 dB (Weight ON)
Back light compensation	ON/OFF
Electronic shutter speed	1/30(25) ~ 1/60,000 sec
White balance	AUTO, ATW, Indoor, Outdoor, One Push WB, Manual WB, Outdoor Auto, Sodium Vapor
Gain	Auto/Manual (-3 dB to +28 dB, 16 steps)
Wide dynamic range	ON/OFF/AUTO
Noise reduction	ON/OFF (level 5 to 1 / OFF, 6 steps)
Color Enhancement	ON/OFF
Aperture control	16 steps

PS-M102/PSO-M102

2MP x10 Zoom HD-SDI Mini Speed Dome Camera

HD-SDI

DC K



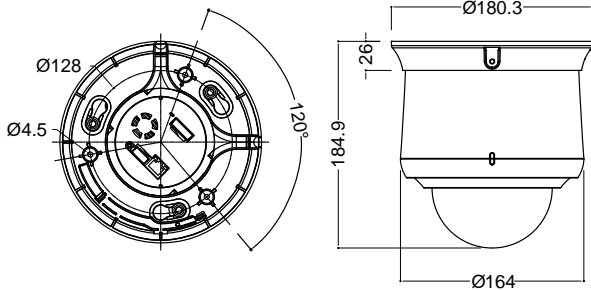
FEATURES

- 1/2.8" Panasonic New Generation CMOS
- x10 Optical Zoom (5.1mm ~51mm)
- Full HD Resolution
1920x1080p / 30fps
1280x720p / 60fps
- Day & Night (ICR)
- WDR (Wide Dynamic Range)
- DNR (Digital Noise Reduction, 2D+3D)
- Privacy mask Function
- Defog : Defogging foggy video image.
- HLC(High Light Compensation Function)
- 360° Endless Panning and 0° ~180° Tilt angle (Digital Flip)
- 255 Presets, 8 Tours, 8 Scans, 4 Patterns, Autoscan
- 8 Zones of Image Masking for Privacy
- Easy Interface with Multiple Protocols (Pelco-D, Pelco-P, Wonwoo)
- ABS body and Polycarbonate Dome Cover

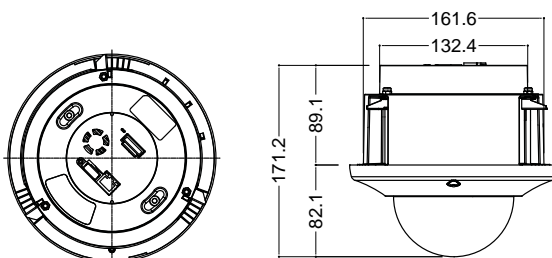
DIMENSIONS

Unit : mm

Surface Mount (PS-M102)



In-ceiling Mount (PSF-M102)



- ❖ IP66 Outdoor PTZ Camera(PSO-M102)
- ❖ x10 Mega Pixel Zoom
- ❖ HD-SDI(SMPTZ 292M)

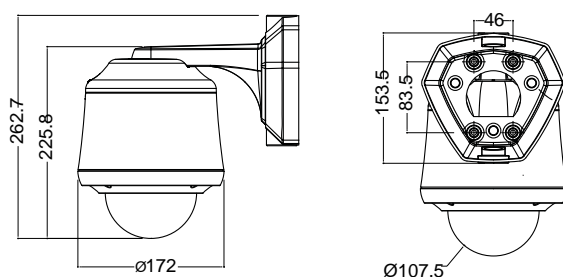
SPECIFICATIONS

MODEL	PS-H102 / PSO-H102
Image Sensor	1/2.8" Panasonic New Generation CMOS
Effective Number of pixels	Approx. 2 Mega Pixels
Aspect Ratio	16 : 9
Lens	x10 Optical Zoom f=5.1mm(wide) ~ 51mm(tele) F1.6 to F1.8
Digital Zoom	Max x32
Resolution	1080P/30, 720P/60
Min. illumination	Color : 0.5 lux , BW : 0.1 lux Color DSS : 0.002 lux , BW DSS : 0.001 lux
S/N Ratio	more than 50dB (AGC off)
Focusing Mode	Auto / One Push / Manual
Shutter Speed	1/30(25) ~ 1/60,000 sec
WDR/BLC	OFF / WDR / BLC
White Balance	AUTO / One Push / Manual / Indoor / Outdoor
Rotation Angle	Pan : 360° Endless / Tilt : 0° ~ 180° (Digital flip)
Rotation Speed	Manual : 100°/sec, Turbo : 180°/sec, Preset : 360°/sec
Flip	Digital Flip Support
Lens Initialization	Built-in
Focus Control	Auto / Manual / One push selectable
Iris Control	Auto / Manual selectable
Power Consumption	Indoor : DC 12V, 1.5A , Outdoor : AC 24V, 3A
Operating Temperature	Indoor : 0°C ~ +50°C Outdoor : -40°C ~ +50°C (Outdoor ,with Fan&Heater power ON)
Operating Humidity	20% ~ 75% RH
Certification	CE, FCC, RoHS
Weight	Approximately 1.04kg(PS-M102) / 2.2kg(PSO-M102)

Installation Type

Type	Outdoor	Indoor
Surface	 PSO-M102 W/ Surface-mount adaptor	 PS-M102 Indoor Ceiling
Ceiling	 PSO-M102 W/ Ceiling Pipe bracket (Pipe 200mm)	Indoor In-ceiling  PSF-M102 Indoor In-ceiling
Wall	 PSO-M102 Outdoor Wall	 PS-M102 W/ Wall bracket

Wall Mount Outdoor (PSO-M102)



MP-032 MP-032R

2MP x3 AF HD-SDI Indoor Dome Camera

HD-SDI

DC K



FEATURES

- 1/2.9" Sony "Exmor" CMOS sensor
All-Pixel Scan: 1920(H) X 1200(V) app. 2.3 Mega Pixel
- x3 Optical Zoom Auto Focus(3mm ~9mm)
- Full HD Resolution
1920x1080p / 30fps
1280x720p / 60fps
- Day & Night (ICR)

The ICR will automatically engage depending on the ambient light, allowing the camera to be effective in day & night environment.

- WDR (Wide Dynamic Range)
WDR, more effectively than previous models, by applying an optimum fusion ratio when combining the high speed shutter used in bright areas and the low speed shutter used in dark areas.

- DNR (Digital Noise Reduction, 2D+3D)
The DNR technology eliminates noise thus generating a distinct and clear image. This camera DNR function utilizes both an adaptive 2D filter reducing noise in the brightness of the image and an adaptive 3D filter reducing noise caused by movement.

- Privacy mask Function
The privacy zone function makes it possible to make specific areas of the scene from view.

- Intelligent motion detection
You can transmit an alert signal when it detects motion of an object on the screen. This feature is useful when you have to monitor several screens simultaneously.

- Defog : Defogging foggy video image.
- HLC(High Light Compensation Function)
- IR LED : 2CDS 22pcs IR LED(MP-032R)

- ❖ x3 AF zoom
- ❖ 1080p & 720p
- ❖ WDR & ACE
- ❖ DSS & 3D-DNR

SPECIFICATIONS

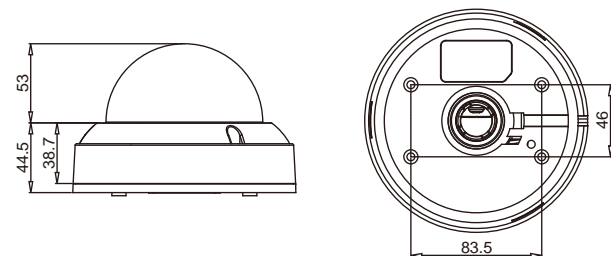
MODEL	MP-032
Image Sensor	1/2.9" Sony "Exmor" CMOS
Effective Number of pixels	Approx. 2 Mega Pixels
Aspect Ratio	16 : 9
Lens	x3 Optical Zoom f=3.0mm(wide) ~ 9.0mm(tele) F1.2 to F2.1
Digital Zoom	Max x32
Resolution	1080P/30, 720P/60
Min. illumination	Color : 0.5 lux , BW : 0.1 lux (MP-032R : BW 0.00 lux) Color DSS : 0.002 lux , BW DSS : 0.001 lux (MP-032R : BW 0.00 lux)
Video Output	Digital: HD-SDI (1080p) Analog: CVBS (up to 700TVL)
S/N Ratio	more than 50dB (AGC off)
Camera Control Comm	Baud Rate : 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 Protocol : VISCA / Pelco-D / Pelco- P / Update
Focusing Mode	Auto / One Push / Manual
Shutter Speed	1/30(25) ~ 1/60,000 sec
WDR/BLC	OFF / WDR / BLC
White Balance	AUTO / One Push / Manual / Indoor / Outdoor
Power Source	9V to 15V DC
Power Consumption	MP-032 : Max 350mA, MP-032R : Max 700mA
Storage Temperature	-20 °C ~ +60 °C (Humidity : 20%RH ~ 95%RH)
Operating Temperature	-5 °C ~ +60 °C (Humidity : 20%RH ~ 80%RH)
Weight	Approximately 0.36kg

OPTIONAL MOUNT BRACKET(PLASTIC)



DIMENSIONS

Unit : mm



MV-032 MV-032R

2MP x3 AF HD-SDI Outdoor Dome Camera

HD-SDI

DC K



FEATURES

- 1/2.9" Sony "Exmor" CMOS sensor
All-Pixel Scan: 1920(H) X 1200(V) app. 2.3 Mega Pixel
- x3 Optical Zoom Auto Focus(3mm ~9mm)
- Full HD Resolution
1920x1080p / 30fps
1280x720p / 60fps
- Day & Night (ICR)

The ICR will automatically engage depending on the ambient light, allowing the camera to be effective in day & night environment.

- WDR (Wide Dynamic Range)
WDR, more effectively than previous models, by applying an optimum fusion ratio when combining the high speed shutter used in bright areas and the low speed shutter used in dark areas.
- DNR (Digital Noise Reduction, 2D+3D)

The DNR technology eliminates noise thus generating a distinct and clear image. This camera DNR function utilizes both an adaptive 2D filter reducing noise in the brightness of the image and an adaptive 3D filter reducing noise caused by movement.

