

# SONY



## BRC Series

Remote Cameras



# We've got your scene covered

From TV studios and sports stadiums to auditoriums, lecture halls and houses of worship – our sophisticated, dependable BRC remote cameras capture broadcast quality video footage in detail-packed 4K or Full HD for broadcasting and streaming. They're designed for unattended operation in hard-to-reach or unobtrusive places, with smooth, silent PTZ movement.

## Broadcast TV

Our feature-packed remote cameras deliver impeccable pictures in 4K or Full HD for TV stations, cable channels and internet broadcasters, and variety of production. Excellent low-light sensitivity and smooth, silent PTZ also makes them a discreet choice for capturing the action in reality TV shows. They're made for dependable on-air operation with tally lamps, a generous choice of professional interfaces and genlock for smooth integration into multi-camera broadcast environment.



## Houses of worship

Capture every detail of services, weddings and other ceremonies in any size of venue. Our discreet remote cameras are the natural choice for streaming crisp video footage in impressive 4K or Full HD from your house of worship to online audiences and members of the congregation. Remote operation with powerful optical zoom focuses on close-up details from a discreet distance. High sensitivity delivers exceptional image quality, even in low-light environments.

## Large auditoriums

From lecture halls to conference centers: our remote cameras ensure speakers and audience members are always clearly visible. Stream lectures, presentations and live performances with broadcast-quality images in 4K or Full HD. Speed control and silent PTZ movement frames presenters and audience reactions with fluid, professional camera moves. With multiple interfaces, flexible control options and Power over Ethernet, they easily integrate into any size venue.



## Live sports

Our BRC remote cameras give you and your viewing audience a prime view of live sports action. They're ideal for hard-to-reach locations where there's no space for a full-sized camera and dedicated cameraman - like right by the goal post, by a dangerous bend in a race track or hanging from the roof of a stadium. Grab all the excitement in detail-packed 4K or Full HD, with speedy remote PTZ operation and powerful Clear Image Zoom to ensure you'll never miss a moment.

## Live shows and exhibitions

Hundreds of different and unique exhibitions run at large venues all over the world, showcasing everything from the latest automotive advances, high fashion trends, to latest industry technologies. During the shows, presentations can be dramatically enhanced by streaming live content in 4K. With a Sony BRC remote camera, see details of fabrics and materials at fashion shows, or delicate stitching of interior car upholstery - not to mention the fast PTZ action to capture each moment.



# Product Line-up

	BRC-X1000 Series	BRC-H900	BRC-H800 Series
	 BRC-X1000/1 (black)    BRC-X1000/WPW (white) <b>HD 4K</b>	 <b>HD</b>	 BRC-H800/1 (black)    BRC-H800/WPW (white) <b>HD</b>
Image sensor	1.0-type Exmor R CMOS <b>Exmor R</b>	1/2-type Exmor CMOS x3 <b>Exmor</b>	1.0-type Exmor R CMOS <b>Exmor R</b>
Signal System	2160/29.97p, 25p, 23.98p 1080/59.94p, 50p, 59.94i, 50i, 720/59.94p, 50p, 2160/23.98p, 1080/23.98p	1080/59.94i, 50i 720/59.94p, 50p NTSC, PAL	1080/59.94p, 50p, 59.94i, 50i, 720/59.94p, 50p, 1080/23.98p
4K Video Output	Dual link 3G-SDI x2, HDMI	—	—
HD Video Output	3G-SDI x4, HDMI	HD-SDI, Component (Y/Pb/Pr) or RGB	3G-SDI x2, HDMI
SD Video Output	—	SD-SDI, Composite, Y/C	—
Minimum Illumination	1.7 lux (50IRE, F2.8, 1/30s, Max Gain)	4 lux (50IRE, F1.9, Max Gain)	1.7 lux (50IRE, F2.8, 1/30s, Max Gain)
Optical Zoom	12x	14x	12x
Clear Image Zoom	24x (HD), 18x (4K)	—	24x
Tele Convert Mode	Off, 2x *1920x1080 only	—	Off, 2x *1920x1080 only
Horizontal Viewing Angle	64.6 degree (Wide)	59.6 degree (Wide)	64.6 degree (Wide)
Preset positions	100	16	100
Serial Control	RS-422	RS-422, RS-232C	RS-422
IP Control	Yes	Yes (Option)*	Yes
ND filter	Yes	No	Yes
External sync	Yes	Yes	Yes
Paint control from RCP	Yes	Yes (Option)*	Yes
Power	DC10.8V to 13.2V, PoE+	DC10.8V to 13.2V	DC10.8V to 13.2V, PoE+

