

# SONY



## BRC Series

Remote Cameras

# We've got your scene covered

From TV studios and sports stadiums to auditoriums, lecture theatres and houses of worship – our sophisticated, dependable BRC remote cameras capture and stream broadcast-quality video footage in detail-packed 4K or Full HD. They're designed for unattended operation in hard-to-reach or unobtrusive places, with smooth, silent PTZ that won't disturb your subject.

## 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 when lighting levels are low.

## Large auditoriums

From lecture theatres to conference centres: our remote cameras ensure speakers and audience members are always seen clearly. Stream lectures, presentations and live performances with broadcast-quality images in 4K or Full HD. Speed, silent PTZ frames presenters and audience reactions with fluid, professional camera moves. With multiple interfaces, flexible control options and Power over Ethernet they're easy to integrate in any size of public 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 goalmouth, 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	BRC-H900	BRC-H800
	 <b>4K</b>	 <b>HD</b>	 <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	1080/59.94i, 50i 720/59.94p, 50p NTSC, PAL	1080/59.94p, 50p, 59.94i, 50i, 720/59.94p, 50p
4K Video Output	Dual link 3G-SDIx2, HDMI	—	—
HD Video Output	3G-SDIx4, HDMI	HD-SDI, Component (Y/Pb/Pr) or RGB	3G-SDIx2, 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
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
Power	DC10.8V to 13.2V, PoE+	DC10.8V to 13.2V	DC10.8V to 13.2V, PoE+

\*Will be supported at ver.2.0 in 2017 summer

\*\*16 preset at ver.1.0

# BRC-X1000

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

The BRC-X1000 is Sony's first 4K remote camera, combining uncompromising broadcast picture quality and smooth, silent PTZ operation with the flexibility of 3G-SDI and HDMI connections.



# BRC-H800

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

The BRC-H800 remote camera combines uncompromising broadcast picture quality and smooth, silent PTZ operation with the flexibility of 3G-SDI and HDMI connections.



## 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, judder-free camera movements. PTZ Trace Memory\* allows a sequence of camera movements to be memorised and followed whenever required. PTZ Motion Sync\* smoothly blends separate pan, tilt and zoom movements for seamless, professional-looking transitions.

\* Available in Summer 2017 with version up

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

The camera's large, back-illuminated 1-inch type Exmor R CMOS sensor delivers uncompromised broadcast quality colour 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-inch type Exmor R CMOS sensor delivers uncompromised broadcast quality colour 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.

\* BRC-X1000 only

### Excellent low light sensitivity

The cameras can capture crisp, low noise colour video images in light levels as low as 1.7lx, making it an ideal choice for dimly lit live hall and theater.

### Flexible installation

Integration is simplified in a wide range of environments, with PoE+ (Power over Ethernet) to reduce cabling requirements and VISCA control over IP.

### Remote operation

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

### Genlock

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

### Versatile video outputs

Enjoy greater installation flexibility in professional broadcast and AV environments with 3G-SDI and HDMI video outputs.

### Front and rear tally lamps

Ideal for on-air broadcast use, the camera 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

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

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 colour pictures in Full HD, thanks to three 1/2-inch type Exmor CMOS sensors. Advanced picture adjust functions include matrix, colour 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, speedy remote control of pan, tilt and zoom functions. There's also a slow pan/tilt mode for precise, judder-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 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 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-SA1 (Analogue SD 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