- Privacy mask Function
The privacy zone function makes it possible to make specific areas of the scene from view.
- Intelligent motion detection
You can transmits an alert signal when it detects motion of an object on the screen. This feature is useful when you have to monitor several screens simultaneously.
- Defog : Defogging foggy video image.
- HLC(High Light Compensation Function)
- IR LED : 2CDS 22pcs IR LED(MV-032R)

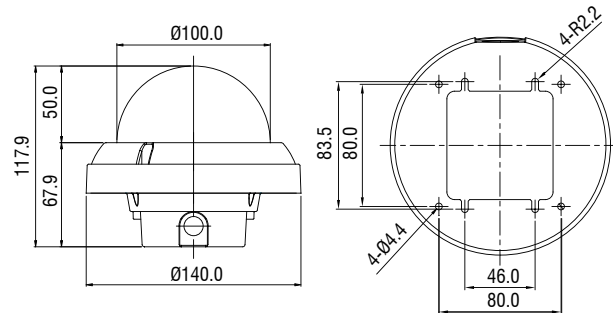
- x3 AF zoom
- 1080p & 720p
- WDR & ACE
- DSS & 3D-DNR

SPECIFICATIONS

MODEL	MV-032
Image Sensor	1/2.9" Sony "Exmor" CMOS
Effective Number of pixels	Approx. 2 Mega Pixels
Aspect Ratio	16 : 9
Lens	x3 Optical Zoom f=3.0mm(wide) ~ 9.0mm(tele) F1.2 to F2.1
Digital Zoom	Max x32
Resolution	1080P/30, 720P/60
Min. illumination	Color : 0.5 lux , BW : 0.1 lux (MV-032R : BW 0.00lux) Color DSS : 0.002 lux , BW DSS : 0.001 lux (MV-032R : BW 0.00lux)
Video Output	Digital: HD-SDI (1080p) Analog: CVBS (up to 700TVL)
S/N Ratio	more than 50dB (AGC off)
Camera Control Comm	Baud Rate : 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 Protocol : VISCA / Pelco-D / Pelco- P / Update
Focusing Mode	Auto / One Push / Manual
Shutter Speed	1/30(25) ~ 1/60,000 sec
WDR/BLC	OFF / WDR / BLC
White Balance	AUTO / One Push / Manual / Indoor / Outdoor
Power Source	9V to 15V DC
Power Consumption	MV-032 : Max 350mA, MV-032R : Max 700mA
Storage Temperature	-20°C ~ +60°C (Humidity : 20%RH ~ 95%RH)
Operating Temperature	-5°C ~ +60°C (Humidity : 20%RH ~ 80%RH)
Weight	Approximately 1.0kg

DIMENSIONS

Unit : mm



OPTIONAL MOUNT BRACKET



MB-032T

2MP x3 AF HD-SDI Box Camera

HD-SDI



FEATURES

- No more effort for precise Varifocal lens focusing
- 1/2.9" Sony "Exmor" CMOS sensor
All-Pixel Scan: 1920(H) X 1200(V) app. 2.3 Mega Pixel
- x3 Optical Zoom (3mm ~9mm)
- Full HD Resolution
- Day & Night (ICR)
The ICR will automatically engage depending on the ambient light, allowing the camera to be effective in day & night environment.
- WDR (Wide Dynamic Range)
WDR, more effectively than previous models, by applying an optimum fusion ratio when combining the high speed shutter used in bright areas and the low speed shutter used in dark areas.
- DNR (Digital Noise Reduction, 2D+3D)
The DNR technology eliminates noise thus generating a distinct and clear image. This camera DNR function utilizes both an adaptive 2D filter reducing noise in the brightness of the image and an adaptive 3D filter reducing noise caused by movement.
- Privacy mask Function
The privacy zone function makes it possible to make specific areas of the scene from view.
- Intelligent motion detection
You can transmit an alert signal when it detects motion of an object on the screen. This feature is useful when you have to monitor several screens simultaneously.
- Defog
Defogging foggy video image.
- HLC(High Light Compensation Function)
- DC12V operation

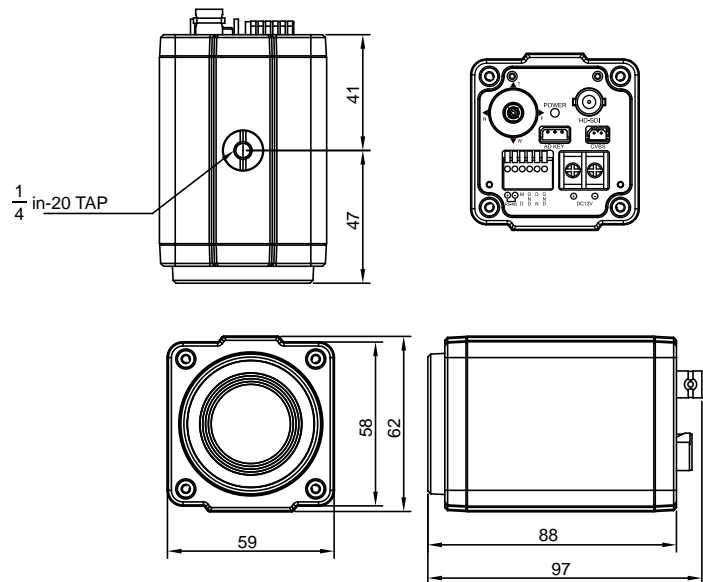
- ❖ x3 AF zoom
- ❖ 1080p & 720p
- ❖ WDR & ACE
- ❖ DSS & 3D-DNR

SPECIFICATIONS

MODEL	MB-032T
Image Sensor	1/2.9" Sony "Exmor" CMOS
Effective pixels	Approx. 2 Mega Pixels
Aspect Ratio	16 : 9
Lens	x3 Optical Zoom f=3.2mm(wide) ~ 9.0mm(tele) F1.2 to F2.1
Digital Zoom	Max x32
Resolution	1080P/30, 720P/60
Min. illumination	Color : 0.5 lux , BW : 0.1lux Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video Output	HD-SDI, CVBS
S/N Ratio	more than 50dB (AGC off)
Camera Control Comm	Baud Rate:2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 Protocol : VISCA / Pelco-D / Pelco- P / Update
Focusing Mode	Auto / One Push / Manual
Shutter Speed	1/30(25) ~ 1/60,000 sec
WDR/BLC	OFF / WDR / BLC
White Balance	AUTO / One Push / Manual / Indoor / Outdoor
Power Source	9V to 15V DC
Power Consumption	Max 350mA
Storage Temperature	-20℃ ~ +60℃ (Humidity : 20%RH ~ 95%RH)
Operating Temperature	-5℃ ~ +60℃ (Humidity : 20%RH ~ 80%RH)
External Dimension	88 X 59 X 62 mm (tentative)
Weight	Approximately 0.32kg

DIMENSIONS

Unit : mm



IRZ-M032-5

2MP x3 AF HD-SDI IR Bullet Camera

HD-SDI

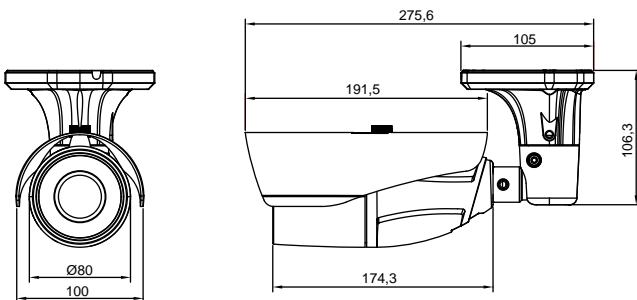


FEATURES

- 1/2.8" SONY CMOS Sensor
- x3 Optical Zoom
- Full HD Resolution
- Day & Night (ICR)
- Wide Dynamic Range
- Digital Noise Reduction(2D+3D)
- Privacy mask Function
- On Screen Display
- Intelligent motion detection
- Protocol
- SR IR LED
- AC 24V, DC12V Dual Voltage / Only DC 12V type
- OSD Remote control

DIMENSIONS

Unit : mm



SPECIFICATIONS

MODEL	IRZ-M032-5
Image Sensor	1/2.9" SONY CMOS Sensor
Total Pixels	2,000(H) x 1,121(V), 2.24M Pixels
Active pixels	1,936(H) x 1,105(V), 2.12M Pixels
Scanning system	Progressive Scan
Sync. System	Internal
Resolution	Digital : 1920x1080p(1080p/30fps) , 1280x720p(720p/60fps) Analog : 700TVL
Min. illumination	Color : 1.0 lux , BW : 0.5lux Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video Output	HD : HD-SDI Analog SD : VBS(without WDR)
S/N Ratio	more than 50dB (AGC off)
Lens type	x3 Day & Night Zoom Lens
Zoom Ratio	Optical x3, Digital x32 Zoom
Focal Length	f = 3.0 mm ~ 9.0 mm
Aperture Ratio	F1.2 (wide) ~ F2.1 (tele)
MODEL	D&N / IR SMART / IR CDS
Focus	Mode / Lens Refresh / E.Zoom / Zoom Preset
Mode	Auto / One Push / Manual
Lens Refresh	ONE PUSH / 1 ~ 10Day
E.Zoom	Off / MAX x2 ~ x32
Zoom Preset	PRESET# / MODE
Exposure	Mode / AGC / Shut Speed / IRIS / DSS / Flickerless / Brightness / WDR/BLC / D&N / Smart IR / DEBLUR
Mode	AUTO / IRIS.P / SHUT.P / MANUAL
AGC	0 ~ 10
Shutter Speed	1/30(25) ~ 1/60,000 sec
Iris	0 ~ 20
DSS	Off / Max x2 ~ x4
Flickerless	Off / On
Brightness	0 ~ 20
WDR/BLC	OFF / WDR / BLC
Day&Night	Auto / Day / Night / Ext
Smart IR	Off / On
Deblur	Off / On
White Balance	AUTO / One Push / Manual / Indoor / Outdoor
Image	HLC / DNR / Mirror / Sharpness / ACE / Freeze / Gamma
HLC	Off / On
DNR	Auto / Off / Low / Middle / High
Mirror	Off / H / V / H&V
Sharpness	0 ~ 10
ACE	Off / On
Freeze	Off / On
Gamma	0.45 / 0.50 / 0.55 / 0.60 / 0.65
Privacy Mask	Off / 24 positions
Motion Detection	Off / 3 positions
Defect DET	Off / On
Defog	Off / On
System	NTSC / PAL
HD Format	1080P / 720P
Comm	Baud Rate : 2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 Protocol : VISCA / Pelco-D / Pelco-P / Update
Default	Off / On
Disp Sel (Off / On)	ID / Title / Zoom Ratio
Set Title	Text Edit
Language	English / Simplified Chinese / Traditional Chinese / Japanese
OSD Text	0 ~ 9 , A ~ Z , a ~ z
Power Source	DC12V±10% / AC24V±10% (Option)
Power Consumption	700mA
Power Input	Connector
Video Output	Connector
Storage Temperature	-20℃ ~ +60℃ (Humidity : 20%RH ~ 95%RH)
Operating Temperature	0℃ ~ +60℃ (Humidity : 20%RH ~ 80%RH)
Dimension	100(W) x 106.3(H) x 275.6(D) mm
Weight	Approximately 1.08kg

MP-120 MP-120R

2MP HD-SDI Indoor Dome Camera

HD-SDI

DC K



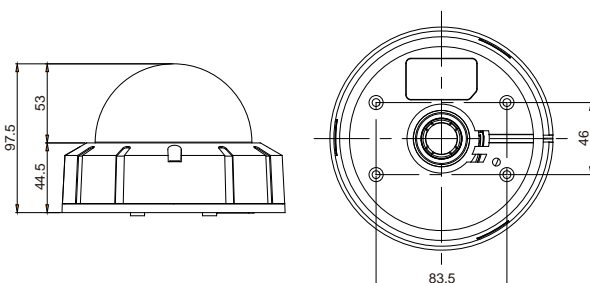
MP-120

FEATURES

- 1/3" 2Mega pixel CMOS image sensor that supports both Full HD of 1080p and HD 720p (Max 1,100TV Lines, OSD selectable)
- Using progressive scan and Auto WDR
- Supports DSS(Digital Slow Shutter) and 3D DNR(Dynamic Noise Reduction) to enhance the performance in low-light environment
- Supports not only SDI output, but also analog spot-out
- Supports various white balance mode of Auto, One pushing and Manual
- Supports ACE (Advanced Contrast Enhancement)
- Supports various digital features of Mirror, Flip, Digital Zoom, Privacy Masking, Motion Detection, Sharpness control and shading
- 2.8~10mm Mega-pixel Varifocal Lens
- Supports Multi-protocol of Pelco-D/P
- Plastic indoor dome housing
- Supports Smart IR Function(MP-120R)
- IR LED 27pcs, IR LED Range 10~12m(32~40ft)(MP-120R)