\* CNA-1 and HZC-BRCM1 are required.

# BRC-X1000 Series <sup>4K</sup>HD

Remotely capture broadcast quality 4K/HD images with smooth, silent PTZ and excellent low-light sensitivity

The BRC-X1000 Series is Sony's first 4K remote cameras, combining uncompromising broadcast picture quality and smooth, silent PTZ operation with the flexibility of Power over Ethernet (PoE+). The BRC-X1000 Series is a key migration model - it takes you from HD today to 4K tomorrow with its resolution options.



BRC-X1000/1 (black)



BRC-X1000/WPW (white)

# BRC-H800 Series HD

Remotely capture broadcast quality Full HD images with smooth, silent PTZ and excellent low-light sensitivity.

The BRC-H800 remote cameras combine uncompromising broadcast picture quality and smooth, silent PTZ operation with the Power over Ethernet (PoE+), 3G-SDI and HDMI connections.



BRC-H800/1 (black)



BRC-H800/WPW (white)

## Key Features

### Enhanced Pan/Tilt/Zoom (PTZ) operation

Accurately re-frame shots or track moving subjects with smooth, speedy, near-silent remote control of pan, tilt and zoom functions. There's also low-speed zoom and a slow pan/tilt mode for precise, jitter-free camera movements. PTZ Trace Memory allows a sequence of camera movements to be memorized and followed whenever required. PTZ Motion Sync smoothly blends separate pan, tilt and zoom movements for seamless, professional-looking transitions. Up to 100 preset positions for pan/tilt/zoom operations.

### Uncompromising 4K images (BRC-X1000 Series)

The camera's large, back-illuminated 1.0-type Exmor R CMOS sensor delivers uncompromised broadcast quality color pictures in detail-packed 4K 30p, with four times the resolution of Full HD. Footage can also be captured in Full HD 60p - ideal for fast-moving sports action.

### Broadcast quality Full HD 60p images

The camera's large, back-illuminated 1.0-type Exmor R CMOS sensor delivers uncompromised broadcast quality color pictures in detail-packed Full HD 60p, capable of capturing sports and other fast-moving action.

### High quality 12x optical zoom and 18x (4K) or 24x (HD) with Clear Image Zoom

The high quality Zeiss Vario-Sonnar T\* lens with 12x optical zoom range covers wide angle shots as well as tight close-ups. Clear Image Zoom expands this range to 18x (4K)\* or 24x (HD) without sacrificing detail. In addition, the Tele Convert Mode can double this range again, up to 48x (HD).

\* BRC-X1000 only

### Excellent low light sensitivity

The cameras can capture crisp, low noise color video images in light levels as low as 1.7lx, making it an ideal choice for dimly lit event halls, auditoriums, and theaters.

### Flexible installation

Integration is simplified with PoE+ (Power over Ethernet) to carry IP control and power over a single cable. Ceiling, desktop or tripod mountable adds to their flexibility (ceiling mount included).

### Remote operation

Pan/tilt/zoom and other camera settings can be controlled using the supplied IR remote commander, or with the optional RM-IP500/1 Remote Control Unit that can control multiple cameras.

### RCP Connectivity

In a studio environment, the cameras can be controlled via Sony's Remote Control Panel RCP-1500/1501/1530. Connection can be made over IP networks.