### 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

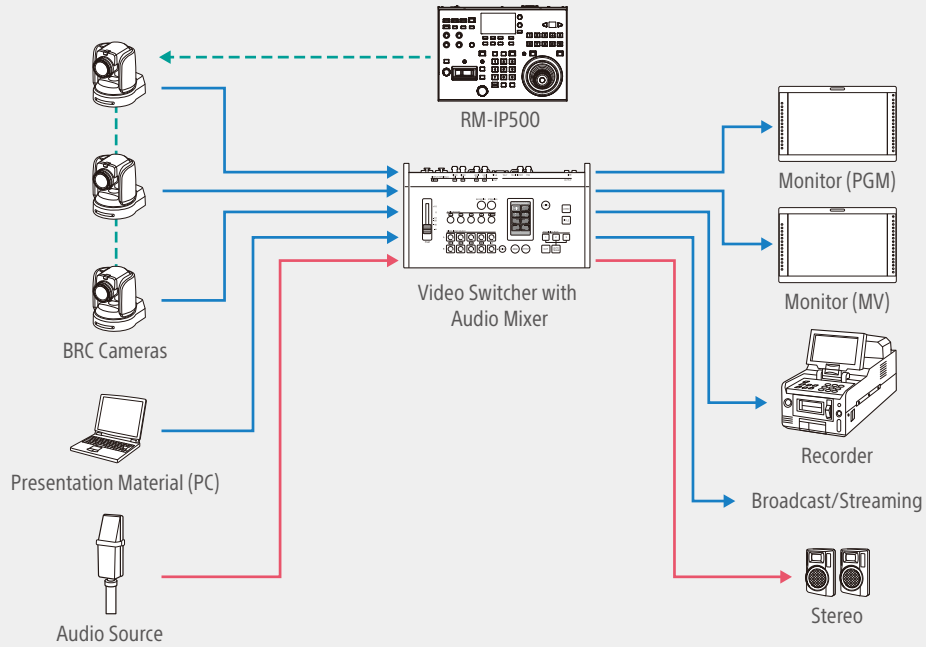
Includes Normal Tally/On-Air Tally/Contact Modes.

#### Adjust camera paint functions

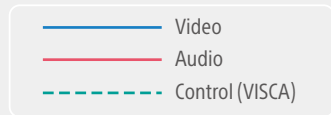
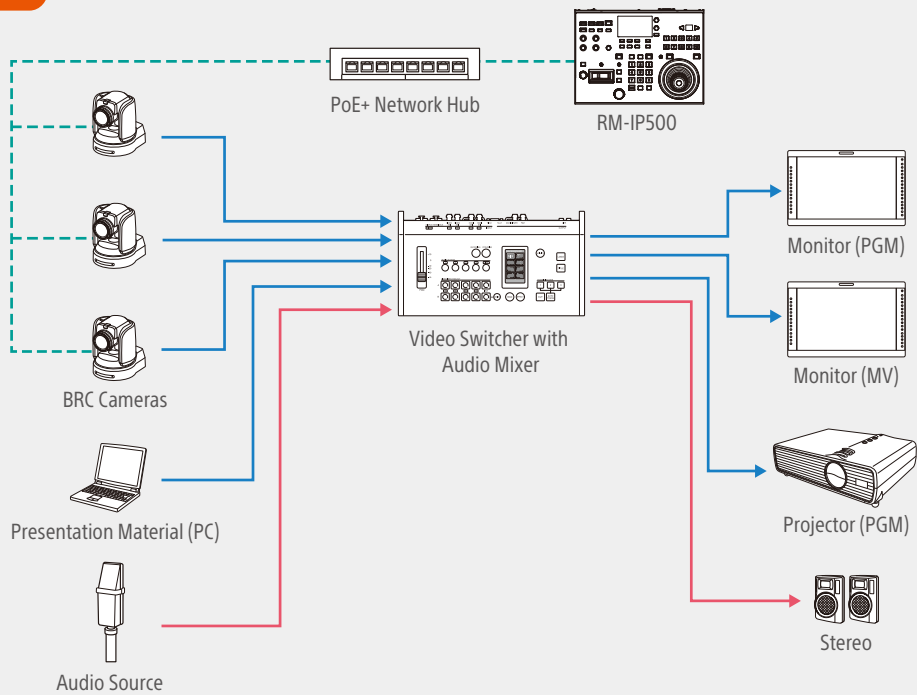
Colour related settings - including black levels, white balance, flicker cancel, detail level, knee point, auto exposure level, iris, gain and shutter speed - can be adjusted directly without needing to use the camera menus.