DIMENSIONS

Unit : mm



- ❖ 2Mega Pixel
- ❖ 1080p & 720p
- ❖ WDR & ACE
- ❖ Smart IR

SPECIFICATIONS

MODEL	MP-120
Image Sensor	1/3" Panasonic CMOS
Total Pixels	2010(H) x 1108(V) = 2,227,080 (pixel)
Active pixels	1944(H) x 1092(V) = 2,122,848 (pixel)
Scanning system	Progressive
Resolution	Digital : 1920x1080p(1080p/30fps) , 1280x720p(720p/60fps) Analog : 700TVL
Min. illumination	Color : 1.0 lux , BW : 0.5lux, Color DSS : 0.002 lux , BW DSS : 0.001 lux (MP-120R: BW 0.01 lux)
Video Output	HD-SDI, Analog : NTSC, PAL(without WDR)
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	2.8~10mm
SHUTTER SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
SMART IR	Off / On
WHITE BALANCE	Auto / Preset / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	x1 ~ x32
HLC	Off / On
ACE	Off / On
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	OFF / ON
PRIVACY	Off / On (32 points)
MOTION	Off / On (4 points)
SHADING DET	Off / On
SHADING	Off / On
DEFECT DET	Off / On
DEFOG	Off / On
SYSTEM	NTSC / PAL
HD FORMAT	1080P / 720P
PG(Pattern Generator)	Off / On
CVBS	Off / On
COMMUNICATION	ID (1 ~ 255) BAUDRATE (2400 / 4800 / 9600 / 19200 / 38400 / 57600/115200) PROTOCOL (PELCO-P / PELCO-D / UPDATE)
DEFAULT	ON / DONE
Language	English
OSD Text	0 ~ 9 , A ~ Z , a ~ z
Power Source	DC12V±10%
Power Consumption	MP-120 : Max 350mA, MP-120R : Max 700mA
Power Input	DC JACK
Video Output(HD-SDI)	BNC Connector
Operating Temperature	-10 °C ~ +50 °C (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20 °C ~ +60 °C (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 0.36kg

MP-130R

2MP HD-SDI Indoor Dome Camera

HD-SDI

DC K

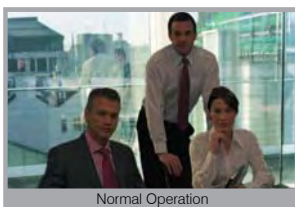
1080/60fps



FEATURES

- 1/3" 2Mega pixel CMOS image sensor that supports both Full HD of 1080p and HD 720p (Max 1,100TV Lines, OSD selectable)
- Using progressive scan and Real WDR
- Supports DSS(Digital Slow Shutter) and 3D DNR(Dynamic Noise Reduction) to enhance the performance in low-light environment
- Supports not only SDI output, but also analog spot-out
- Supports various white balance mode of Auto, One pushing and Manual
- Supports ACE (Advanced Contrast Enhancement)
- Supports various digital features of Mirror, Flip, Digital Zoom, Privacy Masking, Motion Detection, Sharpness control and shading
- 2.8~10mm Mega-pixel Varifocal Lens
- Supports Multi-protocol of Pelco-D/P
- Plastic indoor dome housing
- Supports Smart IR Function
- IR LED 27pcs, IR LED Range 10~12m(32~40ft)

Real WDR

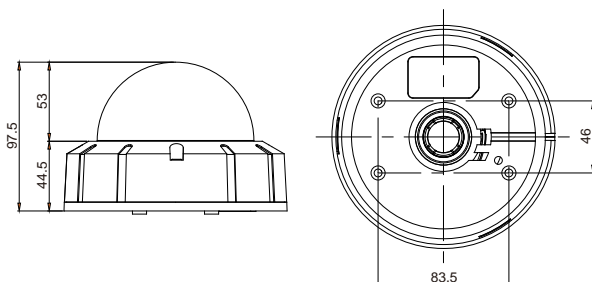


Normal Operation

Wide D - ON (120dB)

DIMENSIONS

Unit : mm



- ❖ 2Mega Pixel
- ❖ 1080/60p
- ❖ Real WDR
- ❖ Smart IR

SPECIFICATIONS

MODEL	MP-130R
Image Sensor	1/3" Panasonic CMOS
Total Pixels	2010(H) x 1108(V) = 2,227,080 (pixel)
Active pixels	1944(H) x 1092(V) = 2,122,848 (pixel)
Scanning system	Progressive
Resolution	Digital : 1080p/60(50)fps, 1080p/30(25)fps, 1080i/60(50)fps, 720p/60(50)fps Analog : 700TVL
Min. illumination	Color : 1.0 lux , BW : 0.5lux, Color DSS : 0.002 lux , BW DSS : 0.001 lux (MP-120R: BW 0.01 lux)
Video Output	HD-SDI, Analog : NTSC, PAL(without WDR)
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	2.8~10mm
SHUTTER SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
SMART IR	Off / On
WHITE BALANCE	Auto / Preset / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	x1 ~ x32
HLC	Off / On
ACE	Off / On
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	OFF / ON
PRIVACY	Off / On (32 points)
MOTION	Off / On (4 points)
SHADING DET	Off / On
SHADING	Off / On
DEFECT DET	Off / On
DEFOG	Off / On
SYSTEM	NTSC / PAL
HD FORMAT	1080P / 720P
PG(Pattern Generator)	Off / On
CVBS	Off / On
COMMUNICATION	ID (1 ~ 255) BAUDRATE (2400 / 4800 / 9600 / 19200 / 38400 / 57600/115200) PROTOCOL (PELCO-P / PELCO-D / UPDATE)
DEFAULT	ON / DONE
Language	English
OSD Text	0 ~ 9 , A ~ Z , a ~ z
Power Source	DC12V ±10%
Power Consumption	MP-130R : Max 700mA
Video Output(HD-SDI)	BNC Connector
Operating Temperature	-10℃ ~ +50℃ (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20℃ ~ +60℃ (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 0.36kg

MODEL SELECTION

** MP-130AR : Same spec With Dual Voltage (DC12V/AC24V)

MV-120 MV-120R

2MP HD-SDI Outdoor Dome Camera

HD-SDI

DC JACK

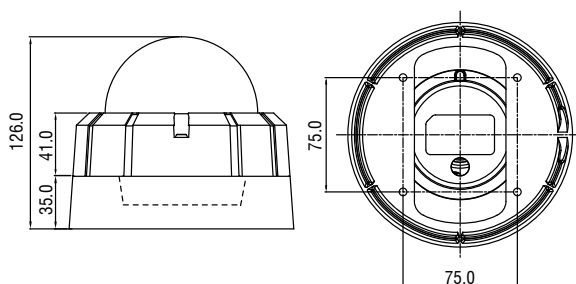


FEATURES

- 1/3" 2Mega pixel CMOS image sensor that supports both Full HD of 1080p and HD 720p (Max 1,100TV Lines, OSD selectable)
- Using progressive scan and Auto WDR
- Supports DSS(Digital Slow Shutter) and 3D DNR(Dynamic Noise Reduction) to enhance the performance in low-light environment
- Supports not only SDI output, but also analog spot-out
- Supports various white balance mode of Auto, One pushing and Manual
- Supports ACE (Advanced Contrast Enhancement)
- Supports various digital features of Mirror, Flip, Digital Zoom, Privacy Masking, Motion Detection, Sharpness control and shading
- 2.8~10mm Mega-pixel Varifocal Lens
- Supports Multi-protocol of Pelco-D/P
- IP67 Aluminum Die-casting Housing
- Supports Smart IR Function(MV-120R)
- IR LED 27pcs, IR LED Range 10~12m(32~40ft)(MV-120R)

DIMENSIONS

Unit : mm



- ❖ 2Mega Pixel
- ❖ 1080p & 720p
- ❖ WDR & ACE
- ❖ Smart IR

SPECIFICATIONS

MODEL	MV-120
Image Sensor	1/3" Panasonic CMOS
Total Pixels	2010(H) x 1108(V) = 2,227,080 (pixel)
Active pixels	1944(H) x 1092(V) = 2,122,848 (pixel)
Scanning system	Progressive
Resolution	Digital ; 1920x1080p(1080p/30fps) , 1280x720p(720p/60fps) Analog : 700TVL
Min. illumination	Color : 1.0 lux , BW : 0.5lux, Color DSS : 0.002 lux , BW DSS : 0.001 lux (MV-120R : BW 0.01lux)
Video Output	HD-SDI, Analog : NTSC, PAL(without WDR)
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	2.8~10mm
SHUTTER SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
SMART IR	Off / On
WHITE BALANCE	Auto / Preset / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	x1 ~ x32
HLC	Off / On
ACE	Off / On
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	OFF / ON
PRIVACY	Off / On (32 points)
MOTION	Off / On (4 points)
SHADING DET	Off / On
SHADING	Off / On
DEFECT DET	Off / On
DEFOG	Off / On
SYSTEM	NTSC / PAL
HD FORMAT	1080P / 720P
PG(Pattern Generator)	Off / On
CVBS	Off / On
COMMUNICATION	ID (1 ~ 255) BAUDRATE (2400 / 4800 / 9600 / 19200 / 38400 / 57600/115200) PROTOCOL (PELCO-P / PELCO-D / UPDATE)
DEFAULT	ON / DONE
Language	English,Japanese,Chinese
OSD Text	0 ~ 9 , A ~ Z , a ~ z
Power Source	DC12V±10%
Power Consumption	MV-120 : Max 350mA, MV-120R : Max 700mA
Power Input	DC JACK
Video Output(HD-SDI)	BNC Connector
Operating Temperature	-10℃ ~ +50℃ (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20℃ ~ +60℃ (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 1.0kg