### Genlock

Genlock simplifies integration with other systems in multi-camera broadcast environments.

### Front and rear tally lamps

Ideal for on-air broadcast use, the cameras features dual tally lamps on the front and rear of the camera body. Brightness of the front tally lamp can be adjusted in two steps.

### Always up to date

New camera functionality and performance improvements can be added via firmware updates over IP.



# BRC-H900 **HD**

Remotely capture broadcast quality Full HD images with smooth, silent PTZ operation.

The BRC-H900 remote studio camera combines uncompromising broadcast picture quality with the flexibility of PTZ operation.



## Key Features

### Broadcast quality Full HD images

The BRC-H900 delivers uncompromised broadcast quality color pictures in Full HD, thanks to three 1/2-type Exmor CMOS sensors. Advanced picture adjust functions include matrix, color correction, white, detail, knee, gamma, master black, black gamma and flicker cancel.

### High quality 14x optical zoom lens

The high quality lens with 14x optical zoom range covers wide angle shots as well as tight close-ups.

### Smooth, silent Pan/Tilt/Zoom (PTZ) operation

Accurately re-frame shots or track moving subjects with smooth, quiet remote control of pan, tilt and zoom functions. There's also a slow pan/tilt mode for precise, jitter-free low-speed camera movements.

### Flexible installation

The BRC-H900 is equally suitable for ceiling, desktop or tripod mounting, with an 'Image Flip' function that automatically ensures the correct output orientation in any installation environment. Ceiling bracket included.

### Remote operation

Pan/tilt/zoom and other camera settings can be controlled using the supplied IR remote commander, or with the optional RM-IP500/1 Remote Control Unit that can control multiple cameras.

### Optional IP control

Large-scale systems of up to 100 BRC-H900 cameras can be controlled over standard IP networks by adding the optional BRBK-IP10 IP remote control board and RM-IP500/1 remote controller.

### Wide range of expansion options

The camera can be configured with a choice of optional accessory cards, including the BRBK-HSD2 (HD/SD-SDI output), BRBK-SF1 (HD optical multiplex) and BRBK-IP10 (IP control).

### Front and rear tally lamps

Ideal for on-air broadcast use, the BRC-H900 features dual tally lamps on the front and rear of the camera body.

## RM-IP500/1

Easy, ergonomic PTZ control of multiple remote cameras for live events production and contents creation

This compact remote controller features a high-quality joystick that allows seamless pan, tilt and zoom adjustments of compatible Sony PTZ remote cameras. Zoom can also be controlled via the joystick or a supplementary seesaw lever; dedicated knobs and control buttons simplify direct access to frequently-needed camera functions.



### High-quality control of PTZF functions

It's easy to achieve professional looking productions with joystick adjustment of pan and tilt, plus zoom control either via joystick or a separate seesaw lever. Adjustable speed control of PTZF allows smooth, accurate camera movements.

### Control up to 100 BRC or SRG cameras via IP

The remote controller allows control of pan, tilt, zoom and other functions of up to 100 Sony BRC or SRG Series PTZ cameras over an IP network.

### Simple set-up

System set-up is quick and simple, with automatic IP address assignment of connected cameras and auto assignment of camera numbers.

### Store and recall camera presets

Up to 100 presets\* (camera angles and settings) can be stored recalled instantly via the numeric keypad, saving time in multiple camera set-ups.

\* Depends on camera specification. Version up might be required.