# 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)

# Optional Accessories



**BRBK-IP10\***  
IP Control Card



**BRBK-HSD2\***  
HD/SD-SDI Output Card



**BRBK-SA1\***  
Analog SD Output Card



**BRU-SF10\***  
HD Optical Multiplex Unit  
(Supports Single-mode optical fiber)



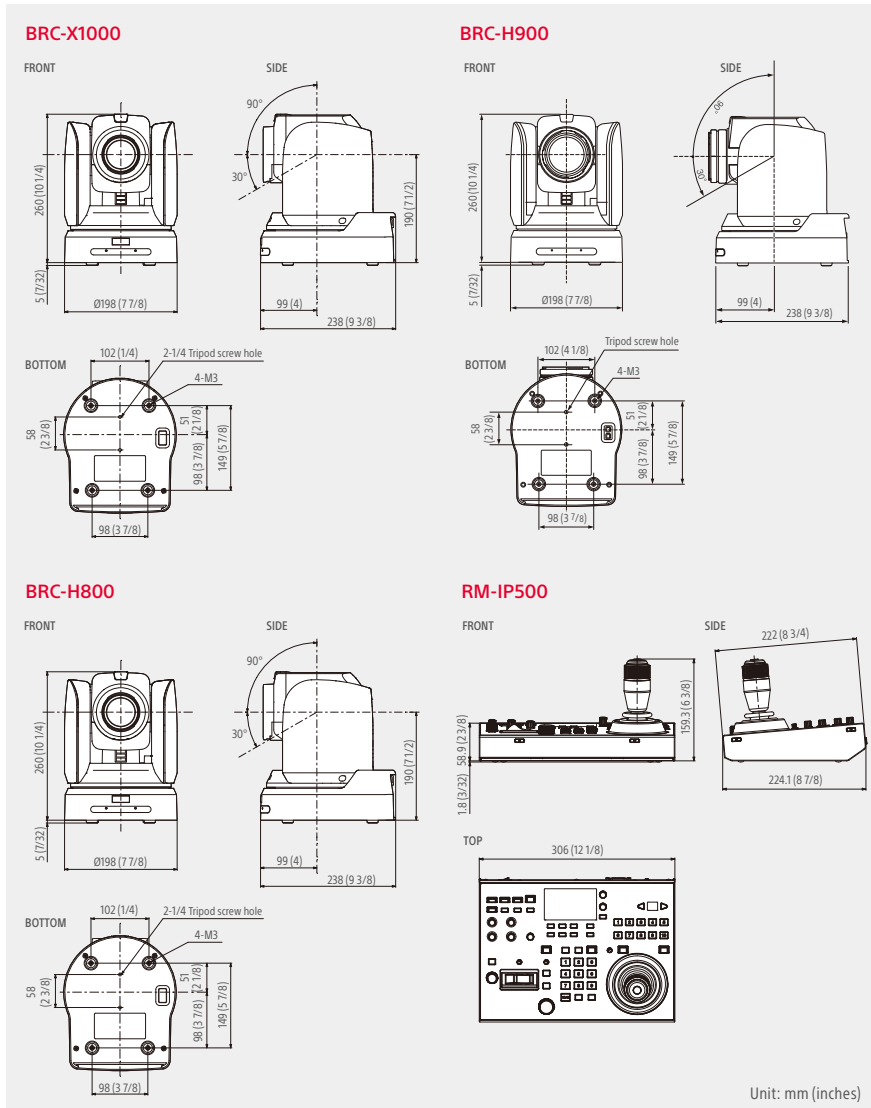
**CCFC-S200\***  
Optical Fiber Cable  
2-core Single-mode Optical Fiber Cable (200 m long), Extension Plug Included



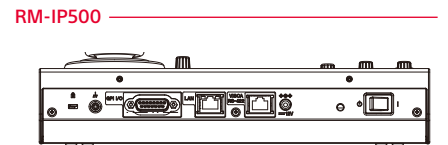
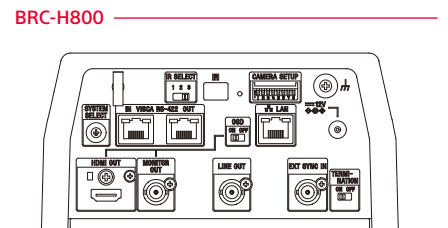
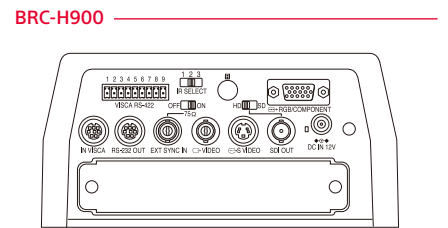
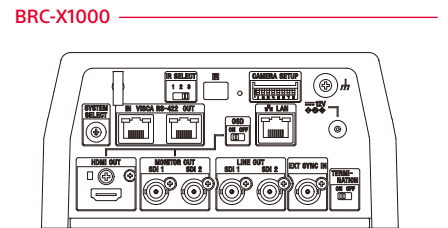
**AC-UES1230/  
AC-UES1230M\*\***  
Universal AC Adapter