MV-130R

2MP HD-SDI Outdoor Dome Camera

HD-SDI

DC K

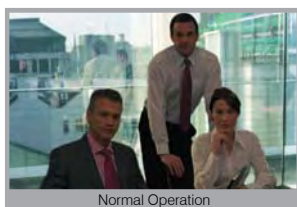
1080/60fps



FEATURES

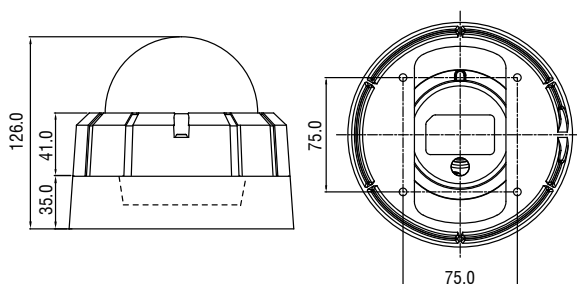
- 1/3" 2Mega pixel CMOS image sensor that supports both Full HD of 1080p and HD 720p (Max 1,100TV Lines, OSD selectable)
- Using progressive scan and Real WDR
- Supports DSS(Digital Slow Shutter) and 3D DNR(Dynamic Noise Reduction) to enhance the performance in low-light environment
- Supports not only SDI output, but also analog spot-out
- Supports various white balance mode of Auto, One pushing and Manual
- Supports ACE (Advanced Contrast Enhancement)
- Supports various digital features of Mirror, Flip, Digital Zoom, Privacy Masking, Motion Detection, Sharpness control and shading
- 2.8~10mm Mega-pixel Varifocal Lens
- Supports Multi-protocol of Pelco-D/P
- IP67 Aluminum Die-casting Housing
- Supports Smart IR Function
- IR LED 27pcs, IR LED Range 10~12m(32~40ft)

Real WDR



DIMENSIONS

Unit : mm



- ❖ 2Mega Pixel
- ❖ 1080/60p
- ❖ Real WDR
- ❖ Smart IR

SPECIFICATIONS

MODEL	MV-130R
Image Sensor	1/3" Panasonic CMOS
Total Pixels	2010(H) x 1108(V) = 2,227,080 (pixel)
Active pixels	1944(H) x 1092(V) = 2,122,848 (pixel)
Scanning system	Progressive
Resolution	Digital:1080p/60(50)fps, 1080p/30(25)fps, 1080i/60(50)fps, 720p/60(50)fps Analog: 700TVL
Min. illumination	Color : 1.0 lux , BW : 0.5lux, Color DSS : 0.002 lux , BW DSS : 0.001 lux (MV-120R : BW 0.01lux)
Video Output	HD-SDI, Analog : NTSC, PAL(without WDR)
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	2.8~10mm
SHUTTER SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
SMART IR	Off / On
WHITE BALANCE	Auto / Preset / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	x1 ~ x32
HLC	Off / On
ACE	Off / On
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	OFF / ON
PRIVACY	Off / On (32 points)
MOTION	Off / On (4 points)
SHADING DET	Off / On
SHADING	Off / On
DEFECT DET	Off / On
DEFOG	Off / On
SYSTEM	NTSC / PAL
HD FORMAT	1080P / 720P
PG(Pattern Generator)	Off / On
CVBS	Off / On
COMMUNICATION	ID (1 ~ 255) BAUDRATE (2400 / 4800 / 9600 / 19200 / 38400 / 57600/115200) PROTOCOL (PELCO-P / PELCO-D / UPDATE)
DEFAULT	ON / DONE
Language	English,Japanese,Chinese
OSD Text	0 ~ 9 , A ~ Z , a ~ z
Power Source	DC12V±10%
Power Consumption	MV-130R : Max 700mA
Video Output(HD-SDI)	BNC Connector
Operating Temperature	-10℃ ~ +50℃ (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20℃ ~ +60℃ (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 1.0kg

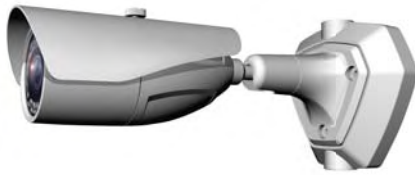
MODEL SELECTION

** MV-130AR : Same spec With Dual Voltage(DC12V/AC24V)

IRV-M12-36

2MP HD-SDI IR Bullet Camera

HD-SDI



FEATURES

- 2M 1080p Full HD with Panasonic CMOS
- HD-SDI (SMPTE292M)
- Composite Video output (750TV Lines)
- Supports WDR & ACE
(Advanced Contrast Enhancement)
- IR LED 36pcs, IR LED Range 15~18m(50~60ft)
- Support DNR & DSS
- Support Privacy Mask & HLMask
- Intelligent Motion Detection
- Multi-protocol support through RS-485
- Wider range of SMART IR function
- 2.8~10mm Varifocal Lens
- CDS Auto switching IR LED control
- OSD control with Wireless Remocon
- Externally Adjustable focal length and focus
- Cable managed bracket
- Pipeline adaptor optional
- IP66 Waterproof

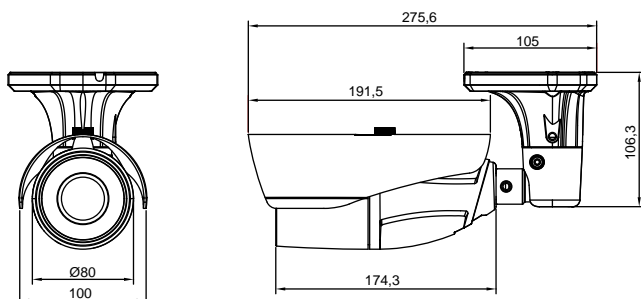
External adjustment



External adjustment controller for focal-length

DIMENSIONS

Unit : mm



SPECIFICATIONS

MODEL	IRV-M12-36
Image Sensor	1/3" Panasonic CMOS
Total Pixels	2010(H) x 1108(V) = 2,227,080 (pixel)
Active pixels	1944(H) x 1092(V) = 2,122,848 (pixel)
Scanning system	Progressive
Resolution	Digital : 1920x1080p(1080p/30fps) , 1280x720p(720p/60fps) Analog : 700TVL
Min. illumination	Color : 1.0 lux , BW : 0.5lux, Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video Output	HD-SDI, Analog : NTSC, PAL(without WDR)
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	DC / Manual
SHUT SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
SMART IR	Off / On
WHITE BAL	Auto / Preset / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	E.ZOOM
HLC	Off / On
ACE	Off / On
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	OFF / ON
PRIVACY	Off / On (32 points)
MOTION	Off / On (4 points)
SHADING DET	Off / On
SHADING	Off / On
DEFECT DET	Off / On
DEFOG	Off / On
SYSTEM	NTSC / PAL
HD FORMAT	1080P / 720P
PG	Off / On
CVBS	Off / On
COMM	ID (1 ~ 255) BAUDRATE (2400 / 4800 / 9600 / 19200 / 38400 / 57600/115200) PROTOCOL (PELCO-P / PELCO-D / UPDATE)
DEFAULT	ON / DONE
Language	English
OSD Text	0 ~ 9 , A ~ Z , a ~ z
Power Source	12V DC±10% (24VAC/12VDC Dual : optional)
Video Output(HD-SDI)	BNC Connector
Operating Temperature	-10℃ ~ +50℃ (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20℃ ~ +60℃ (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 1.2kg

IRV-M13-36

2MP HD-SDI IR Bullet Camera

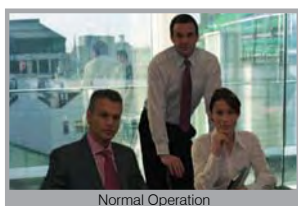
HD-SDI



FEATURES

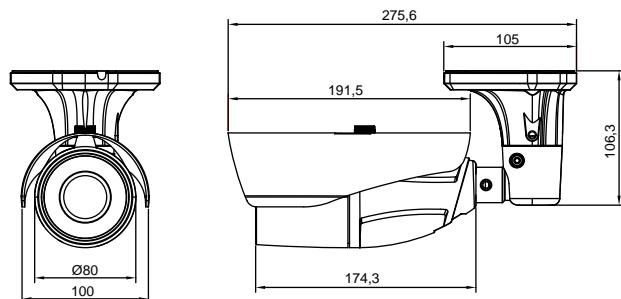
- 2M 1080p Full HD with Panasonic CMOS
- HD-SDI (SMPTE292M)
- Composite Video output (750TV Lines)
- Supports Real WDR & ACE
(Advanced Contrast Enhancement)
- IR LED 36pcs, IR LED Range 15~18m(50~60ft)
- Support DNR & DSS
- Support Privacy Mask & HLMask
- Intelligent Motion Detection
- Multi-protocol support through RS-485
- Wider range of SMART IR function
- 2.8~10mm Varifocal Lens
- CDS Auto switching IR LED control
- OSD control with Wireless Remocon
- Externally Adjustable focal length and focus
- Cable managed bracket
- Pipeline adaptor optional
- IP66 Waterproof

Real WDR



DIMENSIONS

Unit : mm



SPECIFICATIONS

MODEL	IRV-M13-36
Image Sensor	1/3" Panasonic CMOS
Total Pixels	2010(H) x 1108(V) = 2,227,080 (pixel)
Active pixels	1944(H) x 1092(V) = 2,122,848 (pixel)
Scanning system	Progressive
Resolution	Digital : 1080p/60(50)fps, 1080p/30(25)fps, 1080i/60(50)fps, 720p/60(50)fps Analog : 700TVL
Min. illumination	Color : 1.0 lux , BW : 0.5lux, Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video Output	HD-SDI, Analog : NTSC, PAL(without WDR)
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	DC / Manual
SHUT SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
SMART IR	Off / On
WHITE BAL	Auto / Preset / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	E.ZOOM
HLC	Off / On
ACE	Off / On
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	OFF / ON
PRIVACY	Off / On (32 points)
MOTION	Off / On (4 points)
SHADING DET	Off / On
DEFECT DET	Off / On
DEFOG	Off / On
SYSTEM	NTSC / PAL
HD FORMAT	1080P / 720P
PG	Off / On
CVBS	Off / On
COMM	ID (1 ~ 255) BAUDRATE (2400 / 4800 / 9600 / 19200 / 38400 / 57600/115200) PROTOCOL (PELCO-P / PELCO-D / UPDATE)
Power Source	12V DC ± 10% (24VAC/12VDC Dual : optional)
Video Output(HD-SDI)	BNC Connector
Operating Temperature	-10 °C ~ +50 °C (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20 °C ~ +60 °C (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 1.2kg

External adjustment



External adjustment controller for focal-length

MB-12

2MP HD-SDI Box Camera

HD-SDI

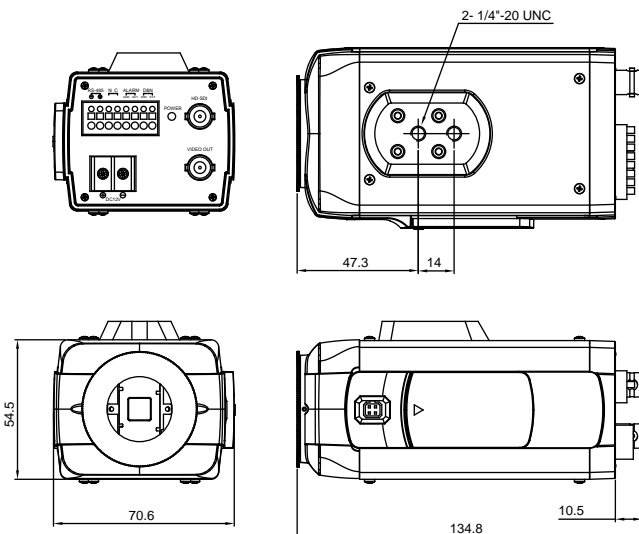


FEATURES

- 1/3" 2Mega pixel CMOS image sensor that supports both Full HD of 1080p and HD 720p (Max 1,100TV Lines, OSD selectable)
- Using progressive scan and Auto WDR
- Supports DSS(Digital Slow Shutter) and 3D DNR(Dynamic Noise Reduction) to enhance the performance in low-light environment
- Minimum illumination of Color 1.0 lux (DSS off)
- Supports not only SDI output, but also analog spot-out
- Supports various white balance mode of Auto, One pushing and Manual
- Supports ACE (Advanced Contrast Enhancement)
- Supports various digital features of Mirror, Flip, Digital Zoom, Privacy Masking, Motion Detection, Sharpness control and shading
- Supports Multi-protocol of Pelco D/P
- Supports TDN IR Cut-filter change