### Tally indicator

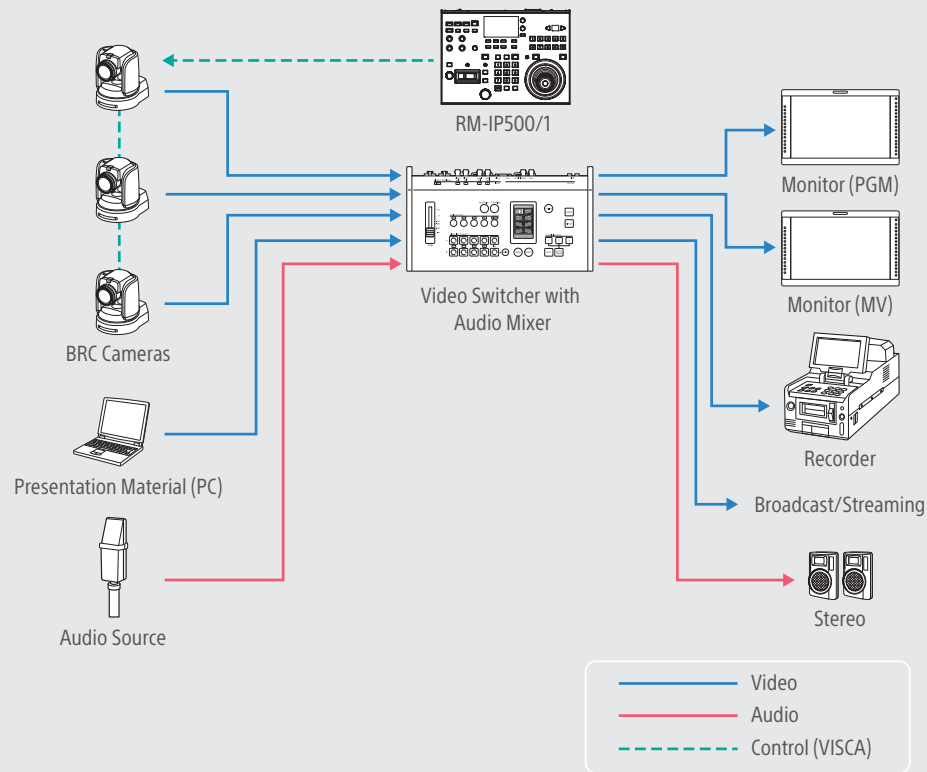
Includes Normal Tally/On-Air Tally/Contact Modes.

### Adjust camera paint functions

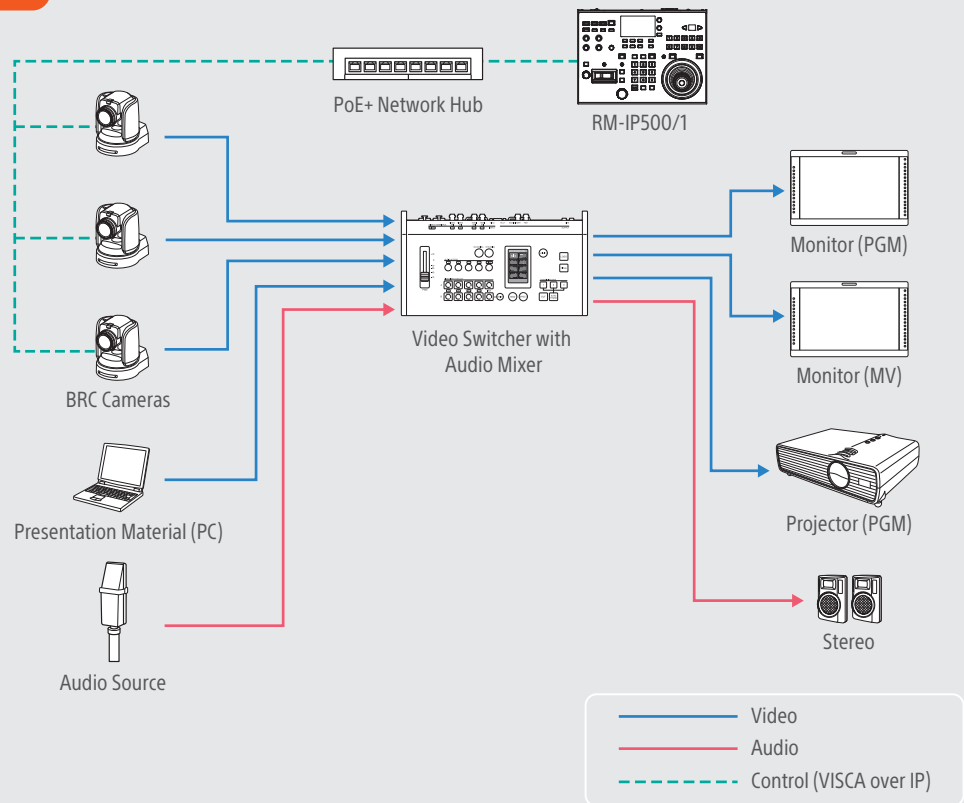
Color related settings - including black levels, white balance, flicker cancel, detail level, knee point, auto exposure level, iris, gain and shutter speed - can be adjusted directly without needing to use the camera menus.