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

# Dimensions



# Rear Panels



# Specifications

	BRC-X1000	BRC-H900	BRC-H800
<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	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
Minimum Illumination (SOIRE)	1.7 lux (SOIRE, F2.8, 1/30s, Max.Gain)	4 lx (SOIRE, F1.9, +24 dB)	1.7 lux (SOIRE, 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)	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)
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
<b>Focusing System</b>			
Horizontal Viewing Angle	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/Pattern	STD1/STD2/STD3/STD4/CINE1/CINE2/CINE3/CINE4	Standard/Straight/Pattern
<b>Interface</b>			
4K Video Output	Dual Link 3G-SDI(25i 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	0 °C to 40 °C (32 °F to 104 °F)		
Storage Temperature	-20 °C to +60 °C (-4 °F to +140 °F)		
Dimensions (W x H x D)	Approx. 198 x 260 x 238mm (Approx. 7 7/8 x 10 1/4 x 9 3/8 inch) (without projecting object)		
Mass	Approx. 4.3 kg (Approx. 9 lb 7.7oz)	Approx. 5.0 kg (Approx. 11 lb 0.37 oz)	Approx. 4.3 kg (Approx. 9 lb 7.7 oz)
Body Color	Black	Silver	Black
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)

\*Available in Summer 2017 with version up

RM-IP500	
<b>Input/output connectors</b>	
	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 , Data : 8 bit, Stop bit : 1 (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	0°C to 40°C (32°F to 104°F)
Storage temperature	-20°C to 60°C (-4°F to 140°F)
Dimensions (W x H x D)	306 mm x 159.3 mm x 224.1 mm (12 1/8 x 6 3/8 inches x 8 7/8 inches) (without projection)
Mass	Approx. 2.4 Kg (Approx. 5 lb 4.7 oz)
Supplied Accessories	None. (Power Supply : Separate Option, Manual : Downloadable from Web site)

	BRBK-IP10	BRBK-HSD2	BRBK-SA1
Video output	BNC x2: HD-SDI or SD-SDI*	BNC x3, HD-SDI or SD-SDI	BNC x1: VIDEO, Mini DIN 4pin x1: S VIDEO, D-sub 9pin x1: RGB/SYNC

\* 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	0 °C to 40 °C (32 °F to 104 °F)
Storage temperature	-20 °C to +60 °C (-4 °F to +140 °F)
Power requirements	DC 12 V
Power consumption	Max. 15.6 W (without optional cards)
Dimensions (W x H x D)	210 x 86 x 240 mm (8 3/8 x 3 1/2 x 9 1/2 inches)
Mass	2.0 kg (4 lb 7 oz)
Supplied accessories	AC adapter, Power cord, DC-cord secure connection attachment, RS-232C connecting cable, RS-422 connector plug, Operating Instructions

AC-UES1230/AC-USE1230M	
Input rating	100V AC to 240V AC, 50/60Hz
Output rating	DC12V±5% 3A
Operating temperature	-5°C to +45°C (23°F to 113°F)
Storage temperature	-20°C to +60°C (-4°F to 140°F)
Dimensions (W/H/D)	Approx. 51.7 x 32 x 102.5 mm (2 1/8 x 1 5/16 x 4 1/8 inches)
DC power cord length	1.0 m (3.3 ft)
Mass	Approx. 190 g (6.7 oz) (excluding power cord)

Find more

[www.sony.net/pro/BRC-4K-capture](http://www.sony.net/pro/BRC-4K-capture)



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