DIMENSIONS

Unit : mm



- 2Mega Pixel
- 1080p & 720p
- WDR & ACE
- DSS & 3D-DNR

SPECIFICATIONS

MODEL	MB-12
Image Sensor	1/3" Panasonic CMOS
Total Pixels	2010(H) x 1108(V) = 2,227,080 (pixel)
Active pixels	1944(H) x 1092(V) = 2,122,848 (pixel)
Scanning system	Progressive
Resolution	Digital ; 1920x1080p(1080p/30fps) , 1280x720p(720p/60fps) Analog : 700TVL
Min. illumination	Color : 1.0 lux , BW : 0.5lux, Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video Output	HD-SDI, Analog : NTSC, PAL(without WDR)
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	C/CS mount lens
SHUTTER SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
SMART IR	Off / On
WHITE BALANCE	Auto / Preset / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	x1 ~ x32
HLC	Off / On
ACE	Off / On
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	OFF / ON
PRIVACY	Off / On (32 points)
MOTION	Off / On (4 points)
SHADING DET	Off / On
SHADING	Off / On
DEFECT DET	Off / On
DEFOG	Off / On
SYSTEM	NTSC / PAL
HD FORMAT	1080P / 720P
PG(Pattern Generator)	Off / On
CVBS	Off / On
COMMUNICATION	ID (1 ~ 255) BAUDRATE (2400 / 4800 / 9600 / 19200 / 38400 / 57600/115200) PROTOCOL (PELCO-P / PELCO-D / UPDATE)
DEFAULT	ON / DONE
Language	English,Japanese,Chinese
OSD Text	0 ~ 9 , A ~ Z , a ~ z
Power Source	DC12V±10%
Power Consumption	Max : 350mA
Power Input	TERMINAL BLOCK
Video Output(HD-SDI)	BNC Connector
Operating Temperature	-10℃ ~ +50℃ (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20℃ ~ +60℃ (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 0.32kg

MB-13

2MP HD-SDI Box Camera

HD-SDI



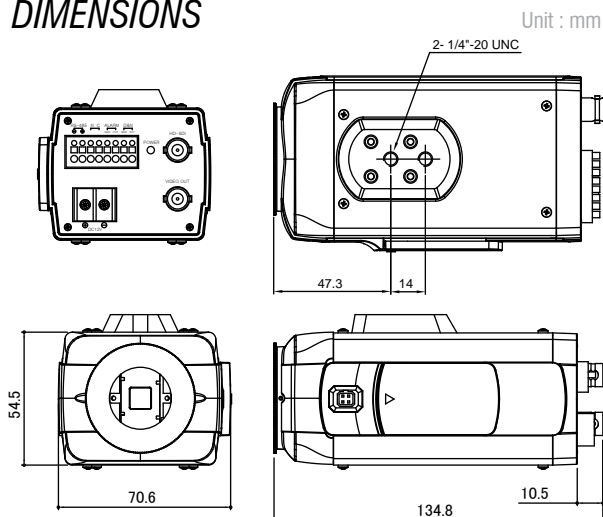
FEATURES

- 1/3" 2Mega pixel CMOS image sensor that supports both Full HD of 1080p and HD 720p (Max 1,100TV Lines, OSD selectable)
- Using progressive scan and Real WDR
- Supports DSS(Digital Slow Shutter) and 3D DNR(Dynamic Noise Reduction) to enhance the performance in low-light environment
- Minimum illumination of Color 1.0 lux (DSS off)
- Supports not only SDI output, but also analog spot-out
- Supports various white balance mode of Auto, One pushing and Manual
- Supports ACE (Advanced Contrast Enhancement)
- Supports various digital features of Mirror, Flip, Digital Zoom, Privacy Masking, Motion Detection, Sharpness control and shading
- Supports Multi-protocol of Pelco D/P
- Supports TDN IR Cut-filter change

Real WDR



DIMENSIONS



- 2Mega Pixel
- 1080/60p
- Real WDR
- DSS & 3D-DNR

SPECIFICATIONS

MODEL	MB-13
Image Sensor	1/3" Panasonic CMOS
Total Pixels	2010(H) x 1108(V) = 2,227,080 (pixel)
Active pixels	1944(H) x 1092(V) = 2,122,848 (pixel)
Scanning system	Progressive
Resolution	Digital : 1080p/60(50)fps, 1080p/30(25)fps, 1080i/60(50)fps, 720p/60(50)fps Analog : 700TVL
Min. illumination	Color : 1.0 lux , BW : 0.5lux, Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video Output	HD-SDI, Analog : NTSC, PAL(without WDR)
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	C/CS mount lens
SHUTTER SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
SMART IR	Off / On
WHITE BALANCE	Auto / Preset / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	x1 ~ x32
HLC	Off / On
ACE	Off / On
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	OFF / ON
PRIVACY	Off / On (32 points)
MOTION	Off / On (4 points)
SHADING DET	Off / On
SHADING	Off / On
DEFECT DET	Off / On
DEFOG	Off / On
SYSTEM	NTSC / PAL
HD FORMAT	1080P / 720P
PG(Pattern Generator)	Off / On
CVBS	Off / On
COMMUNICATION	ID (1 ~ 255) BAUDRATE (2400 / 4800 / 9600 / 19200 / 38400 / 57600/115200) PROTOCOL (PELCO-P / PELCO-D / UPDATE)
DEFAULT	ON / DONE
Language	English, Japanese, Chinese
OSD Text	0 ~ 9 , A ~ Z , a ~ z
Power Source	DC12V±10%
Power Consumption	Max : 350mA
Power Input	TERMINAL BLOCK
Video Output(HD-SDI)	BNC Connector
Operating Temperature	-10℃ ~ +50℃ (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20℃ ~ +60℃ (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 0.32kg

BF-M11-24

2MP HD-SDI Mini Bullet Camera

HD-SDI

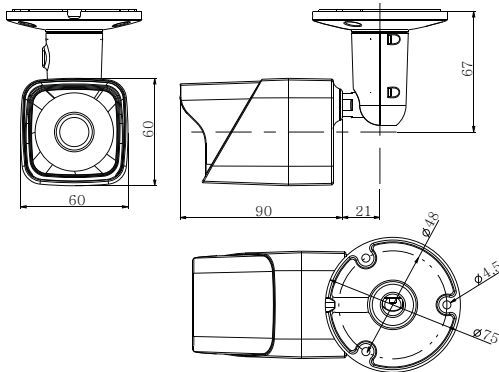


FEATURES

- 1/2.9" Sony "Exmor" CMOS Sensor
- Full HD Resolution: 1080p 30fps/ 720p 60fps
- 24 IR LEDs
- 4mm Mega Pixel Fixed lens
- WDR (Wide Dynamic Range)
- True D&N IR Cut Filter Mechanism(TDN)
- DNR (Digital Noise Reduction: 2D + 3D)
- Privacy Mask Function
- Intelligent Motion Detection
- Defog Function: Defogging foggy video image
- Built-in OSD Control joystick
- IP66 Outdoor Housing

DIMENSIONS

Unit : mm



SPECIFICATIONS

MODEL	BF-M11-24
Image Sensor	1/2.9" Sony "Exmor" CMOS Sensor
Total Pixels	2,000(H) x 1,121(V), 2.24M Pixels
Active pixels	1,936(H) x 1,105(V), 2.12M Pixels
Scanning system	Progressive
Resolution	Digital ; 1920x1080p(1080p/30fps) , 1280x720p(720p/60fps)
Min. illumination	Color : 0.5 lux , BW : 0.1lux Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video Output	BNC(HD-SDI)
Lens	4mm Fixed Lens
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	DC / Manual
SHUT SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
FLICKERLESS	Off / On
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
WHITE BAL	Auto / One Push / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	Off/ Max x2~x32
HLC	Off / On
ACE	Off / Low/Middle/High
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	Off / On
PRIVACY	24 points
MOTION	3 points
SHADING DET	Off / On
SHADING	Off / On
DEFECT DET	One Push (Enter)
DEFOG	Off / On
HD FORMAT	1080P / 720P
Language	English,Japanese,Chinese
Power Source	DC12V±10%
Power Consumption	Max 700mA
Power Input	Connector
Operating Temperature	-10℃ ~ +50℃ (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20℃ ~ +60℃ (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 0.42kg

Compatible HD DVR Configuration



⋮

Up to
4 & 7 HD Cameras



WH-410/710: 4/7CH HD DVR



Web client



MOBILE VIEWER



CMS



DF-M11-12

2MP HD-SDI Indoor Dome Camera

HD-SDI
DC K

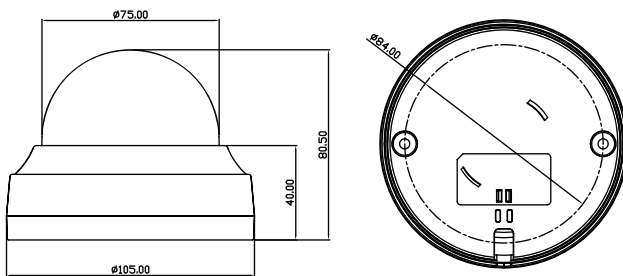


FEATURES

- 1/2.9" Sony "Exmor" CMOS Sensor
- Full HD Resolution: 1080p 30fps/ 720p 60fps
- 12 IR LEDs
- 4mm Fixed Lens
- WDR (Wide Dynamic Range)
- True D&N IR Cut Filter Mechanism(TDN)
- DNR (Digital Noise Reduction: 2D + 3D)
- Privacy Mask Function
- Intelligent Motion Detection
- Defog Function: Defogging foggy video image
- Dome size :75Ø
- Plastic housing for indoor application

DIMENSIONS

Unit : mm



SPECIFICATIONS

MODEL	DF-M11-12
Image Sensor	1/2.9" Sony "Exmor" CMOS Sensor
Total Pixels	2,000(H) x 1,121(V), 2.24M Pixels
Active pixels	1,936(H) x 1,105(V), 2.12M Pixels
Scanning system	Progressive
Resolution	Digital ; 1920x1080p(1080p/30fps) , 1280x720p(720p/60fps)
Min. illumination	Color : 0.5 lux , BW : 0.1lux Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video Output	BNC(HD-SDI)
Lens	4mm Fixed Lens
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	DC / Manual
SHUT SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
FLICKERLESS	Off / On
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
WHITE BAL	Auto / One Push / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	Off/ Max x2~x32
HLC	Off / On
ACE	Off / Low/Middle/High
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	Off / On
PRIVACY	24 points
MOTION	3 points
SHADING DET	Off / On
SHADING	Off / On
DEFECT DET	One Push (Enter)
DEFOG	Off / On
HD FORMAT	1080P / 720P
Language	English,Japanese,Chinese
Power Source	DC12V±10%
Power Consumption	Max 700mA
Power Input	Connector
Operating Temperature	-10℃ ~ +50℃ (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20℃ ~ +60℃ (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 0.16kg