# System Configuration

## Live Broadcast



## Presentation



# Peripheral Equipment



## MCX-500

Multi-Camera Live Producer

- Smart controls with configurable LCD Touchscreen
- Mix between 8 video sources + 1 Title (total 9 inputs)
- Multi-view monitoring



## RM-IP10

IP Remote Controller

- Comfortable P/T/Z operation with the optical three-axis joystick
- Versatile camera adjustment by simple panel operation
- The use of IP technology allows flexible installation and easy operation
- Preset feature saves camera settings (up to 16 positions)



## RCP-1500/1530

Remote Control Panel

- Paint control for Sony remote camera and system camera
- IRIS/Master Pedestal Control with joystick
- Ethernet cable operation



## CNA-1

Camera Control Network Adaptor

- Command conversion between BRC-H900 and RCP-1500/1530
- Option soft HZC-BRCN1 is required.

# Optional Accessories



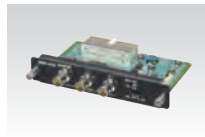
## BRBK-IP10\*

IP Control Card

\* For BRC-H900

\*\* For BRC-X1000/H800/H900

\*\*\* For BRZ-12CDH dome



## BRBK-HSD2\*

HD/SD-SDI Output Card



## BRU-SF10\*

HD Optical Multiplex Unit  
(Supports Single-mode optical fiber)



## CCFC-S200\*

Optical Fiber Cable  
2-core Single-mode Optical Fiber Cable (200 m long),  
Extension Plug Included



## BRZ-12CDH

Environmental Dome Housing\*\*

KT-STRUT  
Uni Strut Wall/Ceiling Mount Kit\*\*\*

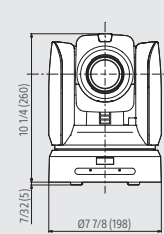
KT-WPM2

Wall/Pole Mount Kit\*\*\*

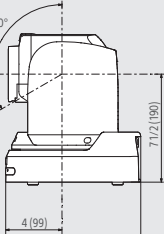
# Dimensions

## BRC-X1000 Series

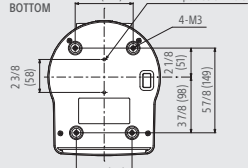
FRONT



SIDE

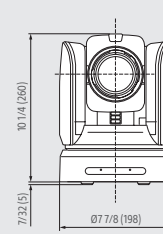


BOTTOM

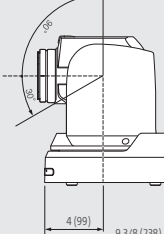


## BRC-H900

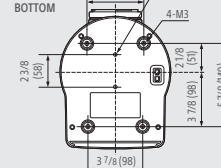
FRONT



SIDE

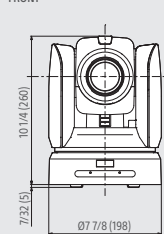


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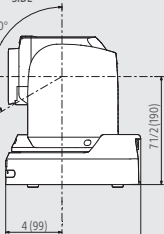


## BRC-H800 Series

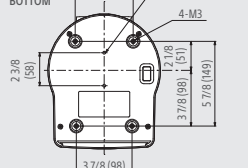
FRONT



SIDE

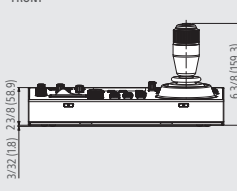


BOTTOM

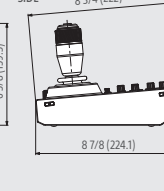


## RM-IP500/1

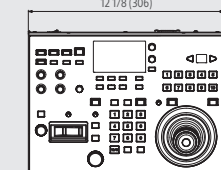
FRONT



SIDE



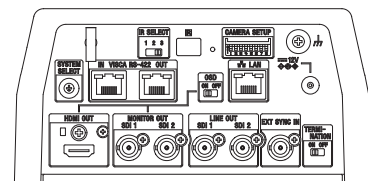
TOP



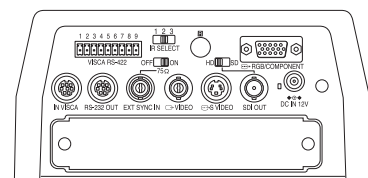
Unit: inches (mm)

# Rear Panels

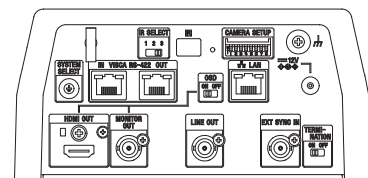
## BRC-X1000 Series



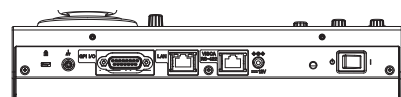
## BRC-H900



## BRC-H800 Series



## RM-IP500/1



## Specifications

	BRC-X1000/1 (black) BRC-X1000/WPW (white)	BRC-H900	BRC-H800/1 (black) BRC-H800/WPW (white)
<b>Camera</b>			
Image Sensor	1.0-type back-illuminated Exmor R CMOS sensor	1/2-type Exmor CMOS x3	1.0-type back-illuminated Exmor R CMOS sensor
Image Sensor (Number of Effective Pixels)	Approx. 14.2 Megapixels	Approx. 2.07 Megapixels	Approx. 14.2 Megapixels
Signal System	2160/29.97p, 1080/59.94p, 1080/59.94i, 720/59.94p, 2160/25p, 1080/50p, 1080/50i, 720/50p, 2160/23.98p, 1080/23.98p	1080/59.94i, 720/59.94p, 1080/50i, 720/50p	1080/59.94p, 1080/59.94i, 720/59.94p, 1080/50p, 1080/50i, 720/50p, 1080/23.98p
Minimum Illumination (50IRE)	1.7 lux (50IRE, F2.8, 1/30s, Max.Gain)	4 lx (50IRE, F1.9, +24 dB)	1.7 lux (50IRE, F2.8, 1/30s, Max.Gain)
Horizontal Resolution	1800 TV line (in 3G-SDI output) (center)	>1,000 TV line (in HD-SDI output) (center)	850 TV line (in 3G-SDI output) (center)
S/N Ratio	50 dB		
Gain	Auto/Manual (-3dB to +33dB)	Auto/Manual (-3 dB to +24 dB)	Auto/Manual (-3dB to +33dB)
Shutter Speed	1/10000s to 1/8 (59.94/29.97) or 1/10000s to 1/6 (50/25/23.98)	1/8,000 s to 1/60 s or 1/8,000 s to 1/50 s	1/10000s to 1/8 (59.94/29.97) or 1/10000s to 1/6 (50/25/23.98)
Exposure Control	Auto, Manual, Priority mode (shutter priority, iris priority, gain priority), Back light, Spot light	Auto, Manual, Priority mode (shutter priority & iris priority), Back light, Spot light	Auto, Manual, Priority mode (shutter priority, iris priority, gain priority), Back light, Spot light
White Balance	Auto1/Auto2/One Push/Indoor/Outdoor/Manual	Auto/Indoor/Outdoor/One-push/Manual	Auto1/Auto2/One Push/Indoor/Outdoor/Manual
Optical Zoom	12x	14x	12x
Clear Image Zoom	2x *1.5x at 4K resolution	No	2x
Tele Convert Mode	Off, 2x *1920x1080 only	-	Off, 2x *1920x1080 only
Focusing System	Auto/Manual		
Horizontal Viewing Angle	Typ. 64.6° (Wide-end)	59.6° (Wide-end)	Typ. 64.6° (Wide-end)