DF-M11-12

Compatible HD DVR Configuration



Up to

4 & 7 HD Cameras



WH-410/710: 4/7CH HD DVR



MOBILE VIEWER



FlatP-M12

2MP HD-SDI Interior Flat Camera

HD-SDI

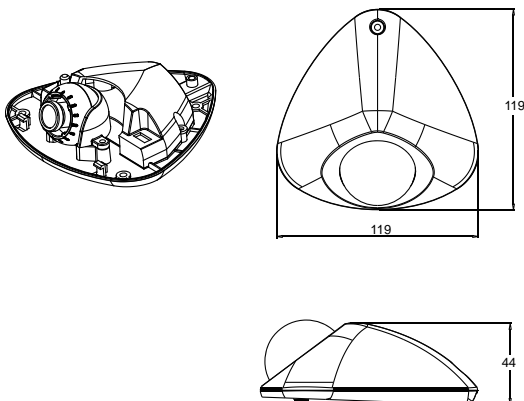


FEATURES

- 1/3" 2Mega pixel CMOS image sensor that supports both Full HD of 1080p and HD 720p (Max 1,100TV Lines, OSD selectable)
- Using progressive scan and Auto WDR
- Supports DSS(Digital Slow Shutter) and 3D DNR(Dynamic Noise Reduction) to enhance the performance in low-light environment
- Minimum illumination of Color 1.0 lux (DSS off)
- Supports not only SDI output, but also analog spot-out
- Supports various white balance mode of Auto, One pushing and Manual
- Supports ACE (Advanced Contrast Enhancement)
- Supports various digital features of Mirror, Flip, Digital Zoom, Privacy Masking, Motion Detection, Sharpness control and shading
- 3.0mm Mega-pixel Fixed Lens
- Supports Multi-protocol of Pelco D/P
- Superior design concept of Flat dome

DIMENSIONS

Unit : mm



- ❖ 2Mega Pixel
- ❖ 1080p & 720p
- ❖ WDR & ACE
- ❖ DSS & 3D-DNR

SPECIFICATIONS

MODEL	FlatP-M12
Image Sensor	1/3" Panasonic CMOS
Total Pixels	2010(H) x 1108(V) = 2,227,080 (pixel)
Active pixels	1944(H) x 1092(V) = 2,122,848 (pixel)
Scanning system	Progressive
Resolution	Digital ; 1920x1080p(1080p/30fps) , 1280x720p(720p/60fps) Analog : 700TVL
Min. illumination	Color : 1.0 lux , BW : 0.5lux, Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video Output	HD-SDI, Analog : NTSC, PAL(without WDR)
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	3.0mm fixed lens
SHUTTER SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
WHITE BALANCE	Auto / Preset / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	E.ZOOM
HLC	Off / On
ACE	Off / On
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	OFF / ON
PRIVACY	Off / On (32 points)
MOTION	Off / On (4 points)
SHADING DET	Off / On
SHADING	Off / On
DEFECT DET	Off / On
DEFOG	Off / On
SYSTEM	NTSC / PAL
HD FORMAT	1080P / 720P
PG(Pattern Generator)	Off / On
CVBS	Off / On
COMMUNICATION	ID (1 ~ 255) BAUDRATE (2400 / 4800 / 9600 / 19200 / 38400 / 57600/115200) PROTOCOL (PELCO-P / PELCO-D / UPDATE)
DEFAULT	ON / DONE
Language	English,Japanese,Chinese
OSD Text	0 ~ 9 , A ~ Z , a ~ z
Power Source	DC12V±10%
Power Consumption	Max 250mA
Power Input	DC JACK
Video Output(HD-SDI)	BNC CONNECTOR
Operating Temperature	-10℃ ~ +50℃ (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20℃ ~ +60℃ (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 0.23kg

FlatV-M12

2MP HD-SDI Exterior Flat Camera

HD-SDI

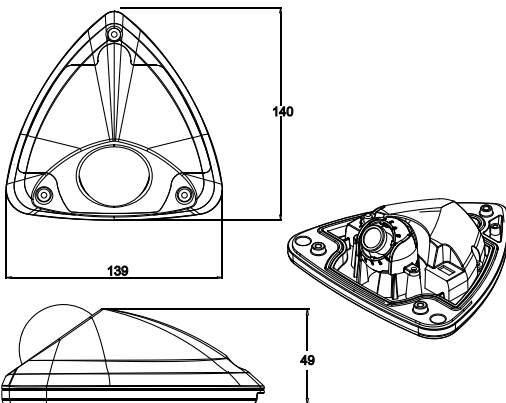


FEATURES

- 1/3" 2Mega pixel CMOS image sensor that supports both Full HD of 1080p and HD 720p (Max 1,100TV Lines, OSD selectable)
- Using progressive scan and Auto WDR
- Supports DSS(Digital Slow Shutter) and 3D DNR(Dynamic Noise Reduction) to enhance the performance in low-light environment
- Minimum illumination of Color 1.0 lux (DSS off)
- Supports not only SDI output, but also analog spot-out
- Supports various white balance mode of Auto, One pushing and Manual
- Supports ACE (Advanced Contrast Enhancement)
- Supports various digital features of Mirror, Flip, Digital Zoom, Privacy Masking, Motion Detection, Sharpness control and shading
- 3.0mm Mega-pixel Fixed Lens
- Supports Multi-protocol of Pelco D/P
- IP66 Aluminum Die-casting Housing
- Superior design concept of Flat dome

DIMENSIONS

Unit : mm



- ✦ 2Mega Pixel
- ✦ 1080p & 720p
- ✦ WDR & ACE
- ✦ DSS & 3D-DNR

SPECIFICATIONS

MODEL	FlatV-M12
Image Sensor	1/3" Panasonic CMOS
Total Pixels	2010(H) x 1108(V) = 2,227,080 (pixel)
Active pixels	1944(H) x 1092(V) = 2,122,848 (pixel)
Scanning system	Progressive
Resolution	Digital ; 1920x1080p(1080p/30fps) , 1280x720p(720p/60fps) Analog : 700TVL
Min. illumination	Color : 1.0 lux , BW : 0.5lux, Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video Output	HD-SDI, Analog : NTSC, PAL(without WDR)
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	3.0mm fixed lens
SHUTTER SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
WHITE BALANCE	Auto / Preset / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	E.ZOOM
HLC	Off / On
ACE	Off / On
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	OFF / ON
PRIVACY	Off / On (32 points)
MOTION	Off / On (4 points)
SHADING DET	Off / On
SHADING	Off / On
DEFECT DET	Off / On
DEFOG	Off / On
SYSTEM	NTSC / PAL
HD FORMAT	1080P / 720P
PG(Pattern Generator)	Off / On
CVBS	Off / On
COMMUNICATION	ID (1 ~ 255) BAUDRATE (2400 / 4800 / 9600 / 19200 / 38400 / 57600/115200) PROTOCOL (PELCO-P / PELCO-D / UPDATE)
DEFAULT	ON / DONE
Language	English
OSD Text	0 ~ 9 , A ~ Z , a ~ z
Power Source	DC12V ± 10%
Power Consumption	Max 250mA
Power Input	DC JACK
Video Output(HD-SDI)	BNC CONNECTOR
Operating Temperature	-10℃ ~ +50℃ (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20℃ ~ +60℃ (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 0.46kg

MV-110

2MP HD-SDI Mini Outdoor Camera

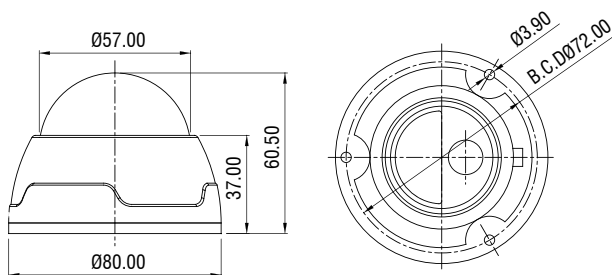
HD-SDI



FEATURES

- 1/2.9" Sony "Exmor" CMOS Sensor
- Full HD Resolution: 1080p 30fps/ 720p 60fps
- 3mm Mega Pixel Fixed lens
- WDR (Wide Dynamic Range)
- DNR (Digital Noise Reduction)
- Privacy Mask Function
- Intelligent Motion Detection
- Defog Function: Defogging foggy video image
- Supports Pelco-D/P Protocol
- Flush mount type available
- IP66 rating, Aluminum diecasting vandal-proof camera
- Dome size: 57 \varnothing
- Base plate bracket bundled for easier wiring
- E-mark for vehicle application (Wedge mount bracket optional)

DIMENSIONS



SPECIFICATIONS

MODEL	MV-110
Image Sensor	1/2.9" CMOS Sensor
Total Pixels	2,000(H) x 1,121 (V), 2.24M Pixels
Active pixels	1,936(H) x 1,105(V), 2.12M Pixels
Scanning system	Progressive
Resolution	Digital ; 1920x1080p(1080p/30fps) , 1280x720p(720p/60fps) Analog : 700TVL
Min. illumination	Color : 0.5 lux , BW : 0.1lux Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video Output	HD-SDI, Test Video Out (Analog : NTSC, PAL)
Lens	3mm Fixed Lens
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	DC / Manual
SHUT SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
FLICKERLESS	Off / On
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
SMART IR	Off / On
WHITE BAL	Auto / One Push / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	x1 ~ x32
HLC	Off / On
ACE	Off / On
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	Off / On
PRIVACY	Off / On (32 points)
MOTION	Off / On (4 points)
SHADING DET	Off / On
SHADING	Off / On
DEFECT DET	Off / On
DEFOG	Off / On
HD FORMAT	1080P / 720P
PG	Off / On
CVBS	Off / On
COMM	ID (1 ~ 255) BAUDRATE (2400 / 4800 / 9600 / 19200 / 38400 / 57600/115200) PROTOCOL (PELCO-P / PELCO-D / UPDATE)
Language	English,Japanese,Chinese
Power Source	DC12V \pm 10%
Power Consumption	Max 250mA
Power Input	Connector
Operating Temperature	-10 $^{\circ}$ C ~ +50 $^{\circ}$ C (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20 $^{\circ}$ C ~ +60 $^{\circ}$ C (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 0.26kg

MB-202

2MP x20 AF HD-SDI Box Camera

HD-SDI

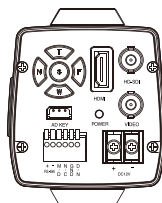
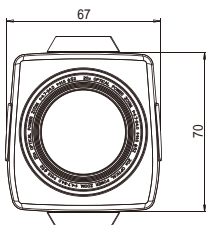
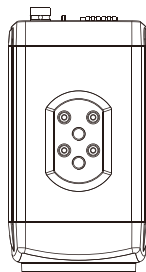
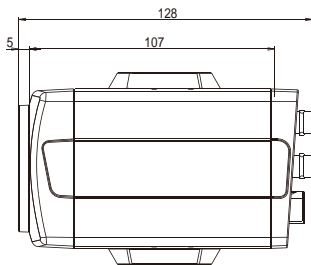