Focal Length	f=9.3 mm to 111.6 mm F2.8 (Wide), F4.5 (Tele)	f=5.8 mm to 81.2 mm F1.9 (Wide), F2.8 (Tele)	f=9.3 mm to 111.6 mm F2.8 (Wide), F4.5 (Tele)
Minimum Object Distance	1000 mm (Tele), 80 mm (Wide)	800 mm (Tele), 300 mm (Wide)	1000 mm (Tele), 80 mm (Wide)
Pan/Tilt Angle	Pan: ±170° Tilt: +90°/-30°		
Pan/Tilt Speed	Pan: 0.3° to 60°/s Tilt: 0.3° to 60°/s	Pan: 0.22° to 60°/s Tilt: 0.22° to 60°/s	Pan: 0.3° to 60°/s Tilt: 0.3° to 60°/s
Pan/Tilt Slow Mode	Yes		
Preset Position	100	16	100
Day/Night	Yes	No	Yes
Visibility Enhancer	Yes	No	Yes
Image Flip	On/Off		
Gamma	Standard/Straight/MOVI/STILL/CINE1/CINE2/CINE3/CINE4/ITU709/Pattern	STD1/STD2/STD3/STD4/CINE1/CINE2/CINE3/CINE4	Standard/Straight/MOVI/STILL/CINE1/CINE2/CINE3/CINE4/ITU709/Pattern
<b>Interface</b>			
4K Video Output	Dual Link 3G-SDI (SDI only) x2 and HDMI	No	No
HD Video Output	3G-SDI x4 and HDMI	HD-SDI, Component(Y/Pb/Pr) or RGB	3G-SDI x2 and HDMI
SD Video Output	No	SD-SDI, Composite, Y/C	No
Camera Control Interface	VISCA RS-422, RJ45 (In/Out), VISCA over IP, RJ45	VISCA RS-232C, 8 pin mini-DIN VISCA RS-422, Phoenix connector VISCA over IP (option)	VISCA RS-422, RJ45 (In/Out), VISCA over IP RJ45
External Sync. Input	Yes		
<b>General</b>			
Power Requirements	DC 10.8 V to 13.2 V, PoE+ (IEEE802.3at compliant)	DC 10.8 V to 13.2 V	DC 10.8 V to 13.2 V, PoE+ (IEEE802.3at compliant)
Power Consumption	DC12 V:21.5 W (Max), PoE+:25.5 W (Max)	Max 28.8 W (without optional cards)	DC12 V:19.0 W (Max), PoE+:23.0 W (Max)
Operating Temperature	32 °F to 104 °F (0 °C to 40 °C)		
Storage Temperature	-4 °F to +140 °F (-20 °C to +60 °C)		
Dimensions (W x H x D)	Approx. 7 7/8 x 10 1/4 x 9 3/8 inch (Approx. 198 x 260 x 238mm) (without projecting object)		
Weight	Approx. 9 lb 7.7oz (Approx. 4.3 kg)	Approx. 11 lb 0.37 oz (Approx. 5.0 kg)	Approx. 9 lb 7.7 oz (Approx. 4.3 kg)
Body Color	Black/White	Silver	Black/White
Size of Screw Hole for Tripod	1/4-20UNC x2	1/4-20UNC x2	1/4-20UNC x2
Mountable Angle	<±15 degree		
Ceiling Mount	Yes		
Supplied Accessories	IR Remote Commander Unit (1), Ceiling bracket (2), Wire rope (1), Screws (M3 x 8) (7), Screws (M4 x 8) (1), HDMI cable fixing plate (1)	IR Remote Commander Unit (1), AC power adaptor (1), AC power cord (1), RS-422 connector plug (1), Ceiling bracket (2), Wire rope (1), Screws (M3 x 8) (7), Screws (M4 x 8) (1), Operating instructions (1)	IR Remote Commander Unit (1), Ceiling bracket (2), Wire rope (1), Screws (M3 x 8) (7), Screws (M4 x 8) (1), HDMI cable fixing plate (1)

Find more

[www.sony.com/PTZ](http://www.sony.com/PTZ)



	RM-IP500/1
<b>Input/output connectors</b>	
Control input/output	VISCA RS-422 : RJ-45 x 1 GPI I/O (Tally In/Contact Out) : D-Sub 15-pin (female) LAN : RJ-45 x 1, 10BASE-T/100BASE-TX automatically detected
Control signal format	9,600 bps/38,400 bps (for RS-422 communication) VISCA over IP communication
Power connector	JEITA type 4 (DC IN 12 V)
<b>General</b>	
Input voltage	12V DC (10.8 to 13.2V DC)
Current consumption	0.2A typ. (2.4 W)
Operating temperature	32°F to 104°F (0°C to 40°C)
Storage temperature	-4°F to 140°F (-20°C to 60°C)
Dimensions (W x H x D)	12 1/8 x 6 3/8 inches x 8 7/8 inches (306 mm x 159.3 mm x 224.1 mm) (excluding protrusions)
Weight	Approx. 5 lb 4.7 oz (Approx. 2.4 Kg)
Supplied Accessories	None. (Power Supply : Separate Option, Manual : Downloadable from Web site)

	BRBK-IP10	BRBK-HSD2
Video output	BNC x2: HD-SDI or SD-SDI*	BNC x3, HD-SDI or SD-SDI

\* DATA MIX ON/OFF selectable in HD-SDI

	BRU-SF10
<b>Interfaces</b>	
Optical fiber connector	LC Duplex Fiber Connector
Optical cable type	Single-mode
HD video output	D-Sub 15 pin: Component (Y/Pb/Pr) or RGB, HD, VD or SYNC
SD video output	—
External sync input	BNC
External sync output	BNC
Audio line output	Phono jack x2 (L/R)
Camera control	Mini DIN 8 pin: RS-232C (VISCA IN), Mini DIN 8 pin: RS-232C (VISCA OUT), Connector plug 9 pin: RS-422 (VISCA IN/OUT)
Optional card slots	2 slots
<b>General</b>	
Operating temperature	32 °F to 104 °F (0 °C to 40 °C)
Storage temperature	-4 °F to +140 °F (-20 °C to +60 °C)
Power requirements	DC 12 V
Power consumption	Max. 15.6 W (without optional cards)
Dimensions (W x H x D)	8 3/8 x 3 1/2 x 9 1/2 inches (210 x 86 x 240 mm)
Weight	4 lb 7 oz (2.0 kg)
Supplied accessories	AC adapter, Power cord, DC-cord secure connection attachment, RS-232C connecting cable, RS-422 connector plug, Operating Instructions

	BRZ-12CDH
<b>General</b>	
Dimensions	17 3/8 x 21 x 27.5 in (441.3 x 533.4 x 689.5 mm)
Weight	52 lbs. (23.58kg)
Optical Dome	Clear Cell Cast Acrylic
Input Power	90 ~ 305VAC, 47 ~ 63Hz, 2.5A/115VAC 1.3A/230VAC 1.1A/277VAC
Construction	Aluminum Alloy outer shell, Acrylic / PMMA bubble

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The values for weight and dimension are approximate.

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