FEATURES

- 1/3" Panasonic CMOS sensor
2,227,080pixels(Total) / 2,122,848pixels(Active)
- x20 Optical Zoom
- Full HD Resolution
1920x1080p / 30fps
1280x720p / 60fps
- Day & Night (ICR)
- WDR (Wide Dynamic Range)
- DNR (Digital Noise Reduction, 2D+3D)
- Privacy mask Function
- Intelligent motion detection
- Defog
- HLC(High Light Compensation Function)
- Protocol (VISCA, Pelco-D, Pelco-P)

DIMENSIONS

Unit : mm



- Multi Video Format out
HDMI, HD-SDI, CVBS

SPECIFICATIONS

MB-202		
Image sensor	Sensor type	1/3" Panasonic CMOS
	Total pixels	2010(H) x 1108(V) = 2,227,080
	Active pixels	1944(H) x 1092(V) = 2,122,648
Resolution		1920 x 1080 (1080p/30fps)
		1280 x 720 (720p/60fps)
		(Analog : 700TVL)
Scanning system		Progressive
Min.Illumination		Color : 1.0 lux , BW : 0.5 lux
		Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video output		HDMI, HD-SDI, CVBS
S/N Ratio		More than 50dB(AGC off)
Lens	Lens type	x20, Day & Night Zoom Lens
	Zoom Ratio	Optical x20 , Digital x32
	Focal length	f = 4.7 mm ~ 94 mm
	Aperture Ratio	F1.6 (wide) ~ F3.5 (tele)
	Focus distance	0.1 / 1.0 / 2.0 / 3.7 / 11.0 m
Function	E.zoom	Off / x2 ~ x32
	Exposure	Auto / Manual
	Gain control	Off / On (Auto max.30dB)
	Shutter speed	1/30(1/25) ~ 1/30,000
	Digital Shutter Speed	Off / x2 ~ x4
	Brightness	1 ~ 15 steps
	Output format	1080p / 720p
	Frequency	60Hz / 50Hz
	WDR	Off / On
	BLC	Off / On
	HLC	Off / On
	Day & Night	Auto / Day / Night / Ext.
	White Balance	ATW / Preset / Indoor / Outdoor / Manual
	DNR	Off / Auto / Low / Middle / High
	Privacy Mask	Off / 32 positions
	Motion Detection	Off / 4 positions
	Defog	Off / On
	Mirror	Off / H / V / H+V
	Sharpness	Off / On
	Shading	Off / On
	Smart IR	Off / On
	Defect compensation	Off / On
	Pattern Generation	Off / On
CVBS output	Off / On	
Communication	Protocol	Pelco -D / Pelco-P / VISCA
	Baud Rate	2400 / 4800 / 9600 / 19200 / 38400 / 57600
Electrical	Power source	DC 12V ± 10%
	Power consumption	Max 500mA
General	Operating Temperature	-10℃ ~ 50℃
	Storage Temperature	-20℃ ~ 60℃
Weight		Approximately 0.56kg

REMOTE CONTROLLER

IRC-300



Key setting : TELE(UP) , WIDE(DOWN)
NEAR(LEFT), FAR(RIGHT)
MENU, F1, F2

MB-302

2MP x30 AF HD-SDI Box Camera

HD-SDI

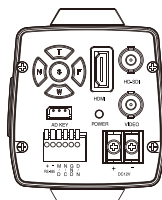
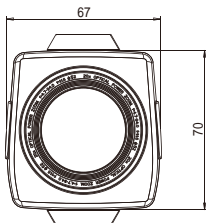
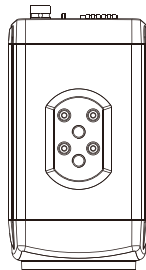
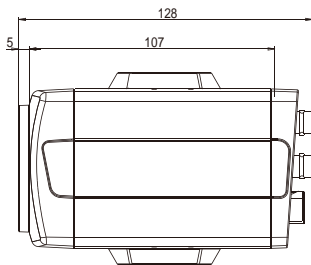


FEATURES

- 1/3" Panasonic CMOS sensor
2,227,080pixels(Total) / 2,122,848pixels(Active)
- x30 Optical Zoom
- Full HD Resolution
1920x1080p / 30fps
1280x720p / 60fps
- Day & Night (ICR)
- WDR (Wide Dynamic Range)
- DNR (Digital Noise Reduction, 2D+3D)
- Privacy mask Function
- Intelligent motion detection
- Defog
- HLC(High Light Compensation Function)
- Protocol (VISCA, Pelco-D, Pelco-P)

DIMENSIONS

Unit : mm



- Multi Video Format out
HDMI, HD-SDI, CVBS

SPECIFICATIONS

MB-302		
Image sensor	Sensor type	1/3" Panasonic CMOS
	Total pixels	2010(H) x 1108(V) = 2,227,080
	Active pixels	1944(H) x 1092(V) = 2,122,648
Resolution		1920 x 1080 (1080p/30fps)
		1280 x 720 (720p/60fps)
		(Analog : 700TVL)
Scanning system		Progressive
Min.Illumination		Color : 0.5 lux , BW : 0.1 lux
		Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video output		HDMI, HD-SDI, CVBS
S/N Ratio		More than 50dB(AGC off)
Lens	Lens type	x30, Day & Night Zoom Lens
	Zoom Ratio	Optical x30 , Digital x32
	Focal length	f = 4.3 mm ~ 129 mm
	Aperture Ratio	F1.6 (wide) ~ F4.7 (tele)
	Focus distance	0.1 / 0.5 / 0.8 / 1.0 / 3.0 / 6.0 / 10.0 m
	Function	E.zoom
Exposure		Auto / Manual
Gain control		Off / On (Auto max.30dB)
Shutter speed		1/30(1/25) ~ 1/60,000
Digital Shutter Speed		Off / x2 ~ x4
Brightness		1 ~ 20 steps
Output format		1080p / 720p
Frequency		60Hz / 50Hz
WDR		Off / On
BLC		Off / On
HLC		Off / On
Day & Night		Auto / Day / Night / Ext.
White Balance		ATW / Preset / Indoor / Outdoor / Manual
DNR		Off / Auto / Low / Middle / High
Privacy Mask		Off / 24 positions
Motion Detection		Off / 4 positions
Defog		Off / On
Mirror		Off / H / V / H+V
Sharpness		Off / On
Shading		Off / On
Smart IR		Off / On
Defect compensation		Off / On
Pattern Generation	Off / On	
CVBS output	Off / On	
Communication	Protocol	Pelco -D / Pelco-P / VISCA
	Baud Rate	2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200
Electrical	Power source	9V to 15V DC
	Power consumption	Max 500mA
General	Operating Temperature	-5℃ ~ +60℃
	Storage Temperature	-20℃ ~ +60℃
Weight		Approximately 0.57kg

REMOTE CONTROLLER

IRC-300



Key setting : TELE(UP) , WIDE(DOWN)
NEAR(LEFT) , FAR(RIGHT)
MENU, F1, F2

MB-303

2MP x30 AF HD-SDI Box Camera

HD-SDI



FEATURES

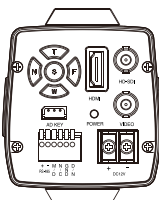
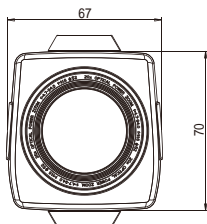
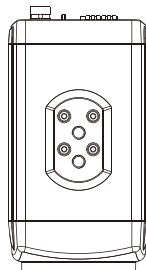
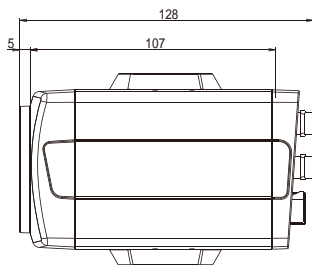
- 1/3" Panasonic CMOS sensor
2,227,080pixels(Total) / 2,122,848pixels(Active)
- x30 Optical Zoom
- Full HD Resolution
1920x1080p / 60fps (50fps)/30fps(25fps)
1920x1080i / 60fps(50fps)
1280x720p / 60fps(50fps)
- Day & Night (ICR)
- Real WDR (Wide Dynamic Range)
- DNR (Digital Noise Reduction, 2D+3D)
- Privacy mask Function
- Intelligent motion detection
- Defog
- HLC(High Light Compensation Function)
- Protocol (VISCA, Pelco-D, Pelco-P)

Real WDR



DIMENSIONS

Unit : mm



- ❖ Real WDR
- ❖ Multi Video Format out
HDMI, HD-SDI, CVBS

SPECIFICATIONS

MB-303		
Image sensor	Sensor type	1/3" Panasonic CMOS
	Total pixels	2010(H) x 1108(V) = 2,227,080
	Active pixels	1944(H) x 1092(V) = 2,122,648
Resolution		1920 x 1080 (1080p)/60fps (50fps)/30fps(25fps)
		1920x1080i (1080i / 60fps(50fps))
		1280 x 720 (720p/60fps/50fps)
		(Analog : 700TVL)
Scanning system		Progressive
Min. Illumination		Color : 0.5 lux , BW : 0.1 lux
		Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video output		HDMI, HD-SDI, CVBS
S/N Ratio		More than 50dB(AGC off)
Lens	Lens type	x30, Day & Night Zoom Lens
	Zoom Ratio	Optical x30 , Digital x32
	Focal length	f = 4.3 mm ~ 129 mm
	Aperture Ratio	F1.6 (wide) ~ F4.7 (tele)
	Focus distance	0.1 / 0.5 / 0.8 / 1.0 / 3.0 / 6.0 / 10.0 m
	Function	E. zoom
	Exposure	Auto / Manual
	Gain control	Off / On (Auto max.30dB)
	Shutter speed	1/30(1/25) ~ 1/60,000
	Digital Shutter Speed	Off / x2 ~ x4
	Brightness	1 ~ 20 steps
	Output format	1080p / 1080i / 720p
	Frequency	60Hz / 50Hz
	WDR	Off / On
	BLC	Off / On
	HLC	Off / On
	Day & Night	Auto / Day / Night / Ext.
	White Balance	ATW / Preset / Indoor / Outdoor / Manual
	DNR	Off / Auto / Low / Middle / High
	Privacy Mask	Off / 24 positions
	Motion Detection	Off / 4 positions
	Defog	Off / On
	Mirror	Off / H / V / H+V
	Sharpness	Off / On
	Shading	Off / On
	Smart IR	Off / On
	Defect compensation	Off / On
	Pattern Generation	Off / On
	CVBS output	Off / On
Communication	Protocol	Pelco -D / Pelco-P / VISCA
	Baud Rate	2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200
Electrical	Power source	9V to 15V DC
	Power consumption	Max 500mA
General	Operating Temperature	-5°C ~ +60°C
	Storage Temperature	-20°C ~ +60°C
Weight		Approximately 0.57kg

REMOTE CONTROLLER

IRC-300



Key setting : TELE(UP) , WIDE(DOWN)
NEAR(LEFT) , FAR(RIGHT)
MENU, F1, F2

MS-101

2MP HD-SDI Mini Box Camera

HD-SDI

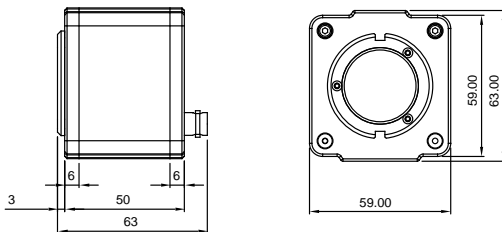


FEATURES

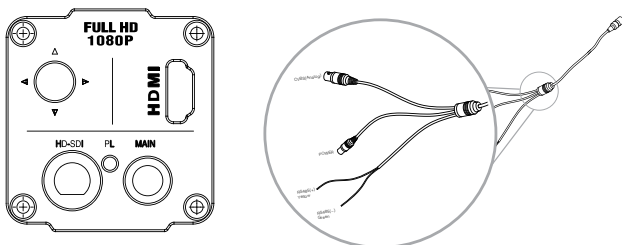
- 2M 1080p Full HD with Panasonic CMOS
- HDMI OUT
- HD SDI (SMPTE292M)
- Composite Video output (750TV Lines)
- Digital Zoom Max x32
- Day & Night
- Wide Dynamic Range
- Privacy Mask Function
- On Screen Display
- Intelligent motion detection
- Defog function
- C/CS Mount

DIMENSIONS

Unit : mm



Connections



- Multi Video Format out
HDMI, HD-SDI, CVBS

SPECIFICATIONS

MODEL	MS-101
Image Sensor	1/3" Panasonic CMOS
Total Pixels	2010(H) x 1108(V) = 2,227,080 (pixel)
Active pixels	1944(H) x 1092(V) = 2,122,848 (pixel)
Scanning system	Progressive
Resolution	Digital ; 1920x1080p(1080p/30fps) , 1280x720p(720p/60fps) Analog : 700TVL
Min. illumination	Color : 1.0 lux , BW : 0.5lux, Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video Output	HD-SDI, Analog : NTSC, PAL(without WDR)
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	MS-101 : C/CS mount lens
SHUTTER SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
SMART IR	Off / On
WHITE BALANCE	Auto / Preset / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	x1 ~ x32
HLC	Off / On
ACE	Off / On
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	OFF / ON
PRIVACY	Off / On (32 points)
MOTION	Off / On (4 points)
SHADING DET	Off / On
SHADING	Off / On
DEFECT DET	Off / On
DEFOG	Off / On
SYSTEM	NTSC / PAL
HD FORMAT	1080P / 720P
PG(Pattern Generator)	Off / On
CVBS	Off / On
COMMUNICATION	ID (1 ~ 255) BAUDRATE (2400 / 4800 / 9600 / 19200 / 38400 / 57600/115200) PROTOCOL (PELCO-P / PELCO-D / UPDATE)
DEFAULT	ON / DONE
Language	English,Japanese,Chinese
OSD Text	0 ~ 9 , A ~ Z , a ~ z
Power Source	DC12V±10%
Power Consumption	250mA
Power Input	Connector
Video Output(HD-SDI)	BNC Connector
Operating Temperature	-10℃ ~ +50℃ (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20℃ ~ +60℃ (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 0.30kg

MS-103

2MP HD-SDI Mini Box Camera

HD-SDI

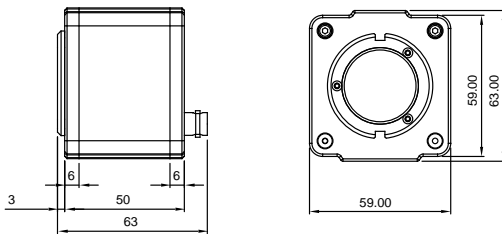


FEATURES

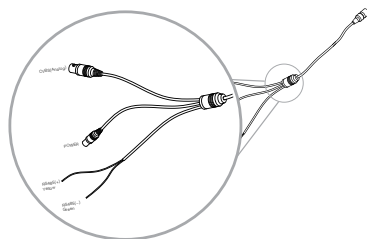
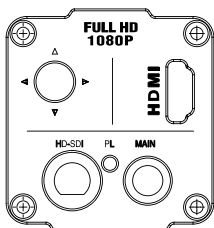
- 2M 1080p Full HD with Panasonic CMOS
- HDMI OUT
- HD SDI (SMPTE292M)
- Composite Video output (750TV Lines)
- Digital Zoom Max x32
- Day & Night
- Wide Dynamic Range
- Privacy Mask Function
- On Screen Display
- Intelligent motion detection
- Defog function
- C/CS Mount

DIMENSIONS

Unit : mm



Connections



- Multi Video Format out
HDMI, HD-SDI, CVBS

SPECIFICATIONS

MODEL	MS-103
Image Sensor	1/3" Panasonic CMOS
Total Pixels	2010(H) x 1108(V) = 2,227,080 (pixel)
Active pixels	1944(H) x 1092(V) = 2,122,848 (pixel)
Scanning system	Progressive
Resolution	Digital;1080p/60(50)fps, 1080p/30(25)fps, 1080i/60(50)fps, 720p/60(50)fps Analog : 700TVL
Min. illumination	Color : 1.0 lux , BW : 0.5lux, Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video Output	HD-SDI, Analog : NTSC, PAL(without WDR)
S/N Ratio	more than 50dB (AGC off)
BRIGHTNESS	0 ~ 20 steps
LENS	MS-103 : C/CS mount lens
SHUTTER SPEED	Auto / Manual (1/30(1/25) ~ 1/60000)
DSS	Off / x2 / x3 / x4
AGC	Off / On
WDR/BLC	Off / WDR / BLC
DAY&NIGHT	Auto / Day / Night / Ext
SMART IR	Off / On
WHITE BALANCE	Auto / Preset / Manual / Indoor / Outdoor
SHARPNESS	0 ~ 10 steps
MIRROR	Off / H / V / H&V
FREEZE	Off / On
E.ZOOM	x1 ~ x32
HLC	Off / On
ACE	Off / On
DNR	Off / Low / Middle / High / Auto
D.COMPRESS	OFF / ON
PRIVACY	Off / On (32 points)
MOTION	Off / On (4 points)
SHADING DET	Off / On
SHADING	Off / On
DEFECT DET	Off / On
DEFOG	Off / On
SYSTEM	NTSC / PAL
HD FORMAT	1080P / 720P
PG(Pattern Generator)	Off / On
CVBS	Off / On
COMMUNICATION	ID (1 ~ 255) BAUDRATE (2400 / 4800 / 9600 / 19200 / 38400 / 57600/115200) PROTOCOL (PELCO-P / PELCO-D / UPDATE)
DEFAULT	ON / DONE
Language	English,Japanese,Chinese
OSD Text	0 ~ 9 , A ~ Z , a ~ z
Power Source	DC12V±10%
Power Consumption	250mA
Power Input	Connector
Video Output(HD-SDI)	BNC Connector
Operating Temperature	-10℃ ~ +50℃ (Humidity : 0%RH ~ 80%RH)
Storage Temperature	-20℃ ~ +60℃ (Humidity : 0%RH ~ 90%RH)
Weight	Approximately 0.30kg

MS-300

2MP x3 AF HD-SDI Box Camera

HD-SDI



FEATURES

- 1/2.9" Sony "Exmor" CMOS sensor
All-Pixel Scan: 1920(H) X 1200(V) app. 2.3 Mega Pixel
- x3 Optical Zoom (3mm ~9mm)
- Full HD Resolution
1920x1080p / 30fps
1280x720p / 60fps
- Day & Night (ICR)
The ICR will automatically engage depending on the ambient light, allowing the camera to be effective in day & night environment.
- WDR (Wide Dynamic Range)
WDR, more effectively than previous models, by applying an optimum fusion ratio when combining the high speed shutter used in bright areas and the low speed shutter used in dark areas.
- DNR (Digital Noise Reduction, 2D+3D)
The DNR technology eliminates noise thus generating a distinct and clear image. This camera DNR function utilizes both an adaptive 2D filter reducing noise in the brightness of the image and an adaptive 3D filter reducing noise caused by movement.
- Privacy mask Function
The privacy zone function makes it possible to make specific areas of the scene from view.
- Intelligent motion detection
You can transmit an alert signal when it detects motion of an object on the screen. This feature is useful when you have to monitor several screens simultaneously.
- Defog
Defogging foggy video image.
- HLC(High Light Compensation Function)

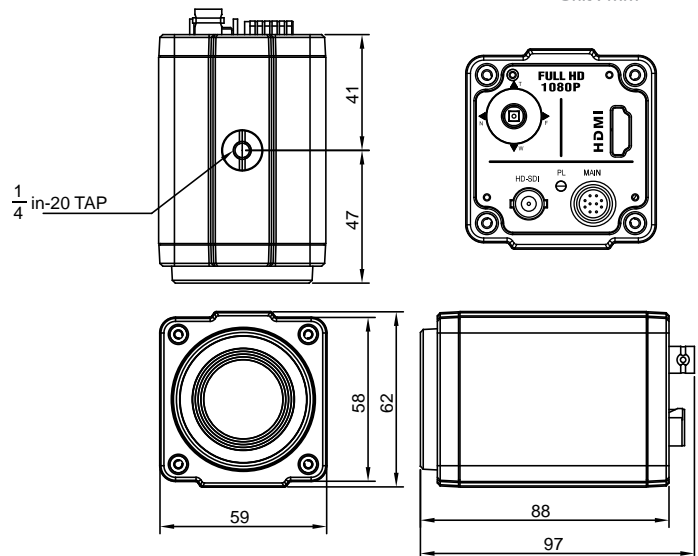
Multi Video Format out
HDMI, HD-SDI, CVBS

SPECIFICATIONS

MODEL	MS-300
Image Sensor	1/2.9" Sony "Exmor" CMOS
Effective pixels	Approx. 2 Mega Pixels
Aspect Ratio	16 : 9
Lens	x3 Optical Zoom f=3.0mm(wide) ~ 9.0mm(tele) F1.2 to F2.1
Digital Zoom	Max x32
Resolution	1080P/30, 720P/60
Min. illumination	Color : 0.5 lux , BW : 0.1lux Color DSS : 0.002 lux , BW DSS : 0.001 lux
Video Output	HDMI, HD-SDI, CVBS
S/N Ratio	more than 50dB (AGC off)
Camera Control Comm	Baud Rate:2400 / 4800 / 9600 / 19200 / 38400 / 57600 / 115200 Protocol : VISCA / Pelco-D / Pelco- P / Update
Focusing Mode	Auto / One Push / Manual
Shutter Speed	1/30(25) ~ 1/60,000 sec
WDR/BLC	OFF / WDR / BLC
White Balance	AUTO / One Push / Manual / Indoor / Outdoor
Power Source	9V to 15V DC
Power Consumption	Max 500mA
Storage Temperature	-20℃ ~ +60℃ (Humidity : 20%RH ~ 95%RH)
Operating Temperature	-5℃ ~ +60℃ (Humidity : 20%RH ~ 80%RH)
External Dimension	88 X 59 X 62 mm (tentative)
Weight	Approximately 0.57kg

DIMENSIONS

Unit : mm



Connections

